

Analysis of Changes to the 2007 Florida Building Code, Plumbing

Detailed side-by-side comparison

This *Analysis of Changes to the 2007 Florida Codes* is intended to provide a comprehensive comparison of the provisions in the *2004 Florida Building Code, Plumbing (FBCP)* and the *2007 Florida Building Code, Plumbing*. The *2003 International Plumbing Code* was the base code for the 2004 FBCP. The *2006 International Plumbing Code* is the base code for the 2007 FBCP. As a result of changing the base code, specific provisions have changed significantly in addition to other technical changes. This *Analysis* will serve a useful tool to facilitate the transition to the new code.

This *Analysis* is arranged so that comparable provisions in the two codes can be easily located. The left two columns contain section numbers and a brief description of the topic of the requirements from the 2004 FBCP. The next two columns contain section numbers and a brief description of the topic of the corresponding requirements in the 2007 FBCP. The far right column contains an analysis or comment on the differences between the provisions. For many entries, the basis for the change is also addressed.

This *Analysis* is not intended to replace or interpret the provisions contained in either the 2004 FBCP or the 2007 FBCP. This information simply points out the differences. The *Analysis* is not designed to be used without the aide of the representative code books, as all the details pertaining to a specific section may or may not be provided. However, this *Analysis* will provide an easy means for identifying significant differences in the two codes, as well as enabling the user to locate issue specific provisions in the 2007 FBCP by means of a numbered section cross reference.

This *Analysis* provides a cross-reference for the majority of the sections that changed in the 2007 FBCP. In some cases, sections were grouped together due to substantial differences. This grouping enables the context of the differences to be more easily identified.

Chapter 2: Definitions				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
202	Approved	202	Approved	Revised definition to change the term "approved" to "acceptable" to avoid using the defined term in the definition itself.
202	Branch interval	202	Branch interval	Definition was revised to a more current explanation based on industry standards and to provide a more specific definition.
202	-	202	Flow Control	Added new definition needed to define terms referenced through ASME and throughout the code.
202	-	202	Automatic grease removal device (GRD)	Added new definition needed to define terms referenced through ASME and throughout the code.

202	-	202	Gridded water distribution system	Added new definition for consistency with additions throughout code to provide an alternative design methods for water distribution.
Chapter 3: General Regulations				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
Table 308.5	Hanger spacing	Table 308.5	Hanger spacing	Revised table to add polypropylene piping materials to allowance in hot and cold water distribution piping systems.
308.9	Stacks	-	-	Deleted section to remove duplicate provision, since stacks are covered in other sections of this chapter.
-	-	310.5	Urinal partitions	Added new section to update requirements for privacy partitions used at urinal stations to possibly save water when users would utilize a water closet at times when there's not a space available at urinals.
312.9.2	Backflow testing	312.9.2	Backflow testing	Revised section to add reference to CSA B64.10.1, an alternative and specific reference for backflow preventers.
314.2.3	Auxiliary and secondary drain systems	314.2.3	Auxiliary and secondary drain systems	Scope of Section revised clarify when auxiliary drain is required. Revised section to include requirement of compliance to UL 508, which adds a reference standard for water level detection devices. Added new Method 4 permitting the use of a water level detection device conforming to UL 508, as limited by this section.
-	-	314.2.3.1	Water level monitoring devices	New section permitting the use of a water level monitoring device within the limitations prescribed.

Chapter 4: Fixtures, Faucets and Fixture Fittings				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
Table 403.1	Minimum number of required plumbing fixtures	Table 403.1	Minimum number of required plumbing fixtures	Revised No. 2 Business - number of lavatories changed to 1 per 40 for the first 80 and 1 per 80 for the remainder exceeding 80. Revised table to remove footnote e. This footnote is duplicated in the R-2 and R-3 occupancy portion of the table and therefore not required as a footnote.
403.1.1.2	Occupancy content calculation	403.1.1.2	Occupancy content calculation	Revised section to modify "building code in effect in a jurisdiction" to now state, "Florida Building Code, Building."
403.4	Location of employee toilet facilities in occupancies other than assembly or mercantile	403.4	Required public toilet facilities	Provisions of Sections 403.4 through 403.6.1 have been reformatted and combined for clarity and simplicity.
-	-	403.4.1	Location of toilet facilities in occupancies other than covered malls	Added new information for this section to address locations and travel distances.
403.6.1	Covered malls	403.4.2	Location of toilet facilities in covered malls	Relocated section and added new information for this section to address locations and travel distances.
403.5	Location of employee toilet facilities in mercantile and assembly occupancies	-	-	Deleted section - information is addressed in new section 403.4.1.
405.3.1	Water closets, urinals, lavatories and bidets	405.3.1	Water closets, urinals, lavatories and bidets	Revised language to a better format for clarity.
405.4	Floor and wall drainage connections	405.4	Floor and wall drainage connections	Removed reference to the discontinued standard: FS TT P 1536a.
406.3	Waste connection	406.3	Waste connection	Revised section to address washers that discharge by gravity to allow use of this appliance. Previous wording would not permit the use of gravity discharge washers.
-	-	408.3	Bidet water temperature	Added new section for bidet installations and provisions for water temperature safety.
412.2	Floor drains trap and strainer	412.2	Floor drain	Revised section to remove area requirement of floor drains since ASME provides specifications.
-	-	416.5	Tempered water for public hand-washing facilities	Added new section for provisions of public hand-washing installations and water temperature safety.
417.4	Shower compartments	417.4	Shower compartments	Revised section to add exception in this section regarding size requirements for shower replacements. Change is needed to accommodate the increasing trend by owners to convert bathtubs with shower receptors.

-	-	417.4.2	Access	Added new section to address the need to provide a specific provision for shower compartment opening sizes for consistency with enforcement.
419.1	Urinals - approval	419.1	Urinals - approval	Revised section to add ANSI Z124.9 to provide conformance standard for waterless urinals.
419.2	Substitution for water closets	419.2	Substitution for water closets	Revised section to reword intent pertaining to urinals and water closets in assembly and educational occupancies versus other occupancies. This change allows 2/3 substitution of the water closets in assembly and educational occupancies.
421.2	Whirlpool bathtub installations	421.2	Whirlpool bathtub installations	Revised section to remove requirement to have access to the pump; information is now detailed and included in 421.5.
-	-	421.5	Access to pump	Added section to provide size and location provisions for access panels for access to pumps in whirlpool tubs.
424.1.2	Waste fittings	424.1.2	Waste fittings	Removed duplicate wording to standards and added reference to the new ASME A112.18.2 standard for fittings as well as the comparative CSA standard B125.
424.2	Hand showers	424.2	Hand showers	Section revised to require backflow prevention for hand-held showers.
424.3	Individual shower valves	424.3	Individual shower valves	Revised section to remove (and relocate) information regarding multiple (gang) showers. Added statement regarding non-compliance of in-line thermostatic valves for this application.
-	-	424.4	Multiple (gang) showers	Added new section to include information from 424.3 and additional provisions and reference standards for gang showers.
-	-	424.5	Bathtub and whirlpool bathtub valves	Added new section for provisions of bathtub and whirlpool bathtub installations and water temperature safety.
424.4	Hose-connected outlets	424.6	Hose-connected outlets	Relocated section and revised to add reference to CSA B125 as alternative compliance standard.

Chapter 5: Water Heaters				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
504.6 through 504.6.2	Relief outlet waste	504.6	Requirements for discharge piping	<p>Deleted section to reorganize into a new section 504.6. Reorganization of the information provides a breakdown of 13 requirements in a more user friendly format.</p> <p>Additional requirements include:</p> <ul style="list-style-type: none"> -Requires the discharge piping to terminate not more than 6 inches above the floor or waste receptor. -Prohibits the discharge piping from having a threaded connection -Discharge piping cannot be directly connected to the drainage system -Prohibits the use of valves or tee fittings
504.7.1	Pan size and drain	504.7.1	Pan size and drain	Revised section to add reference to Table 605.4 for list of applicable materials.

Chapter 6: Water Supply and Distribution				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
604.4	Maximum flow and water consumption	604.4	Maximum flow and water consumption	Revised section exceptions 1 and 3 editorially to clarify maximum consumptions.
604.5	Size and fixture supply	604.5	Size and fixture supply	Revised section(s) to add the term "gridded" water distribution for application to this section and for continuity with additions to the code.
604.10	Parallel water distribution system	604.10	Gridded and parallel water distribution system	
605.3	Water service pipe	605.3	Water service pipe	Revised section to clarify termination point by eliminating the reference to 5 feet and adding "before the full open valve" for a more specific location.
Table 605.3	Water service pipe	Table 605.3	Water service pipe	Revised table to include polypropylene and cross-linked polyethylene materials and referenced appropriate reference standards.
Table 605.4	Water distribution pipe	Table 605.4	Water distribution pipe	
Table 605.5	Pipe fittings	Table 605.5	Pipe fittings	
605.3.1	Dual check-valve-type backflow preventer	605.3.1	Dual check-valve-type backflow preventer	Revised section to provide additional reference to CAN/CSA-B64.6 as an additional compliance for backflow preventers.
605.7	Valves	605.7	Valves	Revised section to extend the NSF 61 standard (currently required for water distribution pipe and fittings) to valves.
605.17.2	Mechanical joints	605.17.2	Mechanical joints	Revised section to add ASTM F 877 to provided references to address added polyethylene materials.
-	-	605.21	Polypropylene (PP) plastic	Added new sections providing information for allowance of polypropylene (PP) joints.
-	-	605.21.1	Heat-fusion joints	
-	-	605.21.2	Mechanical and compression sleeve joints	
606.2	Location of shutoff valves	606.2	Location of shutoff valves	Revised exception to replace the term "construction" with "occupancies" for an appropriate description of residential use.
606.3	Access to valves	606.3	Access to valves	Revised section to remove the word "required" due to the term being misleading for this particular section by presenting a situation where a valve may be installed by choice instead of being required and then not providing access.
606.5.4	Overflows for water supply tanks	606.5.4	Overflows for water supply tanks	Editorial change to replace confusing language regarding discharge location.
607.1	Where required	607.1	Where hot or tempered water is required	New language requires tempered water to be supplied through a water temperature limiting device that conforms to ASSE 10170 limiting the tempered water to a maximum of 110° F.
607.4	Flow of hot water to fixtures	607.4	Flow of hot water to fixtures	Also revised exception to include approved reference standard for shower and tub/shower mixing valves - CSA B125.

Table 608.1	Application for Backflow preventers	Table 608.1	Application for Backflow preventers	Revised column "applicable standards" within the table to include applicable CSA standards.
608.2	Plumbing fixtures	608.2	Plumbing fixtures	Revised to require backflow protection in accordance with ASME A112.18.1.
608.13.2	Reduced pressure principle backflow preventers	608.13.2	Reduced pressure principle backflow preventers	Section revised to delete reference to CAN/CSA-B643 and replace with CSA B64.4 and CSA B64.4.1 for reduced pressure principal backflow preventers.
608.13.5	Pressure-type vacuum breakers	608.13.5	Pressure-type vacuum breakers	Revised section to provide additional reference to CAN/CSA-B64.1.2 as an additional compliance for pressure-type vacuum breakers..
608.13.6	Atmospheric-type vacuum breakers	608.13.6	Atmospheric-type vacuum breakers	Revised section to provide additional reference to CAN/CSA-B64.2.1 and B64.2.1.1 as an additional compliance for hose-connection vacuum breakers.
608.13.7	Double check-valve assemblies	608.13.7	Double check-valve assemblies	Revised section to provide additional reference to CAN/CSA-B64.5 and B64.5.1 as an additional compliance for double check-valve assemblies.
608.16.1	Beverage dispensers	608.16.1	Beverage dispensers	Revised section to provide additional reference to CAN/CSA-B64.3.1 as an additional compliance for backflow preventers.
-	-	608.16.10	Coffee machines and noncarbonated beverage dispensers	Added new section to provide compliance provisions for this type of equipment where protection is needed for potential backflow siphonage.

Chapter 7: Sanitary Drainage

2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
Table 702.2	Underground building drainage and vent pipe	Table 702.2	Underground building drainage and vent pipe	Revised table to update referenced standard for polyolefin pipe material to add ASTM F1412. Table 702.4 also adds CSA reference standard to provide an option for compliance.
Table 702.4	Pipe fittings	Table 702.4	Pipe fittings	
703.1	Building sewer pipe near the water service	703.1	Building sewer pipe near the water service	Revised section to remove provisions and reference to Table 702.3 to provide a single reference to Section 603.2 which contains a single reference for complete coverage.
705.5.2	Compression gasket joints	705.5.2	Compression gasket joints	Revised section to add newly established hydrostatic testing criteria for the finished gaskets.
705.5.3	Mechanical joint coupling	705.5.3	Mechanical joint coupling	Revised section to add reference to ASTM C1540 to correlate with requirements in residential and building codes.
-	-	705.16	Polyethylene plastic pipe	Added new section(s) to provide joining methods for newly added polyethylene piping materials.
-	-	705.16.1	Heat-fusion joints	
-	-	705.16.2	Mechanical joints	
705.16.4	Plastic pipe or tubing to other piping material	705.18.4	Plastic pipe or tubing to other piping material	Relocated section and revised the term "grades" to "types" to avoid misinterpretation that section is only applicable for materials with grades.

-	-	705.17	Polyolefin plastic	Added new section(s) to provide joining methods for newly added polyolefin piping materials.
-	-	705.17.1	Heat-fusion joints	
-	-	705.17.2	Mechanical and compression sleeve joints	
-	-	706.4	Heel-or-side-inlet quarter bends	Added new section to clarify use and applications of heel- or side-inlet quarter bends.
708.3.3	Changes of direction	708.3.3	Changes of direction	Revised section to clarify that cleanouts are required where there is a change of direction greater than 45 degrees for the building sewer.
Table 709.1	Drainage fixture units for fixtures and groups	Table 709.1	Drainage fixture units for fixtures and groups	Revised table to add provisions for "service sink" to the list of fixture types provided.
				Revised table to add "Urinal, nonwater supplied" to the list of fixture types provided.
712.2	Valves required	712.2	Valves required	Exception deleted.
Chapter 9: Vents				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
903.1	Stack required	-	-	Deleted section to account for buildings not requiring a stack. See replaced content in entries below.
903.1.1	Connection to drainage system	-	-	
903.1	Stack required	903.1	Required vent extension	Revised section to add scope, installation, and size. This re-organization of content will assist to eliminate confusion and provide clarity of requirements. New section also eliminates ambiguous language and provides specific installation and size requirements.
903.1.1	Connection to drainage system	903.1.1	Installation	
		903.1.2	Size	
903.3	Vent termination	903.3	Vent termination	Revised section to expand the use of an air admittance valve to stack applications. Also added reference to Section 917.
906.1	Distance of trap from vent	906.1	Distance of trap from vent	Exception added permitting the developed length of the fixture drain from the trap weir to the vent fitting for self-siphoning fixtures to not be limited.
Table 906.1	Maximum distance of fixture trap from vent	Table 906.1	Maximum distance of fixture trap from vent	Revised table with removal of "size of fixture drain" which isn't required. The intent of the table is better provided by use of what has been provided within sections. This modified table also utilized concept to provide distances that prevent trap seal loss.
906.2	Venting of fixture drains	906.2	Venting of fixture drains	Revised to also require that the total fall in a fixture drain due to pipe slope is not permitted to exceed the diameter of the fixture drain.

909.1	Wet vent permitted	909.1	Horizontal wet vent permitted	Revised title and section to add "horizontal" to make it clear that this section regulates only horizontal wet venting.
909.1.1	Vertical wet vent	909.1.1	Vertical wet vent permitted	Revised section to add the term "permitted" in the title. Also revised language to provide consistency with horizontal vent requirements and to clarify requirements of wet vents and fixture drains.
909.2	Vent Connection	909.2	Vent Connection	Revised section to remove information regarding sizing (relocated to subsequent section) and added clarifying information regarding vertical and horizontal wet vents relative to the requirements for the dry-vented fixture drain connection.
909.3	Size	909.3	Size	Revised section to add relocated information from 909.2, which is applicable to sizing and more appropriate for this section.
910.2	Stack installation	910.2	Stack installation	Revised section to modify previous offset prohibition to limit where vertical offset can occur rather than eliminate it altogether. This change will provide more flexibility but maintain the original intent.
910.3	Stack vent	910.3	Stack vent	Revised to require that the size of the stack vent to be not less than the size of the wasted stack, instead of equal to. Permits connection of the stack vent with other stack vents and vent stacks in accordance with Section 903.5
912.2	Fixture branch or drain	912.2	Fixture branch or drain	Revised section to remove applicable list of fixtures since the types are provided in another section.
917.1	General	917.1	General	Revised section to expand the use of an air admittance valve to stack applications and add reference to ASSE 1050.
917.3	Where permitted	917.3	Where permitted	Revised section to expand the use of an air admittance valve to stack applications and add reference to Section 917.3.3.
917.3.2	Relief vent	917.3.2	Relief vent	Revised section to provide horizontal branch location and requirements.
-	-	917.3.3	Stack	Added new section providing information for stack type air admittance valves.
917.4	Location	917.4	Location	Revised section to expand the use of an air admittance valve to stack applications and provide specific location information.

Chapter 10: Traps, Interceptors and Separators				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
1002.1	Fixture traps	1002.1	Fixture traps	Revised section to remove ambiguous language, "as close as possible" and replace with "a horizontal distance of 30 inches," which provides specific location information and corresponds with exception within this section.
1003.1	Interceptors and separators - where required	1003.1	Interceptors and separators - where required	Revised section to add "private sewage disposal systems" not previously addressed.
1003.3	Great traps and grease interceptors	1003.3	Grease interceptors	Deleted "trap" from title and scope of section.
1003.3.1	Grease traps, grease interceptors required	1003.3.1	Grease interceptors and automatic grease removal devices required	Revised title and section to add "automatic grease removal device." Also provided additional language including the listing of fixtures for clarification and further clarification indicates that grease removal devices must only receive the discharge from fixtures requiring treatment or separation.
1003.3.2	Food waste grinders	1003.3.2	Food waste grinders	Revised title and section to replace the term "traps" with "interceptors" to correlate with referenced standards. Also added recommended information from the Plumbing and Drainage Institute regarding emulsifiers, chemical, enzyme and bacteria organisms to not be utilized.
1003.3.3	Grease interceptors and automatic grease removal devices not required	1003.3.3	Grease interceptors and automatic grease removal devices not required	Revised title and section to replace the term "traps" with "interceptors" to correlate with referenced standards.
1003.3.4	Grease interceptors and automatic grease removal devices	1003.3.4	Grease interceptors and automatic grease removal devices	
1003.3.4.1	Separation of liquids	1003.3.4.1	Separation of liquids	Revised title and section to replace the term "traps" with "interceptors" to correlate with referenced standards.
Table 1003.3.4.1	Capacity of grease interceptors	Table 1003.3.4.1	Capacity of grease interceptors	Revised title to replace the term "traps" with "interceptors" and added flow-through ratings "75" and "100" to the table content. Also added footnote "a." to provide information regarding flow-through rates greater than 100 gpm.
1003.3.4.2	Oil separator design	1003.3.4.2	Oil separator design	Revised title and section to replace the term "traps" with "interceptors" to correlate with referenced standards.
-	-	1003.3.5	Automatic grease removal devices	Added new section to provide specifics regarding when and where automatic grease recovery devices are utilized per ASME A112.14.4.

1003.4	Oil separators required	1003.4	Oil separators required	Revised section to require oil separators for hydraulic elevator pits; an exception allows warning device per ANSI. New exception added to Section stating that an oil separator is not required in hydraulic elevator pits where an approved alarm system is installed.
1003.6	Laundries	1003.6	Laundries	Section revised to change "commercial laundries" to "laundries not installed within an individual dwelling unit or intended for individual family use."
Chapter 11: Storm Drainage				
2004 FBCP		2007 FBCP		Analysis
Section	Requirement	Section	Requirement	
Table 1102.4	Building storm sewer pipe	Table 1102.4	Building storm sewer pipe	Revised table to add reference standard CSA B181.1, CSA B181.2, and B182.1.
Table 1102.5	Subsoil drain pipe	Table 1102.5	Subsoil drain pipe	Revised table to add reference standards CSA B182.1, CSA B182.6, and CSA B182.8.
Table 1102.7	Pipe fittings	Table 1102.7	Pipe fittings	Revised table to remove ASTM standards no longer appropriate for this section.
				Added reference to ASTM F1866, ASTM D3311 and CSAB181.1.
				Added coextruded composite pipe fitting materials.
				Deleted CPVC plastic and polyethylene plastic from materials.