

## CHAPTER 31

### PLUMBING AND SEWERS.

Reference: Neb. Rev. Stat. Section 18-190 et seq., Neb. Rev. Stat. Sections 16-249, 16-250, and Neb. Rev. Stat. Sections 18-501 to 18-508.

#### Article I. In General.

- 31-101. Adoption of International Plumbing Code.
- 31-102. Permits and penalties.
- 31-103. Excavations – On city property.
- 31-104. Same – Safety requirements.
- 31-105. Nonpotable water piping.
- 31-106. Separate water service line required for each building; exception.
- 31-107. Connection to water main to be by licensed plumber.
- 31-108. Connection to private water supply prohibited.
- 31-109. Protection of water distribution and service pipes from freezing; curb stops.
- 31-110. Outdoor swimming pools.
- 31-111. Indoor swimming pools.
- 31-112. Water meter installation.
- 31-113. Water heaters.
- 31-114. Materials.
- 31-115. Workmanship.
- 31-116. Definitions.

#### Article II. Plumbing Inspector.

- 31-201. Qualifications; supervision; assistants; right of entry.
- 31-202. Duties; records.
- 31-203. Defective installations.
- 31-204. Prohibited acts.

#### Article III. Plumbers and Utility Contractors.

##### Division 1. Generally.

- 31-301. Examining board.
- 31-302. Insurance and maintenance bond.
- 31-303. Nonresident plumbers.
- 31-304. Advertising by other than master plumbers.

##### Division 2. Licenses.

- 31-305. Required.
- 31-306. Application.
- 31-307. Examinations; review of application.
- 31-308. Same – Eligibility for examination as a journeyman fitter.
- 31-309. Same – Eligibility for examination as a master plumber.
- 31-310. Same – Reexamination.
- 31-311. Same -- Certification.
- 31-312. Partnerships and corporations.
- 31-313. Dealers in materials and supplies.
- 31-314. Fees.
- 31-315. Renewals.
- 31-316. Same – Nontransferable.
- 31-317. Same – Revocation.
- 31-318. Liability for installation by uncertified plumber, water conditioner installer or contractor, or underground lawn sprinkler installer.

#### Article IV. Inspections.

- 31-401. Required generally; notice of approval of work.
- 31-402. Tests of roughing-in plumbing.

## **Hastings City Code**

- 31-403. Final inspection.
- 31-404. Request for inspection.

### **Article V. Fixtures**

- 31-501. Union or disconnect required on water supply and waste lines.
- 31-502. Location of water closet or urinal.

### **Article VI. Reserved**

### **Article VII. Mobile Homes**

- 31-701. Water supply.
- 31-702. Waste and sewage disposal.
- 31-703. Sewer connections.

### **Article VIII. Miscellaneous Wastes.**

- 31-801. Down spouts.
- 31-802. Discharges from air conditioning units and cooling towers.
- 31-803. Connection to storm sewers.
- 31-804. Outdoor swimming pools.

### **Article IX. Sewers**

- 31-901. Privies and cesspools prohibited.
- 31-902. Septic system permit.
- 31-903. Sewer service beyond city limits.
- 31-904. Notice; assessment.
- 31-905. Separate sewer service line required for each building; exceptions.
- 31-906. Old sewers and drains.
- 31-907. Materials – Pipes near water supplies.
- 31-908. Materials – Building sewers, waste and vents.
- 31-909. Main taps; fees.
- 31-910. Location and depth.
- 31-911. Minimum size of house sewers.

### **Article X. Backflow Prevention.**

- 31-1001. General.
- 31-1002. Policy and purpose.
- 31-1003. Surveys and investigations.
- 31-1004. Where protection is required.
- 31-1005. Type of protection required.
- 31-1006. Backflow prevention devices.
- 31-1007. Booster pumps.
- 31-1008. Yard hydrants.
- 31-1009. Fire suppressions system.
- 31-1010. Violations.
- 31-1011. Approval standards.
- 31-1012. Liability claims.

### **Article I. In General**

#### **31-101. Adoption of International Plumbing Code; effect of conflicting provisions.**

The regulations contained in the International Plumbing Code, 2009 Edition, three copies of which are on file in the office of the City Clerk, are hereby incorporated in and made a part of this chapter the same as though spread at large herein. In the event conflict arises between the International Plumbing Code and other provisions of the City Code, the City Code shall govern.

(Code 1973, 27-1; Ord. No. 1910, 2990-8/86, 3415-8/94, 4110-1/2007 and 4249-3/2010)

## Plumbing and Sewers

### **31-102. Permits and penalties.**

(1) No plumbing or fixtures shall be installed within the 2-mile zoning jurisdiction of the City until a permit to do so has been obtained from the plumbing inspector. The permit shall be obtained by submitting a plan of the work to be performed and paying a permit fee. The permit fee shall be as set forth in the most recent Council fee resolution. If the plan submitted complies with this chapter in all respects and the permit fee has been paid, then the plumbing inspector shall issue the permit. The obligation to obtain the necessary permit is hereby imposed upon the installer.

(2) No water conditioning system or fixtures or underground lawn sprinkling system or fixtures shall be installed within the 2-mile zoning jurisdiction of the City until a permit to do so has been obtained from the plumbing inspector. The permit shall be obtained by submitting a plan of the work to be performed and paying a permit fee. The permit fee shall be as set forth in the most recent Council fee resolution. If the plan submitted complies with this chapter in all respects and the permit fee has been paid, then the plumbing inspector shall issue the permit. The obligation to obtain the necessary permit is hereby imposed upon the installer.

(3) Any person who fails to comply with any of the provisions of this chapter shall be deemed guilty of a misdemeanor and, upon conviction thereof, fined in an amount not to exceed \$100.00, and ordered to pay double permit fees to the City.

(4) In lieu of having a person prosecuted for violation of Section 31-102(1) above, the plumbing inspector may dispose of the matter by accepting from the offender a permit fee which is double the rate which should have been paid initially; provided however, this alternative disposition may not be employed by the plumbing inspector for any person for whom that disposition has been utilized twice within the previous twelve months, it being the intention of the City Council to have such individual prosecuted as contemplated in Section 31-102(2) above.

(5) A reinspection fee may be assessed for each inspection or reinspection when such portion of work for which inspection is called is not complete or when corrections called for are not made.

This section is not to be interpreted as requiring reinspection fees the first time a job is rejected for failure to comply with the requirements of this code, but as controlling the practice of calling for inspections before the job is ready for such inspection or reinspection.

Reinspection fees may be assessed when the inspection record card is not posted or otherwise available on the work site, the approved plans are not readily available to the inspector, for failure to provide access on the date and time for which inspection is requested, or for deviating from plans requiring the approval of the Building Inspector.

In instances where reinspection fees have been assessed, no additional inspection of the work will be performed until the required fees have been paid.

(Code 1973, 27-2; Ord. Nos. 1910, 2274, 2775, 2990-8/86, 3690-8/99, 4106-10/2006, 4110-1/2007 and 4249-3/2010)

### **31-103. Excavations -- On city property.**

The opening and refilling of all trenches on City property shall be done under the direction of the City Engineer and Plumbing Inspector.

Trenches in public streets or alleys shall be excavated so as to impede public travel as little as possible. The crossings of gutters and all other ways shall be left in such condition as to admit the ready escape of water during storms. Planks shall be provided where sidewalks or crossings are opened so as to facilitate easy crossing over trenches.

All excavations in streets or alleys shall be filled by the City street department and the cost charged to the plumbing contractor.

(Code 1973, 27-3; Ord. Nos. 1910, 2159, 4110-1/2007 and 4249-3/2010)

### **31-104. Same -- Safety requirements.**

Yellow lights shall be kept around all unfinished work at night, and barricades shall be placed around excavations at all times.

## Hastings City Code

Trenches in treacherous soil or near large buildings shall be properly braced and the party excavating and his bondsmen shall be liable for all damages arising by reason of any neglect in this respect.  
(Code 1973, 27-3; Ord. Nos. 1910, 2159, 4110-1/2007 and 4249-3/2010)

### **31-105. Nonpotable water piping.**

In cases where it is impractical to correct individual cross-connections on the domestic water line, the line supplying such outlets shall be considered a nonpotable water line. No drinking or domestic water outlets shall be connected to the nonpotable water line. Backflow or back-siphonage from the nonpotable water line into the domestic water line shall be prevented by the installation of a gravity tank or by a tank having a pump for desired nonpotable water. The domestic water inlets to the nonpotable water tank shall have an approved air gap as required elsewhere in this chapter. Where it is impractical to install tanks as set forth, an approved pressure type backflow or back-siphonage prevention device shall be installed. Where reverse flow due only to gravity or a vacuum within the line can occur, an approved pressure type vacuum breaker unit or other approved backflow prevention device shall be installed in the supply line. Each pressure type vacuum breaker unit shall be installed at a height of at least twelve inches above the highest tank, equipment or point of usage of the nonpotable water. Other approved backflow prevention devices shall be installed in a manner satisfactory to the administrative authority, but in no case less than twelve inches above the surrounding ground or floor. Where backflow can occur due to a steam boiler, pumps, etc., creating a higher pressure in the nonpotable water line, an approved backflow prevention device shall be installed in the supply line. Such backflow prevention device shall be installed at least twelve inches above the surrounding ground or floor. Whenever possible, all portion of the nonpotable water line shall be exposed and all exposed portions shall be properly identified in a manner satisfactory to the administrative authority. Each outlet on the nonpotable water line which may be used for drinking or domestic purposes shall be posted: DANGER-UNSAFE WATER.

(Ord. No. 4249-3/2010)

### **31-106. Separate water service line required for each building; exception.**

The water service line for each new building, or for new work installed in an existing building, shall be separate from and independent of that of any other building. Every building shall have an independent connection with a water main; provided however, that where two (2) buildings are erected, one in the rear of another on single lot, the water service line may be extended from one building to the other; and further provided that in zoning districts permitting the construction of two (2) or more principal dwelling structures per lot, the water service line servicing the lot may be extended from one principal dwelling structure to another principal dwelling structure on the same lot, but no lot upon which two (2) or more principal dwelling structures share a water service line shall be subdivided until additional water service lines are installed, so that each lot of the proposed subdivision upon which a principal dwelling structure is located is served by at least one (1) water service line directly from the main. The owner of any lot upon which one (1) service line is to be installed for two (2) or more principal dwelling structures shall, prior to connection, covenant in writing that the lot shall not be subdivided until additional service lines are installed so that each lot of the proposed subdivision upon which a principal dwelling structure is located is served by at least one (1) service line, and shall pay the cost of recording the covenant with the Adams County Register of Deeds.

(Code 1973, 27-6; Ord. Nos. 3205-2/91, 4110-1/2007 and 4249-3/2010)

### **31-107. Connection to water main to be by licensed plumber.**

No person other than a licensed plumber shall install, alter or repair any pipes, plumbing or fixtures connected to or tapped from any water mains in the city; and a licensed plumber shall do such work only after obtaining a permit from the plumbing inspector.

(Code 1973, 27-7; Ord. Nos. 1910, 4110-1/2007 and 4249-3/2010)

### **31-108. Connection to private water supply prohibits.**

A private water supply shall not be connected to the public water system.

No water piping supplied by any private supply system shall be connected to any other source of supply without the approval of the plumbing inspector.

(Ord. No. 4249-3/2010)

### **31-109. Protection of water distribution and service pipes from freezing; curb stops.**

## **Plumbing and Sewers**

Water distribution pipes and water service pipes shall be protected from freezing. Water service pipes shall be laid at a depth of not less than five feet below finish grade. An all brass, plug type, round way curb stop with T handle shall be placed in the water service at the property line. A stop box shall be installed at the curb stop, with the top of the box level with the finish grade.  
(Ord No. 4249-3/2010)

### **31-110. Outdoor swimming pools.**

Outdoor swimming pools shall have the bottom and inner sides constructed of smooth nonabsorbent materials and be so constructed as to be properly drained through one or more metal grated openings. All such drains shall have a gate valve installed therein located in an accessible place or masonry pit outside the walls of the pool. Waste water from any filter, scum gutter, overflow, pool emptying line or similar apparatus or appurtenance shall discharge into an approved type receptor. The floor rim of each such receptor, shall be at least six inches above the floor level of the adjacent ground. The discharge outlet terminal from any pool or filter shall be protected from backflow by an air gap at least six inches above the flood rim of the receptor; except, that the scum gutter drain, overflow drain, backwash discharge drain or pool emptying line may enter the receptor below the rim of the pool piping at its deepest point, the bottom of the filters, and the bottom of the scum gutter drain trough or overflow outlets are at least six inches above the overflow rim of the receptor.  
(Ord. No. 4249-3/2010)

### **31-111. Indoor swimming pools.**

Plans and specifications for all indoor swimming pools shall be submitted to the plumbing inspector for approval prior to commencement of any work, and all piping, equipment and construction shall be equal to the types prescribed for indoor work.  
(Ord. No. 4249-3/2010)

### **31-112. Water meter installation.**

Water meters shall be installed in a horizontal (not vertical) position as near as practical to the point where the service enters the building and shall be so located as to be readily accessible for examination, reading and replacement. A water meter shall not be placed where it will be subjected to excessive corrosion. There shall be a hand shut-off valve installed immediately upstream and downstream on all water meters. Water meters one and one-half inches (1 ½") and larger shall also have a bypass line, with the line and hand valve the same size as the water service (and must be lockable).  
(Ord. No. 4249-3/2010)

### **31-113. Water heaters.**

- (1) Water heaters shall have a shut-off valve on the cold water inlet pipe.
- (2) Connections. Pex tubing shall not be installed within the first twelve (12) inches of piping connected to a water heater.  
(Ord. No. 4249-3/2010)

### **31-114. Materials.**

All materials used in plumbing work in the City shall conform to the following specifications and requirements:

- (1) Solder, flux and pipe. Solder and flux used in water supply systems must contain not more than two tenths of a percent (0.2%) lead. Pipe and pipe fittings used in water supply systems must contain not more than eight percent (8.0%) lead.
- (2) Quality. All materials used in any drainage or plumbing system or part thereof shall be free from defects. No used pipe or fittings on new or remodel jobs will be permitted.
- (3) Cast iron pipe. Cast iron pipe and fittings shall be what is commercially known as standard or as extra heavy and shall be coated with asphaltum or coal tar pitch.
- (4) Wrought iron pipe. All wrought iron pipe and steel pipe shall not be lighter than standard weight and shall be galvanized.

## Hastings City Code

(5) Copper tubing. Copper tube for underground piping and water services shall have a weight of not less than Type K. Copper tube for above-ground draining and vent piping shall have a weight of not less than that of copper drainage tube Type DWV. Copper tube for water piping above ground shall have a weight of not less than that of copper water tube Type L. When three-inch copper or three-inch plastic is used for waste, four-inch cast iron or four-inch plastic must be used for all underground rough-ins up to and including the cleanout. Ferrule shall be used on all copper-to-iron plastic-to-iron connections.

(6) Plastic water pipe.

(a) The underground plastic water service lines shall meet the following specifications:

(i) The underground plastic water service, one (1) inch through two (2) inches in diameter may be used in lieu of copper tube lines, subject to meeting the following:

(1) AWWA c 901 requirements;

(2) ASTM D 2737 standards; and

(3) Requirement and standards listed by NSF international for potable water.

With the exception being the pressure class, and it shall not be less than that of 200 psi; it shall be O.D. based on one (1) inch through two (2) inches conforming to the outside diameter of copper tubing.

(ii) Fittings for underground plastic water services. One (1) inch through two (2) inch fittings shall only be of brass pack joints and shall conform to AWWA Standard ASTM B62-Index 115-85-5-5. No plastic fittings or brass flared with be allowed.

(iii) Plastic underground water service of four (4) inch, six (6) inch and eight (8) inch diameter shall be Polyvinyl Chloride pipe (PVC). The PVC pipe shall conform to the latest revision of AWWA C900A-92 and subject to the following conditions:

(1) All PVC water service pipe shall conform to the latest revision of C900A-92 and shall have a minimum DR 14 (200 PSI Class). All pipe connections shall be bell and socket or by mechanical joint when connecting PVC to cast iron ductile iron pipe fittings.

(2) All fittings and transitions shall conform to utilities code 4.102. Fittings for four (4) inch, six (6) inch and eight (8) inch shall be 250# mechanical joint; and all joint sockets, socket flanges, packing glands, gaskets and bolts shall conform to AWWA specification C111-72 (ANSI A21.11-1972), American Standard for Rubber Gaskets, Joints for Cast Iron, pressure pipe and fittings and subsequent revisions.

(3) All taps to PVC pipe of auxiliary service lines of two (2) inches and smaller shall be Ford brass S90 style or Ford iron F202 style tapping saddles or approved equal.

(4) Installation of underground plastic water services. Installation of all underground plastic water services shall have a number 14 gauge insulated copper wire attached to the corporation cock and run to the curbstop and up to the top of the stopbox, and from the stopbox to the shutoff valve inside of the building. The wire shall be taped to the service prior to the backfilling.

(iv) All thrust blocks shall be installed in accordance with the following drawings. The class of concrete to be used for thrust blocks around fittings shall be Nebraska Department of Roads Class "47B" or Type "ABXF". All thrust blocks shall be cast in place.

(v) Cross-link polyethylene typing, three-eighths (3/8) inch through two (2) inches in diameter, may be used if it meets ASTM standards F876 and/or F877, and is certified to NSF standards 14 and 61. Only fittings designed and manufactured for this tubing shall be used with this tubing. This tubing may be installed and repaired only by installers who can demonstrate to the plumbing inspector that they have been trained and certified by the manufacturer of the tubing.

(vi) Installation of plastic water services. Installation of plastic water service shall have a number 14 gauge insulated copper wire attached to the corporation cock and run to the curbstop and up to the top of the stopbox, and from the stopbox to the shutoff valve inside of the building. The wire shall be taped to the service prior to backfilling.

## Plumbing and Sewers

(vii) Grounding. Grounding of electrical services when plastic water services are installed shall be as follows:

(1) New installations: If a metal underground water pipe in direct contact with the earth for ten (10) feet or more is not available on the premises, supplemental electrodes shall be provided. One shall be a rod or pipe electrode as specified in NEC 250-83, and the others shall be as mandated in NEC 250-81. The interior metal water system shall be bonded to the service equipment enclosure.

(2) Replacement services: The interior metal piping system will remain bonded to the service equipment. If there is not a ground rod already in use, an eight (8) foot rod shall be driven and connected to the service equipment. The grounding electrode system shall comply with NEC 250-81 and 250-84.

(3) General: If the interior piping system is changed to plastic, and remaining metal piping shall be connected to the electrical service. If there are no metal piping systems, then the ground rod shall be the connection to the service.

(4) Inspection. The City Electrical Inspector shall approve the installation after being satisfied that there is appropriate grounding.

(viii) Fee. The owner will pay an additional fee in accordance with the prevailing council fee resolution, for having the plumbing and electrical inspectors make the foregoing inspections.

(iv) Threaded fittings. Plain screwed fittings shall be cast iron, malleable iron or brass of standard weight and dimensions. Drainage fittings shall be of cast iron, malleable iron or brass with smooth interior waterway, with threads tapped out of solid metal. All cast iron fittings used for water supply distributions shall be galvanized. All malleable iron fittings shall be galvanized.

(x) Grade of horizontal piping. All horizontal piping shall be run in practical alignment and at a uniform grade of not less than one-eighth of an inch per foot, and shall be supported or anchored at intervals not to exceed ten feet. All stacks shall be supported at their base, and all pipes shall be rigidly secured. Soil pipe shall be supported or anchored at intervals, not to exceed five feet.

(xi) Soil, waste and vent piping. All main or branch soil, waste and vent piping within the building shall be of cast iron, galvanized steel, wrought iron brass, copper, or plastic except that no galvanized steel, wrought iron or copper pipe shall be used for underground soil or waste pipes. Any fittings used below the water line and trap are to be recessed cast iron drainage fittings, or ABS or PVC DWV Schedule 40 plastic drainage fittings. See also Section 31-908. Materials – Building sewers, waste and vents.

(xii) Traps, vents, revents.

(1) Traps for bathtubs, lavatories, sinks and other similar fixtures shall be brass, cast iron, galvanized malleable iron or ABS or PVC Schedule 40 or higher.

(2) No form of trap which depends for its seal upon the action of moveable parts or concealed interior partitions shall be used for fixtures. A cast iron, wrought iron or brass trap will be permitted, provided it has a three-inch seal.

(xiii) Mobile home drainage and vent systems. Pipe and fittings for the drainage and vent systems shall be as follows:

Copper tube with sweated joints, drainage type.

Galvanized steel, galvanized wrought iron or galvanized ferrous alloy.

ABS or PVS Schedule 40 or higher plastic.

Fittings for galvanized drainage systems shall have American National Taper Threads, recessed type.

Fittings for galvanized vents may be galvanized, malleable or cast iron.

(xiv) Mobile home water piping. Water piping shall be brass, copper, wrought iron, open-hearth iron, steel or copper tubing, Type L, with appropriate approved fittings. All ferrous pipe and fittings shall be galvanized.

## **Hastings City Code**

(xv) Solder, flux and pipe. Solder and flux used in water supply systems must contain not more than two tenths of a percent (0.2%) lead. Pipe and pipe fittings used in water supply systems must contain not more than eight percent (8.0%) lead.

(Ord. No. 4249-3/2010)

### **31-115. Workmanship.**

Workmanship shall be of such character as fully to secure the results sought to be obtained in all of the sections of this chapter.

(Ord. No. 4249-3/2010)

### **31-116. Definitions.**

(1) Water conditioning installer or contractor shall mean any individual, firm, partnership or corporation engaged in the act of installing or connecting any apparatus or equipment designed to soften, filter, or change the mineral content of water to a water supply other than by hose connections to existing faucets.

(2) Water, conditioning installation shall mean only work incidental to the repair, replacement, relocation, removal, or complete installation of water conditioning appliances including piping to hot and cold water lines for such purposes.

(3) Lawn sprinkler installer shall mean any individual, firm, partnership, or corporation engaged in the act of installing or connecting any apparatus or equipment intended to serve as an irrigation system or water supply other than by hose connections to existing faucets.

(Ord. No. 4249-3/2010)

## **Article II. Plumbing Inspector.**

### **31-201. Qualifications; supervision; assistants; right of entry.**

The plumbing inspector shall be a master plumber and shall act under the direction of the city engineer and shall have supervision of all plumbing installation work in the city and shall perform such duties as are prescribed herein. Assistants to the plumbing inspector shall be appointed by the city engineer after examination and recommendation by the civil service commission. Any assistant to the plumbing inspector shall have the same powers and duties as the plumbing inspector. The plumbing inspector shall have the authority to enter and inspect any buildings or any premises, at all reasonable hours, to ascertain if the provisions of this chapter or any ordinance relating to plumbing or appliance installations have been or are being violated, or being complied with.

(Ord. No. 4249-3/2010)

### **31-202. Duties, records.**

It shall be the duty of the plumbing inspector to inspect all plumbing installations in the City, including sewer services, all installations of new water services from main to premises, and all repaired or replaced water services from the point of entry of the water service from the boundary of the public right-of-way downstream to the premises of the customer. It shall be the duty of the plumbing inspector to investigate all cases reported to him or referred to him concerning imperfect material or workmanship on any job of plumbing work of any violation of the provisions of this chapter by a plumber, builder or gasfitter, and to report such fault of violation to the city engineer for further action. It shall be the duty of the plumbing inspector to make inspections or any piping, installations or connections of any building or premises, in order to ascertain whether or not plumbing appliances are properly installed. The plumbing inspector shall keep a complete record of all inspections and tests made by him except tests made on old work.

(Ord. No. 4249-3/2010)

### **31-203. Defective installations.**

Whenever the plumbing inspector shall find an unsafe or unsatisfactory installation, he shall tag the same and notify the installer immediately, if the job is a new installation. The installer shall notify the plumbing inspector within forty-eight hours after completion of the corrected changes or repairs and request a reinspection. If the same is not a new installation, he shall notify the owner, agent, tenant or the one in charge of the premises to cause the same to be remedied within not more than ten days. Should the installer, owner, agent, tenant or one in charge of the premises fail to make such corrections, changes or repairs, or fail to notify the inspector to make a reinspection, within ten days after receiving notification to comply therewith,

## **Plumbing and Sewers**

he shall be considered maintaining an unsafe installation and violating this chapter. The inspector shall thereupon make a reinspection of the premises and report his findings to the city engineer, who shall, in turn, cause action to be taken to secure compliance with this chapter.

(Ord. No. 4249-3/2010)

### **31-204. Prohibited acts.**

It shall be unlawful for the plumbing inspector to engage in the business of plumbing or to perform any work as a plumber in the city during his term of office as plumbing inspector. The plumbing inspector shall not show discrimination between organized or unorganized union firms or corporations, and the inspector shall not solicit for union activity during normal working hours.

(Ord. No. 4249-3/2010)

## **Article III. Plumbers and Utility Contractors.**

### **Division 1. Generally.**

#### **31-301. Examining board.**

There is hereby created an examining board for plumbers which shall comprise the plumbing inspector, city engineer and two appointees from the local plumbing trade group and one member from the city council, all to be selected by the mayor and city council. One of such appointees shall be a regularly licensed master plumber and one shall be an accredited employee or member of a firm duly authorized and licensed to install plumbing and plumbing equipment. The plumbing inspector shall be secretary of the examining board for the plumbers and shall have custody of all records of the same. The examining board for plumbers is hereby authorized, empowered and directed to prescribe, amend and enforce rules and regulations consistent with this chapter for the examination of journeymen and master plumbers. Each appointment shall be for a period of two years with the term of office to expire the first day of July after the full two year period has been served or in the case of the city councilman, until his term of office as councilman ends, whichever comes first. Vacancies shall be filled by the appointive power to serve for the balance of the term of the member of the board whose position becomes vacant.

(Code 1973, 27-20; Ord. Nos. 1910, 2203, 2384, 4110-1/2007 and 4249-3/2010)

#### **31-302. Insurance and maintenance bond.**

(1) Insurance. The holder of a certificate under this Chapter shall secure and maintain during all times that the certificate is in effect, bodily injury and property damage liability insurance coverage with limits as follows:

(a) For plumber's certification, \$1,000,000.00; and,

(b) For utility contractor's certification, \$1,000,000.00.

The certification holder shall furnish the City Clerk with a certificate of such insurance coverage, which certificate shall note that the insurance coverage shall not be terminated except upon thirty (30) days' written notice to the City of Hastings.

The policy of insurance required by this section shall be purchased at the expense of the certification holder, shall be in effect for at least one (1) year from May 1 of the current year, and shall provide coverage of products, hazards and completed operations. Cancellation of the policy shall automatically suspend the certification until a substitute policy has been obtained, and a certificate of that fact filed in the office of the City Clerk.

(2) Maintenance bond. The holder of a utility contractor's certification under this Chapter shall provide to the City Clerk a maintenance bond with a surety company to be approved by the City Engineer. A bond shall be provided for each contract the certification holder shall have with the city for the purpose of the installation of service lines in conjunction with water main and sewer upon the public rights-of-way. The amount of guarantee the replacement of defective materials and/or workmanship for a period of two years after the completion of work pursuant to any such contract.

(Code 1973, 12-38; Ord. Nos. 1896, 1915, 2162, 3533-5/96, 3644-5/98, 4110-1/2007 and 4249-3/2010)

#### **31-303. Nonresident plumbers.**

## **Hastings City Code**

In addition to charging and collecting the fees provided for in Section 31-102, the plumbing inspector shall require from any nonresident person performing a contract or completing a job within the jurisdiction of the city (1) satisfactory evidence that the applicant is qualified and (2) a set of plans and specifications for the work to be performed.

Any contractor whose business address is other than this city will be considered a nonresident applicant. (Code 1973, 27-22; Ord. Nos. 1910, 2274, 2369, 3644-5/98, 4110-1/2007 and 4249-3/2010)

### **31-304. Advertising by other than master plumbers.**

It shall be unlawful for any person not licensed as a master plumber to use the words "master plumber," "plumber" or "plumbing" in any advertising.

(Code 1973, 27-23; Ord. Nos. 1910, 4110-1/2007 and 4249-3/2010)

## **Division 2. Licenses.**

### **31-305. Required.**

(1) Plumbers, water conditioning installers or contractors, and underground lawn sprinkler installers. No person shall engage in work in the business, trade or calling of a plumber, water conditioning installer or contractor, or underground lawn sprinkler installer within the 2-mile zoning jurisdiction of the City until he or she has obtained a certification from the Board of Plumbing Examiners to work as a journeyman fitter, a master plumber, a water conditioning installer or contractor, or an underground lawn sprinkler installer.

(2) Utility contractors. No person, other than an employee of the City engaged in City business, shall engage in the installation of service lines in conjunction with water main and sewer main upon public rights-of-way until he has obtained a certification from the City Engineer to work as a utility contractor. This subsection shall not apply to service connections as set forth in Section 31-307 of this Chapter.

(Code 1973, 27-24; Ord. Nos. 1910, 3533-5/96, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-306. Application.**

(1) Plumbers, water conditioning installers or contractors, and underground lawn sprinkler installers. An applicant for a plumber's certification, certification as a water conditioning installer or contractor, or certification as an underground lawn sprinkler installer shall pay a certification fee and shall file a written application upon blanks furnished by the plumbing inspector. The application shall show the name, residence and business location of the applicant and such other information as may be required by the plumbing inspector and shall be filed with him.

(2) Utility contractors. An applicant for a utility contractor's certification shall pay a certification fee and shall file a written application upon blanks furnished by the City Engineer or his designated representative. The application shall show the name, residence and business location of the applicant and such other information as may be required by the City Engineer and shall be filed with such person.

(3) Fee. For each application received in accordance with subsections 1 and 2 above, there shall be charged and collected from the applicant a nonrefundable fee in the amount established from time to time in accordance with the schedule of fees approved by the City Council.

Code 1973, 27-25; Ord. Nos. 1910, 3533-5/96, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-307. Examinations; review of application.**

(1) Plumbers, water conditioning installers or contractors, and underground lawn sprinkler installers. No plumbers' certification, certification as a water conditioning installer or contractor, or certification as an underground lawn sprinkler installer shall be issued to any applicant until he or she has been examined by the Board of Plumbing Examiners and has been found to be fit and competent to work as a plumber, water conditioning installer or contractor, or underground lawn sprinkler installer. Upon completion of such examination, the Board of Plumbing Examiners shall issue the permit to any applicant who has been found to be fit and competent to work as a plumber, water conditioning installer or contractor, or underground lawn sprinkler installer and has met all other requirements of this Code.

(2) Utility contractors. No examination shall be required of applicants for a utility contractor's certification provided that the holder of such certification shall comply with all applicable provisions of this Chapter and any requirements of any contract with the city for the installation of service lines in conjunction with water

## **Plumbing and Sewers**

main and sewer main upon public rights-of-way. An application for a utility contractor's certification shall be reviewed by the City Engineer or his designated representative, who shall, upon completion of such review, issue a utility contractor's certification to any individual who has complied with all applicable provisions of this Chapter and any requirements of any contract with the City for the installation of service lines in conjunction with water main and sewer main upon public rights-of-way.

(3) Any person validly licensed as a master plumber or journeyman plumber by the cities of Grand Island, Nebraska or Kearney, Nebraska shall be exempt from taking the foregoing plumber's examination and, provided the applicant is otherwise qualified pursuant to this Code, be issued an equivalent certification upon application and payment of all applicable fees and occupation taxes to the City of Hastings, Nebraska.

(4) Any person validly licensed as a water conditioning installer or contractor or underground lawn sprinkler installer by the cities of Grand Island, Nebraska or Kearney, Nebraska shall be exempt from taking the foregoing examination and, provided the applicant is otherwise qualified pursuant to this Code, be issued an equivalent certification upon application and payment of all applicable fees and occupation taxes to the City of Hastings, Nebraska.

(Code 1973, 27-26; Ord. Nos. 1910, 3533-5/96, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-308. Same – Eligibility for examination as a journeyman plumber.**

An apprentice shall not be eligible to take a journeyman fitter's examination until he has worked under the supervision of a certified journeyman or a certified master plumber for a period of three years.

Any person validly holding a certification as a master plumber or journeyman plumber by the cities of Grand Island, Nebraska, or Kearney, Nebraska, shall be exempt from taking the foregoing plumbers' examination and, provided the applicant is otherwise qualified pursuant to this Code, be issued an equivalent certification upon application and payment of all applicable fees and occupation taxes.

(Code 1973, 27-27; Ord. No. 1910, 3644-5/98, 4110-1/2007 and 4249-3/2010)

### **31-309. Same – Eligibility for examination as a master plumber.**

A journeyman plumber shall not be eligible for a master's examination until four years after a certification as a journeyman has been issued to him.

(Code 1973, 27-28; Ord. No. 1910, 3644-5/98 and 4110-1/2007 and 4249-3/2010)

### **31-310. Same – Reexamination.**

An applicant failing to pass an examination shall not be eligible for reexamination until three months shall have elapsed. Should he fail the third examination, an applicant shall not be eligible for reexamination for a period of two years thereafter. An applicant shall pay an examination fee for each reexamination.

(Code 1973, 27-29; Ord. No. 1910, 4110-1/2007 and 4249-3/2010)

### **31-311. Certification.**

An applicant for a plumber's certification, certification as a water conditioning installer or contractor, or certification as an underground lawn sprinkler installer who, after examination by the Board of Plumbing Examiners, is found to be fit and competent to work as a plumber, water conditioning installer or contractor or underground lawn sprinkler installer shall be certified by the Board of Plumbing Examiners.

(Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-312. Partnerships and corporations.**

A partnership or a corporation shall be certified as eligible for a plumber's certification upon payment of the certification fee and filing with the plumbing inspector an application upon forms prescribed by him showing that a master plumber holding a certification is a member of the firm or an officer of the corporation and will at all times be in actual charge of and responsible for the installation, removal or repair of all plumbing work done by the firm or corporation. The certification of a firm or corporation shall terminate automatically upon the withdrawal from the firm or corporation of the master plumber listed upon the application.

(Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-313. Dealers in materials and supplies.**

## Hastings City Code

Any person engaged in dealing in plumbing materials or supplies, but not engaged in the installation, alteration, repair or removal of plumbing shall not be required to obtain a certification as a plumber. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-314. Fees.**

A fee shall be paid to the City Clerk by an applicant for plumber's certification as set forth in the most recent Council fee resolution. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-315. Renewals.**

All plumbers' certifications and certifications as water conditioning installers or contractors, or underground lawn sprinkler installers shall expire annually on April 30. Certifications may be renewed upon the recommendation of the Board of Examiners without re-examination by payment of the certification fee within one (1) month after the expiration of the certification. A certification not renewed within one (1) month after the expiration shall be automatically revoked. A certificate holder who fails to renew his plumber's certification, certification as a water conditioning installer or contractor, or certification as an underground lawn sprinkler installer within one (1) month after its expiration may obtain a certification by complying with the procedure applicable to new applicants. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-316. Nontransferable.**

A plumber's certification, certification as a water conditioning installer or contractor, or certification as an underground lawn sprinkler installer shall not be transferred or assigned. No plumber, water conditioning installer or contractor, or underground lawn sprinkler installer holding a certification shall allow his or her certificate to be used by another person, directly or indirectly, to obtain a permit for the installation of any plumbing, to do any plumbing work, or any part of the installation of a water conditioning system or underground lawn sprinkling system. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-317. Revocation.**

The City Council by a majority vote shall have the power to revoke any journeyman fitter's, master plumber's, water conditioning installer's, water conditioning contractor's, or underground lawn sprinkler installer's certification for cause upon the recommendation of the Board of Plumbing Examiners. A plumber, water conditioning installer, water conditioning contractor, or underground lawn sprinkler installer whose certification has been revoked shall not be eligible to apply for a new certification until one year after the date of revocation. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

### **31-318. Liability for installation by uncertified plumber, water conditioning installer or contractor, or underground lawn sprinkler installer.**

It shall be unlawful for any persons to cause or permit any job of plumbing, the making of any plumbing connection, installing of any water conditioning device, or installing of any underground lawn sprinkling system in or upon any property owned, managed or controlled by such person unless the person performing such work is a plumber, water conditioning installer or contractor, or underground lawn sprinkler installer holding a certification and has obtained a plumbing permit to do so from the plumbing inspector for the work. Any person causing or permitting any work to be done in violation of this article shall also be guilty of violation of this Chapter. (Code 1973, 27-30, 27-32, 27-33, 27-34, 27-35, 27-36, 27-37; Ord. Nos. 1910, 2775, 3644-5/98, 3690-8/99, 4110-1/2007 and 4249-3/2010)

## **Article IV. Inspections.**

## **Plumbing and Sewers**

### **31-401. Required generally, notice of approval of work.**

All plumbing and fixtures shall be inspected by the plumbing inspector to determine that all of the requirements of this chapter have been met and that the installation and construction of the system is in accordance with the plans, building and plumbing permits. An inspection shall be made after the roughing-in has been completed and again on completion of the job. No person shall cover or conceal from view any plumbing work in the city so as to prevent a proper inspection thereof until after the work has been inspected by the plumbing inspector, and the plumbing inspector has placed a notice on the work stating that the plumbing work has been inspected and approved. The inspector shall, after inspecting and approving the roughing-in or any plumbing work, place therein a notice stating that the plumbing work has been inspected and approved. Whenever any plumbing work has been covered or concealed by lathing, plastering, flooring or otherwise, before the plumbing inspector has inspected it, the contractor shall upon request of the plumbing inspector remove any construction necessary in order to make a proper inspection.  
(Ord. No. 4249-3/2010)

### **31-402. Tests of roughing-in plumbing.**

All tests of roughing-in plumbing shall be made to finish floor and wall line and shall be made with water or with air. If the test is to be made with water, the entire system of plumbing shall be filled with water to the top of the highest vent pipe on the roof. If the test is to be made with air, it shall be made under a pressure of not less than ten pounds to the square inch. All tests shall be made by the plumber in charge of work, in the presence of the plumbing inspector, and maintained for a sufficient length of time to allow the inspector to make a thorough and complete examination of the work. Any defective material or workmanship found on the job, shall be removed at the expense of the plumber having charge of the work and shall be replaced with the proper kind of material and workmanship and retested. When it is necessary to cover over ground before all of the roughing-in is ready for inspection, the plumbing inspector shall be notified and a test made by filling the plumbing with water under a pressure that will be equal to a ten foot stand pipe filled to the stop. Where ground work is to be connected to the sewer, a suitable fitting shall be left in the main soil pipe not more than one foot from where the main soil pipe enters the building so that a testing plug can be inserted.  
(Ord. No. 4249-3/2010)

### **31-403. Final Inspection.**

The final inspection shall be made within ten days after the setting of fixtures and the completion of any plumbing work, and before the city water is permanently turned on.  
(Ord. No. 4249-3/2010)

### **31-404. Request for inspection.**

Each request for inspection shall be made at the office of the plumbing inspector by the plumber in charge of the work not less than eight working hours in advance of the inspection. The plumbing in charge of the work shall make sure that the work will stand the test prescribed before requesting inspection.  
(Ord. No. 4249-3/2010)

## **Article V. Fixtures**

### **31-501. Union or disconnect required on water supply and waste lines.**

(1) All fixtures and appliances installed shall have a union or means of disconnect on all water supply and waste lines, so that replacement of the fixture can be accomplished without alteration to the waste and supply system.

(2) All bathtubs and showers installed in buildings which contain more than one dwelling unit shall be equipped with either pressure balancing or thermostatically-mixing scald prevention device which is designed and installed to prevent:

(a) Sudden unanticipated changes in the temperature of the water delivered; and

(b) The temperature of the water delivered from exceeding one hundred fifteen (115) degrees Fahrenheit.  
(Ord. No. 4249-3/2010)

### **31-502. Location of water closet or urinal.**

## **Hastings City Code**

No water closet or urinal shall be located in any sleeping compartment or room where food is prepared or in any room or apartment which does not contain a window placed in an external wall or is not otherwise provided with proper mechanical ventilation carried through to the exterior of the building.  
(Ord. No. 4249-3/2010)

### **Article VI. Reserved.**

### **Article VII. Mobile Homes.**

#### **31-701. Water supply.**

An adequate supply of pure water for each trailer and each service house shall be furnished through a piped distribution system laid at a depth of not less than five feet from the surface of the ground and connected with the city water main. The water distribution system shall be constructed from cast iron pipe. The piping shall be able to supply six to eight gallons per minute at a minimum pressure of twenty pounds per square inch at each coach space outlet, and in individual trailer coach supply lines shall not be less than three-fourth inch Type K copper terminating with a connect at an appropriate location at each trailer coach space with a riser extending at least four inches above the ground surface, with two three-fourth inch valve outlets. Check valves shall not be installed on any riser. The outlets shall be threaded so that a screwed connection using flexible copper tubing may be made from one outlet to the coach's water piping system, leaving the other for use as a hose connection for fire control or other uses. The ground surface around the riser pipe shall be graded so as to divert surface drainage away from the connection. The riser shall be encased in a six inch cast iron or tile pipe, with the intervening space filled with an insulating material to protect it from freezing. An insulating cover shall be provided which will encase both valve outlets but not protect connections to the trailer during freezing weather. When the coach space is unoccupied during cold weather, the outlet shall be protected from freezing by draining of the pipes. A shut-off valve or other approved freezeless arrangements shall be placed below frost depth on the service line; it shall in no instance be a stop and waste cock. All necessary precautions shall be taken in laying all water pipes. They shall not be laid in water, nor where they can be flooded by water or sewage during the laying process period. Dirt and other contaminating material shall be excluded from the pipe. Each water supply distribution system providing for a trailer court shall be approved by the plumbing inspector after construction and before it is covered or placed in service.

(Ord. No. 4249-3/2010)

#### **31-702. Waste and sewage disposal.**

Each trailer coach space shall be equipped with at least a four inch cast iron or tile sewer connection, trapped by a cast iron soil pipe or tile P trap below frost line and reaching at least four inches above the surface of the ground. The sewer connection shall be protected by a concrete collar, at least three inches deep and reaching eight inches in all directions. The connection between the coach drain and the sewer shall be made water tight by suitable fittings. A threaded or fitted in clamp connection shall be made at the trailer coach drain and at the sewer outlet drain. All joints on the sewer lines shall be made water tight and every effort shall be made to minimize ground water infiltration into the sewage system. Connections in manholes shall be so constructed as to prevent surface water from entering the sanitary sewers. Manholes shall be provided at every change in direction, at every junction of two or more branch sewers, and at intervals of not more than three hundred feet. Cleanouts to grade may be used instead of manholes on four inch lines. They should be provided wherever a manhole would otherwise be necessary and at intervals of not more than one hundred feet. All cleanouts shall be capped with cleanout plugs. Each sewer lateral serving a row of coaches shall be vented at its upper end. Sewer mains shall be designed to handle the estimated sewage flow and shall be vented at its upper end. Sewer mains shall be designed to handle the estimated sewage flow and shall be a minimum of four inch lines that service each trailer. These four inch lines shall be connected to a six inch main which empties into the city's sewer system. All material used and installation shall be subject to the approval of the plumbing inspector before installation.

(Ord. No. 4249-3/2010)

#### **31-703. Sewer connections.**

A watertight connection between the trailer drainage system and the trailer park sewer connection shall be made by means of a readily removable semi-rigid or flexible connector.

(Ord. No. 4249-3/2010)

### **Article VIII. Miscellaneous Wastes.**

## **Plumbing and Sewers**

### **31-801. Down spouts.**

Rain water down spouts or drains carrying water shall not be connected with the sanitary sewer system, but may be connected with the storm sewer system. Any connection with the storm sewer system shall be inspected by the city engineer.

(Ord. No. 4249-3/2010)

### **31-802. Discharges from air conditioning units and cooling towers.**

It shall be unlawful to discharge waste water or other liquid from any air conditioning unit or system directly into the sanitary sewer or into any fixture or appliance connected with the sanitary sewer system of the city. Outlet water or liquids from such units or systems shall be carried to and discharged into the storm sewer system of the city, or may be used for the purpose of irrigating lawns, gardens, trees and shrubs. In no event shall the waste water or liquid from such units, except units having a cooling tower, be discharged upon any street, alley or sidewalk. The water circulated and used in a system having a cooling tower may be discharged upon any street or alley not to exceed one time per month for the purpose of making necessary repairs and for the purpose of cleaning said system. Such waters or liquid shall be discharged only between the hours of 10:00 P.M. and 6:00 A.M. so that the same will not interfere with the effective use and enjoyment of any street, alley or sidewalk. The water supply to all cooling towers shall be installed with an air gap twice the diameter above the overflow rim. All units or systems installed prior to the effective date of this chapter and in non-conformity herewith, shall be converted, modified, adjusted or otherwise made to comply herewith within forty-five days from the date this chapter becomes effective.

(Ord. No. 4249-3/2010)

### **31-803. Connections to storm sewers.**

The City Engineer shall grant permission to construct conduits or pipe lines under the public sidewalk and in the streets and alleys to provide access to the storm sewer system of the City, subject however, to any conditions which he may reasonably impose as assurance that only lawful and appropriate discharges are made into the system, and that any discharges are in such amounts as the system is capable of handling. Permission shall also be subject to any fee established in the most recent council fee resolution. Any pipe line or conduit from inside the building, which is connected directly to the city storm sewer below grade, shall be vented within five feet of the building. Whenever any street, alley or sidewalk shall be broken or opened and excavations made for the purpose of laying connections with the storm sewer, the same shall be done at such times and such places as shall be specified by the City Engineer and in conformity with this Code and other ordinances of the City. The surface of any street, alley or sidewalk which shall be opened, in providing such storm sewer connections, shall be promptly restored to its original condition according to specifications provided by the office of the City Engineer.

(Ord. No. 4249-3/2010)

### **31-804. Outdoor swimming pools.**

Outdoor swimming pool waste water shall be disposed of as prescribed by the plumbing inspector. When a public sewer or storm drain of adequate capacity is available for use, swimming pool waste water shall be discharged therein and permission to do so shall be obtained in writing from the proper authority. A copy of the permit stating the maximum size of the waste line between the receptor and the sewer shall accompany the application for the plumbing permit made to the plumbing inspector. No direct connection shall be made between any storm drain, sewer, drainage system, drywell or subsoil irrigation line and any line connected to a swimming pool.

(Ord. No. 4249-3/2010)

## **Article IX. Sewers**

### **31-901. Privies and cesspools prohibited.**

No person shall construct or maintain any privy or cesspool on any public property or private property within the city. All cesspools or privies shall be removed and the vault cleaned and filled with fresh earth and well tamped.

(Ord. No. 4249-3/2010)

### **31-902. Septic system permit.**

### **Hastings City Code**

A septic system shall be permitted only when the city sewer system is not available to the property. Written application with plans and specifications for the construction of the septic system according to specifications set forth in this article shall be filed with the plumbing inspector for a permit for installation of a septic system. Construction shall be under the supervision of the plumbing inspector.  
(Ord. No. 4249-3/2010)

#### **31-903. Sewer service beyond city limits.**

A person owning or controlling premises located beyond the city and desiring to install a plumbing system on the premises and have the same connected with the sanitary sewer system of such city, shall file a written application with the city engineer for a permit for such connection and shall pay a fee, as provided by the city council.  
(Ord. No. 4249-3/2010)

#### **31-904. Notice; assessment.**

Unless connection is waived, as provided in Section 31-905, a written notice to connect shall be served upon any owner of property to which the sewer main is available where such owner has failed to connect the sanitary facilities of said property to the sewer main. The notice shall describe the real estate required to be connected with the sewer, and shall require the owner to make such connection within ten (10) days after the service of the notice, and shall further provide that, upon failure to comply with the notice, the board of public works will cause connection to be made, and certification of the cost and expenses thereof to the city council for assessment against the property as in the case of any other special improvements. If the owner is a nonresident of the city, the notice shall be published once in a legal newspaper of general circulation in the city.  
(Ord. No. 4249-3/2010)

#### **31-905. Separate sewer service line required for each building; exceptions.**

The drainage and plumbing system of each new building, or for new work installed in an existing building, shall be separate from and independent of that of any other building. Every building shall have a cleanout five (5) feet or less from the building and shall be independently connected to the public sewer; provided however, that where two (2) buildings are erected, one to the rear of the other on an interior lot, the sewer may be extended from one building to the other; and further provide that in zoning districts permitting the construction of two (2) or more principal dwelling structures per lot, the sewer service line servicing the lot may be extended from one principal dwelling structure to another principal dwelling structure on the same lot, but no lot upon which two (2) or more principal dwelling structures share a service line shall be subdivided until additional sewer service lines are installed, so that each lot of the proposed subdivision upon which a principal dwelling structure is located is served by at least one (1) sewer service line directly from the main. The owner of any lot upon which one (1) service line is to be installed for two (2) or more principal dwelling structures shall, prior to connection, covenant in writing that the lot shall not be subdivided until additional service lines are installed so that each lot of the proposed subdivision upon which a principal dwelling structure is located is served by at least one (1) service line, and shall pay the cost of recording the covenant with the Adams County Register of Deeds.  
(Ord. No. 4249-3/2010)

#### **31-906. Old sewers and drains.**

Old sewers and drains may be used with new buildings or new plumbing only when, on examination and test, they are found to conform in all respects to the requirements governing new sewers or drains prescribed in this article. If the old work is found defective, the plumbing inspector shall notify the owner to make the necessary changes to conform with this article.  
(Ord. No. 4249-3/2010)

#### **31-907. Materials -- Pipes near water supplies.**

All sanitary sewers laid or maintained either upon public or private property within a distance of two hundred feet of any well, reservoir or water supply furnishing water of public supply, shall be constructed of materials listed in Section 27-908.  
(Ord. No. 4249-3/2010)

#### **31-908. Materials – Building sewers, waste and vents.**

## **Plumbing and Sewers**

(1) Above ground. Waste and vent piping above grade in buildings shall be brass pipe, copper pipe, copper tube DWV weight or heavier, cast iron soil pipe, galvanized steel pipe, ABS or PVC Schedule 40, PVC cellular core Schedule 40, or higher grade plastic pipe.

(2) Below grade sanitary drain. Underground building drains shall be cast iron soil pipe, standard or extra heavy weight, or ABS or PVC Schedule 40 or heavier plastic pipe. Plastic pipe must be protected when going through a concrete wall or footing.

(3) Below grade sanitary sewer. Sewer pipe materials shall be cast iron, vitrified clay, PVC sewer pipe, SDR26, ASTM D3034 size 4", 6" or 8" or ABS or PVC plastic sewer pipe SDR26 or heavier. Joints shall be gasproof, watertight, and root proof. All plastic pipe shall be surrounded with a six-inch sand or gravel bed.

(4) Other. No bituminous fiber or asbestos cement pipe or fitting shall be used.  
(Ord. No. 4249-3/2010)

### **31-909. Main taps; fee.**

Sewer drains connected to a sewer main shall run in as direct a line as possible from the building to be drained. The connection to the main shall be made with a special Y saddle and a one-eighth bend or T saddle or without the saddle where a Y is already in the main. All joints shall be tight and smooth on the inside. The trench shall be of ample width to the point of connection to allow the plumbing inspector to easily inspect the work. The City shall make all taps into the main sewer. A permit shall be secured for each tap from the plumbing inspector and the tap fee will be set by the utilities department.  
(Ord. No. 4249-3/2010)

### **31-910. Location and depth.**

No house sewer or underground house drain shall be laid parallel to and within three feet of any bearing wall which might be thereby weakened. Any house sewer laid parallel to and closer than five feet to any bearing wall shall be constructed of extra heavy cast iron soil pipe. The house sewer and drains shall be laid at sufficient depth to protect them from frost.  
(Ord. No. 4249-3/2010)

### **31-911. Minimum size of house sewers.**

No house sewer shall be less than four inches in diameter, and no closet shall be connected to any drain or horizontal branch less than three inches in diameter.  
(Ord. No. 4249-3/2010)

## **Article X. Backflow Prevention.**

### **31-1001. General.**

(1) Definitions. The following definitions shall apply in the interpretation and enforcement of this ordinance.

(a) "Air gap separation" means the unobstructed vertical distance through the free atmosphere between the lowest opening of any pipe or faucet supplying water to a tank, plumbing fixture, or other device and the flood level rim of the said receptacle. An approved air-gap shall be at least double the diameter of the supply pipe, measured vertically, above the top of the rim of the receptacle and, in no case less than one inch.

(b) "Antisiphon vacuum breaker" is a device which restricts the backflow of water into a potable water system by a simple check valve. The vacuum is broken by allowing air to enter upstream of the check valve.

(c) "Approved" means that a backflow prevention device or method has been accepted by the Manager as being suitable for the intended use.

(d) "Auxiliary water system" means any water supply system available to the premises other than the public water supply system and includes the water supplied by such system. These auxiliary water systems may include water from another owner's public water supply system; polluted or contaminated water, process fluids; used water; or other sources of water which the owner of the public water supply system does not have sanitary control.

### **Hastings City Code**

- (e) "Backflow" or "backsiphonage" means the flow of water or other liquids, mixtures, or substances into the water distribution system from any other source than the intended source of the potable water supply.
- (f) "Backflow prevention device" means any device, method or type of construction intended to prevent backflow into a potable water system. Devices such as an "Approved Air-gap", "Double Check Valve Assembly", "Antisiphon Vacuum Breaker" or a "Reduced Pressure Principle Devices" can be used which have been approved by the Manager.
- (g) "Consumer" means the owner or person in control of any premises supplied by or in any manner connected to a public water supply system.
- (h) "Consumers water supply system" means any water supply system, located on the consumer's premises, supplied by or in any manner connected to a public water supply system. A household plumbing system is considered to be a consumer's water supply system. A fire suppression system is also considered a consumer's water supply system.
- (i) "Contamination" means an impairment of the quality of the water by sewage, or waste to a degree which could cause an actual hazard to the public health through poisoning or through spread of disease by exposure.
- (j) "Cross-connection" means any arrangement whereby contamination due to backflow or backsiphonage can occur.
- (k) "Degree of hazard" is a term derived from an evaluation of the potential risk to health and the adverse effects upon the potable water system.
- (l) "Double check valve assembly" means an assembly composed of two single, independently acting, check valves including one hundred percent closing shutoff ball valves located at each end of the assembly and suitable connections for testing the water-tightness of each check valve.
- (m) "Health hazard" means any condition, device, or practice in a water system or its operation that creates, a real or potential danger to the health and well being of the consumer.
- (n) "Interchangeable connection" means an arrangement or device that will allow alternate but not simultaneous uses of two sources of water.
- (o) "Licensed plumber" means a person which has obtained the appropriate license from the Mayor and Council to perform plumbing related work within the City limits of Hastings.
- (p) "Manager" means the Manager of Hastings Utilities or his authorized representative.
- (q) "Non-potable water" means water not safe for drinking, personal, or culinary use, or which does not meet the requirements of the Nebraska Department of Health.
- (r) "Owner" means the person delivering water through a public water supply system. The owner is City of Hastings operating through the Board of Public Works.
- (s) "Person" means the state, any political subdivision, public or private corporation, individual, partnership, or other legal entity. When the term he, or his is used, it shall mean any male or female person.
- (t) "Plumbing hazard" means a plumbing type cross-connection in a consumer's potable water system that has not been properly protected by air-gap separation or backflow prevention devices.
- (u) "Pollution" means the presence in water of any foreign substance (organic, inorganic, or biological) that degrades the quality of water to a degree which does not necessarily cause an actual hazard to the public health but which does adversely and unreasonably affect such waters for any desired use.
- (v) "Pollution hazard" means a condition through which an aesthetically objectionable or degrading material not dangerous to health may enter the public water supply system or the consumer's water supply system.
- (w) "Potable water" means water which is satisfactory for drinking, culinary, and domestic purposes and meets the requirements of the Nebraska Department of Health.

## Plumbing and Sewers

(x) "Public water supply system" means a water supply system designed and intended to provide potable water to a designated consumer. The water supply shall include the water supply source and distribution piping network. The water supply source is defined as any artificial or natural accumulation of water used to supply the potable water system. The distribution piping network includes all piping, pumping and treatment devices used to convey an adequate quality and quantity of potable water to the consumer.

(y) "Reduced pressure zone backflow prevention device" means a device containing a minimum of two independently acting check valves together with an automatically operated pressure differential relief valve located between two check valves. During normal flow and at the cessation of normal flow, the pressure between these two checks shall be less than the supply pressure. In case of leakage of either check valve, the differential relief valve, by discharging to the atmosphere, shall operate to maintain the pressure between the check valves at less than the supply pressure. The unit must include one hundred percent closing shutoff ball valves located at each end of the device, and each device shall be fitted with properly located test cocks.

(z) "Service connection" means the terminal end of a service line from the public water system. If a meter is installed at the end of the service, then the service connection means the downstream end of the meter.

(aa) "System hazard" means a condition posing an actual or potential threat of damage to the physical properties of the public's or the consumer's water supply system.

(bb) "Used water" means any water supplied by the public water supply system to a consumer's water supply system after it has passed through the service connection and is no longer under the sanitary control of the water supplier.

(2) Responsibility. The consumer as defined in these regulations, if requested by the Manager, shall designate an individual or individuals, who shall be responsible for contact and communications with the Manager in matters relating to system alteration and construction, monitoring and sampling, maintenance, operation, record keeping, and reporting, as required by law and these regulations. Any change in assigned responsibilities or designated individuals shall be promptly reported to the Manager.

(3) Title. Hastings City Code Sections 31-1001 through 31-1012, and any amendments pertaining thereto, shall be known as the backflow prevention ordinance. (Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1002. Policy and purpose.**

(1) The purpose of this ordinance is to protect the public water supply system of the City of Hastings from the possibility of contamination by isolating real or potential sources of contamination or pollution which may backflow into the public water supply system. This ordinance provides for the maintenance of a continuing program of cross-connection control which will systematically and effectively prevent the contamination or pollution of the potable water supply systems.

(2) The Manager shall be responsible for the implementation of the backflow prevention program as outlined within this ordinance. If in the judgment of the Manager an approved backflow prevention device is required for the safety of the public water supply system then the Manager shall give notice in writing to the consumer to install said device at each recommended location. The Manager shall inspect and approve all installations of the required backflow prevention devices. The costs for purchasing, installing, and maintaining a backflow prevention device shall be the responsibility and sole expense of the consumer. The installation of backflow prevention devices, except for outlet fixture vacuum breakers, shall be by a licensed plumber. Annual testing of all double check valves and reduced pressure zone devices shall be performed by the Manager. If deemed necessary by the Manager that maintenance or repairs are necessary, the Owner shall be contacted and issued an order to make all necessary repairs or maintenance. The Owner shall complete all maintenance or repairs within thirty (30) days; if not, the owner shall be considered in violation of the backflow ordinance and will be subject to disconnection of the service as provided in Section 31-1010.

(3) No person shall install or maintain a water service connection, containing cross-connections to a public water supply system or a consumer's potable water supply system unless such cross-connections are abated or controlled in accordance with this rule, and as required by the laws and regulations of the Nebraska Department of Health.

(4) For the purpose of this backflow prevention ordinance, whenever the Manager is to make any decision or interpretation, or whenever reference is made to the fact that the Manager is to exercise judgment, such

### **Hastings City Code**

decision, interpretation or judgment shall be in accordance with the provisions of this backflow prevention ordinance, and any other applicable provisions of the Hastings City Code, and state and federal law. (Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

#### **31-1003. Surveys and investigations.**

(1) It shall be the responsibility of the water consumer to conduct or cause to be conducted, periodic surveys of water use practices on his premises as necessary to determine whether there are actual or potential cross-connections in the consumer's water supply system. The Manager shall have the authority to conduct or cause to be conducted periodic surveys and investigations, of a frequency as determined by the Manager, of water use practices within a consumer's premises to determine whether there are actual or potential cross-connections to the consumer's water supply system through which contaminants or pollutants could backflow into the public water supply system. The Manager may conduct these surveys to provide information in determining what level of protection will be necessary to protect the public health and safety.

(2) On request by the Manager the consumer shall furnish the Manager information on water use practices within the consumer's premises. If the consumer refuses to submit the proper information or to cooperate in obtaining the proper information, the Manager shall treat the premises as if no appropriate cross-connection survey has been completed, and in such event the consumer shall be required to install an approved backflow prevention device as required to Section 31-1004.

(3) The Manager shall have the right to enter a premises served by the public water supply system at all reasonable times for the purpose of making surveys and investigations of water use practices within the premises. In order to inspect a premise, the Manager shall give notice setting forth a proposed date and time to the consumer at least ten (10) days in advance. If the consumer cannot make the premises available for inspection at the proposed date and time, the consumer shall contact the manager and arrange for another date and time for the inspection. If the Manager and the consumer cannot agree on a date and time, then the Manager shall treat the premises as if no appropriate cross-connection survey has been completed, and in such event the consumer shall be required to install an approved backflow prevention device as required to Section 31-1004.

(4) The Board of Public Works is hereby appointed as a Hearing Board to hear differences between the Manager and the consumer on matters concerning interpretation and execution of the provisions of this ordinance by paying the expense of installing, furnishing, and or maintaining a backflow prevention device may, within fourteen (14) days of the act or event causing the grievance, request a hearing in writing to present those grievances to the Hearing Board. The Hearing Board shall schedule the matter for hearing within thirty (30) days, and provide written notice of the meeting by first class mail to the consumer. The notice shall be mailed to the consumer at least seven (7) and not more than twenty-one (21) days before the hearing. At the hearing the consumer shall first state the nature of the grievance, and the Manager shall be entitled to respond thereto, whereupon the hearing board shall render its decision which will be binding upon the consumer and the Manager.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

#### **31-1004. Where protection is required.**

(1) An approved backflow prevention device shall be installed between the service connection and the point of potential backflow into a consumer's water supply system when in the judgement of the Manager a health, plumbing, pollution or system hazard exists.

(2) An approved backflow prevention device shall be installed when the following conditions are found by the Manager to exist:

(a) Premises on which any substance is handled in such a fashion as to create an actual or potential hazard to a public water supply system. This shall include premises having sources or systems containing process fluids or waters originating from a public water supply system which are no longer under the sanitary control of the owner;

(b) Premises having internal cross-connections that, in the judgment of the Manager, are not correctable, or there exist intricate plumbing arrangements which make it impracticable to determine whether or not cross-connections exist;

(c) Premises where, because of security requirements or other prohibitions or restrictions, it is impossible or impractical to make a complete cross-connection survey;

## Plumbing and Sewers

(d) Premises having a repeated history of cross-connections being established or re-established;

(e) Premises having more than one customer service connection which could constitute a potential cross-connection.

(3) An approved backflow prevention device shall be installed on each service line to a customer's water supply system serving the following types of facilities unless the Manager determines that no health, pollution, or system hazard to the public water supply system exists:

(a) Hospitals, mortuaries, dental clinics, nursing and convalescent homes, medical buildings;

(b) Testings laboratories, film laboratories, film development facilities;

(c) Sewage treatment plants, sewage pumping stations, or storm water pumping stations;

(d) Food or beverage processing plants;

(e) Chemical plants;

(f) Metal de-greasing, plating industries, machine tool plants, dye and metal processing or productions;

(g) Chemical and petroleum processing or storage plants;

(h) Car washes, automobile servicing facilities;

(i) Lawn irrigation systems and swimming pools;

(j) Laundries and dry cleaners;

(k) Packing houses;

(l) Power plants;

(m) Premises having radioactive materials such as laboratories, industries, hospitals;

(n) Rendering plants;

(o) Premises having water recirculating system as used for boilers or cooling systems;

(p) Veterinary establishments, kennels, feedyards, stables, rodeo grounds, stockyards, pet grooming salons;

(q) Beauty salons, barbershops, message parlors, health clubs;

(r) Fire suppression systems;

(s) Multi-storied buildings greater than three (3) stories in height;

(t) Schools, universities, colleges;

(u) Other commercial or industrial facilities which may constitute potential cross-connection.  
(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1005. Type of protection required.**

(1) The type of protection required under Sections 31-1004(1) and 31-1004(2) of this Article shall depend on the degree of hazard that exists as follows:

(a) An approved air gap separation or an approved reduced pressure principle backflow prevention device shall be installed where a public water supply system may be contaminated with any substance that could cause a system hazard or health hazard;

## Hastings City Code

(b) An approved double check valve assembly shall be installed where a public water supply system may be contaminated with any substance that could cause a pollution hazard;

(c) An approved reduced pressure principle backflow prevention device shall be installed at the service connection where there exists a plumbing hazard;

(d) In the case of any premises where, because of security requirements or other prohibitions it is impossible or impractical to make a complete cross-connection survey of the consumers potable water system, a reduced pressure principle backflow prevention device shall be installed at the service connection.

(2) An approved anti-siphon vacuum breaker may be used as a backflow prevention device where it is not subjected to back pressures. This device shall not be used for applications where water flow is expected to be continuous for 12 or more hours. The device shall be installed ahead of the potential source of contamination on the discharge side of the last control valve. It shall be placed at least 18" above the highest point reached by any water passing through the potential source of contamination. Typically this type of device is used for such equipment as lawn sprinklers, water-cooled compressors, or other water cooled equipment.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1006. Backflow prevention devices.**

(1) Any approved backflow prevention device required by Section 31-1004 shall be installed at a location and in a manner approved by the Manager. The consumer, at his sole expense, shall obtain and install said approved backflow prevention device(s) within 90 days of notice and as directed by the Manager.

(2) Existing backflow prevention devices approved by the Manager prior to the effective date of this rule and which are properly maintained shall, except for inspection, testing, and maintenance requirements, be excluded from the requirements of Section 31-1006(1) but only if the Manager determines that the devices will satisfactorily protect the public water supply system. One hundred percent closing shutoff ball valves for testing shall be provided on existing backflow prevention devices, if deemed necessary for proper testing by the Manager. If deemed necessary by the Manager that an existing backflow prevention device requires replacement, it shall be replaced with an approved backflow prevention device.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1007. Booster pumps.**

(1) No person shall install or maintain a water service connection to any premises where a booster pump has been installed on the service line to or within such premises, unless such booster pump is equipped with a low pressure cut-off designed to shut-off the booster pump when the pressure in the service line on the suction side of the pump drops to twenty (20) pounds per square inch gauge or less.

(2) It shall be the duty of the water customer to maintain the low pressure cut-off device in proper working order.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1008. Yard hydrants.**

(1) The installation of yard hydrants where water is available or accessible for drinking or culinary purposes and which have drip openings below ground surface, is prohibited unless such hydrants are equipped with an approved device to prevent entrance of ground water into chambers connected with the water supply.

(2) Yard hydrants or hose bibs which would be used by the consumer to provide water to mix pesticides, fertilizer, or other chemicals, for direct use or aerial application to surface areas shall be equipped with an anti-siphon vacuum breaker.

(3) All underground lawn and garden sprinkler systems shall be equipped with an approved backflow prevention device.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

## Plumbing and Sewers

### 31-1009. Fire suppression system.

(1) All proposed installations of fire suppression systems shall be reviewed by the manager to determine the appropriate type of backflow prevention device(s) required.

(2) All proposed fire suppression systems requiring an antifreeze solution shall use a pharmaceutical grade antifreeze. The Consumer shall provide to the Manager a certification identifying the type of pharmaceutical grade antifreeze which shall be used. A double check valve backflow prevention device shall be installed in an approved manner.

(3) A double check valve of an approved type shall be installed on all proposed fire suppression systems not utilizing antifreeze, but this may be done only when there are no other cross-connections.

(4) All existing fire suppression systems shall meet the requirements of Subsections (2) or (3) above, whichever applies. An inspection by a certified fire suppression specialist shall be done to determine whether pharmaceutical grade antifreeze(s) have been utilized. This shall be done at the expense of the consumer. If it cannot be certified that only pharmaceutical grade antifreezes have been used, then a reduced pressure principle backflow prevention device shall be installed as approved by the Manager. This also shall be done at the expense of the consumer.

(5) In the event cross-connections, such as those found in using auxiliary water supply systems or in providing other water additives such as foaming agents are necessary for the proper operation of the fire suppression system, then a reduced pressure zone backflow prevention device shall be installed in an approved manner.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### 31-1010. Violations.

(1) The Manager shall deny or discontinue, after notice to the consumer thereof, the water services to any premises wherein:

(a) Any backflow prevention device required by these regulations is not installed or maintained in a manner acceptable to the Manager;

(b) It is found that the backflow prevention device has been removed or by-passed;

(c) An unprotected cross-connection exists on the premises;

(d) A low pressure cut-off required by Section 31-1007 is not installed and maintained in working order; or

(e) The Manager is denied entry to determine compliance with these regulations.

(2) The Manager shall immediately deny or discontinue, without notice to the consumer thereof, the water service to any premises wherein a severe cross-connection exists which constitutes an immediate threat to the safety of the public water system. The Manager shall notify the consumer within twenty-four (24) hours of said denial or discontinuation of service.

(3) Water service to such premises shall not be restored until the consumer has corrected or eliminated such conditions or defects in conformance with these regulations, and to the satisfaction of the Manager.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### 31-1011. Approval standards.

(1) Any backflow prevention device required herein shall be of a model and size approved by the Manager. The term "Approved Backflow Prevention Device" shall mean a device that has been manufactured in full conformance with the standards established by the American Water Works Associations (AWWA) entitled: AWWA C506-69 Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices and by the American Society of Sanitary Engineers (ASSE) entitled:

No. 1001 Pipe Applied Atmospheric Type Vacuum Breakers-ANSI Approved 1982-Revised, 1988

No. 1011 Hose Connection Vacuum Breakers-ANSI Approved 1982

### **Hastings City Code**

No. 1012 Backflow Preventer/Intermediate Atmospheric Vent-1978

No. 1013 Reduced Pressure Principle Backflow Preventer-Revised 1988

No. 1015 Double Check Backflow Prevention Assembly-Revised 1988

No. 1019 Wall Hydrants, Freezeless, Automatic Draining, Anti-Backflow Types-ANSI Approved 1978

No. 1020 Vacuum Breakers, Anti-siphon, Pressure Type-ANSI Approved 1982

No. 1024 Dual Check Valve Type Backflow Preventers-ANSI Approved 1984-Revised 1988

No. 1032 Dual Check Valve Type Backflow Preventer for Carbonated Beverage Dispensers-1980

No. 1035 Laboratory Faucet Vacuum Breakers-ANSI Approved 1984

No. 1048 Double Check Detector Assembly Backflow Preventer-1989

Said standards and specifications have been adopted by the Manager. Final approval shall be evidenced by a "Certificate of Approval" issued by an approved testing laboratory certifying full compliance with said standard and specifications.

(2) The Manager shall keep a current list of all certified suppliers and their appropriate list of makes and models of backflow prevention devices which the Manager has deemed approved.

(3) The Manager may require a strainer of approved type and size to be installed in conjunction with required backflow prevention devices. The installation of strainers shall preclude the fouling of backflow device(s) due to foreseen and unforeseen circumstances occurring to the water supply system such as water main repairs, water main breaks, fires, periodic cleaning and flushing of mains. These occurrences may cause debris such as scale deposits and sand to flush through the mains causing fouling of backflow device(s).

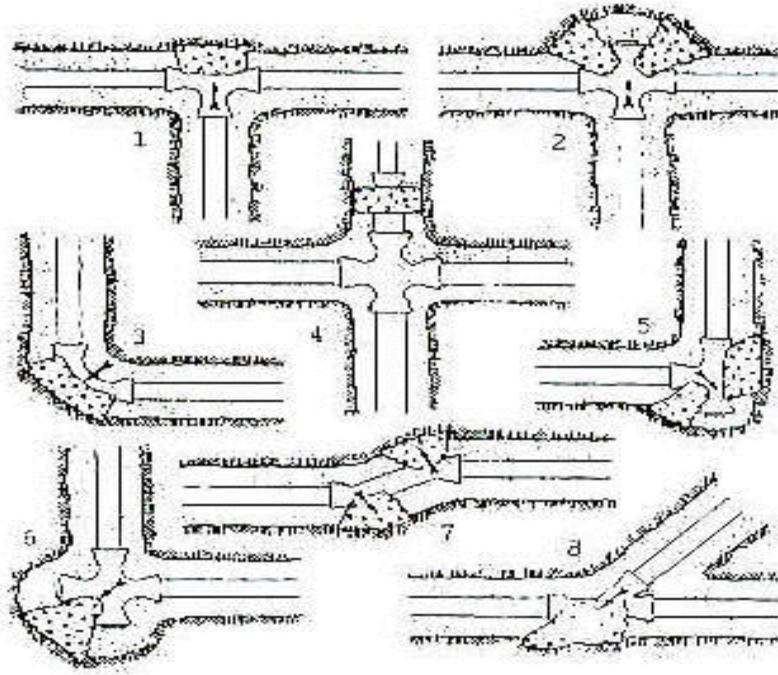
(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

### **31-1012. Liability claims.**

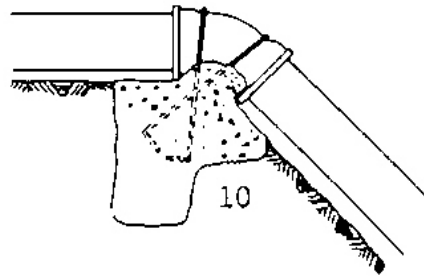
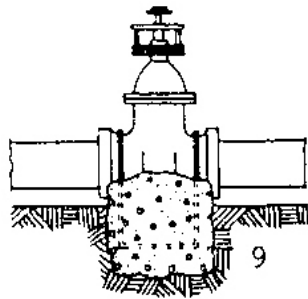
The Manager shall be relieved from personal liability. The City shall hold harmless the Manager when acting in good faith and without malice, from all personal liability for any damage that may occur to any person or property as a result of any act required or authorized by this title, or by reason of any act or omission of the Manager in the discharge of his duties hereunder. Any suit brought carrying out the provisions of the title shall be defended by the City, or the City's insurance carrier, if any, through final determination of such proceeding.

(Ord. Nos. 3169-5/90, 4110-1/2007 and 4249-3/2010)

**Plumbing and Sewers**  
PVC Pipe - Design and Installation



If thrusts, due to high pressure, are expected, anchor valves as below. At vertical bends, anchor to resist outward thrusts.



- |  |  |  |
|--|--|--|
| 1. Thru line                               | 6. Direction change, cross used as elbow   |  |
| 2. Thru line connection, cross used as tee | 7. Direction change                        |  |
| 3. Direction change, elbow                 | 8. Thru line connection, wye               |  |
| 4. Change line size, reducer               | 9. Valve anchor                            |  |
| 5. Direction change, tee used as elbow     | 10. Direction change vertical, bend anchor |  |

connection, tee