NORTH MIAMI
FLORIDA
776 N.E. 125 Street, North Miami, Florida 33161

Council Report

To: The Honorable Mayor and City Council

From: Aleem A Ghany, PE, Public Works Director AG

Date: April 10, 2012

AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, AMENDING CHAPTER 19 OF THE CITY OF NORTH MIAMI CODE OF ORDINANCES, ENTITLED "UTILITIES", SPECIFICALLY AT SECTION 19-76 ENTITLED "DEFINITIONS", SECTION 19-77 ENTITLED "BACKFLOW PREVENTION DEVICES REQUIRED", SECTION 19-80 ENTITLED "INSTALLATION OF BACKFLOW PREVENTION", AND SECTION 19-81 ENTITLED "INSPECTIONS", TO ASSIGN THE RESPONSIBILITY FOR THE MAINTENANCE, REPLACEMENT AND REPAIR OF BACKFLOW PREVENTION DEVICES FROM THE CITY, TO THE SERVICING PROPERTY OWNER; PROVIDING FOR CONFLICTS, REPEAL, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

RECOMMENDATION

Recommendation that the City of North Miami adopt the proposed revision to Chapter 19 of the City of North Miami Code of Ordinances delegating the maintenance, risk, responsibility and expense of the backflow prevention devises to the property owners.

BACKGROUND

The City of North Miami over the past two years has sustained a large financial liability to the City's Utility Department, wherein over two hundred backflow devises need replacement and/or repair at a cost of between $150.00 to $3,700 per devise. In order to eliminate this financial burden and risk to the City, a revision to the Ordinance should be adopted transferring the financial burden and maintenance of backflow devises to the property owner.

The purpose of this article is to implement the provisions of Section 62-555.360 of the Florida Administrative Code, promulgated under authority of Part VI of Chapter 403, Florida Statues by the Department of Environmental Protection,

which requires public water systems to establish a cross-connection control program to detect and prevent cross-connections that create or may create an imminent and substantial danger to public health. In addition to internal isolation required by the Florida Building Code, water customers shall provide approved backflow preventers next to the service connection for the containment of their premises.

Attachment(s)

(1) Memo from City Engineer
(2) Proposed Ordinance

ORDINANCE NO._____

AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, AMENDING CHAPTER 19 OF THE CITY OF NORTH MIAMI CODE OF ORDINANCES, ENTITLED "UTILITIES", SPECIFICALLY AT SECTION 19-76 ENTITLED "DEFINITIONS", SECTION 19-77 ENTITLED "BACKFLOW PREVENTION DEVICES REQUIRED", SECTION 19-80 ENTITLED "INSTALLATION OF BACKFLOW PREVENTION", AND SECTION 19-81 ENTITLED "INSPECTIONS", TO ASSIGN THE RESPONSIBILITY FOR THE MAINTENANCE, REPLACEMENT AND REPAIR OF BACKFLOW PREVENTION DEVICES TO THE SERVICING PROPERTY OWNER; PROVIDING FOR CONFLICTS, REPEAL, SEVERABILITY, CODIFICATION, AND AN EFFECTIVE DATE.

WHEREAS, current provisions of Chapter 19 of the City of North Miami Code of Ordinances ("Code"), delegate the maintenance, risk, responsibility and expense of backflow prevention devices to the City of North Miami ("City"), although such devices are specifically devoted to the service of private properties; and

WHEREAS, the responsibility for the maintenance and replacement of such backflow prevention devices is becoming increasingly more difficult and expensive for the City to endure; and

WHEREAS, over two hundred (200) backflow devices were either repaired or replaced at a cost to the City ranging from $150.00 to $3,700.00 per unit; and

WHEREAS, many counties and municipalities (e.g., Miami-Dade County, Broward County, North Miami Beach, Hialeah, and Opa-Locka) require the private property owner benefiting from the backflow prevention device to maintain and be responsible for the device; and

WHEREAS, the increasing costs to the City to maintain, in terms of dollars, materials and labor, can no longer be sustained at the current level; and

WHEREAS, the City Manager respectfully requests that the Mayor and City Council adopt the proposed amendment allocating the responsibility of backflow prevention devices to the owner of the property being serviced by the backflow prevention device.

NOW THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF NORTH MIAMI, FLORIDA, THAT:

Section 1. Chapter 19 of the City of North Miami Code of Ordinances, entitled "Utilities", is hereby amended specifically at Section 19-76 entitled "Definitions", Section 19-77 entitled "Backflow Prevention Devices Required", Section 19-80 entitled "Installation of Backflow Prevention", and Section 19-81 entitled "Inspections", to assign the responsibility for the maintenance, replacement and repair of backflow prevention devices to the servicing property owner, as follows:

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CHAPTER 19. UTILITIES

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DIVISION 3. BACKFLOW PREVENTION

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Sec. 19-76. Definitions.

The following words, terms and phrases, when used in this division, shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

Air gap separation shall mean the unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the receptacle, and shall be at least double the diameter of the supply pipe measured vertically above the flood level rim of the vessel. In no case shall the gap be less than one (1) inch.

Auxiliary supply shall mean any water source or system other than the public water supply that may be available in the building or premises.

Backflow shall mean the flow other than the intended direction of flow of any foreign liquids, gases or substances into the distribution system of a public water supply. Backflow may degrade the quality of potable water below required standards.

Backflow prevention device shall mean a device that has been approved by the public works department and has been shown to meet the design and performance standards of the American Society of Sanitary Engineers ("ASSE") and/or the American Water Works Association ("AWWA") and that has been, or will be, installed according to city code. The purpose of a backflow prevention device is to prevent flow reversal through pipes or valves.

Back pressure shall mean backflow caused by a pump, elevated tank, boiler or other means that could create pressure within the system greater than the supply pressure.

Back siphonage shall mean a device to counteract back pressures or prevent back siphonage.

Cross connection shall mean any physical arrangement whereby a public water supply is connected directly or indirectly, with any other water supply system, sewer, drain, conduit, pool, storage reservoir, plumbing fixture or other device which contains or may contain contaminated water, sewage or other waste or substance of unknown or unsafe quality which may be capable of imparting contamination to the public water supply as a result of backflow. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices through which or because of which backflow could occur are considered to be cross-connections.

Customer shall mean any individual, partnership, firm, association or other entity receiving water and/or sewer services from the city for consumption or usage. Customer includes the property owner, the tenant, or any person or entity in possession, if the property is in foreclosure.

Double check valve assembly shall mean an assembly composed of two (2) single, independently acting check valves including tightly closing shutoff valves located at each end of the assembly and suitable connections for testing the water tightness of each check valve.

Public water supply shall mean any system or water supply intended or used for human consumption or other domestic uses, including source, treatment, storage, transmission and distribution facilities where water is furnished to any community, collection or number of individuals, or is made available to the public for human consumption or domestic use.

Reduced pressure principle back flow prevention device shall mean a device incorporating two (2) or more check valves and an automatically operating differential relief valve located between the two (2) checks, two (2) shutoff valves and equipped with necessary appurtenances for testing. The device shall operate to maintain the pressure in the zone between the two (2) check valves at a pressure less than that on the public water supply side of the device. At cessation of normal flow, the pressure between the check valves shall be less than the supply pressure. In case of leakage of either check valve the differential relief valve shall operate to maintain this reduced pressure by discharging to the atmosphere. When the inlet pressure is two (2) pounds per square inch or less the relief valve shall open to the atmosphere thereby providing an air gap in the device.

Sec. 19-77. Backflow prevention devices required.

(a) Backflow prevention devices shall be installed hereafter by the ~~city public works department~~ customer on the ~~city's~~ customer's side of the meter, at the customer's cost or within any premises where in the judgment of the city the nature and extent of the activities on the premises or the materials used in connection with the activities or materials stored on the premises would present an immediate and dangerous hazard to health should a cross-connection occur even though such cross-connection does not exist at the time the backflow prevention device is required to be installed. This shall include but not be limited to the following situations:

(1) Premises having auxiliary water supply unless the quality of the auxiliary supply is acceptable to the city;

(2) Premises having internal cross-connections that are not correctable or intricate plumbing arrangements which make it impracticable to ascertain whether or not cross-connections exist;

(3) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or on sufficiently short notice to assure that cross-connections are not being established or re-established;

(4) Premises on which any substance is handled under pressure so as to permit entry into the public water supply or where a cross-connection could reasonably be expected to occur. This shall include the handling of process waters and cooling waters;

(5) Premises where materials of a toxic or hazardous nature are handled such that if back siphonage should occur a serious health hazard may result.

(b) The following types of facilities will fall into one (1) of the above categories where a backflow prevention device is required to protect the public water supply. A backflow prevention device shall be installed at these facilities unless the city determines no hazard exists.

(1) Hospitals;

(2) Mortuaries;

(3) Clinics;

(4) Nursing homes;

(5) Laboratories;

(6) Piers and docks;

(7) Sewage treatment plants;

(8) Food or beverage processing plants;

(9) Chemical plants using a water process;

(10) Metal plating industries;

(11) Petroleum processing or storage plants;

(12) Radioactive material processing plants;

(13) Buildings with fire sprinklers;

(14) Buildings with standpipe systems;

(15) Swimming pools;

(16) Multistory buildings with water booster systems;

(17) Multistory buildings with cooling towers;

(18) Others specified by the city.

* * * * *

Sec. 19-80. Installation of backflow prevention devices; permit, procedure.

(a) Backflow prevention devices shall hereafter be installed by the ~~city~~ customer ~~and constitute part of the city utility system, to the same extent that water and sewer mains are part of the city's system~~.

(b) Backflow devices shall be installed by the ~~city's public works department~~ customer on the ~~city's~~ customer's side of the meter. The customer is responsible for the maintenance, replacement and repair of the backflow prevention device and to secure it from theft and damage.

(c) The city shall allow private licensed plumbers (subject to issuance of permit from the city) to install such devices only upon authorization by the public works director ~~in situations where the city cannot timely perform the installation~~.

(d) All such installations ~~whether~~ installed by a private plumber ~~or installed by the city~~ must comply with the backflow models authorized by the public works director ~~as described in Appendix A~~.

(e) The public works department shall ~~maintain~~ certify and inspect all backflow prevention devices ~~which it installs or hereafter allows private licensed plumbers to install (after the device and installation passes the first inspection)~~.

(f) ~~The public works department may take over maintenance of all existing backflow devices as part of the city's utility system~~ ~~o~~Once inspected, backflow prevention devices are ~~and~~ placed on an inventory list by the public works department.

(g) Except for hose bibb vacuum breakers, all backflow prevention devices shall be installed at the ~~city's~~ customer's side of the meter or at a location designated by the city. The device shall be located so as to be readily accessible for ~~maintenance and~~ testing and where no part of the device will be submerged. Hose bibb vacuum breakers shall be installed at the house hose bibbs. Any customer of the city requiring any permit shall install as part of the permit a vacuum breaker on all hose bibbs and a backflow device will be installed on sprinkler systems.

(h) No certificate of occupancy will be issued until the requirements of this section have been complied with.

Sec. 19-81. Inspections.

(a) The city may in conjunction with county environmental regulatory agencies having jurisdiction make periodic inspections of any premises served by the water supply to check for the presence of cross-connections. Any cross-connections found in such inspections shall be ordered removed by the city. If an immediate hazard to health is caused by the cross-connection, water service to the premises shall be discontinued until it is verified that the cross-connection has been removed.

(b) Backflow prevention devices shall be annually inspected, tested and certified by ~~a registered professional engineer or state-certified technician~~ the city at the customer's expense or more often where a successive inspections indicate repeated failure. The annual inspection shall be performed by the city when customers are notified by the city and the city shall perform the backflow certification test at the listed fees:

(1) Backflow certification--2 inches and above $100.00

(2) Backflow certification-- 3/4 up to 1½ inches . . . 25.00

No single building shall be charged more than one hundred fifty dollars ($150.00) annually for mandatory certifications performed by the city. ~~The devices shall be repaired or overhauled by the city at no cost to the customer whenever they are found to be defective.~~

(c) Failure of the customer to cooperate in the installation, maintenance, testing or inspection of backflow prevention devices required in this section shall be grounds for the termination of water service to the premises.

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Section 2. **Conflicts.** In the event that the provisions of this Ordinance are in conflict with any other ordinance, rule or regulation, the provisions of this Ordinance shall prevail.

Section 3. **Repeal.** All ordinances or parts of ordinances in conflict herewith are repealed.

Section 4. **Severability.** If any word, clause, phrase, sentence, paragraph or section of this Ordinance is held to be invalid by a court of competent jurisdiction, such declaration of invalidity shall not affect any other word, clause, phrase, sentence, paragraph or section of this Ordinance.

Section 5. **Codification.** The provisions of this Ordinance may become and be made a part of the code of ordinances of the City of North Miami, Florida. The sections of the

Ordinance may be renumbered or re-lettered to accomplish such, and the word "ordinance" may be changed to "section," "article" or any other appropriate word.

Section 6. **Effective Date.** This Ordinance shall be effective immediately upon adoption on second reading.

PASSED AND ADOPTED by a 5-0 vote of the Mayor and City Council of the City of North Miami, Florida, on first reading this 10 day of April, 2012.

PASSED AND ADOPTED by _____ vote of the Mayor and City Council of the City of North Miami, Florida, on second reading this _____ day of _____, 2012.

_____
ANDRE D. PIERRE, ESQ.
MAYOR

ATTEST:

_____
MICHAEL A. ETIENNE, ESQ.
CITY CLERK

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY:

_____
REGINE M. MONESTIME
CITY ATTORNEY

SPONSORED BY: CITY ADMINISTRATION

Moved by: _____

Seconded by: _____

Vote:

Mayor Andre D. Pierre, Esq.	_____ (Yes)	_____ (No)
Vice Mayor Jean R. Marcellus	_____ (Yes)	_____ (No)
Councilperson Michael R. Blynn, Esq.	_____ (Yes)	_____ (No)
Councilperson Scott Galvin	_____ (Yes)	_____ (No)
Councilperson Marie Erlande Steril	_____ (Yes)	_____ (No)

Additions shown by underlining. Deletions shown by ~~overstriking~~.

NORTH MIAMI
FLORIDA
UTILITY OPERATIONS CENTER

MEMORANDUM

DATE: February 28, 2011

TO: Aleem Ghany, Public Works Director

FROM: Wisler Pierre-Louis, City Engineer

RE: Amending Sections of North Miami Code of Ordinances Chapter 19 Pertaining to Backflow Prevention Devices

SUMMARY

The sections in the North Miami Code of Ordinances Chapter 19 pertaining to backflow prevention devices state that the City of North Miami maintains and owns backflow devices connected to the utility system. Other counties and municipalities have ordinances stating that the customer owns and is responsible for the backflow devices. Some of these counties and municipalities are Miami-Dade, North Miami Beach, Hialeah, Opa Locka and Broward.

It is costly to repair and replace backflow prevention devices. To date, there have been over 200 backflow prevention devices stolen. The devices are also in constant need of repair. The cost to repair or replace a backflow prevention device (not including labor and pipe fittings) ranges from approximately $150 to $3,700 per device depending on the size of the device that typically ranges from ¾-inch to 8-inch.

It is recommended that the subject ordinance be amended to address the situation pertaining to backflow prevention devices.

AMENDMENTS

Below are the proposed revisions to Chapter 19 Utilities, Article III. Water, Division 3. Backflow Prevention.

Sec. 19-77. Backflow prevention devices required.

(a) Backflow prevention devices shall be installed hereafter by the ~~city public works department~~ **customer** on the ~~city's~~ **customer's** side of the meter, at the customer's cost or within any premises where in the judgment of the city the nature and extent of the activities on the premises or the materials used in connection with the activities or materials stored on the premises would present an immediate and dangerous hazard to health should a cross-connection occur even though such cross-connection does not exist at the time the backflow prevention device is required to be installed.

Sec. 19-80. Installation of backflow prevention devices; permit, procedure.

(a) Backflow prevention devices shall hereafter be installed by the ~~city~~ **customer**. ~~and constitute part of the city utility system, to the same extent that water and sewer mains are part of the city's system.~~

(b) Backflow devices shall be installed by the ~~city's public works department~~ **customer** on the ~~city's~~ **customer's** side of the meter. **The customer is responsible to maintain the backflow device and secure it from theft and damages,**

(c) The city shall allow private licensed plumbers (subject to issuance of permit from the city) to install such devices only upon authorization by the public works director. ~~in situations where the city cannot timely perform the installation.~~

(d) All such installations whether installed by a private plumber ~~or installed by the city~~ must comply with the backflow models **authorized by the public works director.** ~~as described in Appendix A.~~

(e) The public works department shall ~~maintain~~ **certify and inspect** all backflow prevention devices. ~~which it installs or hereafter allows private licensed plumbers to install (after the device and installation passes the first inspection).~~ **Customers outside of the city that require backflow device permits from other agencies shall have the initial certification and inspection from the said agency.**

(f) ~~The public works department may take over maintenance of all existing backflow devices as part of the city's utility system~~ Once inspected, **backflow devices are** and placed on an inventory list by the public works department.

(g) Except for hose bibb vacuum breakers, all backflow prevention devices shall be installed at the ~~city's~~ **customer's** side of the meter or at a location designated by the city. The device shall be located so as to be readily accessible for ~~maintenance and~~ testing and where no part of the device will be submerged. Hose bibb vacuum breakers shall be installed at the house hose bibbs. Any customer of the city requiring any permit shall install as part of the permit a vacuum breaker on all hose bibbs and a backflow device will be installed on sprinkler systems.

Sec. 19-81. Inspections.

(c) Backflow prevention devices shall be annually inspected, tested and certified by ~~a registered professional engineer or state certified technician~~ **the city** at the customer's expense or more often where successive inspections indicate repeated failure.

Enclosures