130328 & 130329

July 3, 2013

TO: Public Works Committee

FROM: Carl Goldsmith, Director of Public Works CG

SUBJECT: Village Board Policy Memoranda Amendments

The staff receives direction on the operation of a number of programs and projects through Village Board Policies. This policy direction applies to numerous grant programs, such as the Overhead Sewer Grant and the Clear Water Disconnect Grant. These two grant programs are designed to provide funding to residents and businesses making investment in their property to reduce the risk of flooding. Staff has reviewed these programs and recommends that the grants be amended to aid in the ease of use and to provide greater incentive to participate.

Village Board Policy 4.C. – Overhead Sewer Grant Program

The current program provides that the Village will fund 75% of the cost of the improvement with a not-to-exceed cap of $5,000 per property. The program has been interpreted to require the installation of an overhead sewer, but has largely not permitted the installation of a check valve to control flooding. Due to the recent rain events, the Village has received an influx in requests for the installation of valves in lieu of an overhead sewer. Staff recognizes that there is a level of protection afforded to the property through the installation of check valves or combination valves. As such, the staff is proposing that the grant be modified to afford a tiered level of reimbursement, which is based upon the level of protection afforded by the improvement. The maximum funding would be dependent upon the type of installation performed. The changes to the policy are highlighted below:

- The policy is amended to provide greater clarity on the applicable residential units that may apply. Language has been added to state that multifamily units are eligible.
- The reimbursement schedule has been amended as follows:
  - Installation of Check Valve (interior or exterior) = maximum of $1,000
  - Installation of combination gate/check valve = maximum of $2,000
  - Installation of an overhead sewer = maximum of $5,000
- **The amended policy also requires that any recipient of an overhead sewer grant MUST disconnect illegal connections to the sanitary or combined sewer as a condition of the grant.** Additional changes have been made to the Clearwater Disconnect Grant Program in conjunction with the Overhead Sewer Grant Program.
- The grant application has been amended to provide greater clarity to the applicant and staff on the eligible costs and process. The Village has incorporated details on the plumbing

requirements and a better means to track the application compliance through the Public Works and Community Development Departments.

Village Board Policy 4.E. – Clear Water Disconnect Grant Program

A recurring topic following each storm event is the volume of clear water flowing into the sanitary and combined sewer systems. The Village Code (Section 50.026) identifies the prohibition on connection of downspouts, foundation drains and sump pumps established for structures constructed after January 1, 1986. The Committee has discussed this issue at length in the past and discussed sought ways to encourage greater voluntary disconnections. These discussions led to the Village Board amending the policy to include triggers for compliance. The triggers included:

1. When a permit is issued by the Village of Lombard for plumbing modifications within the structure.
2. When a permit is issued by the Village of Lombard for an addition to the primary structure in excess of 250 square feet.
3. When a permit is issued by the Village of Lombard for a tenant finish of a basement or sub-basement

These changes were expected to provide for additional compliance; however, the downturn in the economy and the limited funds per property ($500) has not had a substantive effect on the number of property owners seeking grant funds to comply. As a result, staff is recommending the following changes to the Clear Water Disconnect Grant Program:

- Requiring the disconnection of downspouts, sump pumps and/or perimeter drains when the property owner is receiving funds through the Village of Lombard Overhead Sewer Grant Program, as an additional trigger for compliance.
- Establish a maximum reimbursement to the property owner/applicant in the following amounts:
    - Minor exterior disconnect (redirect downspout) - $200 maximum
    - Interior disconnect (redirect sump pump piping, laundry tub) - $1,500 maximum
    - Major disconnect (install ejector/sump pump, perimeter drains) - $5,000 maximum
    - Connection of downspouts and/or sump pump to the storm sewer - $2,000 maximum

Through these amendments, staff believes that a greater level of compliance can be achieved. Staff is not requesting any additional funds at this time. The CIP provides for $75,000 per year for the Clear Water Disconnect Program and $50,000 for the Overhead Sewer Grant Program.

Staff recommends that the Public Works Committee concur with the recommended changes and forwards the amended Village Board Policies to the Village Board for consideration at the August 15, 2013 meeting.

130328

VILLAGE OF LOMBARD

VILLAGE BOARD POLICY MEMORANDUM

Subject:	**Overhead Sewer Grant Program**	**Section:**	**4.C.**
		Dept.:	PW/CD
		Date:	March 5, 1998
		Revised:	October 1, 1998
			November 5, 1998
			July 17, 2003
			April 19, 2007
			June 5, 2008
		Updated:	November 18, 2010

I. Purpose

Some homes are subject to basement backups because of the "low" sanitary service lines in relation to the Village's mainline sewer. During storms when excessive inflow and infiltration enters the sewer, the mainline sewer may surcharge due to a higher hydraulic grade line causing backups into homes. Overhead sewers (with pumped discharges) reduce this problem. However, retrofitting plumbing systems is expensive which discourages many homeowners from taking corrective action. This grant program is designed to encourage more homeowners to take action resulting in less problems and increased property values. ~~Overhead sewer system, combination check/gate valve, gate valve or external pumping and flap valve installationsystem installation~~ There are several types of backflow control systems that will protect property and ~~may~~ are ~~be~~ a low-cost alternative to a very expensive storm water separation project.

II. Procedures/Guidelines

A. Interested ~~homeowners~~ single family or multifamily property owners who can show evidence of sewer backups submit a grant application to the Public Works Department for evaluation and approval.

B. Approved applicants obtain Village of Lombard plumbing permit; and electrical permit (if applicable) and pay applicable fees.

C. Applicant installs overhead sewer system; combination gate valves, ~~flap valves~~external flood or other suitable systems using their own contractor.

D. Upon completion of the work and ~~receipt~~ approval of a final inspection by the Village, the applicant will pay ~~the first 25% of~~ the total cost of the ~~overhead sewer system; gate valve, flap valve or other suitable~~pre-approved system. The Village shall reimburse property owners up to 75% based upon the following schedule, which is based upon t~~eh~~he level of protection afforded by the improvement:

- Installation of check valve (interior or exterior) – maximum of $1,000
- Installation of interior combination gate/check valve – maximum of $2,000
- Installation of an overhead sewer, modified overhead and exterior pumping flood control systems – maximum of $5,000

~~The Village will pay the remaining costs up to the a maximum per the type of installation of $5,000, in the form of a two-party check.~~

E. The funds available for this program shall be identified in the annual Capital Improvement Program. This policy shall be subject to availability of funds.

F. As part of the Overhead Sewer Grant Program requirements, property owners MUST disconnect all illegal connections to the sanitary/combined sewer system as defined in Section 50.026 of the Lombard Village Code. Property owners may apply for a Clear Water Disconnect Grant per Village Board Policy 4.E.

G. Only one grant award will be made per ~~fiscal year per~~ address.

H. Applicant shall comply with all program requirements as set forth in the Overhead Sewer Grant Program application.

III. Legislation/Documentation

A. Minutes of Public Works Committee meeting of January 13, 1998
B. Minutes of Board of Trustees Committee of the Whole meeting of February 12, 1998
C. Minutes of Board of Trustees meeting of March 5, 1998
D. Minutes of Public Works Committee of September 8, 1998
E. Minutes of Board of Trustees meeting of October 1, 1998
F. Minutes of Public Works Committee of October 13, 1998
G. Minutes of Board of Trustees meeting of November 5, 1998
H. Minutes of Public Works Committee of July 8, 2003
I. Minutes of Board of Trustees meeting July 17, 2003
J. Minutes of Public Works Committee meeting of April 10, 2007
K. Minutes of Board of Trustees meeting of April 19, 2007
L. Minutes of Public Works Committee of May 13, 2008
M. Minutes of Board of Trustees meeting of June 5, 2008

Village of Lombard

OVERHEAD SEWER GRANT PROGRAM

(VILLAGE COST SHARING – 75% of ELIGIBLE PREAPPROVED COSTS)

IN ORDER TO QUALIFY FOR THE VILLAGE OF LOMBARD OVERHEAD SEWER COST SHARING PROGRAM:

The perimeter drain tile and any other source of storm water must be disconnected from the Village sanitary or combined sewer. Installation of a sump pit and sump pump is required. The sump pump is to discharge the storm water onto the ground, to the front or rear of the property. Or, the sump pump discharge may be connected to the storm sewer in the street via underground pipe, SDR 26 PVC minimum 6" diameter in Village right-of-way. If additional storm water is being conveyed (such as rear yard drain or downspouts) then use a 6" diameter pipe SDR 26 throughout.

(Note: This requirement is not applicable if a proper sump pit for perimeter drain tile already exists.)

OVERHEAD SEWER PROGRAM

Table of Contents

OVERHEAD SEWER PROGRAM

What is it?

The Overhead Sewer Program was established to provide financial assistance to homeowners who desire to protect their home from flooding during a heavy rain event. Eligible homeowners may qualify for a 75% cost sharing, to install a preapproved system which can protect their basements from sewer back-up.

How does the Overhead Sewer work?

Typically, homes which have experienced sewer back-ups and flooded basements during a heavy rain event have a gravity type sewer (Exhibit A). The existing sewer underneath the basement floor drains to the sewer in the street by gravity. When the Village sanitary sewers become overloaded the gravity type sewer is subject to back-up.

Changing the basement plumbing to an Overhead Sewer (see Exhibit B on page 6) can protect the basement from back-ups. Basically the plumbing in the basement gets re-plumbed and directed to an ejector pit. The ejector pit lifts the sewage up and overhead, then down to about mid-height of the basement wall, where it exits the foundation wall to the outside of the building. Once outside, there is a steep slope section of pipe where it continues to the lateral line and then to the Village sewer. If the Village sewer backs-up, the homeowner is better protected, as the water will most likely only back-up into the steep slope area of the pipe, and not into the house.

Is there anything else I should know?

Yes, in order to qualify for this program, the proposed Overhead Sewer remedy by your plumber must accomplish several things.

First, the perimeter draintile and any other source of storm water must be disconnected from the sanitary sewer. Installation of a sump pit and pump is required. The sump pump is to discharge the storm water onto the ground, to the front or rear of the property. Or, the sump discharge may be connected to the storm sewer in the street via underground pipe, SDR 26 PVC minimum 6" diameter in the Village right-of-way. If additional storm water is being conveyed (such as a rear yard drain or downspouts) then use a 6" dia. pipe SDR 26 throughout. (Note: This requirement is not applicable if a proper sump pit for perimeter draintile already exists.)

Secondly, an overhead sewer needs to be installed per Exhibit B. The plumber needs to provide two sets of drawings which communicate all of the work being performed. A detailed and itemized invoice for all work being performed is required to be submitted to the Village for review, for Village Cost Sharing.

Are other backflow systems eligible for the Overhead Sewer Grant?

Yes, although the overhead sewer provides the highest level of protection from backflow, the Village does approve other types of systems at varying levels of reimbursement.

The Modified Overhead Sewer connects all of the lower level fixtures to an ejector pit however, instead of raising the raising the outgoing sewer pipe as it goes through the foundation, the ejector

pit pumps up and down into the gravity pipe. (See Exhibit C) This work provides a high level of protection without penetrating the foundation wall or disturbing the landscaping. Like the overhead sewer, the plumbing fixtures on the above grade levels can be used during a storm. The lower level fixtures cannot be used during a power outage.

A dual check valve/gate valve is also eligible for reimbursement. (Exhibit D) This is a lower cost alternative but requires regular maintenance to insure the flap on the check valve closes tightly to prevent backflow. The gate valve provides redundant protection however you need to be home to operate it and does require periodic maintenance to insure operation when needed. The house plumbing cannot be used during a storm when the valve is closed to prevent basement flooding.

An external flood control system is installed outside the home. All of the sewerage flows through the system through check valves which close to prevent backflow. When the Village sewers are full, the sewerage is pumped into the sewer lateral under pressure. This system provides a high level of protection but requires electric to be installed outside the home and is a large structure that should be periodically cleaned.

An exterior check valve installed in a clean out on the outgoing sewer lateral (commonly known as a Clean & Check) is also eligible for reimbursement. Two additional clean outs are required for access to rod the sewer service on either side of the check valve since a plumber cannot rod through it. This is a lower cost alternative but requires regular maintenance to insure the flap on the check valve closes tightly to prevent backflow. Unlike the interior combination check/gate valve, there is no manual valve to close should the check valve fail. The house plumbing cannot be used during a storm when the valve is closed to prevent basement flooding.

Install at least one "clean-out", outside of the house, with the exception of the exterior check valve which requires two "clean-outs". Furthermore, there are certain costs which are eligible for Village Cost Sharing and others that are not.

Eligible costs are as follows:

- Cost of location, excavation and exposure of the house lateral sewer line including the support of existing structures for re-connection of a new overhead sewer to the existing lateral.
- Cost of a new sump pit, ejector pump and associated electrical and plumbing work needed to lift sanitary drainage from basement plumbing fixtures to an overhead sewer.
- Cost of trenching and concrete floor repairs.
- Cost of grass seeding to restore disrupted grass/lawns.
- Additional dedicated electrical circuit for new ejector pump
- Applicable permit fees.
- Installation of storm water sumps or associated piping pits or materials (*Applicants may be eligible for the Clear Water Disconnect Grant to fund a portion of the required disconnections*). .

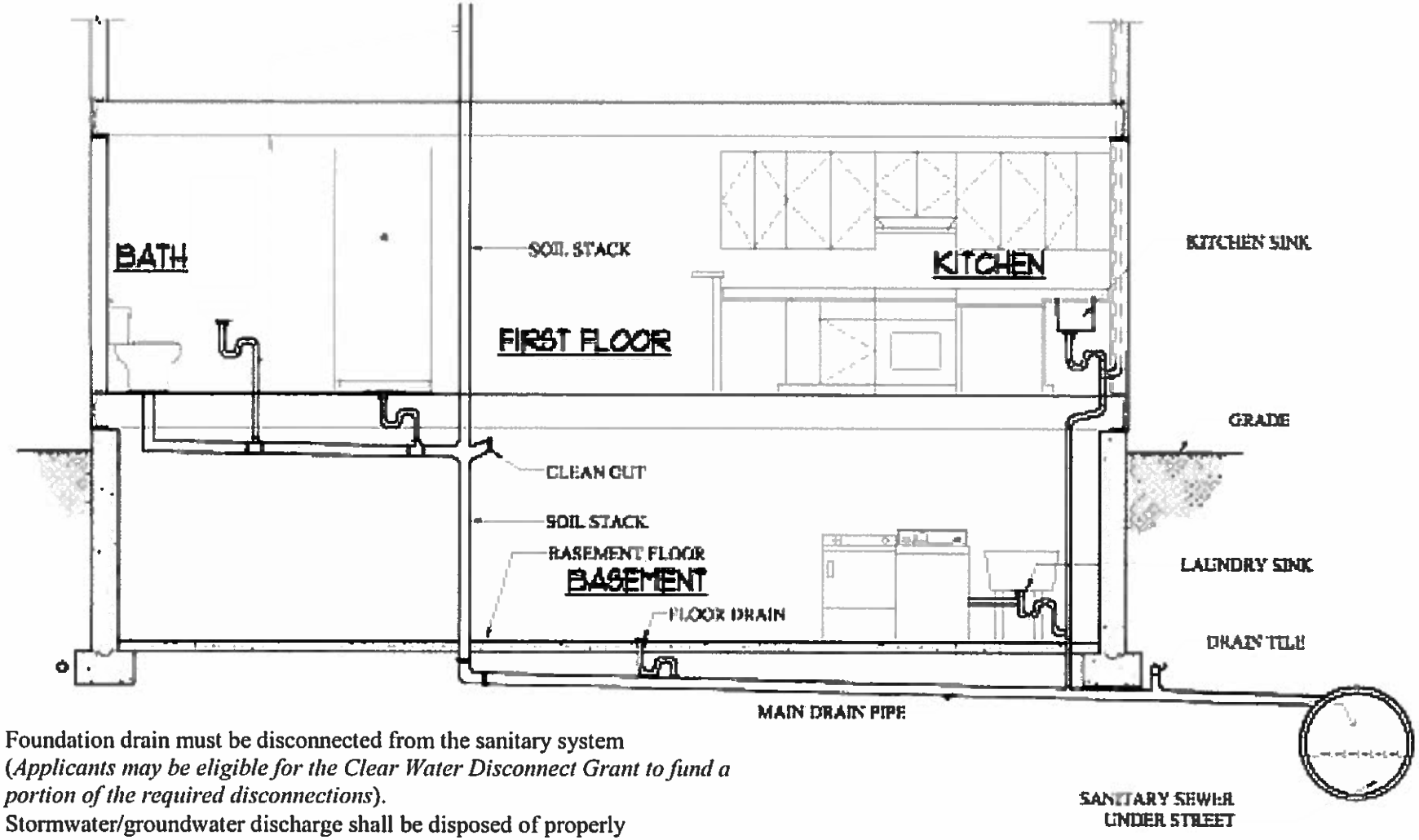
**** Use of Check Valve (Cautions)***

Check valves installed in sewer lines sometimes become clogged with debris and fail to close completely. When this happens, the valve will not stop the sewage completely. For this reason, a valve should not be depended upon completely, and the valve should always remain accessible for service and repair. Remember that when a check valve is installed in a house sewer, the house plumbing cannot be used during a storm when the valve is closed to prevent basement flooding.

Non-Eligible Costs:

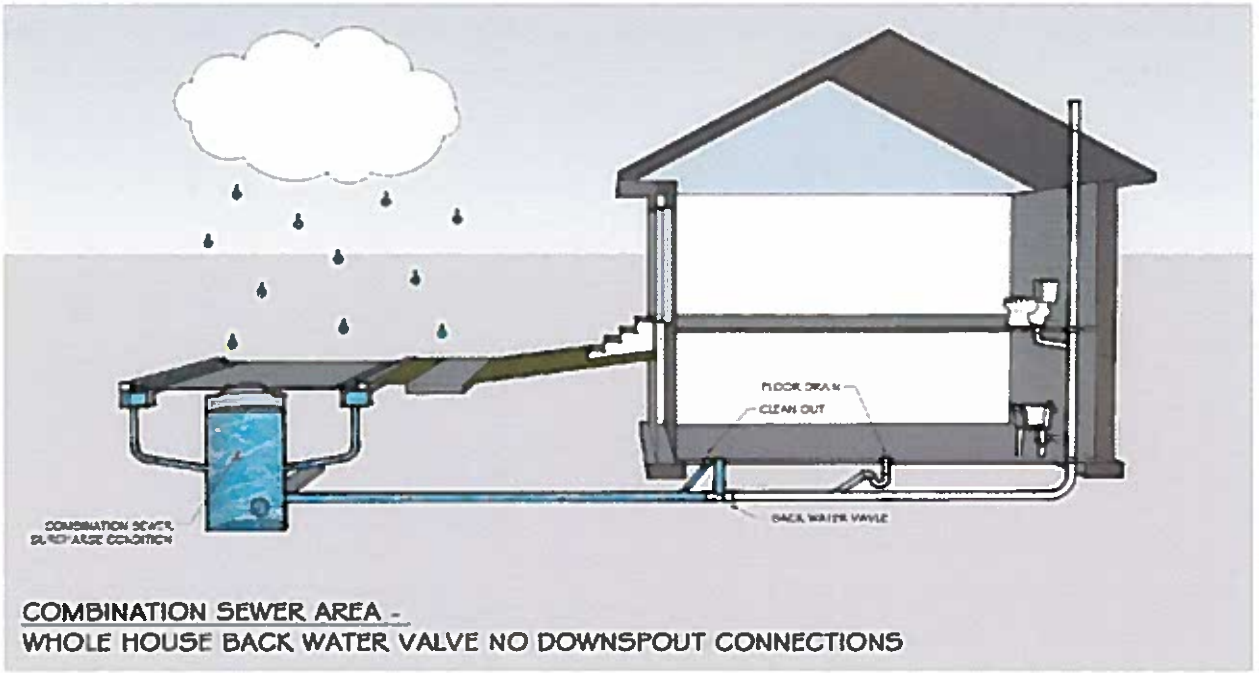
- Removal and Replacement of interior walls and finishes.
- Use of materials not meeting the requirements of the Village's guide specifications or Village
- Codes.
- Ancillary homeowner improvements not necessary to provide sanitary sewer back-up protection of the basement.
- Planting or replacement of new landscaping (bushes, trees, sod, fences, walls, driveways, etc.)
- New electrical panels and/or upgrading the house electrical supply in addition to the dedicated electrical circuit for the ejector pump.

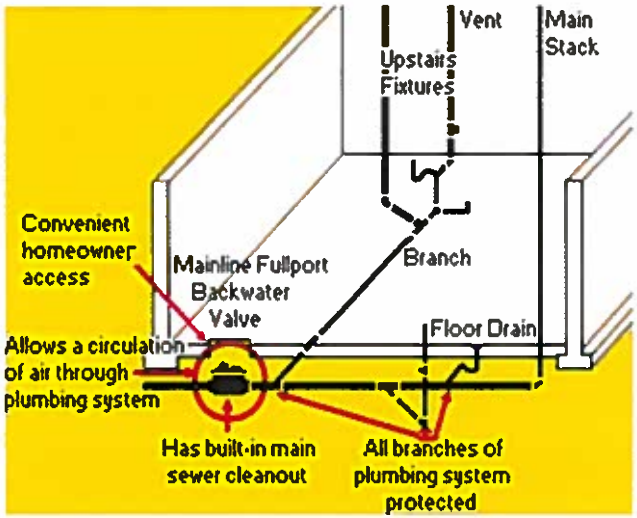
EXHIBIT A: EXAMPLE OF A TYPICAL GRAVITY DRAINAGE SYSTEM (BEFORE)

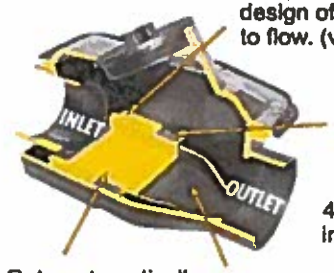


- Foundation drain must be disconnected from the sanitary system (*Applicants may be eligible for the Clear Water Disconnect Grant to fund a portion of the required disconnections*).
- Stormwater/groundwater discharge shall be disposed of properly
- In some homes, the basement wash tub, floor drains and kitchen plumbing may discharge into an exterior catch basin located behind or alongside the building.
- Some homes may also have a foundation drain with a gravity connection to a sump pump in the basement.

EXHIBIT B: EXAMPLE OF AN INSTALLATION OF A CHECK VALVE







"Fullport" normally-open design offers no restriction to flow. (virtually self-cleaning)

Floats

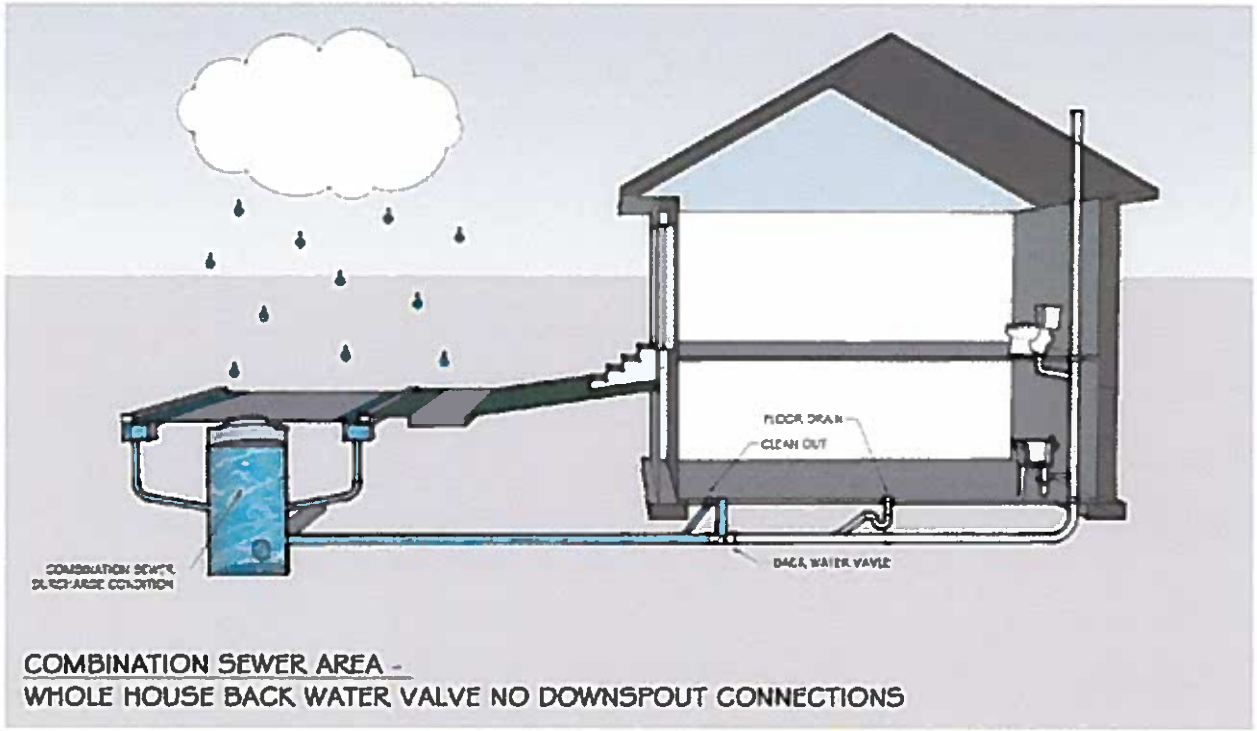
4" diameter DWV inlet and outlet.

Gate automatically rises upon reversal flow isolating entire plumbing system from backflow.

Flow channels on gate body divert sewage from inlet to outlet preventing sewage buildup.

Cutaway view of our Model # 4963 main line full port back water valve

EXHIBIT C: EXAMPLE OF AN INSTALLATION OF A COMBINATION CHECK/GATE VALVE



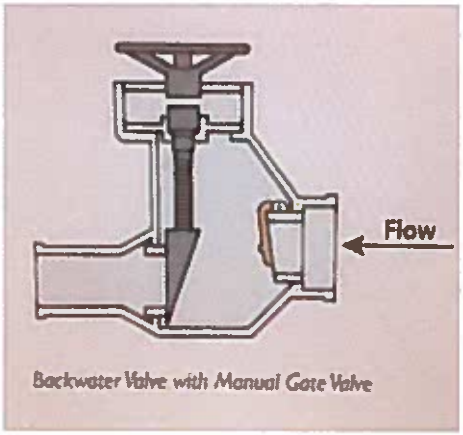


EXHIBIT D: EXAMPLE OF AN INSTALLATION OF AN OVERHEAD SEWER

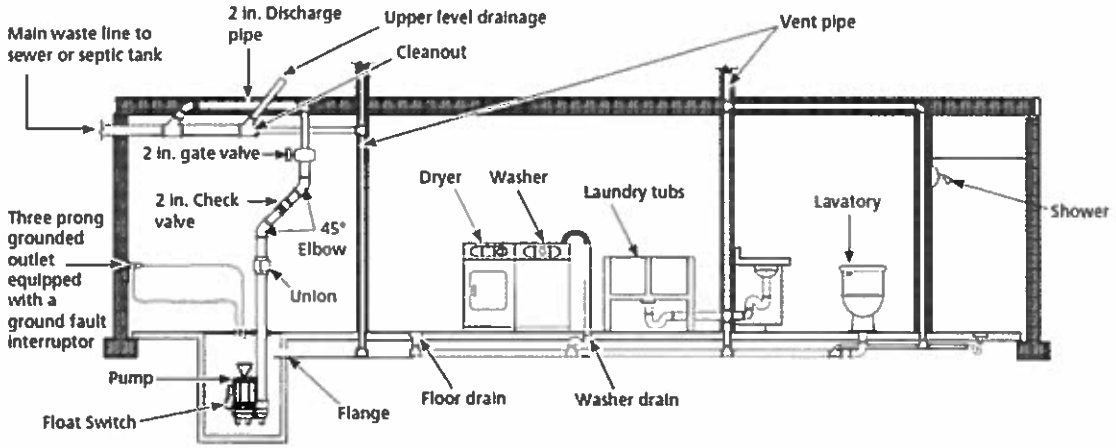
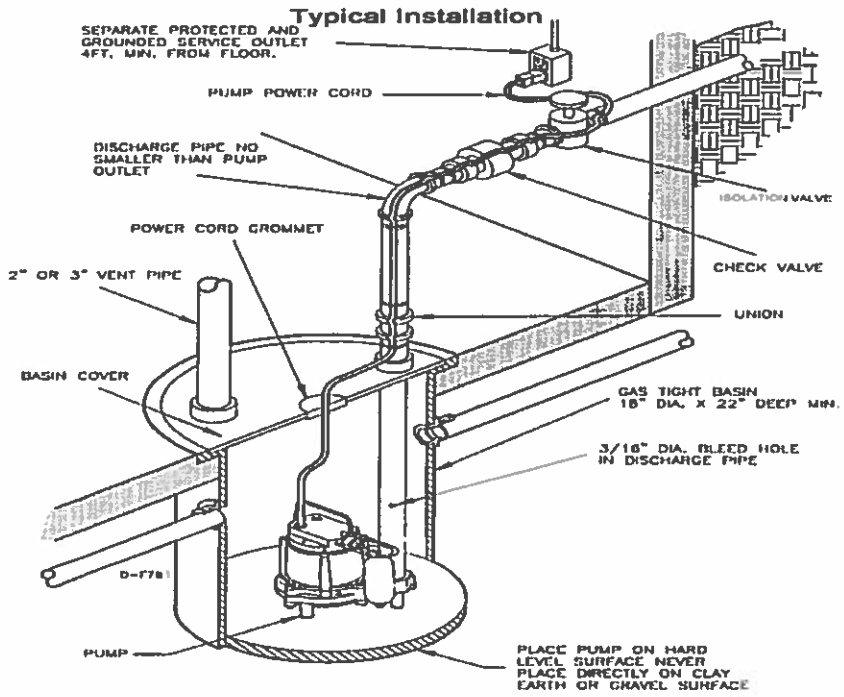


Figure 4 - Typical Installation



GENERAL PLUMBING NOTES

1. In order to qualify for the Overhead Sewer Program Cost Sharing: The perimeter drain tile and other sources of storm water must be disconnected from the sanitary sewer. (*Applicants may be eligible for the Clear Water Disconnect Grant to fund a portion of the required disconnections*). Installation of a sump pit is required to discharge the storm water on the ground (front or back) or make a direct connection to the storm sewer in the street.

2. Use SDR 26 ASTM 2241 for Sewer Pipe.

3. Where manufactured pipe joints cannot be utilized or where dissimilar materials are joined, "non-shear" type couplings shall be used for connections.

4. Connections of SDR 26 laterals to VCP / SDR 26 PVC sanitary sewer main or CP storm sewer shall be made with a stainless-steel band and gasketed saddle connection.

5. Disconnect abandoned basement floor drains/sewer outside of building foundation / slab and cap with the use of brick and hydraulic cement.

6. All floor drains must be vented.

7. PVC pipe for drain waste and vent is permitted for use above ground and is permitted underground and under the slab inside the building.

8. The overhead sewer must penetrate the foundation wall before it starts its steep slope. .

9. Provide a clean-out just outside of the building.

10. The Contractor shall restore all interior and exterior surfaces disturbed due to excavation in-kind.

11. The application shall include a detailed description of exterior extent of work.

12. The installation of exterior check valves must include the installation of a clean out on the private side of the valve, as well as a clean out at the property line. Such installations must meet all Village of Lombard specifications.

APPLICATION INSTRUCTIONS

STEP 1:	Submit an application for the Overhead Sewer Grant Program with two plumbing estimates which detail the scope of work to the Public Works Department. Also, complete the following forms: • **Overhead Sewer Permit Application** (page 8) • **General Information Form** (page 9) • **Letter of Agreement** (page 10) Submit the drawings, proposal & forms to the Public Works Department at 1051 S. Hammerschmidt Avenue. (The Cost Sharing by the Village is 75% up to a maximum of $5000 dependent upon the backflow system proposed, based on available and budgeted funds). A representative from the Village may need to do an on-site inspection of your home.
STEP 2:	After being deemed eligible, hire a plumber. Have the plumber prepare drawings and provide a written proposal which details the scope of work. The application and drawings will be reviewed by the Building Department and will either be approved as noted or returned for revisions. When the application and drawings receive approval, the permit will be issued and the plumber can start the work.
STEP 3:	The plumber needs to contact the Community Development Department to schedule normal inspections during the course of work and at completion for a final inspection.
STEP 4:	After the work has been inspected and approved, the homeowner needs to pay the full amount to the plumber and then needs to submit the following to the Public Works Department to get reimbursed: • Completed Request for Disbursement Form. • A copy of a paid & itemized invoice from the plumber who did the work. • Copies of the cancelled check(s) (both sides) or credit card receipts identifying that the homeowner paid for the work.
STEP 5:	**"WAIT"** – The homeowner will receive the Village's reimbursement check in the mail approximately three (3) weeks after **all of the required paperwork** is submitted to the Public Works Department.

GENERAL INFORMATION

Name: _____

Address: _____ Phone: (Home) _____

(Work) _____

Date you moved into this home: Month _____ Year _____

Plumbing Contractor's Name: _____ phone #_____

Are your downspouts connected to the Village's sanitary sewer system? ☐ Yes ☐ No

Are your downspouts connected to the Village's storm sewer system? ☐ Yes ☐ No

Does your home have an outside catch basin? ☐ Yes ☐ No

Does your home have exterior foundation perimeter drain tile? ☐ Yes ☐ No

Please check all the plumbing fixtures that are present in the basement of your home.

_____ **Floor Drain** _____ **Shower or Tub** _____ **Lavatory**

_____ **Laundry Sink or Wash Basin** _____ **Ejector Pump** _____ **Toilet**

_____ **Sump Pump:** *Does it discharge to Front, Rear, Sideyard? Or is it connected to the Storm Sewer or sanitary sewer in street? (Circle one)*

How many basement back-up events have you experienced? _____
(*Documentation of flooding may be required to qualify for participation in the program*)

Since 1990: _____ Since you have occupied your home: _____

Application Materials Required

Each of the following documents **must** be attached to this application in order for the application to proceed and for a permit to be issued:

1. Copy of two (2) detailed proposals plumbing contractors.
2. Copy of the signed Letter of Agreement.
3. Completed permit application form (with all applicable fees paid).

OVERHEAD SEWER PROGRAM

LETTER OF AGREEMENT

I understand and agree that the Village of Lombard established the overhead sewer program to assist residents in protecting their home from flooding due to sewer backups during a heavy rain event. The program provides for 75% reimbursement of eligible costs dependent upon the approved system.

Prior to the installation of any plumbing work, the specific plans including the Proposal shall be submitted to the Village for review and approval. No work shall commence until Village approval is obtained and a permit is issued. The Village shall be notified to inspect the plumbing and electric work as required under any permit.

Reimbursement of eligible items at approved amounts will be made after work is completed, inspected and approved by the Village. A completed —Request for Disbursement|| form must be completed and submitted with other documentation, such as the detailed invoice and a copy of the cancelled check (both sides) or credit card receipt which evidences that the project was paid for, in full, by the homeowner.

Liability – The Village shall have no liability for any defective work or other damage, injury and/or loss on account of any act or omission of the Contractor in the performance of the work. The Homeowner shall make any claim for such matters directly against the Contractor or Contractor's insurance carrier. Homeowner hereby agrees to indemnify and hold Village harmless against any and all claims and further covenants not to sue the Village for any and all claims, as no system is absolutely fail safe. Homeowner responsible for all maintenance of system including but not limited to replacement parts, pumps, circuit breakers, valves, pipes, etc.

Disclaimer – The Program is designed to substantially reduce the risk of basement backups. However, there is always some risk of basement backup as a result of unexpected sewer collapse, obstruction, power failure, extreme environmental conditions or other unforeseen factors. Proper operation of foundation drains is necessary to prevent seepage of ground water through walls below grade. Existing foundation drains shall not be tested for proper operation in the Program—the Homeowner has the responsibility for all testing, inspections and any corrective work that may become necessary. (The homeowner is reminded that footing drains, storm water tiles and all perimeter drains must be disconnected from the sanitary system. Storm water/ground water discharges shall be disposed of properly)

In addition, reliable continuous functioning of Homeowner's sump/ejector pump(s) and/or check valves is necessary for overhead sewers, and foundation drains to function properly. The Homeowner shall have the responsibility to check the operation of the pumps/valves regularly. The Homeowner shall have the responsibility for all testing, inspections and any corrective work that may become necessary for regular and periodic maintenance. It is further recommended that the Homeowner install a battery backup system to provide protection in the event of power failure. Costs of a battery backup system for the clear water sump pump shall be eligible for funding as part of the program.

Breach – If the Homeowner fails to comply with all requirements of this Agreement or to complete installation as provided in this Agreement, the Village shall have no obligation to reimburse the Homeowner.

I understand and agree with all of the above statements and agree to comply accordingly.

_____	_____	_____
Homeowner – Printed Name	*Signature*	*Date*

_____, LOMBARD, IL 60148

Property Address

OVERHEAD SEWER PROGRAM

REQUEST FOR REIMBURSEMENT FORM

Name:_____

Address: _____

Phone: (home) _____ (work) _____

Date plumbing work was completed: _____

Plumbing permit number issued: _____

Plumbing contractor who performed work: _____

Total cost of eligible expenses: $_____

Total amount of reimbursement requested: $_____ (75% of eligible expenses not to exceed $5,000)

Owner Certification

I, _____ am the homeowner of the premises indicated above and I certify that all of the information contained on this Request for Reimbursement Form is true and accurate to the best of my knowledge.

_____ _____

Signature *Date*

Plumbing Contractor Certification

I, _____ of _____ certify that all work completed under this program has been performed in accordance with the Overhead Sewer Program and all applicable Village Codes.

_____ _____

Signature *Date*

Village Certification

As an authorized agent of the Village of Lombard who administers the Overhead Sewer Program, I certify that I have reviewed all the necessary paperwork associated with above mentioned Overhead Sewer Program Application & Permit, and found them in compliance with the provisions of the Program. Therefore, I recommend the reimbursement amount be paid.

_____ _____

Signature *Date*