



# City of Naples Fire-Rescue Department



MEMORANDUM NO.: 12-009 (Revised December 6, 2012)

DATE: December 6, 2012

TO: A. William Moss, City Manager

VIA: Paul Bollenback, Building Director/Official

FROM: Stephen R. McInerny II, Fire Chief

SUBJECT: New Florida Fire Prevention Code (FFPC) Requirements for One & Two Family Homes Effective on January 1, 2013

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The Florida Fire Prevention Code (FFPC) was first adopted in 2001, following a study ordered by Governor Jeb Bush and the Florida State Legislature. The Florida Statutes (Chapter 633.0215(1)) require the State Fire Marshal to adopt by Rule the latest edition of the National Fire Protection Association (NFPA) codes every three years. As a result of this legislative requirement, the 2010 FFPC includes the 2009 edition of NFPA 1 and NFPA 101.

The new Florida Fire Prevention Code (FFPC) was adopted on December 31, 2011. The new fire code now includes minimum fire flow requirements for all newly constructed one and two-family dwellings. The City of Naples must comply with the Florida Fire Prevention Code and specifically Chapter 18.4.5.1. The effective date for the new requirements shall be January 1, 2013.

It is the goal and intent of the Fire-Rescue Department to collectively work together with architects and builders in a harmonious approach to facilitate the construction of new residential and commercial properties within the City while ensuring that the new code requirements are satisfied.

Attached is a copy of a notification and informational bulletin along with commonly asked questions and related informational links that will be posted, distributed, and placed on the City of Naples Website to inform the public of the fire code changes.

# **FIRE CODE CHANGE NOTIFICATION EFFECTIVE**

## **January 1, 2013**

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### **INTRODUCTION**

The Florida Fire Prevention Code (FFPC) was first adopted in 2001, following a study ordered by Governor Jeb Bush and the Florida State Legislature. The Florida Statutes (Chapter 633.0215(1)) require the State Fire Marshal to adopt by Rule the latest edition of the National Fire Protection Association (NFPA) codes every three years. As a result of this legislative requirement, the 2010 FFPC includes the 2009 edition of NFPA 1 and NFPA 101.

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### **REQUIREMENTS**

The FFPC now requires that a newly constructed one and two-family home must be built within the parameters of the fire flow capability provided to that property. These flows and durations are important to ensure that there is a sufficient water supply to extinguish a fire in the building and to keep it from spreading to nearby buildings.

The new Florida Fire Prevention Code requires a minimum of 1,000 gallons per minute (GPM) fire flow for duration of two hours for homes having a fire flow area of 5,000 square feet or less. Fire flows (GPM) for homes with a fire flow area exceeding 5,000 square feet shall not be less than that specified in the Florida Fire Prevention Code, NFPA 1, Chapter 18, Table 18.4.5.1.2.

This table calculates the needed fire flow (GPM) based on the fire flow area and construction type of the building. Specific to the City of Naples, the required fire flow for the size of the structure must be obtained or, as a minimum, the fire flow must be reduced by at least 50% through the inclusion of sprinklers or other construction techniques cited below.

## **DESIGN OPTIONS**

If the size of the proposed home design exceeds the above flow requirements, the Florida Fire Prevention Code provides the homeowner with a means for meeting and/or reducing the fire flow requirements. These options are listed below and may be incorporated in the building design either individually, or in combination with others.

- A 50% reduction in the required fire flow can be attained with the installation of a fire sprinkler system. Installation requirements can be found in the Florida Fire Prevention Code 2010, NFPA 13D or the Florida Building Code 2010 Residential Chapter 29, Section P2904. The reduction shall not reduce the required fire flow to less than 500 gallons per minute (GPM).
- A 25% reduction in the required fire flow can be attained for homes with a fire area of 5,000 square feet or less when separated from other buildings by a minimum of 30-feet.
- Based on Table 18.4.5.1.2 in NFPA 1, reductions in the required fire flow can be attained using different construction types and/or fire resistive materials.
- Adding a fire hydrant and/or increasing the size of the water main distribution system to provide for a greater gallon per minute (GPM) flow.
- The Fire-Rescue Department will accept any other recognized fire flow calculation method as an equivalency to the FFPC, i.e. Insurance Services Office (ISO) Method, Iowa State University (ISU) Method, Illinois Institute of Technology Research Institute Method.

## **COMMONLY ASKED QUESTIONS REGARDING FIRE FLOW REQUIREMENTS**

### **Who adopted these new Fire Code Standards?**

The State of Florida adopted NFPA 1 and NFPA 101, 2009 Edition on December 31, 2011. The Florida Legislature grants to the State Fire Marshall the ability to amend the Fire Prevention Code through Administrative Rules.

### **What is fire flow?**

It is the flow rate of a hydrant water supply, measured at 20 pounds per square inch (PSI) residual pressure that is available for fighting a fire.

**What is fire flow area?**

The floor area, in square feet, is used to determine the required fire flow. This generally means the area within the surrounding exterior walls. Areas of the building without surrounding exterior walls should be included in the fire area if such areas are within horizontal projection of the roof or floor above. The fire area includes the total of all floor areas within the building.

**How do I determine what the available fire flow is for a new one or two family home construction site?**

Complete the form "Fire Hydrant Flow Test Application" and submit it to the Building Department. All Building Department forms can be found on the City of Naples Website at the following link.

<http://fl-naples.civicplus.com/DocumentCenter/Home/View/40>

**Is there a fee charged for a fire flow test?**

Yes, the fee is \$100 if the test has not been conducted within the previous six (6) months prior to application for a permit.

**What additional documents regarding fire flow will I need to submit for permitting?**

You will need to submit the fire flow calculation taken within the past six (6) months or provide the fire flow calculation if using an alternate method; site plan showing location in feet of the nearest fire hydrant; distances to the nearest building(s) on the property and all adjoining properties; and type of building construction. Additionally, you may need fire sprinkler plans if a sprinkler system is being used to reduce the fire flow requirement.

**What are the requirements for a home that will be greater than 5,000 square feet?**

Specific to the City of Naples, the required fire flow for the size of the structure must be obtained or, as a minimum, the fire flow must be reduced by at least 50% through the inclusion of sprinklers or other construction techniques cited above.

**What are the City of Naples intentions to increase fire flow to properties?**

Increasing fire flow is a long-term objective for the City of Naples. Increasing the fire flow to an area usually requires the installation of new and larger water distribution lines, more fire hydrants, and greater water pressure. This construction activity is disruptive, and it will cost many millions of dollars.

Currently, a hydraulic model is being developed to identify where fire flow should improve and how this should be accomplished. Multi-year improvements will be planned thereafter. New hydrants are being installed on existing and future reclaimed water lines to increase fire flow.

Fire flow requirements may also be met by acquiring additional fire-fighting equipment, even though such equipment may not necessarily ensure a timely flow of additional water to extinguish a fire. For instance, a vessel with pumping capabilities (1,000 gallons per minute or more) may be considered as available fire flow for properties near bodies of water.

**How many properties will not meet the required fire flow?**

This is difficult to predict. Based on a review of building permits issued over the past two years, about 30% of the permitted structures may not have met the required fire flow without a mitigation strategy.

**How do I equate the NFPA building construction types to the Florida Building Code (FBC) types?**

The Florida Building Code (FBC) construction types are based on the International Building Code (IBC). Below is a cross reference chart of building construction types that correspond with NFPA building types.

**Cross-Reference of Building Construction Types**

<b>NFPA</b>	I(442)	I(332)	II(222)	II(111)	II(000)	III(211)	III(200)	IV(2HH)	V(111)	V(000)
<b>IBC(FBC)</b>	IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB	

**Where can I find an on line copy of the Florida Fire Prevention and Building Codes?**

1. [http://www2.iccsafe.org/states/florida\\_codes/](http://www2.iccsafe.org/states/florida_codes/)
2. <http://rrdocs.nfpa.org/rrserver/browser?title=/NFPAFLA/FloridaNFPA1and1012009>

**Why does the Florida Fire Prevention Code (FFPC) provide for a 50% reduction in the required fire flow with the installation of a fire sprinkler system?**

Automatic sprinklers are highly effective elements of total system designs for fire protection in buildings. They save lives and property, producing large reductions in the number of deaths per thousand fires, in average direct property damage per fire, and especially in the likelihood of a fire with large loss of life or large property loss.

Sprinkler systems are carefully designed to activate early in a real fire but not to activate in a non-fire situation. Each sprinkler reacts only to the fire conditions in its area. Water release in a fire is generally much less than would occur if the fire department had to suppress the fire, because later action means more fire, which means more water is needed. Water release with no fire is rare compared to water release in response to a fire.

**What happens when a home is remodeled?**

The Code is interpreted to apply to new one and two-family homes. Remodeling is not considered to be new construction under the provision of the FFPC. Demolition of a home and construction of a new home is considered to be new construction.

**I do not like the idea and/or concept of looking at a fire sprinkler head hanging from the ceiling in my home; do I have to see a sprinkler head?**

No, inconspicuously mounted sprinklers, which are already common in offices and hotels and are available for homes. These concealed sprinkler heads are available with cover plates that are available in custom colors.

**The City's intends to review construction plans and apply the new FFPC requirements on January 1, 2013. What will occur if my building permit application and constructions plans are submitted prior to September 1<sup>st</sup>?**

If the permit application and construction plans are complete and ready for plan review and issuance of a building permit, the new FFPC requirements will not be considered in the permit review process.

**Who do I call if I have questions regarding these requirements?**

You can contact the City of Naples Fire-Rescue Department Fire Prevention Bureau Office at 239-213-4900.