

**CITY COUNCIL
COMMUNICATION:**

ITEM _____

**OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA**

98-354

SYNOPSIS –

AGENDA:
AUGUST 17, 1998

The proposed changes are specifically related to backwater valves, regulated in the plumbing code (Chapter 8, Subchapter 4, Municipal Code). These valves are devices that are installed in the sanitary sewer service line, within the building, that is intended to minimize the risk of sewer backup from the sanitary sewer system.

SUBJECT:
PROPOSED
CHANGES TO
CHAPTER 8,
MUNICIPAL CODE
RELATED TO
BACKWATER
VALVES

FISCAL IMPACT –

N/A

TYPE:
RESOLUTION
ORDINANCE
RECEIVE/FILE

RECOMMENDATION –

Approval.

SUBMITTED BY:
JAMES GRANT
COMMUNITY
DEVELOPMENT
DIRECTOR

BACKGROUND –

Present code requires backwater valves on new sewer taps when deemed necessary by the plumbing inspector or the city engineer, and when fixtures are installed in a building where the rim elevation of the fixture (floor drain, toilet, washer riser, etc.) is located below the elevation of the next upstream sanitary sewer manhole cover. Present practice has been that these devices have been required when the property is located in a flood plain.

Based on recent events that created a large number of homes experiencing damage due to sewer backup, the Plumbing Board, along with cooperation from the City Engineer's Office, has reviewed this code and practices. As a result, there are some changes recommended by the Plumbing Board, although it is not their opinion these devices should be required throughout the entire city.

Several members of the Plumbing Board and some area plumbers have had experience with these devices. Backwater valves required a degree of ongoing maintenance for them to work effectively when needed. In addition, they have a tendency to be the reason for general blockage in the sewer service line under normal operations. Attached is a communication received from Rhiner Plumbing regarding this issue.

Recognizing these potential inconveniences, it was also recognized by the Board that these devices may be necessary in some areas of the city where there is an ongoing history of backup. As a result, they are recommending that these devices be required in areas of the city that have been determined by the City Engineer to experience sanitary sewer backups.

The other area of concern and consideration by the Plumbing Board was the method by which these devices are required to be installed. The present code requires that a backwater valve can serve only the fixtures that are located below the upstream manhole cover. In essence, the fixtures in the basement would be protected by this valve, and not the fixtures on upper level that are above the manhole elevation outside. This specific code provision appears to be intended to prevent waste from fixtures within the same building to flow into a lower level, in the event a backwater valve was closed.

This present code provision makes it very difficult and expensive for homeowners to retrofit a valve in their home. In essence, it can require a significant portion of a basement floor to be removed and significant re-plumbing to accommodate this provision. It is much easier to comply with this provision when a home is being built. It is, therefore, the Plumbing Board's recommendation that this provision not apply when desired to be installed in existing homes where these devices are not required.

Attachment