#### **Chapter 13.08 - WATER PROJECT DESIGN STANDARDS**

#### Sections:

#### 13.08.010 - General standards—Developer requirements.

All work shall <u>comply with the latest edition of the City of Lynden Engineering and Development Design</u> <u>Standards Project Manual.</u> be done in accordance with plans and specifications. As a preliminary guide to the developer, the following general standards of construction and materials are set forth:

A. Pipe shall be either cast iron or asbestos cement.

B. Fittings must be cast iron or brass.

C. Standard five inch MVO fire hydrants are required approximately every five hundred feet in residential areas. Standard five-inch MVO hydrants or larger are required every three hundred feet in commercial areas.

D. Pipe runs from main line to hydrants must be a minimum of six inches.

E. Normal minimum pipe size will be eight inches.

F. Two-inch air and vacuum release valves shall be installed as principal high points in the system, if directed by the city.

G. Dead-end lines are only permitted where there is a cul-de-sac, or it is not possible to make a loop, in which case blowoffs shall be provided.

H. In estimating cost, the developer should generally assume, in residential areas, eight-inch mains, hydrants every five hundred feet and valving every five hundred feet.

I. Work shall be done only by contractors experienced in laying public water mains.

J. Mains shall be laid only in dedicated streets or in easements which have been granted to the city. A street is normally not considered dedicated until the plat which created it has been filed with the Whatcom County auditor.

K. The developer shall obtain all necessary easements without cost to the city. Whenever a main is to be laid other than in a public street, a permanent easement of not less than five feet on each side of the centerline, and a construction easement of not less than ten feet on each side of the centerline, shall be provided. The developer shall supply the city engineer with the supporting data necessary to verify the location of the easement. If legal services are required by the city in connection with the easement, other than formal review, the cost of such services shall be reimbursed by the developer to the city on demand and before acceptance of the extension.

L. The developer shall pay for permits as may be required for the work, and shall pay for all surveys, easements, rights-of-way and franchises required for the work. The developer shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work.

(Ord. 560 § 1, 1977).

# 13.08.020 - New materials and equipment required—Continuity of manufacturer.

All materials and equipment shall be new and undamaged. Where possible, the same manufacturer of each item shall be used throughout the job.

(Ord. 560 § 2.1, 1977).

# 13.08.030 - Cast-iron pipe and fittings-Backflow prevention devices.

A. Cast-iron pipe shall conform to AWWA standards. Joints shall conform to AWWA standards. Push-on joints, such as Tyton or Bel-tite, or mechanical joints known as M.J. pipe shall have a cement-mortar lining conforming to AWWA standards.

B. Cast-iron fittings shall conform to AWWA Standard C111-7I. Mechanical or push-on joints shall conform to AWWA Standard C111-72. Flanged joints shall conform to ASA Standard B16.1, Class 125. Flange gaskets shall be ring type, cloth insert rubber, one sixteenth inch thick, equal to Rainbow or Durable Garlock.

(Ord. 560 § 2.2, 1977). Where the possibility of contamination of the water supply exists, the city will require that certain service be equipped with a back-flow prevention device per Chapter 13.10 of this title. The determination as to the need, size and location of a backflow device shall be solely determined by the Public Works Department.

# 13.08.040 - Ductile cast-iron pipe.Inspections

Ductile cast-iron pipe shall conform to AWWA Standard C151-7l thickness, class shall be indicated on the drawings; linings shall be the same as specified for cast iron. All water lines and mains shall be inspected by a Public Works Department inspector before they are covered. The developer shall notify the city at least twenty-four hours in advance for a water line inspection.

(Ord. 560 § 2.3, 1977).