Minute No. 196
Report – Standing Policy Committee on Infrastructure Renewal and Public Works – February 1, 2011

Item No. 1 Financial Assistance Program for Homeowners – Installation of Backwater Valve and Sump Pumps

COUNCIL DECISION:

Council concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and adopted the following:

1. That the Public Service implement a program to financially assist homeowners with the cost of installation of an in-line backwater valve and sump pump and pit to help protect basements from chronic flooding as a result of storm water run-off overloading of the wastewater collection system.

2. That $1,180,000 for the program be included in the 2011 Current Budget, conditional upon a recovery from the Province of Manitoba via a new incremental financial contribution of $500,000 to the subsidy program.

3. That the subsidy program be retroactive to May 1, 2010.

4. That the program includes that labour eligible for subsidy will require that City of Winnipeg permits be obtained for such works by the appropriate contractor, as required by the Winnipeg Building By-law No. 4555/87.

5. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

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DECISION MAKING HISTORY:

Moved by Councillor Vandal,

That the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works be adopted.

Carried

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On February 16, 2011, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On February 1, 2011, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service with the following amendment, namely:

- Add Recommendation 4.

  "4. That the program includes that labour eligible for subsidy will require that City of Winnipeg permits be obtained for such works by the appropriate contractor, as required by the Winnipeg Building By-law No. 4555/87."

and submitted the matter to the Executive Policy Committee and Council.

Further, on February 1, 2011, the Water and Waste Department submitted a drawing of a typical household backwater valve installation along with non-recommended backflow prevention devices in support of the Financial Assistance Program for Homeowners – Installation of Backwater Valve and Sump Pumps.

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DECISION MAKING HISTORY (continued):

COUNCIL DECISION:

On December 15, 2010, Council concurred in the recommendation of the Executive Policy Committee and adopted the following:

1. That an extension of time of up to 90 days be granted in order for the Winnipeg Public Service to report back on the July 21, 2010 Council Motion, as directed by the Executive Policy Committee on September 8, 2010.

2. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On December 8, 2010, the Executive Policy Committee recommended that an extension of time of up to 90 days be granted in order for the Winnipeg Public Service to report back on the July 21, 2010 Council Motion, as directed by the Executive Policy Committee on September 8, 2010, and submitted the matter to Council.

On September 8, 2010, the Executive Policy Committee referred the July 21, 2010 Council Motion, resolving that the Winnipeg Public Service work with the Province of Manitoba and the Insurance Bureau of Manitoba to establish a credit and/or grant and/or finance program to directly assist homeowners with the financial cost of installing both the backwater valve and sump pump with pit, to the Winnipeg Public Service for report back in November 2010.

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DECISION MAKING HISTORY (continued):

COUNCIL DECISION:

On July 21, 2010, Council ruled automatic referral of the following motion to the Executive Policy Committee:

Moved by Councillor Browaty,
Seconded by Councillor Wyatt,

WHEREAS the City of Winnipeg has been encouraging homeowners to install both backwater valves and sump pumps for years;

AND WHEREAS the recent extraordinary heavy rain events overwhelmed the City of Winnipeg storm and sanitary sewer systems;

AND WHEREAS many residents in Winnipeg have yet to install either a proper backwater valve and sump pump with pit;

AND WHEREAS it is recognized that the City of Winnipeg storm and sanitary sewer system was negatively impacted with storm water from weeping tiles and/or basements being directly drained into the sanitary sewer system;

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DECISION MAKING HISTORY (continued):

COUNCIL DECISION (continued):

AND WHEREAS homeowners who install both a backwater valve and sump pump with pit directly minimize the risk of sewer back up, while at the same time reducing the amount of storm water flowing into the sanitary sewer lines;

AND WHEREAS the installation of a backwater valve and sump pump with pit can cost homeowners over a thousand dollars and therefore poses a financial burden to many;

THEREFORE BE IT RESOLVED that the Winnipeg Public Service work with the Province of Manitoba and the Insurance Bureau of Manitoba to establish a credit and/or grant and/or finance program to directly assist homeowners with the financial cost of installing both the backwater valve and sump pump with pit.

ADMINISTRATIVE REPORT

Title: **FINANCIAL ASSISTANCE PROGRAM FOR HOMEOWNERS – INSTALLATION OF BACKWATER VALVE AND SUMP PUMPS**

Critical Path: **Standing Policy Committee of Infrastructure Renewal and Public Works- Executive Policy Committee-Council**

AUTHORIZATION

Author	Department Head	CFO	CAO
M. A. Shkolny, P. Eng. Manager of Engineering	B. D. MacBride, P. Eng Director of Water and Waste	M Geer A/CFO	M Ruta A/CAO

RECOMMENDATIONS

1. That the Public Service implement a program to financially assist homeowners with the cost of installation of an in-line backwater valve and sump pump and pit to help protect basements from chronic flooding as a result of storm water run-off overloading of the wastewater collection system.

2. That $1,180,000 for the program be included in the 2011 Current Budget, conditional upon a recovery from the Province of Manitoba via a new incremental financial contribution of $500,000.00 to the subsidy program.

3. That the subsidy program be retroactive to May 1, 2010.

REASON FOR THE REPORT

September 8, 2010, Executive Policy Committee referred the July 21, 2010 Council Motion, resolving that the Winnipeg Public Service work with the Province of Manitoba and the Insurance Bureau of Manitoba to establish a credit and/or grant and/or finance program to directly assist homeowners with the financial cost of installing both the backwater valve and sump pump with pit and report back.

IMPLICATIONS OF THE RECOMMENDATIONS

The Winnipeg Public Service has communicated with both the Province of Manitoba and the Insurance Industry, regarding partnership opportunities in a homeowner assistance program. While the Insurance Industry was not interested in financially contributing to the program, the Province of Manitoba was very supportive of the program and offered to contribute towards half of the program funding (excluding the City's cost of administrating the program). The Province had indicated that they preferred a subsidy program, rather than a loan program; as they believed that it would provide greater participation in the program.

The cost of the subsidy program as outlined is $1,180,000 per year, with the City's $680,000 portion to be paid from sewer rates. The Province indicated that they would be willing to contribute approximately half of the cost of homeowner subsidies, which would be $500,000 annually.

Backwater Valves and Sump Pit and Pump Systems are devices that protect private property and are installed within the building of a property. The City does not usually pay for improvements made to private properties, but these flood proofing devices, along with other measures (proper lot grading and down spout extensions) will provide significant flood protection from extreme rainstorms. As such, this program is to provide an incentive for private property owners to invest in the protective measures consisting of an in-line backwater valve and sump pit and pump.

The proposed Basement Flood Protection Subsidy Program is as follows:

Each property owner would carry out a site assessment with a local licensed plumber to determine the suitability of isolating their property from the sewer system.

The purposed assistance program would provide up to $3,000, based on the following three situations:

- A: Back-water Valve

  In consultation with a local licensed plumber, a homeowner may determine that a backwater valve (called a mainline back-water valve) is sufficient protection on the sanitary sewage connection. A homeowner may only have to replace a backwater valve that is not in-line. A sump pump system may already be installed or cannot be installed in the basement in this situation.

  Subsidy = 60% of the invoiced cost up to a maximum subsidy of $1,000 including eligible labour, materials, permit and taxes.

- B: Sump pit and pump system

In consultation with a local licensed plumber, a homeowner may determine that a sump pump and sump pit is required to manage the water normally collected by foundation drains. The foundation drain weeping tile flows should be drained to the sump pit then discharged away from the premise at ground level. A sump pump system may still be required as an approved in-line backwater valve is already installed in the premise (i.e. some homes built between 1979 and 1990 have backwater valves but not sump pumps).

Subsidy = 60% of the invoiced cost up to a maximum subsidy of $2,000 including eligible labour, materials, permit and taxes.

- C: Back-water valve and sump pit and pump system

  In consultation with a local licensed plumber, a homeowner may determine that both an in-line backwater valve and a sump pump system are required.

  Subsidy = 60% of the invoiced cost up to a maximum subsidy of $3,000 including eligible labour, materials, permit and taxes.

  The cost of installing an in-line back water valve and sump pit and pump system is quite variable due to different circumstances and ease of installation at different properties. Some construction issues include: depth of sewer piping in the home, how accessible the house sewer is from existing walls and building foundation, location of discharge and obstacles for sump pump discharge to avoid (patios, decks, driveways), and the condition of the existing structure and piping. The average range of costs for a complete retrofit of an in-line backwater valve and sump pit and pump system to have a contractor/plumber install these works is $2,500 to $9,000 (Backwater valve = $1,000 – 3,500, and Sump Pump System = $1,500 – 5,500).

With a subsidy of 60% to the maximum amounts outlined above towards the cost, allows significant investment by both the property owner and the City towards flood proofing private property. It also allows a greater number of properties to be involved in the subsidy program, than if the program contributed to a larger percentage of the costs. Even with the maximum subsidy; the home owner may have to invest up to $6,000 that is unsubsidized.

Other major municipalities such as Toronto, Edmonton, Saskatoon, Ottawa, Hamilton, and London have implemented similar subsidy programs.

Other Cities use a subsidy program that assists property owners for their expense after they have engaged the services of a licensed plumber and the City has inspected the completed work. Their subsidy programs are designed to control the quality of the construction and have simplicity of repayment. The steps for property owners usually included:

- Obtaining work estimates from one or more plumbing contractors,
- Obtain a permit from the municipal regulator (the City),
- Carry out the construction,

- Arrange for plumbing inspection from the City,
- Complete and submit the subsidy application form (with the necessary invoices and information),
- Wait for payment (after the City approves the application form, a cheque is mailed out).

The value of the subsidy differs slightly between different municipalities as some City's program only includes backwater valve installation and not sump pits and pumps. No locations were found where programs include methods of re-payment via installments on water or tax bills. The table in Appendix A summarizes the value of the subsidy that some other Canadian municipalities have created to assist property owners for installing backwater valves and sump pump systems. Appendix B provides some of the eligibility criteria for the property owner in applying for the subsidy.

With annual funding of $1,180,000 for this program, a minimum of 330 premises and a maximum of 1000 premises will be protected annually if the program is fully subscribed. Subsidies will be approved based on a first come first served basis, up to maximum of funds in the program. The funds for this program are based on demand expectations. If the number of applications exceeds the funding available the Water and Waste Department will seek to increase the annual funding or hold applications over until future annual funding is approved.

It has been determined that additional staff will be required to implement this program. Staffing is dependent on the public uptake of the program. The program will require one to two new employees to help administer the program; at an estimated cost of $150,000 for two additional employees. Cost for the employees would be funded from the program. One employee will be hired by the Water and Waste Department to manage the project (project coordination, liaison between different departments and organizations, public education of flood proofing, process the subsidy applications and provide technical guidance to property owners). Also one employee may be hired by the Planning, Property and Development Department depending on the uptake of the program for permitting and inspection.

In addition, a nominal amount of the annual budget will also be used for public education relating to this program and the maintenance/use of basement flood protection measures. It is important that homeowners and plumbers know about the program, and know how they can reduce risk of basement flooding.

The Department has met with the Insurance Bureau of Canada and is participating with them in a basement flooding risk assessment at various locations across Canada. In discussions with the Insurance Industry, there does seem to be some movement towards development of guidelines regarding insurance coverage for flood proofed properties. This may be an additional incentive to have more property owners consider investing in sump pump systems and backwater valves. The Insurance Industry has not been financially involved in any similar programs in other Canadian cities.

Implementation of the Basement Flood Protection Subsidy Program will require the creation of a By-law similar to the By-law created for the Residential Toilet Replacement Credit Program By-law No. 111/2009 which was created as part of the City of Winnipeg's water conservation

program. The By-law will define eligibility of the rebate program; some of the main features of eligibility are listed in Appendix B.

One of the main areas the By-law will address is retroactivity to previous investment in flood proofing installed in properties. The Province of Manitoba has indicated that they would be in favour of retroactivity of the program to May 1, 2010, due to the excessive damage done to homes during the intense rainstorms that occurred last year.

The Water and Waste Department is recommending the subsidy program be retroactive to May 1, 2010. Some concerns of retroactivity are: control of quality of the installation via the permit and inspection process; and financial control of the City's investment. Those applying for the subsidy retroactively would still be required to meet the same eligibility criteria. This would include, for example, having the eligible labour done by a qualified plumber, providing copies of the receipts, producing a permit for the works and inspection by the City.

The Basement Flood Protection Subsidy Program will take effect when Council passes the By-law, with retroactivity to all eligible works done from May 1, 2010.

HISTORY

The Executive Policy Committee referred the July 21, 2010 Council Motion, resolving that the Winnipeg Public Service work with the Province of Manitoba and the Insurance Bureau of Manitoba to establish a credit and/or grant and/or finance program to directly assist homeowners with the financial cost of installing both the backwater valve and sump pump with pit, to the Winnipeg Public Service for report back in November 2010. On December 15, 2010 Council granted a 90 day extension for reporting back.

In May, July, and August 2010, the City of Winnipeg experienced some severe storms that have resulted in overloading of segments of the wastewater collection system. This has resulted in sewer backups and basement flooding in many areas of the City. With the increasingly frequent and severe weather events, it is essential that homeowners take the appropriate action to reduce the risk of basement flooding on their own private property. Those who isolate their home from the City's sewer system can significantly reduce the risk of basement flooding.

In the older parts of Winnipeg, properties are serviced by a combined sewer system; that is where the sanitary sewage from premises and land drainage are collected in one pipe. Underground pipes were built to handle only a limited amount of rainfall and snowmelt. Some of these pipes surcharge with storms that occur once every two years on average, or in other words, rainstorms that have a 50% chance of occurring in any given year. Since 1977, the City has spent more than $290 million through a basement flood relief program to improve the combined sewer system, and continues to invest in improvements. The City has installed piping that increased the capacity so the combined sewer system underground pipes can handle rainstorms that occur once every five years on average, or in other words, rainstorms that have a 20% chance of occurring in any given year.

Despite this, our sewer systems do have practical design limitations. The flooding caused by intense rainstorms is exacerbated if river levels within the City are elevated because of reduced hydraulic capacity of sewer systems. Besides this year's extreme storms, there have been other storms in previous years that have overwhelmed the sewer system (e.g., 1993, 2000 and 2005). The potential impacts of climate change could mean that this trend of less predictable weather and more extreme storms will continue. A proactive approach to minimize the potential impacts due to severe weather events, beyond capital improvements to the collection system is for homeowners to reduce their risk of basement flooding.

Since 1990, City of Winnipeg building by-laws require that all foundation drainage from weeping tiles in new structures be connected directly to a sump pit and pump system with no connection between the sump pump system and the building sewer. Also, new houses built since 1979 were required to have in-line backwater valves. Some homeowners believe they have a device to protect against basement flooding. However, backflow prevention devices installed in the floor drain (e.g., "ball-valve" or "spring-valve") will not offer as reliable protection as provided by an approved in-line backwater valve.

The annual estimated program budget for the Financial Assistance Program for Homeowners – Installation of Backwater Valve and Sump Pumps is as follows:

City of Winnipeg Contribution		$680,000.00	
Province of Manitoba Contribution		$500,000.00	
Proposed Program Budget			**$1,180,000.00**
Staff Costs	($150,000.00)		
Promotion/Education Costs	($ 30,000.00)		
	($180,000.00)		($180,000.00)
Available Funds for Program Subsidies			$1,000,000.00

FINANCIAL IMPACT

Financial Impact Statement

Date: January 24, 2011

Project Name: **First Year of Program** **2011**

FINANCIAL ASSISTANCE PROGRAM FOR HOMEOWNERS – INSTALLATION OF BACKWATER VALVE AND SUMP PUMPS

	2011	2012	2013	2014	2015
Capital					
Capital Expenditures Required	$ -	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	-	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ 1,180,000	$ 1,180,000	$ 1,180,000	$ 1,180,000	$ 1,180,000
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ 1,180,000	$ 1,180,000	$ 1,180,000	$ 1,180,000	$ 1,180,000
Less: Existing Budget Amounts	1,180,000	1,180,000	1,180,000	1,180,000	1,180,000
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Funds for this program are financed by Sewer Rates. There will be a cost recovery of a maximum of $500,000 annually from the Province of Manitoba for this program.

"original signed by Darlene Capp, C.G.A."

Darlene Capp, C.G.A.
Acting Manager of Finance and Administration

js
17-Jan-11

CONSULTATION

In preparing this report there was consultation with:

Planning, Property and Development Department

Risk Management Division, Corporate Finance Department

Legal Services

SUBMITTED BY

Water and Waste Department
Engineering Division
Prepared by: J. Comeau, P.Eng.
Date: January 24, 2011
File No. S-838

c: L. Toews, Finance and Administration, Water and Waste Department (e-mail)
J. Smalley, C.E.T., Water and Waste Department (e-mail)
D. Joshi, Director Planning, Property and Development Department
M. McAndless, Corporate Risk Manager, Corporate Finance Department

APPENDIX A –
Canadian Municipalities' Backwater Valve and Sump Pump System Subsidy Programs

Municipality	Subsidy Program*	Subsidy Provided for Backwater Valve & Sump Pump Systems (C)
Toronto	A = $1,000 B = $1,500 C = $2,300 D = $ 900	80% to a maximum of $2,300
Hamilton	A = $2,000	-
Halton Region, Ontario	A = $ 675 B = $1,800 C = $2,475 D = $ 250	50% to a maximum of $2,475
Ottawa	A = $4,000 B = $7,500 C = $7,500	Maximum of $7,500
London	A = $ 575 B = $1,525 C = $2,100 D = $2,650	75% to a maximum of $2,100
Sudbury	A = $1,000 B = $1,250 C = $2,250	50% to a maximum of $2,250
Saskatoon	A = $3,000 B = $3,000 C = $3,000	Maximum of $3,000
City of Vaughan, Ontario	A = $ 750	-
Edmonton	A = $1,200	-
Winnipeg Proposed	A = $1,000 B = $2,000 C = $3,000	60% to maximum of $3,000

*Subsidy Program Details:

- A = Backwater Valve only rebate
- B = Sump Pump system only rebate
- C = Backwater Valve and Sump Pump system rebate
- D = An additional rebate, such as disconnection of downspouts to sewer system or disconnection of direct connection of weeping tile flows to municipal sewer system (neither of these situations are currently allowed in Winnipeg).

Appendix B - Program Eligibility

The eligibility requirements for the subsidy program are as follows:

- A residential dwelling unit, serviced by a City wastewater sewer;
- One subsidy per private sewer service pipe;
- Applicant(s) must be the current owner(s) of the property.
- Property owners are not eligible for a subsidy if they have outstanding taxes or debts owed to the City of Winnipeg;
- Must be an existing home that does not have an approved in-line backwater valve or sump pit drainage system – new homes in the planning stages or currently under construction are not eligible;
- An approved in-line backwater valve and/or a sump pit drainage system is installed;
- Subsidies are subject to available funding and provided on a first come-first served basis;
- Works installed on or after May 1, 2010 will be eligible;
- A plumber currently licensed by the City of Winnipeg must be hired to perform the eligible labour;
- The property owner must ensure that appropriate permits are obtained from the Planning, Property and Development Department and must arrange for the necessary inspection of the works;
- Labour by the homeowner is not eligible for reimbursement;
- Maintenance of an existing system (e.g., replacing a non-functioning sump pump) is not eligible for the subsidy;
- Interior restorations (e.g., drywall, paint, flooring) or exterior restorations (e.g., landscaping, gardening, sod, trees, porches, decks, concrete, asphalt) are not eligible for the subsidy;
- Water collected in the sump pit drainage system must be drained in compliance with the City of Winnipeg Sewer By-law and Lot Grading By-law;
- The subsidy will be paid by check made out to the subsidy applicant;
- The property owner must agree that the City assumes no liability whatsoever relating to the work undertaken to be eligible for the rebate, and that the work cannot be considered a guarantee that basement flooding will not occur.
- The property owner is responsible for filling out the application form for the subsidy and providing all the necessary documentation, such as:
  - ✓ an original invoice (or copy) marked paid in full from a licensed plumber/contractor verifying installation of an approved in-line backwater valve and/or a sump pit drainage system and outlining in detail the work that was done;
  - ✓ the property owner must sign the application form;

- ✓ incomplete applications will be returned and will not be processed until the information is received; and
- ✓ applications (including supporting documents) must be received by the City of Winnipeg, Water and Waste Department within one year from the date of inspection.

Install (and maintain!) an in-line backwater valve

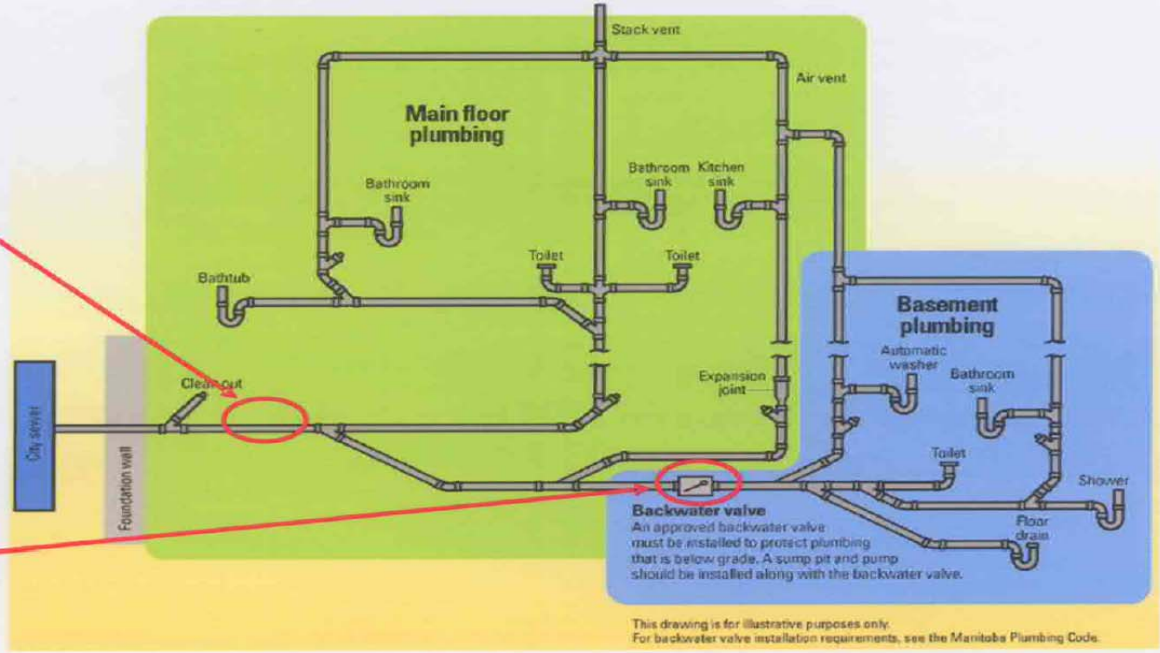
Normally open



Normally closed



Typical Household Backwater Valve Installation



Winnipeg

These backflow prevention devices – installed in the basement floor drain – are NOT recommended as they ONLY protect the floor drain from sewer backup and NOT the entire basement plumbing



Winnipeg

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