

# Backwater Valves and Sewage Backflow Prevention

An Information Workshop

Presented by



Sponsored by



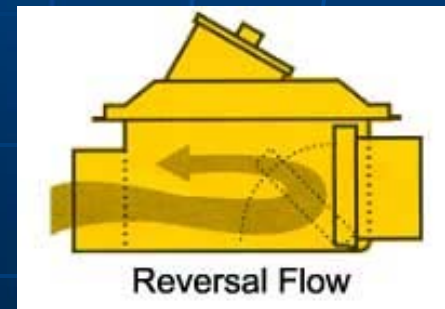
Drainage Services Branch

# OUTLINE

- Function of Backwater Valves
- Location of Backwater Valve
- Types/Models
- Maintenance
- Installation
- Resources and Contact Information
- Shopping Tips
- Potential Cost
- Questions

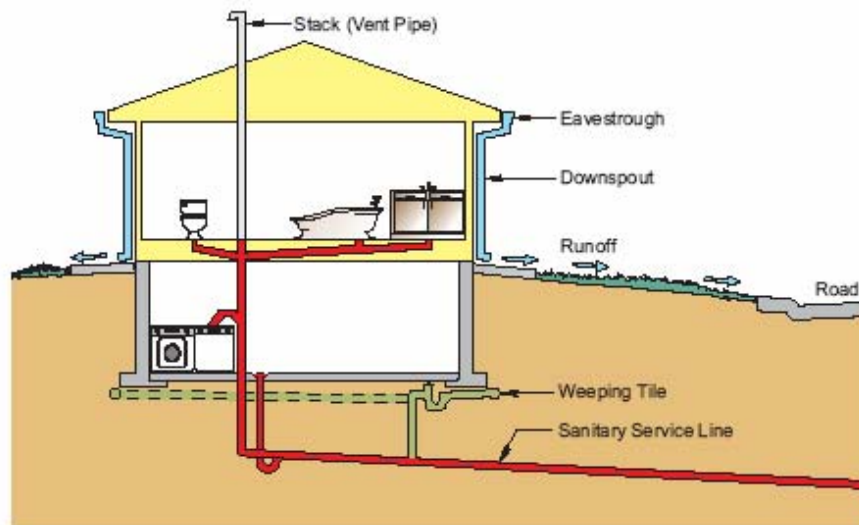
# Function of Backwater Valves

- Provides protection against backflow of sewage into home
- Allows for free flow of air and outflow of sewage (Normally open backwater valve)

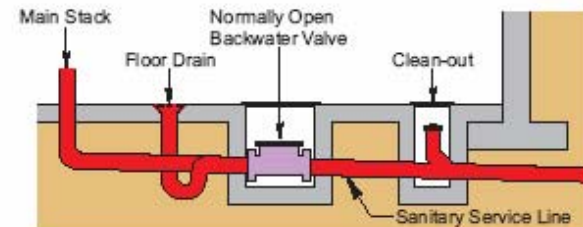


# Location of Main Building Sewer Backwater Valve

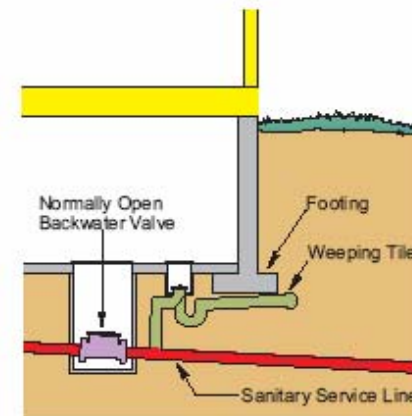
## TYPICAL HOME SERVICING IN MATURE NEIGHBOURHOOD



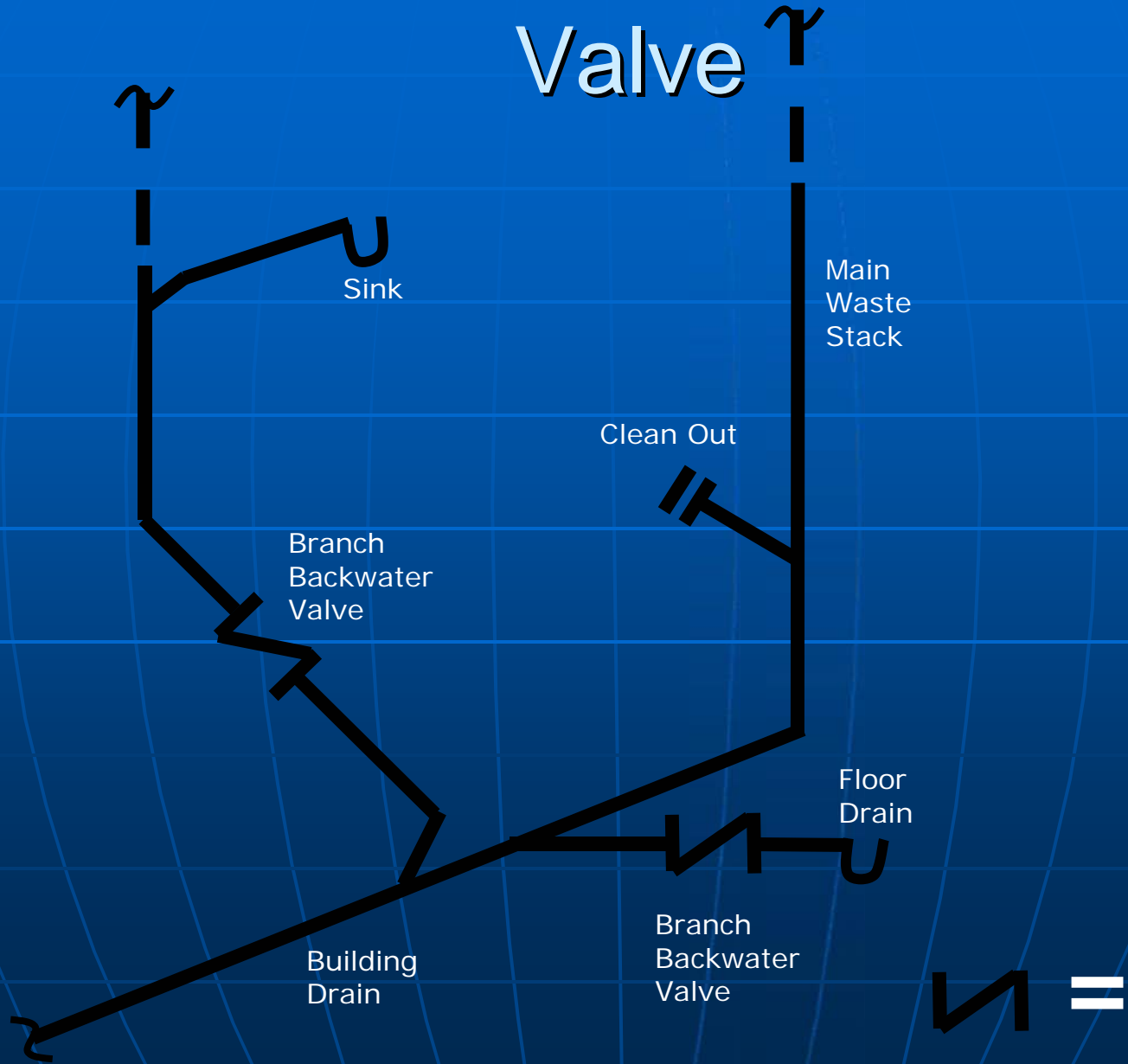
## BACKWATER VALVE INSTALLATION



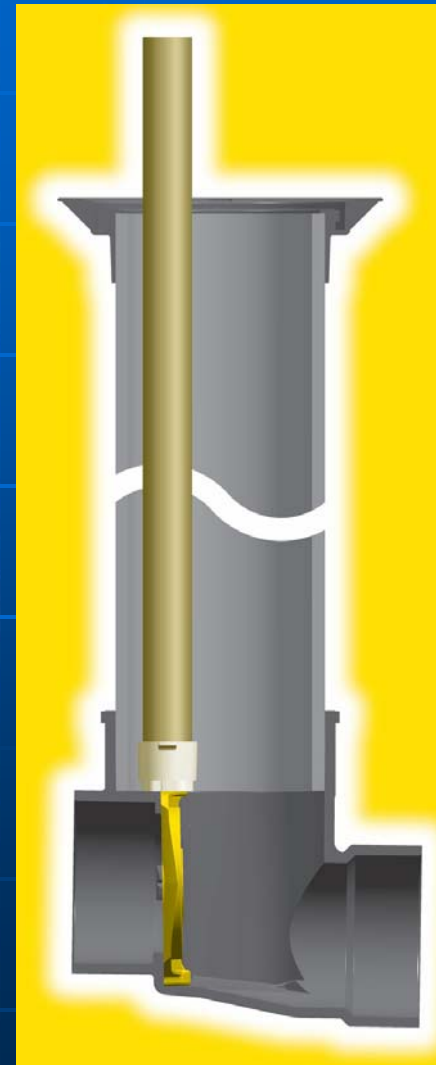
## WEeping TILE LAYOUT



# Location of Branch Backwater Valve



# Adapt-a-Valve Backwater Valve



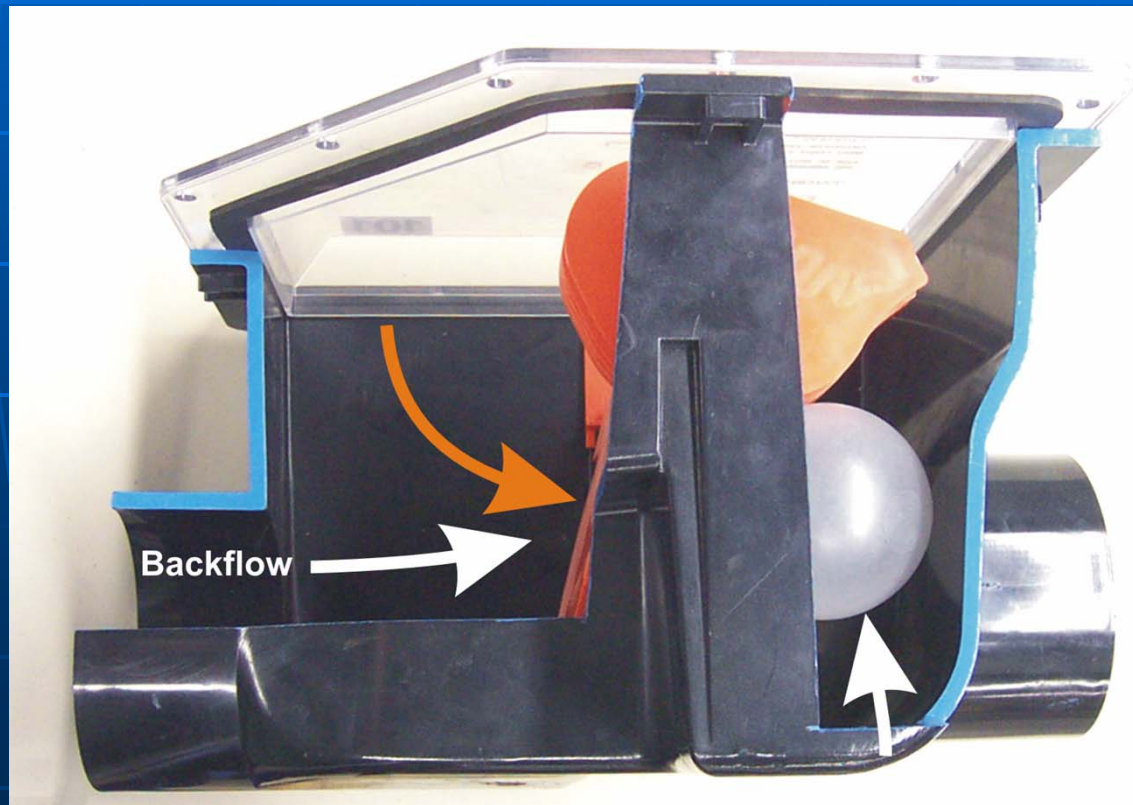
# Types of Backwater Valves

- Fio Backwater Valve Open (Normally open)



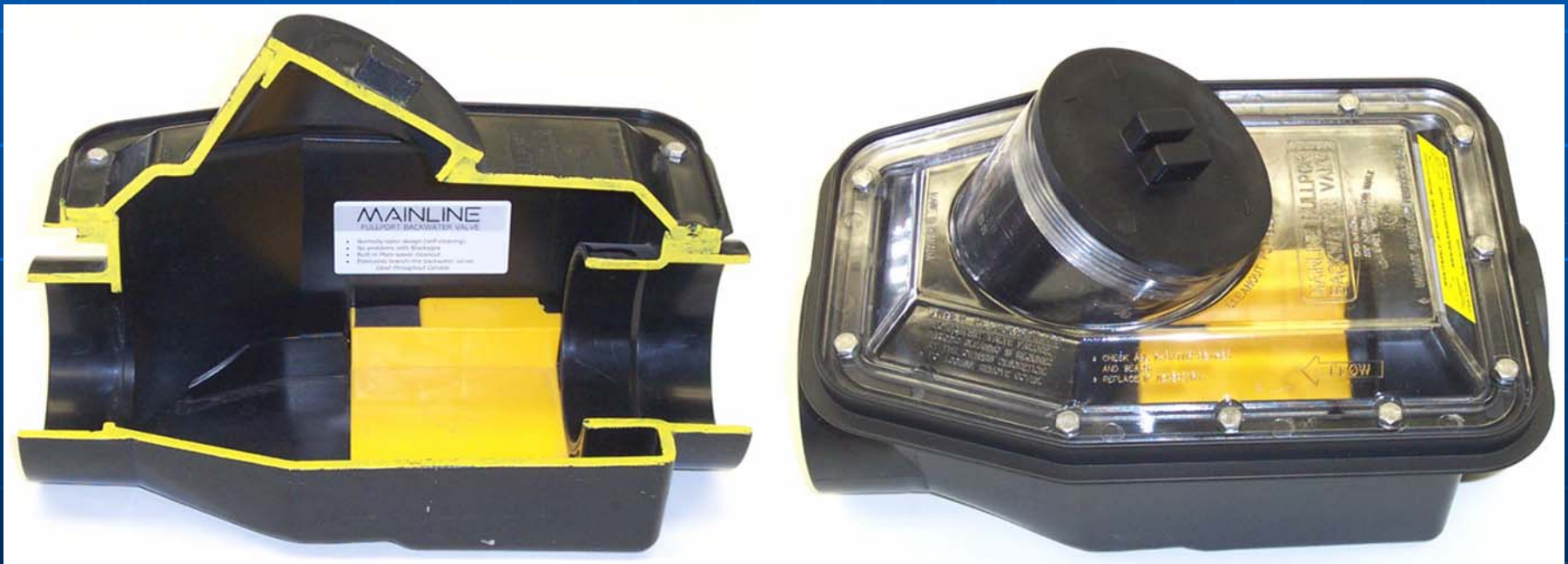
# Types of Backwater Valves

- Fio Backwater Valve Closed



# Types of Backwater Valves

- Mainline Backwater Valve – Normally Open



# Types of Backwater Valves

Branch Line Backwater Valve –  
Normally Closed



# Types of Backwater Valves

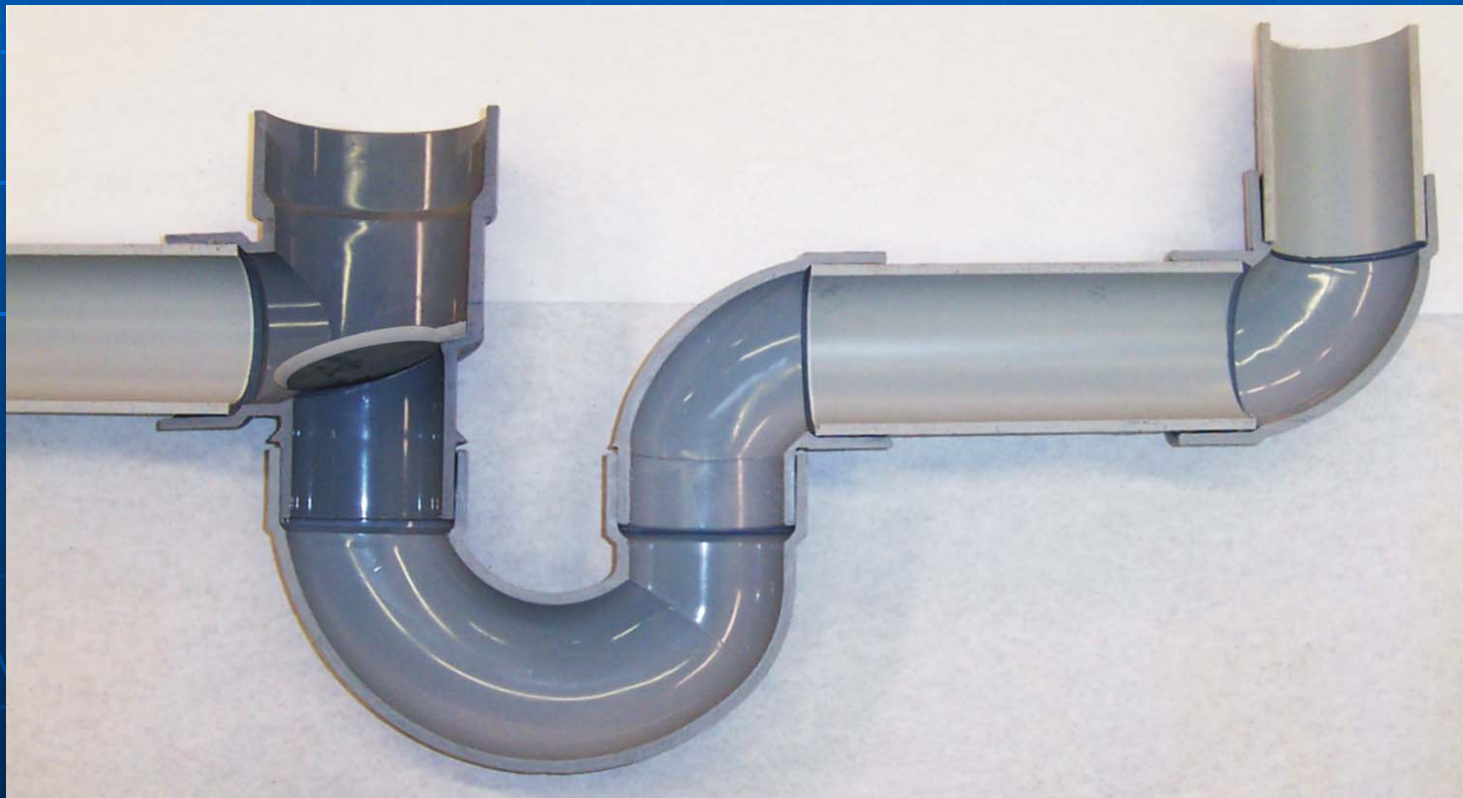
Branch Line Backwater Valve –  
Normally Closed



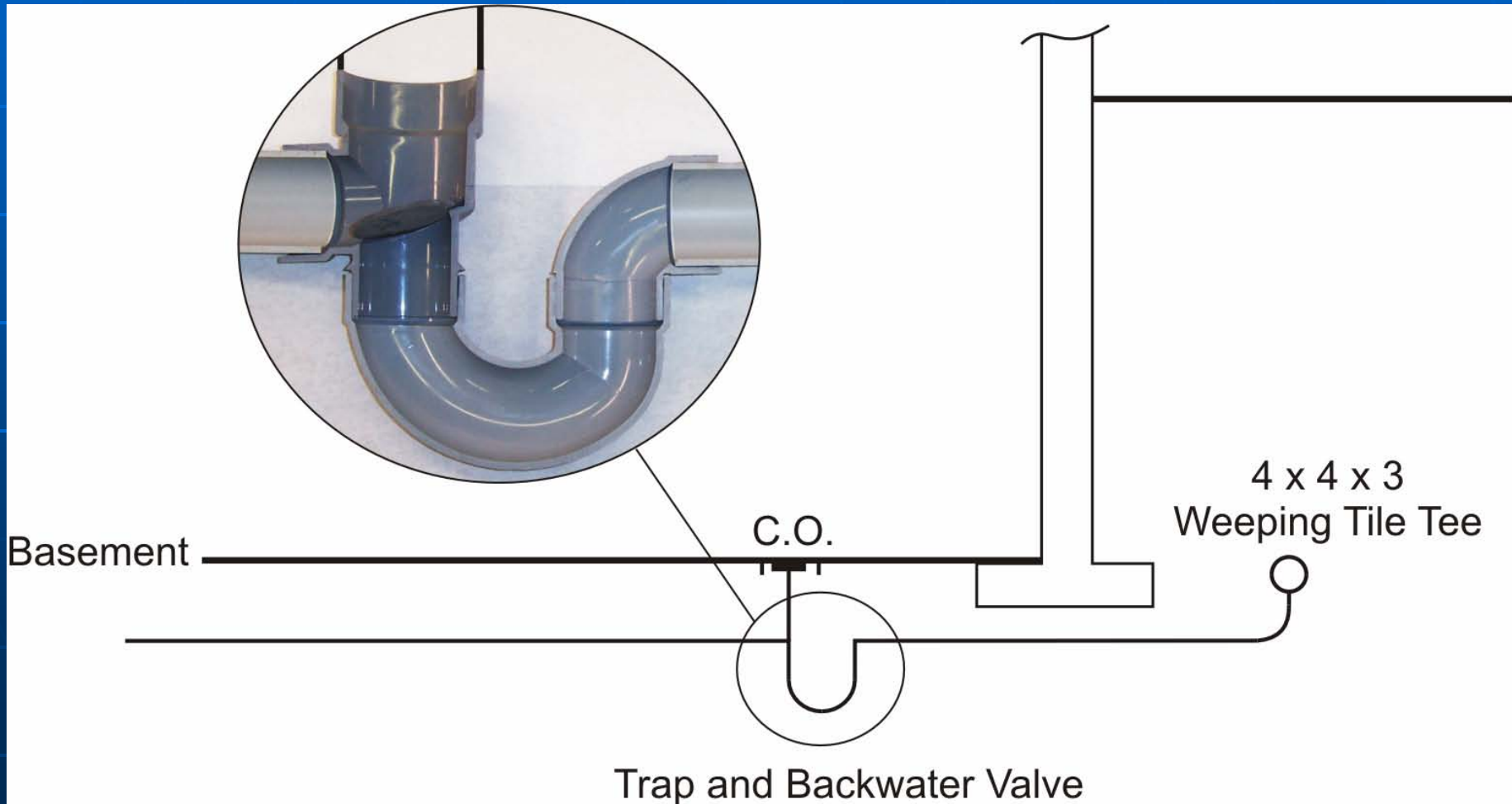
Protection from  
Reverse Flow

# Types of Backwater Valves

- Backflow protection for weeping tile connection – does not protect building sewer.



# Types of Backwater Valves



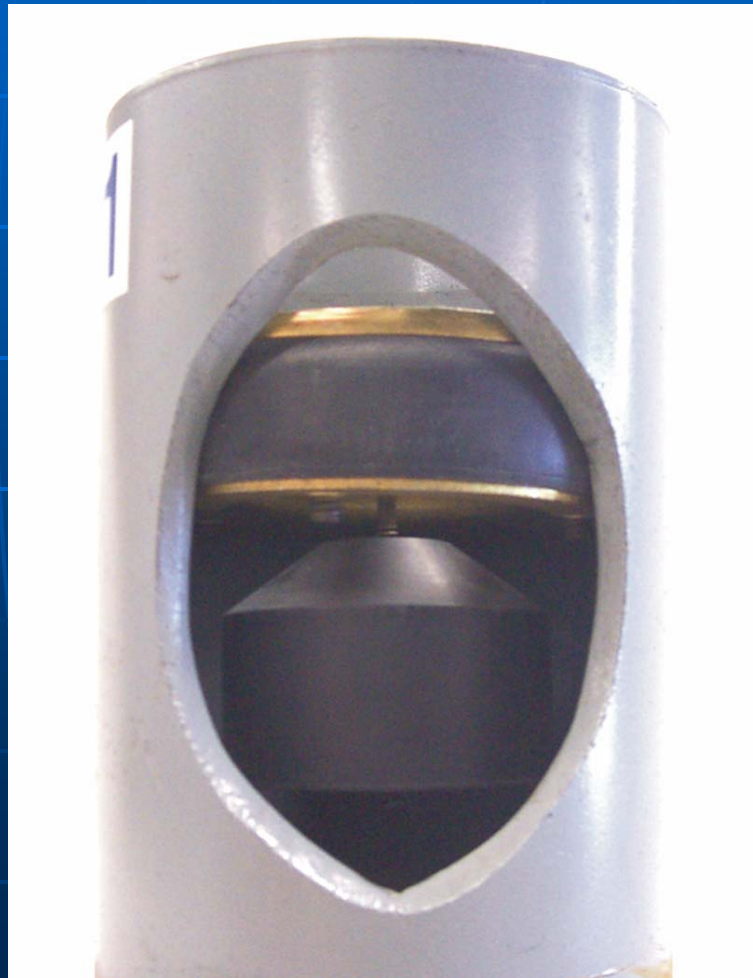
# Types of Backwater Valves

- Individual floor drain protection



# Types of Backwater Valves

- Individual floor drain protection – location:



# Maintenance

- Annually check valve for free movement of all moving parts
- Clean away any debris that may have accumulated inside the trap
- If uncertain about valve's condition contact a plumber

# Installation - Retrofit

- A retrofit will require uncovering the building sewer
- This entails some concrete removal around the area of installation
- Once installed the cover of the backwater valve must be accessible for servicing
- Some manufacturer's require that the closest branch connection upstream of the backwater valve must not be closer than 2 feet (due to turbulent flow)

# Installation - New

- The National Plumbing Code requires a backwater valve to be installed on all new buildings when you have fixtures installed below the adjoining street (Fixtures subject to backflow).
- The City of Edmonton's bylaw #9425 also reflects this requirement.

# Installation - New

- If the backwater valve is installed when the home is being built it affords the owner some choices of type:
  1. Normally open – to protect the entire building. Installed in the building sewer.
  2. Branch – installed on the branch serving the fixtures connected to that branch.

# Resources and Contacts

- Mechanical Contractor's Association of Alberta –

(403) 250- 7237    1-800-251-0620

<http://www.mcaalberta.com/>

- Edmonton Better Business Bureau –

(780) 482-2341

<http://www.edmonton.bbb.org/>

# Resources and Contacts

Alberta Municipal Affairs – (780) 427-2732  
<http://www.municipalaffairs.gov.ab.ca/>

City of Edmonton Drainage Services –  
[www.edmonton.ca/floodprevention/](http://www.edmonton.ca/floodprevention/)

- Planning & Development Inspection Department – (780) 496-3100
- Backwater Valve subsidy program – (780) 496-5662
- Customer Service Centre – (780) 496-5541
- Drainage and Sewer Trouble Line – (780) 496-1717

# SHOPPING TIPS

- Get 3 quotes from different contractors
- Seek out references – from the company or personal references from people who have done business with a contractor
- Make sure contractor is licensed to work in Edmonton

# SHOPPING TIPS

- Hold back a percentage of payment until the job has been subject to City Inspection and approved
- Ask the plumber to show you how to maintain your new backwater valve
- Check your home insurance to see if you are required to have a backwater valve installed in order to be covered for sanitary backup

# Potential Cost

- Price range of \$900.00 to \$1700.00
- Includes Breaking up of concrete, installation of backwater valve, refinishing of concrete and removal of all debris
- Price may be subject to increase if unforeseen circumstances arise -  
i.e. piping severely degraded, blockages or damage to piping.

# Questions

- Thank you for your time and attention
- We hope that you have found this information helpful