

THE CORPORATION OF THE
MUNICIPALITY OF GREENSTONE

POLICY MANUAL

SECTION: PUBLIC WORKS

SUBJECT: Sewage Water
Alleviation Program

DATE: August 11 2014

AUTHORIZATION: 14-202

Retroactive to July 1, 2004

POLICY AND PROCEDURES

The Municipality of Greenstone is offering a Grant Program to residents with documented basement flooding problems related to sanitary sewage back-ups which occurred July 1, 2004 and thereafter.

The Program works to provide funding for the installation of devices which provide basement flooding protection. A funding allocation to a maximum of \$1,000.00 is available to assist the Homeowner with the improvements. The work done is between the Homeowner and their Contractor. The Homeowner is responsible for the on-going operation and maintenance of the devices.

Please read this Policy and Procedures including the attached Application Form carefully before making formal application. It is imperative every Homeowner seeking funding under the Program understands the extent and requirements of the Program thoroughly, **including the requirement to sign a statement releasing the Municipality from all claims resulting from works carried out under this Grant Program.**

Please note: Existing foundation drains/weeping tiles and sewer laterals which are plugged or blocked may be a contributing factor to basement flooding, unrelated to sewage backup. If plugged

drains/tiles or sewer laterals are discovered upon excavation for disconnection, or at any time, the Homeowner will be responsible to decide if repairs or new pipes are necessary and will be responsible for the cost of the related work.

ELIGIBLE WORKS/COSTS

Only the works listed below and those considered at the discretion of Public Services are ELIGIBLE for submission of a Grant request.

1. Installation of a suitably sized Mainline Fullport Backwater Valve (with clear cover,) or other provincially approved backwater valve, inside the residence to prevent sewage flows from backing up into a basement.
2. Installation of a sump basin together with sump pump*, discharge piping*, electrical connections* (including Electrical Permit and Inspections, if necessary), and battery back-up power*. (*MATERIALS MUST BE CSA APPROVED)
3. Disconnection of pipe connections from the foundation drain/weeping tile to the sanitary drainage system which aggravates basement flooding. (Program pre-requisite)
4. Disconnection of downspouts to prevent direct or indirect discharge to the sanitary sewer, if so connected. (Program pre-requisite)
5. Sewer lateral/weeping tile connection tracing by camera or other means.
6. Installation of a clean-out if required. (Note: One should be present in each household).
7. Associated excavation saw cutting, backfilling, and basement concrete floor re-instatement necessary for the installation of the Program elements. Program will not include replacing interior finishes such as drywall, paint and finish flooring nor will it include exterior restoration such as landscaping, flowerbeds, seeding,

sodding, trees, porches, decks, driveways, sidewalks, concrete or asphalt re-instatement.

Attached are drawings showing a typical sump pump and backwater valve installation (attached).

GRANT ALLOCATION

The maximum funding allocation of up to \$1,000.00 is to assist Homeowners with the installation of backwater valves and specified other equipment and work that are required for a proper installation. This would include disconnection of the foundation drains from the sanitary drainage system.

PROCEDURES

1. Contact the Greenstone Public Services Dept. to discuss the Program. The Municipality will review your situation and advise you if you may be eligible for the Program.
2. If it is determined that you may be eligible for the Program, the attached Application Form must be completed and submitted. At this point, the Manager of Public Works and/or his designate will arrange a satisfactory time with you to view your property for a pre-work site inspection, if necessary.
3. At the pre-work site inspection, Municipal representatives will review the general installation with you and given the characteristics of your home and property will advise you of what work is eligible for funding under this Program. This information will be indicated on the Application Form, and a copy will be left in your possession. The form will list the eligible works for the Contractor's use to help itemize costs.
4. You will then need to obtain and submit two (2) written quotations, if possible, for the eligible works from the Contractor(s) you are prepared to hire. It is your responsibility to find a suitable Contractor(s) as is usual with any work on private property. Only

works identified in the pre-work inspection will be eligible, the Contractor must not quote on restoration items not covered in the Program.

5. The Manager of Public Works and/or his designate will then discuss the options available with you, e.g. to have the work done by a Contractor (lowest quotation submitted), or by yourself, or by a Contractor and yourself working together. If you intend on working with a Contractor to reduce costs, the Contractor must price the complete job as if you are employed by the Contractor. The Program will only provide funds based on the lowest quotation submitted. If you prefer the Contractor with the higher quotation, you will be required to fund the difference.
6. Once you and the Manager of Public Works and/or his designate have established the most acceptable approach and costs, permission will be given to proceed with the eligible works, **but only after the appropriate permit(s) (if required by the Building Code) have been issued.**
7. **The Municipality will not supervise or be responsible for the work other than to inspect the plumbing and related works to ensure that they are installed in accordance with the Building Code. You will oversee the work as is usual when private residence work is carried out, and are ultimately responsible for its satisfactory completion.**

The Manager of Public Works and the Building Inspector will be available for consultation on technical concerns, however remember you will be hiring the Contractor who will be working for you as Owner of the property and building.

8. **REQUIRED INSPECTIONS** – Pre-work, backwater valve, weeping tile disconnection, sump pump connection, final. It is the responsibility of you or your Contractor to schedule the inspections with the Municipality well in advance of the intention to backfill or cover.
9. Once all of the Program work has been done and you are content that your Contractor has completed everything to your satisfaction,

you must submit the completed Application Form along with all other relevant documentation (original quotations, bills and invoices) to the Municipality.

Please note that you **MUST** sign the release portion of the Application Form before your Grant will be processed, so please ensure you read it carefully in advance of proceeding with the Program.

10. This information will be reviewed to ensure that only costs associated with the eligible works are funded. A Grant will then be issued to you in the form of payment for all costs deemed eligible to a maximum of \$1,000.00 per home. All efforts will be made to evaluate these forms and issue cheques in a timely manner.
11. If the cost of work exceeds the maximum allotted funding of \$1,000.00 you will be responsible to fund the amount in excess of \$1,000.00.

BACKWATER VALVE MAINTENANCE AND INSPECTION

You as Owner are responsible for preventative maintenance including regular inspection to ensure proper operation and maintenance for the backwater valve and sump pump. Please refer to manufacturers recommendations. Regular inspection of the backwater valve is facilitated with the clear cover.

TERMS AND CONDITIONS

A Grant shall not exceed \$1,000.00 per residence. A Grant will only be awarded for the amount outlined on the Application Form submitted and the documentation such as bills for Contractor's work, labour and materials used to complete the eligible works. Quotations will form the basis of evaluation even if the work is to be carried out by the Homeowner.

Both the disconnection of foundation drains with sump discharge to surface (if required) AND the installation of a backwater valve **MUST** be completed before the Grant is released. The Application does not necessarily have to

cover both works since one or the other items may have been previously installed, or may not be required.

Downspouts must also be disconnected from below ground discharge as appropriate to the individual situation.

THE WORK WILL PROVIDE A DEGREE OF PROTECTION TO THE HOMEOWNER, HOWEVER THERE ARE NO GUARANTEES THAT BASEMENT FLOODING WILL NEVER OCCUR AGAIN.

HOMEOWNERS SHOULD REFRAIN FROM USING WATER AND PLUMBING FIXTURES DURING SEVERE RAINSTORMS SINCE THESE FLOWS MAY NOT BE ABLE TO ENTER THE SANITARY SEWER AND MAY BACK UP IN THE BASEMENT THROUGH FLOOR DRAIN, SHOWER AND OTHER LOW ELEVATION OPENINGS. THE BACKWATER VALVES ARE AVAILABLE WITH A CLEAR COVER WHICH MAY BE USED TO INSPECT SEWER DRAIN PERFORMANCE DURING SUCH RAINSTORMS.

INFORMATION AND FORMS (Attached)

- sump pump and backwater valve installation
- application form

SUMMARY OF PROCESS

- Preliminary contact with the Manager of Public Works and/or his designate
- Application submitted
- Pre-work inspection with Municipal staff
- Review Application/inspection report
- Search out prospective Contractors
- Obtain and submit two (2) quotations, if possible, on eligible works

- Select, approach and agree on cost
- Receive permission to proceed under Program
- Discuss and agree on work with Contractor
- Obtain Permit
- Begin work
- Schedule inspections with Municipality
- Work completed
- Submit documentation for Grant processing
- Grant awarded to Homeowner
- Payment to Contractor by Homeowner
- Maintain equipment (responsibility of Homeowner)

CONTACTS

For further information, please contact one of the following staff at the Municipal Administration Office during regular business hours (8:30 am – 4:30 pm) at (807) 854-1100.

- Director of Public Services
- Manager of Public Works

WORK COMPLETED PRIOR TO PROGRAM

In some cases Homeowners may have completed the installation of a backwater valve prior to finalization of this Program. While it is not the intention of the Municipality to disqualify such Homeowners from the Program, documentation must be supplied by the Homeowner and

sufficient inspections performed to satisfy the Municipality that the required work has been completed satisfactorily and reasonable costs were incurred.

Homeowners will be asked to complete an Application form as usual, and the process will proceed as closely as is possible in accordance with procedures established for work that has not already been completed. If a required sump pump has not been installed or if the weeping tile has not been disconnected from the sanitary drainage piping, such work must be done and inspected to qualify for **any** funding under the Program.

APPLICATION NO.	
APPLICATION RECEIVED	
PRE-INSPECTION DATE	
QUOTES RECEIVED	
WORK APPROVAL DATE	
COMPLETION DATE	

MUNICIPALITY OF GREENSTONE

Box 70, 301 East Street
 Geraldton, Ontario
 P0T 1M0

Phone 807-854-110 Fax 807-854-1947

**SEWAGE WATER ALLEVIATION PROGRAM
 APPLICATION FORM**

Owner	
Address	
Telephone – Home	Telephone – Home
CHECKLIST	COMMENTS
<input type="checkbox"/> Sewer/TV <input type="checkbox"/> Weeping Tile Disconnection <input type="checkbox"/> Install Backwater Valve <input type="checkbox"/> Install Sump Pump C/W Pump And Discharge Piping <input type="checkbox"/> Electrical Connections Including Back Up Power With Battery <input type="checkbox"/> Downspout Disconnection <input type="checkbox"/> Install Clean-Out If Necessary Other _____ Other _____	

RELEASE

I HEREBY CERTIFY THAT I AM THE OWNER OF THE PROPERTY HEREIN AND I HAVE READ AND UNDERSTAND THE PROGRAM POLICY AND PROCEDURES DATED APRIL 25, 2005. I HEREBY RELEASE THE CORPORATION OF THE MUNICIPALITY OF GREENSTONE FROM ALL CLAIMS, DAMAGES, ACTIONS AND LOSSES FROM ANY FUTURE SEWER BACKUPS RESULTING FROM THE FAILURE OF ANY OF THE WORKS CARRIED OUT UNDER THIS GRANT PROGRAM.

I HEREBY FURTHER UNDERTAKE THAT SHOULD ANY OF THE WORKS DONE, FOR WHICH GRANT MONEY HAS BEEN RECEIVED, BE REMOVED WHILE I AM OWNER OF THE PROPERTY WITHIN FIVE (5) YEARS OF THE COMPLETION DATE, THE TOTAL AMOUNT OF THE GRANT SHALL BE REPAID BY MYSELF TO THE CORPORATION OF THE MUNICIPALITY OF GREENSTONE.

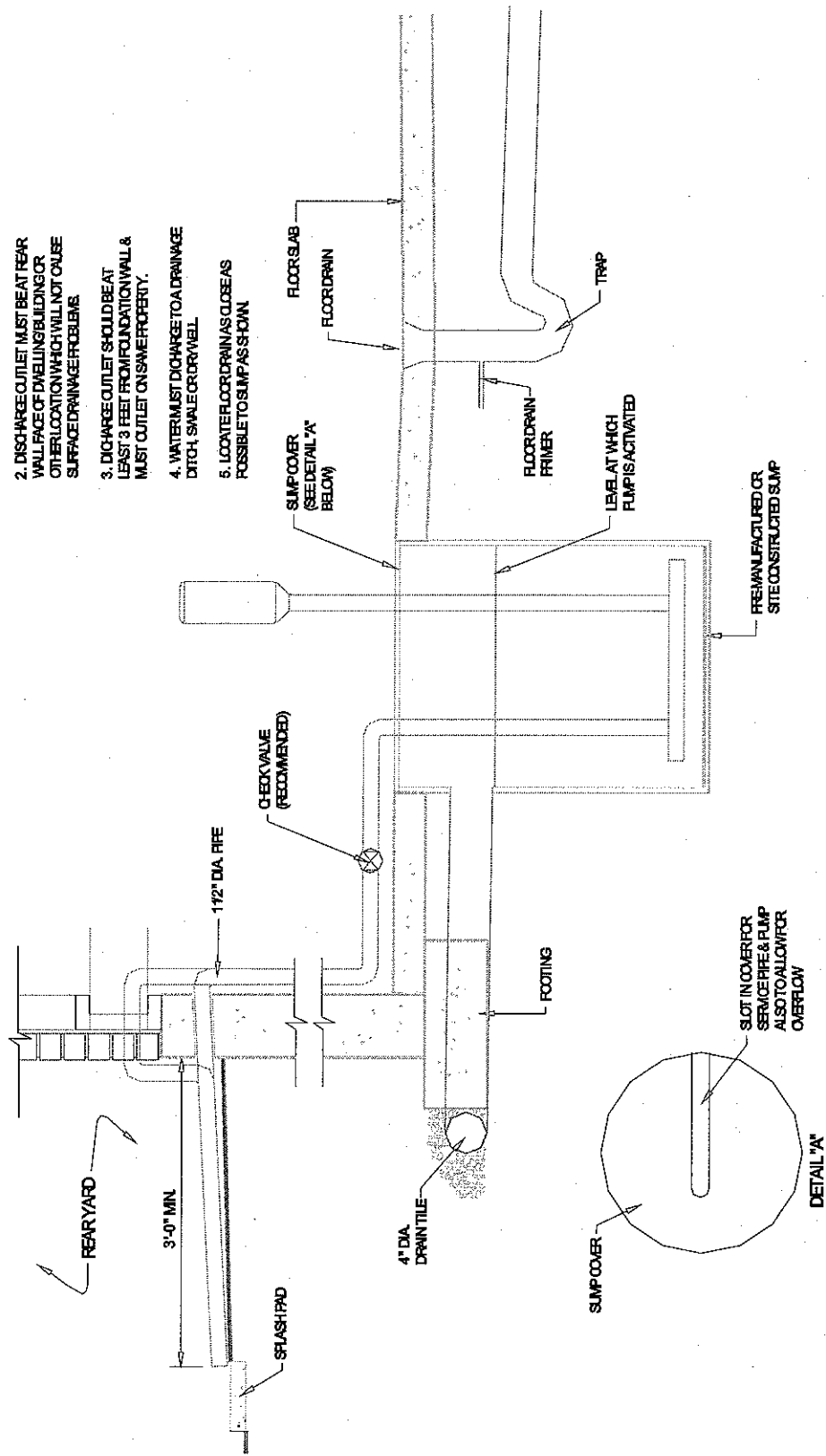
Date: _____ Owner: _____

GRANT APPROVAL

Date: _____ Signed: _____

NOTES:

1. FOUNDATION DRAIN MUST NOT BE CONNECTED TO SANITARY SEWERS SYSTEM IN NEW CONSTRUCTION UNLESS APPROVED OTHERWISE
2. DISCHARGE OUTLET MUST BE AT REAR WALL FACE OF DWELLING BUILDING OR OTHER LOCATION WHICH WILL NOT CAUSE SURFACE DRAINAGE PROBLEMS.
3. DISCHARGE OUTLET SHOULD BE AT LEAST 3 FEET FROM FOUNDATION WALL & MUST BE OUTLET ON SAME PROPERTY.
4. WATER MUST DISCHARGE TO A DRAINAGE DITCH, SWALE OR DRY WELL.
5. LOCATION OF FLOOR DRAIN AS CLOSE AS POSSIBLE TO SUMP AS SHOWN.



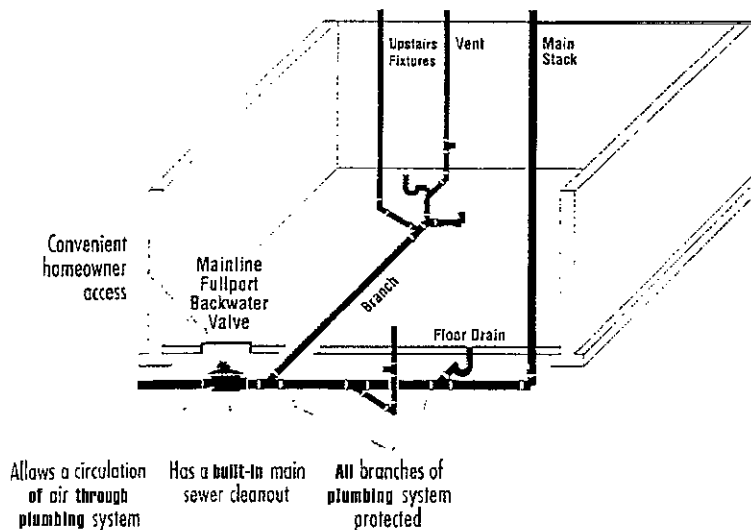
SUMP DETAILS
SECTION & DETAILS

Main-Building Drain Protection

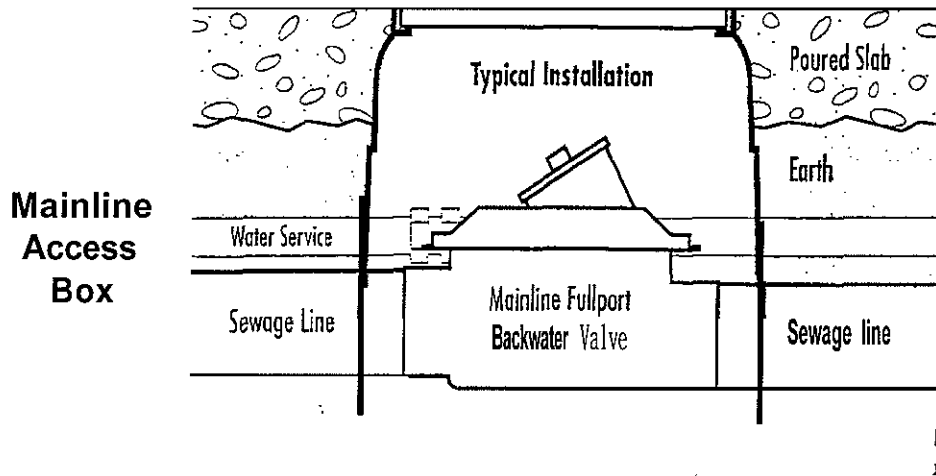
The Mainline Fullport Backwater Valve is installed in the main-building drain, because its fullport design allows venting of the municipal sewer through the building. The design also allows unobstructed sewage flow and automatic closure of the gate upon reversal of flow (sewer backup) protecting the entire building from backflow.

Advantages of Protecting the Main-Building Drain

- The entire plumbing system is protected from municipal sewer backup with just one conveniently located backwater valve at the point where the building drain-sewer exits the building. This offers **EASY HOMEOWNER ACCESS**
- The Mainline *Fullport Backwater Valve* has a **built-in main sewer cleanout** in the valve for the rodding of the sewer.
- Since the *Mainline Fullport backwater Valve* is a "normally open" backwater valve, it *allows unobstructed sewage flow*, which in turn *prevents sewage buildup in the valve's body*.
- The "normally open" design allows cleaning tools to pass through the body without getting hooked on the gate when retrieving the cable (this prevents the gate from being destroyed).
- By installing the valve in the main-building drain it eliminates the need for branchline backwater valves, cleanout assemblies, and also saves in groundwork labor and extra piping when, trying to utilize one branchline bwv to protect extra fixture drains.
- Ensures that entire building is protected from backflow, where branches are often missed and left unprotected, when using branchline protection
- If additional fixtures or branches are added to the system they are automatically protected from backflow



Mainline Backflow System



Mainline Fullport Backwater Valve

Mainline Backflow System Illustrated with

- Mainline Fullport Backwater Valve (Model #4963)
- Mainline Plastic Access Box (Model #PE2013)

MAINLINE BACKFLOW PRODUCTS INC.

INSTALLATION

MAINLINE FULLPORT BACKWATER VALVE

The Mainline Fullport Backwater Valve's "normally open" design allows unrestricted sewage flow. Because of its Fullport design, it requires minimal homeowner maintenance when installed properly, and provides the best in backflow protection.

CSA CERTIFIED

PRIOR TO INSTALLATION

- Inspect unit through cleanout
- Check o-rings
- Make sure flotation devices are in place (one on each side of gate)
- Check the gate and ensure it moves freely.

INSTALLATION

- Allow maximum grade when possible – 4% or higher
NOTE: min. grade must be at least 2% - 1/4 inch per foot
- Check grade with level by placing it on the bolts
- See arrows for direction of flow
- Do not install any fittings within 2 feet of inlet side of valve. This will ensure laminar flow through valve body (as there is no control of fitting layouts, in retrofit installations this rule may be waived by the enforcing authority)
- Care should be taken when solvent welding pipe into valve. Ensure solvent does not enter the body as it will affect the valve's function
- Re-inspection of unit-remove sand, gravel, dirt or any other debris which may have entered the body and and hinge area upon installation
- Tighten cleanout
- Install Mainline Access Box

Precaution:

RETROFIT INSTALLATION

- * Failures may occur due to back grade on valves, In order to achieve grade in retrofit installations, an installer must expose approx. 4-5 feet of piping. Often sewers are at a minimum, flat, or back grading. Since there is $\frac{3}{4}$ of an inch difference in height from inlet to outlet on your Mainline valve, it may be necessary to adjust the grade on the piping leading up to the valve, to achieve required grade on the backwater valve
- * In retrofit installations, always run and test all fixtures to ensure each one runs through the backwater valve, and nothing remains unprotected
- * Check that the sewer is unrestricted (roots, blockages, etc.) downstream of valve.
- * Ensure weeping tiles (French drains) tie in downstream of valve

Warning

- Improper installation may result in valve failure

Continued on next page

- Follow installation procedures carefully, with special care and attention to be taken when retrofitting valve into existing systems
- Do not install if proper grade cannot be achieved

Testing the Unit

All backwater valves are factory tested through our certified quality control program.

If you wish to test the backwater valves, follow these instructions.

- Place a "Test Ball" through the cleanout plug on the body, downstream of the valve into the outlet drainage piping leading away from the valve.
- Inflate the test ball.
- Through the cleanout opening, stretch a garden hose down to the "Test Ball" and begin filling the pipe with water.
- Watching through the cleanout opening, you should see the gate rise into the closed position. This means the valve is closing properly. During a sewer backsurge, back pressure will increase downstream of the valve, and the gate will seat onto the valves o-ring, protecting the building from backflow.
- Deflate the "Test Ball" to release the water. This will allow the gate to fall back into the open position.

For further assistance call our toll free number at 1-877-734-8691

MAINLINE BACKFLOW PRODUCTS INC

MAINTENANCE

BUILDING OWNER:

Mainline Backwater Valves are designed to be virtually maintenance free. However, they are mechanical devices sitting in a sewage environment, and periodic inspections are required. To ensure the satisfactory performance of the backwater valve follow the procedures listed below.

Periodic Inspection and Maintenance

- Remove the cleanout plug on the top of the valve and do a visual inspection.
- Take a flashlight or trouble light to properly see inside the valve body.
- Inspect for debris build-up on the body, gate and beneath the gate.
- if debris build-up is found flush clean.
- The valve's gate seals against an o-ring on the body (in the closed position). Inspect o-ring and replace if necessary.
- On models fitted with closed cell polyethylene floats, check the condition of floats and replace as necessary. * Note: these floats are located on both sides of the gate and are protected from sewage contamination by the sidewalls of the gate and body (long life cycle, impervious to sewage). CSA certified floats.
- Ensure gate freely moves up and down.
- Reinstall cleanout plug.

Bolted Cover

If damage is found on the gate, or a more thorough cleaning of the valve is required, remove the bolted cover.

Important: if you have difficulty maintaining these backflow devices, contact your plumber.

If you wish to test the unit under a backflow condition refer to **Installation** for instructions.

For more information call our toll free number 1-877-734-8691

MAINLINE BACKFLOW PRODUCTS INC.