

**IN ACCORDANCE WITH THE CITY OF MILFORD, CODE OF
ORDINANCES, THE FOLLOWING REGULATIONS ARE
ADOPTED FOR THE PURPOSE OF ESTABLISHING STANDARDS
FOR FIREFIGHTING, WATER SUPPLY, AND RELATED
APPURTENANCES BY THE BOARD OF FIRE COMMISSIONERS
ADOPTED AS REVISED MARCH 16, 2010**

A. PURPOSE.

It is the purpose of this regulation to require the provision of an adequate water supply for proper firefighting within the City of Milford in the development of commercial, industrial and residential areas for public safety.

B. SCOPE.

Any proposed structure which is to be erected on property which property is along a street, alley or easement of the public water supply, or where a public water supply is required to be installed by virtue of the provisions of these regulations of the City of Milford, shall be provided with an adequate water supply for firefighting purposes in accordance with the terms of this regulation.

C. DEFINITIONS.

Words defined in this regulation are intended for use only with sections of this regulation. Definitions set forth in any document referenced by this regulation shall be the acceptable definition for use of words not specifically defined in this regulation or other referenced documents shall be interpreted as being the ordinary usage of the word as set forth in Webster's Concise Dictionary, 1998 Random House Edition.

APPLICANT - means that person, firm or corporation being the owner or developer seeking to have the project plans approved.

APPROVED - means acceptable to the Fire Chief/Fire Marshal of the City of Milford. In determining the acceptability of installations, procedures, equipment or materials, Fire Chief/Fire Marshal may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, the Fire Chief/Fire Marshal may require evidence of proper installation, procedure or use. The Fire Marshal may also refer to the listings or labeling practices of nationally recognized testing laboratories, inspection agencies or other organizations concerned with product evaluations which are in a position to determine compliance with appropriate standards for the current production of listed items and the satisfactory performance of such equipment or materials in actual usage.

CAPS - means protective covers installed on hydrant outlets.

CURB LINE - means the line that defines the width or edge or either side of a paved street.

DEAD END - means supplied via water pipes from one end only.

DEVELOPER - shall mean the owner or other person responsible for the construction of a project.

FACILITIES - means such water mains, hydrants and other appurtenances thereto which are necessary for fire protection.

FINAL GRADE - means the level of the ground at which time all fillings, excavation and other earth moving has been completed.

FIRE DEPARTMENT CONNECTION - means a piped connection outside a building for the use of the fire department to supply water to a sprinkler system or standpipe.

FIRE FLOW - means the rate of water flow deemed necessary by the Fire Chief for fire protection requirements.

FIRE HYDRANT - means a valve connection on a water supply system having one or more outlets and which is used to supply hose and fire department pumpers with water.

FIRE CHIEF/FIRE MARSHAL - means the individual as the administrative head responsible for the administration and enforcement of the fire protection laws of the City of Milford and for the State of Connecticut. For purposes of this regulation this term shall also apply to any person designated by the Fire Chief to administer the provisions of the regulation.

HYDRANT - means the same as fire hydrant.

HYDRANT SPACING - means the travel distance between successive fire hydrants.

JUDGMENT - means a decision of the Fire Chief or his designee based upon recognized fire protection principles and the terms of this regulation.

LOOPED - means supplied via water pipes from more than one end.

MAIN SIZE - means the actual clear inside diameter in inches of water pipe.

NATIONAL STANDARD THREAD - means a screw thread configuration having a maximum major diameter of 3.0686" and a maximum minor diameter of 2.8954" a thread height of .0866" and 7.5 threads per inch.

NEW HAVEN REGIONAL WATER AUTHORITY THREAD - means a screw thread configuration having a maximum major diameter of 5.750" and a maximum diameter of 5.46875", a thread height of .140632" and 5 threads per inch.

NFPA - means the National Fire Protection Association of Batterymarch Park, Quincy, MA 02669.

PROJECT - means the process or intent to make improvements, or do work upon property, which would require the issuance of a building permit or require approval of the City of Milford Planning and Zoning Commission.

STRUCTURE - means any building erected for the support shelter or enclosure for persons, animals, or property of any kind.

TRAVEL DISTANCE – The most direct route driven to the structure by Fire Department apparatus.

WATER MAIN - means large pipes designed to withstand pressure and to distribute water to a point of use, not including domestic service pipes.

WATER SUPPLY - means the quantity of water deemed necessary by the Fire Chief for fire protection requirements.

D. FACILITIES.

1. All projects that are subject to the provisions of the ordinance shall be provided with an adequate water supply to the land being developed to meet firefighting needs for the proposed use as well as such other facilities required by this regulation for public safety.

2. Said facilities shall be provided at the expense of the owner or developer.

3. All Facilities required shall be approved by the Fire Chief/Fire Marshal as to location, size and type of materials, and manner of installation in accordance with the standards contained herein and by reference herein.

4. All components of a required water supply installed on private property must be maintained. Private hydrants shall be serviced per the American Water Works Association standards bi-annually and the maintenance reports shall be forwarded to the Fire Department Office.

E. APPLICATION PROCEDURE.

1. Any plans submitted in support of an application for a building permit to the building official and/or approval of a subdivision, site plan or special permit by the City of Milford Planning and Zoning Commission shall also be submitted to the Fire Chief/Fire Marshal by the applicant. Said plans shall contain, in addition to such other requirements of law, the following data for review by the Fire Chief/Fire Marshal:

(a) Site Plan. A site plan drawn to a scale of not smaller than 100 feet to the inch, showing existing and proposed structures and buildings, streets, driveways, parking and loading spaces, outside storage areas, water courses, existing and/or proposed water supply facilities, water mains, water main sizes, fire hydrants, landscaping and location of all facilities required by this regulation

(b) Architectural Plans. Preliminary architectural plans of all proposed buildings and structures, including general elevations, perspective drawings and generalized floor plans and locations and specifications of all facilities required by this regulation

(c) An application form (which form shall be supplied by the Fire Marshal) duly executed by the owner and/or developer of a proposed project.

(d) Each document enumerated above must be submitted together to be considered a complete application and any application must be complete before the Fire Chief/Fire Marshal shall be required to review it.

2. When plans are submitted, they shall be reviewed by the Fire Chief/Fire Marshal to determine if any project is or will by virtue of said permit meet all requirements of this regulation.

3. The Fire Marshal shall complete said review and submit a written report to the applicant within thirty (30) days of receiving said application. His report shall approve or disapprove of said application. If the Fire Marshal disapproves of said application he shall state the reasons why in his report.

4. Upon completion of all work required by the approved plans, the application shall certify on forms to be supplied by the Fire Marshal that the facilities as required by this regulation and approved by the Fire Marshal have been properly installed and tested and are in proper working order.

5. If the Fire Marshal finds that the project is not in compliance with the approved application, he shall state the reasons why on the certified form and the building official shall not issue a certificate of occupancy for any structure in the project.

F. FIRE HYDRANTS.

1. Hydrants shall be installed where designated by the Fire Chief in accordance with the standards contained herein.

2. All hydrants shall be US Pipe Metropolitan 250 Model 94 or in the opinion of the Fire Chief its equivalent, and conform to Standard C502, as may be amended, of the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

3. Hydrants shall be designed to break free upon vehicle impact without water loss.

4. The diameter of the main valve opening shall be no less than 5 1/4".

5. The inlet connection and associated piping shall be no less than 6" diameter.

6. Direction and operation for opening for hydrant shall be clockwise.

7. The maximum permissible head loss shall not exceed 7 lbs. per square inch discharging 1500 gpm.

8. All hydrants shall be provided with the following connections:

A. Two (2) 2 1/2" National Standard Thread

B. One (1) 4 1/2" South Central Conn. Water Company Thread

C. Caps are to be provided for the above connections.

9. All hydrants shall be located no more than five (5) feet, nor less than three (3) feet from the curb line or edge of the paved surface of the driveway, road, or highway.

10. All hydrants shall be located so that they are readily accessible for the attachment of hoses, and to facilitate connection to mobile fire apparatus. No obstructions such as walls, fences, hedges, bushes, screen plantings or barriers shall be within three (3) feet of any fire hydrant or fire department connection, on public or private property.

11. All hydrants shall be positioned so that the 4 1/2" outlet is facing in the direction of and perpendicular to, the paved surface of the driveway, road or highway.

12. All hydrants shall be installed so that the distance from the centerline of the 4 1/2" outlet to the final grade is no more than 36", and no less than 30".

13. All hydrants shall be painted completely with rust resistant chrome yellow, exterior grade, top quality paint.

14. All hydrants shall be installed in accordance with Standard C600, as may be amended, of the American Water Works Association, 6666 West Quincy Avenue, Denver, CO 80235.

15. All hydrants located in parking areas shall be protected by sturdy barriers that will prevent physical damage from vehicles.

16. All hydrants, both public and private, will be serviced bi-annually and the maintenance records shall be submitted to the Fire Department Office to be kept on file.

G. WATER MAIN SIZING.

1. Minimum water main diameters shall be installed as listed below based on land utilization.

<u>UTILIZATION</u>	<u>MINIMUM MAIN SIZE</u>	<u>MINIMUM TEST FLOW</u>
Single Family	Eight (8) Inch	900 GPM w/residual press. of 20 PSI
Multi Family	Twelve (12) Inch	2000 GPM w/residual press of 20 PSI
Commercial	Twelve (12) Inch	2000 GPM w/residual press of 20 PSI
Industrial	Sixteen (16) Inch	3500 GPM w/residual press of 20 PSI

2. All portions of piping, valves, and other parts of the water supply system shall be installed in accordance with Standards C500, C600, and C603, as may be amended, of the American Water Association, 666 West Quincy Avenue, Denver, CO 80235.

3. Based on Regional Water Authority's recommendations, piping beyond the last hydrant in line may be reduced to four (4) inch to avoid excessive stagnant domestic water. If the Regional Water Authority recommends a smaller size water main than specified in Section I, the applicant may install that size main specified. The applicant shall submit the written recommendation from New Haven Regional Water Authority with their exception form.

4. Any water supply system or portion thereof that is not looped (dead end) and exceeding 500 feet in length shall be no less than twelve (12) inches in diameter. In an industrial zone this requirement will be no less than sixteen (16) inches in diameter.

5. Required water main size may be reduced if the applicant submits flow test data which demonstrates that the minimum test flow can be supplied using smaller pipe. Test flows must be conducted by a certified fire protection engineer or local water authority. At no time shall the minimum main size be below 8".

H. FIRE HYDRANT SPACING.

1. Maximum hydrant spacing shall as listed below based on utilization.

<u>UTILIZATION</u>	<u>MAXIMUM HYDRANT SPACING</u>
Single Family	Four Hundred (400) Feet
Multi Family	Three Hundred (300) Feet
Commercial	Three Hundred (300) Feet
Industrial	Three Hundred (300) Feet

2. In no case shall the distance between any multi-family, commercial or industrial building and the nearest hydrant exceed 400 feet. When plans are submitted, they shall be reviewed to determine if any part of the building or structure in the project is or will by virtue of said development become in excess of the reasonable working distance from an adequate water supply.

3. When single family dwellings that are to be erected on land not requiring subdivision approval, but said land fronts or abuts in some area a highway or right of way

having an existing public water main, in such cases the provisions of this regulations as to the installation of fire hydrants only shall apply.

I. ADDITIONAL REQUIREMENTS.

1. All fire protection water supply systems, including fire hydrants, shall be installed, tested, and in service prior to placing combustible building materials for structures, or combustible prefabricated building assemblies on the project site or utilizing them in the construction of building structures.

2. The owner or developer of water supply systems shall provide a system that will meet fire protection design requirements. Fire flow performance tests shall be witnessed by the Fire Chief or his designee and such other authorities having jurisdiction who desire to do so. It shall be the duty of the applicant, owner, developer, or contractor, to notify the Fire Chief of the date and time of the test at least 48 hours in advance.

3. All structures shall be accessible so that a clear path exists from the fire hydrant. Such roadways shall meet current standards to support fire apparatus, and of sufficient width and height so no damage or harm will occur to firefighters or apparatus.

4. All hydrants shall be serviced bi-annually and the maintenance records shall be forwarded to the Fire Department Office where they will be kept on file.

J. EXCEPTIONS

If the owner/applicant cannot meet the requirements under the terms of this regulation, the owner/applicant may apply for an exception, in writing to the Fire Chief/Fire Marshal. Said exceptions must be filed on forms, attached here as exhibit A, to the Fire Department Office within 10 working days of the postmark of the Fire Chief/Fire Marshal's disapproval.

The owner/applicant must state in detail why the requirements of this regulation cannot be met and/or prove a financial hardship.

If the cost of installing fire hydrants is equal to or exceeds ten (10) percent of the net assessed value of the land together with proposed and constructed improvements to be serviced by the fire hydrant, the applicant may elect to install an alternative fire protection systems. All such systems must be approved by the Fire Chief/Fire Marshal prior to installation. Alternative fire protection systems must meet NFPA Standards.

The owner/applicant must submit site plans or any other plans that the Fire Chief/Fire Marshal may need to aid in making their decision.

The applicant must supply a documented report from the Regional Water Authority for an estimated cost to supply water to the property in dispute if the applicant is disputing water supply to the property.

An estimate may also be required from the City Assessor's Office to determine the estimated assessed value of the property and structure that will be constructed.

The ten (10) day filing period may be extended by agreement of the Fire Chief/Fire Marshal so that proper documentation can be submitted.

The Fire Chief/Fire Marshal will render a decision within 10 working days upon receipt of the exception application.

K. APPEALS

If the Fire Chief/Fire Marshal rejects or disapproves of the plans submitted under the terms of this regulation, the applicant may apply for an appeal, in writing, to the Board of Fire Commissioners of the City of Milford. Said appeal must be filed on forms attached here as exhibit B. Said appeal shall be made to the Board of Fire Commissioners by filing the form with the Chairman or any member of the Board of Fire Commissioners through the Fire department Office within thirty (30) days, of the postmark of the Fire Chief/Fire Marshal's disapproval.

The applicant must state in detail the reasons why he disagrees with the action of the Fire Chief/Fire Marshal. What has been misconstrued or wrongly interpreted, or if it is claimed that the provisions of the regulation do not apply to the project in question.

The Board shall meet upon notice of the Chairman within thirty (30) days, after filing of an appeal, exclusive of Saturdays, Sundays, and legal holidays.

All hearings shall be public. The applicant, his representative, any officials of the municipality and any other person whose interest may be affected by the issues on appeal shall be given an opportunity to be heard.

If at least four (4) qualified members of the Board are not present to consider a specific appeal, either the applicant, the Fire Chief/Fire Marshal or their representative may request a postponement of the hearing.

K. ACTION OF THE BOARD

The board shall render a decision upon the appeal at the next regular monthly meeting of the Board of Fire Commissioners.

The Board may deny the appeal.

A copy of the Board's decision shall be filed with the Fire Marshal and the party submitting the appeal. The decision shall be by majority vote of the Board. The decision of the Board is final. No further appeals shall be allowed.

L. ENFORCEMENT.

This regulation shall be enforced by the Fire Chief/Fire Marshal, who shall be authorized to cause any land or structure or facility to be inspected and examined in order to:

(a) Determine whether an application should be approved or disapproved.

(b) Order in writing the remedying of any condition found to exist in violation of any provision of this regulation. Any person who, having been served with an order to remedy any condition found to exist in violation of this regulation who fails to comply with said order within the time prescribed for complying in their order shall be subject to an injunction as may be ordered by a Judge of the Superior Court, in addition to the penalties for violations as are hereinafter set forth.

M. VIOLATIONS.

Any person, firm or corporation who shall violate any of the provisions of this regulation shall be fined not less than \$50.00, nor more than \$100.00 for each offense.

N. OTHER LAWS.

This regulation shall not be in conflict with but rather in addition to any other general or specific law relating to ethical conduct, interest or procedure by City Officers and employees.

O. SEVERABILITY.

If any section, clause, provision or portion of this regulation shall be held to be invalid, ultra vires or unconstitutional by any Court or competent jurisdiction, such holding shall not affect or impair any other section, clause, provision or portion of this regulation.

Board of Fire Commissioners