

# **City of Grass Valley**

# Requirements for Sewer Backflow Prevention and Flow-Relief Devices

# **Purpose**

To prevent sanitary sewer overflows for municipal sewer customers.

- A.) Installation of a relief device (popoff cap) in the cap of at least one private sewer cleanout, in an area least likely to cause property damage, (for most properties, this device would be located in a sewer cleanout at the property line, closest to the street).
- B.) Installation of a backwater valve, to prevent sewage from the main sewer backing up into the private sewer lines due to cleaning or plugs in the main, is required for all:

- New construction
- Replacements or repairs made to an existing sanitary sewer lateral
- Building Permit applicants who are remodeling more than twenty five percent (25%) of the structure area or where plumbing fixtures are added to the property.
- Properties that have been damaged by the blockage of the City sanitary sewer main or the private lateral
- On all structures where a pump is used to lift sewage to the sanitary sewer system main line. The backflow relief device shall be located to protect the structure from damage in the event that the pump is pumping against a closed backflow device
- buildings Existing which have plumbing drain outlets at an elevation 12" or less above the ground surface of the next upstream manhole, where the elevation of any floor is at or below the invert of the adjacent City sanitary sewer main or is less than 12" above the ground surface of the next upstream manhole, or where a condition exists where a plug in the City sanitary sewer main will cause the hydraulic gradient to rise above the lowest floor level.
- Property title changes

# **Required Permits**

- Building/Plumbing Permit from the Building Division, (530) 274-4340, for all sewer/plumbing work on private property, usually between the sidewalk or public right-of-way and the building.
- Encroachment Permit from the Engineering Division, (530) 274-4373, for all work in City right of way, usually between the back of sidewalk and street where the private lateral would connect to the City's sewer line.

#### General Submittal Requirements:

- Permit fee (refer to current year Fee Schedule).
- Plans, specifications, and other information indicating the type and location of the proposed work. Plans must include the location of the cleanout at the back of the City right of way (or one must be installed), relief device location, and the backwater valve location.
- Payment of a sewer impact fee, if new or expanded service.

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www.cityofgrassvalley.com City Ordinance No. 698

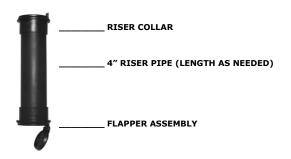
#### **POP-OFF RELIEF DEVICE**

#### TYPICAL INSTALLATION DETAIL

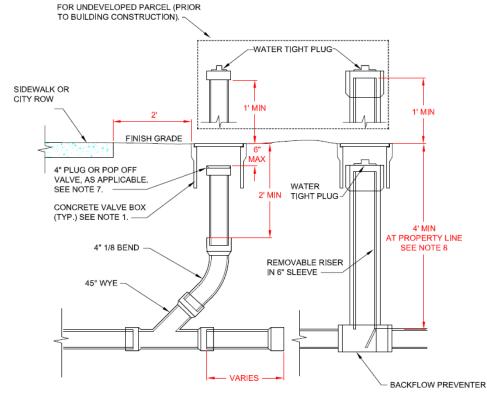
[REFER TO STANDARD DETAIL SS-4 FOR MOST CURRENT REQUIREMENTS]



#### **BACKFLOW PREVENTION DEVICE**







#### NOTES:

- IN NON-TRAFFIC AREAS INSTALL A ROUND CONCRETE VALVE BOX & COVER MARKED "SEWER". IN TRAFFIC AREAS INSTALL A
  CHRISTY G5 BOX (OR APPROVED EQUAL) WITH A TRAFFIC RATED METAL LID MARKED "SEWER".
- 2. A THREE FOOT CAPPED STUB SHALL BE INSTALLED UPSTREAM OF THE BACKFLOW PREVENTER ON UNDEVELOPED PARCELS.
- 3. CLEANOUT BOX TO BE FREE OF ALL DIRT AND READY AT TIME OF PRE-FINAL INSPECTION.
- 4. SERVICES OVER 100' LONG AND COMMERCIAL SERVICES REQUIRE A MIN. 6" CLEANOUT WITH 6" FITTINGS. THE CLEANOUT BOX SHALL BE CONSTRUCTED PER THE DESIGN STANDARDS.
- CONNECTION TO MAIN SHALL BE WITH A FACTORY WYE.
- BUILDING CONTRACTOR SHALL SET BOX TO FINISH GRADE AND INSTALL AN ABS PLUG SET 6" BELOW THE SURFACE PRIOR TO BUILDING PRE-FINAL.
- 7. A POP OFF RELIEF VALVE SHALL BE INSTALLED IN THE CAP OF ONE CLEANOUT LOCATED ON THE STREET SIDE OF THE BACKFLOW PREVENTER. THE CLEANOUT SHALL BE LOCATED IN AN AREA LEAST LIKELY TO CAUSE DAMAGE TO PROPERTY OR CONTAMINATION OF SURROUNDING AREA IF ACTIVATED.
- 8. FOR EXISTING SERVICES, SEWER LINE DEPTH SHALL BE AS NEEDED TO MATCH EXISTING PIPE INVERT ELEVATION. CITY ENGINEER MAY INCLUDE SPECIAL REQUIREMENTS FOR SHALLOW SERVICES IN THE CITY RIGHT OF WAY.
- 9. APPROVED BACKFLOW PREVENTION DEVICE MANUFACTURERS INCLUDE: CLEAN CHECK, INC. AND OATEY (FOR LESS THAN 3' DEPTH), OR APPROVED EQUAL.

#### ORDINANCE NO. 698

# AN ORDINANCE OF THE GRASS VALLEY CITY COUNCIL AMENDING CHAPTER 13.12.050 OF THE GRASS VALLEY MUNICIPAL CODE TO INCLUDE AN EXPANDED BACKFLOW PREVENTION ELEMENT

## BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF GRASS VALLEY AS FOLLOWS:

SECTION 1. Section 13.12.050 of Chapter 13 of the Grass Valley Municipal Code is amended to read as follows:

- A. No work shall be undertaken on any building sewer, service sewer, or connection until a sewer connection permit has been first obtained from the building department on a form approved by the Public Works Director/City Engineer or his designated representative. The permit application shall be supplemented by plans, specifications, and other information indicating the type and location of the proposed sewer connection or work for public works approval. A fee for such permit shall be established by resolution of the City Council. All new sewer services or connections shall be inspected and approved by the Director of Public Works/City Engineer or his designated representative, before new sewer services or connections are completed. The Public Works Director/City Engineer or his designated representative shall notify the Finance Director of the date a property is provided with sewer service.
- B. The service sewers from the public sewer to the property line shall be installed at the time the sewer is constructed whenever practicable. The connection of service lines to trunk lines shall be prohibited except when specifically approved by the Public Works Director/City Engineer or his designated representative.
- C. If the city has a sewer impact fee; this also shall be paid at the time of obtaining the permit.
- D. A cleanout shall be placed in every building sewer at its junction with the soil pipe of the building, at the property line and at such other locations as may be determined by the Public Works Director/City Engineer or his designated representative. It shall be made with an approved type of cleanout fitting. The cleanout shall be extended to above finish grade, except that in paved areas it shall be extended to finish grade or boxed and covered with a cover plate. A relief device shall be installed in the cap of the cleanout located in an area least likely to cause damage to property or contamination if activated.
- E. An approved type backwater valve shall be required:
  - In all new construction and service sewer replacements.
  - Where existing buildings have plumbing drain outlets at an elevation that is 12" or less above the ground surface of the next upstream manhole.
  - 3. At change of property title.

- 4. At the time of issuing any Building Permit for construction work involving remodels where plumbing fixtures are added to the property and/or more than twenty five percent (25%) of the structure area is being remodeled.
- 5. When any replacement or repair is being made to the sanitary sewer lateral.
- When property has been damaged by the blockage of the City sanitary sewer main or the private lateral.
- On all structures where a pump is used to lift sewage to the sanitary sewer system main line. The backflow relief device shall be located to protect the structure from damage in the event that the pump is pumping against a closed backflow device.
- 8. In buildings where the elevation of any floor is at or below the invert of the City sanitary sewer main, or is less than 12" above the ground surface of the next upstream manhole, or where a condition exists where a plug in the City sanitary sewer main will cause the hydraulic gradient to rise above the lowest floor level.
- F. For the installation of backflow relief devices, a plumbing permit shall be required for all work proposed within private property, usually between the sidewalk or public right-of-way and building, and an encroachment permit shall be required for all work proposed within the public right-of-way, usually between the back of sidewalk and street where the private lateral would connect to the City's sewer line.
- G. The cost of installation and the responsibility for the operation and maintenance of the building service sewer and its fittings/devices shall be the property owner's.
- H. Failure of the property owner to install a backwater valve for or as a result of any of the above conditions shall relieve the City of any and all responsibilities for any subsequent damage caused by backflow of the sanitary sewer.
- Property owners are responsible for the proper installation and maintenance of building and service lateral sewers and cleanouts, and for obtaining the necessary construction and encroachment permits.
- J. Property owners are responsible for keeping the three foot radius of the cleanout area clear of vegetation or any obstruction to visibility or ease of access.
- J. The materials and methods of construction of building sewers shall be as required by the city plumbing code, except as specified in subsections D and E of this section.
- K. The initial connection of a sewer service from the public sewer to the property shall be charged to the applicant at the published Fully Burdened Rates for labor and supervision, overhead and equipment rent. The charge for same shall be due and payable as soon as the work is completed and shall be deemed delinquent at the same time and in the same manner as the next regular sewer bill. (Prior code § 20-5)

### SECTION 2. SEVERABILITY

If any section of this Ordinance or the application thereof to any person or circumstance is held invalid or unconstitutional, such invalidity or unconstitutionality shall not affect any other

section or application of this Ordinance which can be given effect without the invalid or unconstitutional provision or application and to this end the provisions of this Ordinance are severable.

#### **SECTION 3. EFFECTIVE DATE**

This Ordinance shall become effective for new construction on July 1, 2008. Change of property title shall become effective on December 1, 2008. All other identified conditions requiring cleanout relief devices (pop off valve) and backwater valves, shall become effective September 1, 2008.

INTRODUCED and first read at a regular meeting of the City Council on the 26th day of August, 2008.

FINAL PASSAGE AND ADOPTION by the City Council of the City of Grass Valley was at a meeting thereof held on the 9<sup>th</sup> day of September, 2008, by the following vote:

AYES:

NOES:

ABSENT:

ABSTAIN:

Mark Johnson, Mayor

APPROVED AS TO FORM:

Ruthann G. Ziegler, Kity Attorney

ATTEST:

Krist K. Bashor, City Clerk