Item #6C:

Village Trustee Borys:

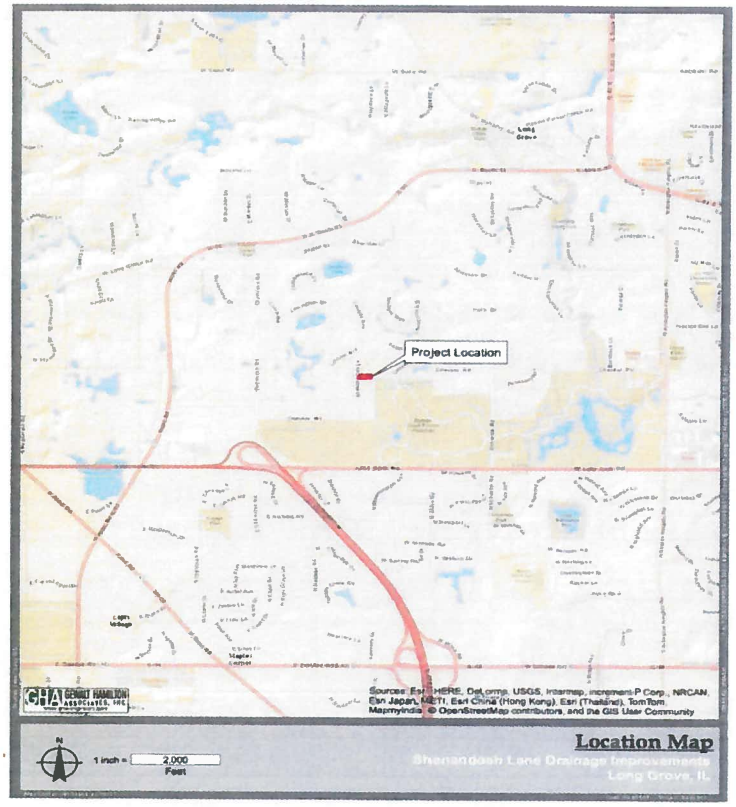
Transfer Of $213,000 From Gen. Fund To Capital Infra Fund
For Replacement Of Shenandoah Storm Sewer ($50,000 SMC Grant)

12/02/15

7. Shenandoah Lane Drainage Improvements. An application was submitted by the Village of Long Grove. **The estimated project cost is $262,016, of which $ 212,016 is the applicant's share and $50,000 is being requested from the WMB, with 8 SMC in-kind hours**. The proposed project scope includes a drainage improvement project that re-routes the storm sewer from the drainage structure on the east side of Shenandoah Lane, south to the side yard of 2546 Shenandoah Lane, east to Checker Road, and then a n in-kind replacement along Checker Road. The re-routing will include abandonment of the existing storm sewer in place. **Due to the scope and character of this project, it has been referred to SMC's Stormwater Infrastructure Repair Fund (SIRF) program and is recommended for SIRF funding ($50,000)**.

Project evaluation:
1. The project will provide interjurisdictional benefits.
2. The project will provide flood hazard reduction benefits.
3. The project will provide structural damage reduction benefits.
4. The project will provide water quality benefits.
5. The project will provide natural resources benefits.
6. The project will provide minor nuisance flooding reduction benefits.
7. The project will not provide multiple use benefits.
8. The use of Federal or State funding is not proposed.
9. Public education and outreach is not proposed.

This project ***IS NOT RECOMMENDED*** for WMB funding.



October 9, 2015

Mr. Mike Warner, Executive Director
Lake County Stormwater Management Commission
500 W. Winchester Road, Suite 201
Libertyville, IL 60048

Re: WMB Projects FY2016
Shenandoah Lane Drainage Improvements
Village of Long Grove

Dear Mr. Warner:

The Village of Long Grove is pleased to submit the enclosed project proposal for consideration by the Lake County Watershed Management Board. The project is located within the Des Plaines River watershed. The following items are included for your review:

- Completed & Signed Watershed Resource Request Form
- Statement of Compliance
- Location Map
- Preliminary Engineer's Opinion of Probable Cost
- Shenandoah Lane Drainage Improvement Schematic Exhibit

Project Description

In the southwest corner of the Village of Long Grove, drainage within the County Club Estates subdivision is conveyed via underground storm sewer pipe generally northwest to southeast and ultimately discharges into the Buffalo Creek Forest Preserve owned by the Lake County Forest Preserve District. Along the drainage route, flow is conveyed through an existing 18" reinforced concrete pipe that crosses under Shenandoah Lane at the northwest corner of 2548 Shenandoah Lane, then east and south along the property lines of 2548 Shenandoah Lane, then south along the rear (east) property line of 2546 Shenandoah Lane, under Checker Road, then east along the south side of Checker Road within the Village right-of-way to the discharge location east of Country Club Drive. See Schematic Exhibit.

The 18" storm sewer pipe from Shenandoah Lane to the discharge location is in poor condition and has been since the early 2000's. This has led to flooding of Shenandoah Lane and adjacent properties with structural damage. Instances of flooding can be documented back to the early 2000's. 2546 and 2548 Shenandoah Lane are within the County Club Estates Subdivision, which was platted in 1963. The Country Club Meadows subdivision, which was platted in 1990, is immediately east of 2548 and 2546 Shenandoah Lane.

The 18" storm sewer was installed with the Country Club Estates development (1963) and follows the property lines; however, it is not within any sort of easement. As indicated above, this storm sewer has ceased to function as designed and has become filled with sediment, debris, roots; the integrity of the pipe has been compromised. The Village has expended substantial resources to investigate the condition of the pipe on multiple occasions since the early 2000's to determine the corrective action. In 2002, the pipe was jetted and root cut with a sharp edged bucket. At the time of this work, roots measuring 6" diameter were cut and removed from the pipe. The

pipe was again root cut in 2008 due to root obstructions resulting in poor flow. The poor flow has led to chronic flooding of Shenandoah Lane and adjacent properties even after remedial actions.

The Village of Long Grove contracted to have the existing sewer along Checker Road televised on October 8, 2015. The exploration found the pipe in a failed condition due the presence of roots and sediment in the pipe (filling ½ to ¾ of the pipe), displaced joints and "sags" in the pipe. Efforts made on October 8 to televise the entire length of pipe along Checker Road were unsuccessful due to blockages. Effort was also made to televise the section of storm sewer in the rear yard of 2546 Shenandoah Lane; however, the presence of roots and sediment ended that effort within 20-feet of the drainage structure.

In order to alleviate the chronic flooding and standing water issues, the Village of Long Grove is proposing a drainage improvement project that re-routes the storm sewer from the drainage structure on the east side of Shenandoah Lane, south to the sideyard of 2546 Shenandoah Lane, east to Checker Road and then an in-kind replacement along Checker Road. See Schematic Exhibit. The re-routing would include abandonment of the existing storm sewer in place.

There is an alternate solution to replace the entire 18" RCP storm sewer from Shenandoah Lane to the outfall (±1,030-feet) in-kind, which is in the rear yards of 2546 and 2548 Shenandoah Lane in the vicinity of large, mature trees. This option is not recommended, as we are seeking avoid impact to existing vegetation and minimize the easements needed for the project.

Project Benefits

Below is a summary of the project benefits based on the project prioritization criteria included in the WMB Project Proposal packet.

1. **Interjurisdictional Benefits** – Through implementation of the proposed Shenandoah Lane drainage improvements, the following jurisdictions will benefit:
    a. The Village of Long Grove, by re-establishing a positive outlet for flows through the County Club Estates Subdivision. As mentioned above, this road has been chronically overtopped in the last 15+ years during moderate rainfall events; the proposed drainage improvements will alleviate this condition.
    b. The Country Club Estates Subdivision, which contains the most affected properties.
    c. The County Club Meadows Subdivision, which shares a border with Country Club Estates.
2. **Flood Hazard Reduction Benefits** – The drainage improvements will alleviate chronic flooding of Shenandoah Lane and adjacent properties. The properties in Country Club Estates are on septic systems and have reported biological issues with the septic over the last 15+ years; the drainage improvements should help alleviate these issues as well. The chronic flooding of Shenandoah Lane results in a road closure, which is a safety concern if emergency response vehicles cannot access the area.
3. **Structural Damage Reduction** – Owners have reported numerous occurrences of basement flooding and structural damage in the vicinity of the Shenandoah Lane storm sewer crossing. The proposed improvements will restore the outlet of the drainage system, thus alleviating these occurrences.
4. **Water Quality Benefits** – One primary result of the surcharged storm sewer system is the standing water in Shenandoah Lane right-of-way and surrounding properties. This water is stagnant and is present for several days after a moderate rainfall event. The proposed project will alleviate the surcharging of the underground pipe and stagnant water in the area.
5. **Natural Resources Benefits** – There are no mapped natural resources (wetland, floodplain or floodway) in the area; however, the alternate storm sewer routing option will be considered to minimize impacts to existing, mature woodlands.

6. **Nuisance Flood Reduction** – In addition to the reduction of the nuisance flooding in the vicinity, the project will also reduce nuisance flooding in the Shenandoah Lane right-of-way. There is also a health, welfare and safety benefit to this project. Stagnant water can lead to nuisance pests, unusable areas of privately-owned land; both which will be alleviated with this project.
7. **Multiple Use Benefits** – The proposed storm sewer pipe will benefit the Country Club Estates and Country Club Meadows Subdivisions and also the Village of Long Grove.
8. **Outside Funding Utilization** –The Village of Long Grove will be funding the balance of the project costs, which will be well over 50% of the overall cost.
9. **Public Education Component** – As part of regular outreach efforts with various Homeowner's Associations and Village-wide newsletters, the Village regularly discusses the importance of maintaining existing drain tiles, storm sewer lines, refraining from planting trees over storm sewers and asking homeowners to assist in clean-up of leaves and debris that can clog storm sewer structures and ditches.

Please review the attached exhibits and plans, and call if you have any questions.

Sincerely,
Village of Long Grove

Angie K. Underwood

Angie Underwood
Village President

cc: Mr. Neil Schindelar – Lake County Stormwater Management Commission
Mr. David Lothspeich, Village Manager – Village of Long Grove
Mr. Michael Shrake, P.E., Village Engineer – GHA

Statement of Compliance with SMC Policies, Local Plans and Ordinance

The Village of Long Grove, as Project Sponsor, will comply with all policies of the Lake County Stormwater Management Commission, local plans, and applicable ordinances in the development and execution of this project.

Angela K. Underwood

Signature of WMB Member

GHA GEWALT HAMILTON ASSOCIATES, INC.
www.gha-engineers.com

N

1 inch = 2,000 Feet

Location Map

Shenandoah Lane Drainage Improvements
Long Grove, IL

Map Center -88.00948 42.16117

Date 10/9/2015 Project 5060.017

SMC USE ONLY

RECEIVED:_____

REVIEWED:_____

WATERSHED RESOURCE REQUEST FORM

To: Des Plaines River Watershed Management Board
(Name of watershed, e.g., Fox River, Des Plaines River, Chicago River, or Lake Michigan)

Applicant Jurisdiction(s): Village of Long Grove
(e.g., name of Village, Township, Homeowners Association, etc.)

Brief Project Title: Shenandoah Lane Drainage Improvements

General Location: Northwest Corner of Checker Road bend, near 2544 Shenandoah Ln, extending east along Checker Road and north through 2546 & 2548 Shenandoah Lane.

Contact Person: David Lothspeich, Village Manager (Name) dlothspeich@longgrove.net (Email)

Address: Village of Long Grove, 3110 Old McHenry Road, Long Grove, IL 60047

Phone: 847-634-9440

Grant Project Manager: Michael Shrake (Name) 847-478-9700 (Phone) mshrake@gha-engineers.com (E-mail)

Project Type: (check all that apply) ___ Planning ___ Design _X_ Issue Resolution _X_ Capital Improvement ___ Other

Is this a request for a Watershed Management Assistance Grant? Y/N _N_
(This is a specific type of planning grant described on page 5 of this request for proposals packet)

Resource Request: (check one) _X_ Watershed Account Funds ___ SMC Staff Assistance ___ Combination Funds and Staff

Project Description (use additional sheets if necessary):
See attached.

Cost Estimate: $262,016.00 Applicant Share $212,016.00 WMB Share $ 50,000.00

In-Kind Service Person-Hours: Applicant N/A SMC N/A

In-Kind Service Description (Applicant/SMC Service Scope): N/A

Project Timing: Start Date March 2016 Completion Date June 2016

Summary of Project Benefits (relating to flood damage reduction, water quality improvement, and natural resource enhancement):

See attached.

Statement of Local Commitment (assurance that applicant has sufficient matching funds and staff capacity): The Village of Long Grove is budgeting sufficient funds for their share of the construction costs associated with the Shenandoah Lane Drainage Improvement Project as outlined this application. The project is to be completed in 2016 to alleviate existing chronic flooding (roadway and structural) and standing water.

Angela K. Underwood

Signature of WMB member

(This must be a WMB member who supports the project. It is not necessarily the applicant.) See Page 1 for WMB member guidelines.

Village President

Title Village of Long Grove

Requested Attachments:

1. Location map & project site photos
2. Detailed project description
3. Detailed (per criteria) statement on benefits, including quantifiable benefits
4. Statement of compliance with SMC policies, local plans and ordinance
5. Other comments or supporting documents

PRELIMINARY ENGINEER'S OPINION OF PROBABLE COST

Shenandoah Lane Drainage Improvements
2546 Shenandoah Lane to Buffalo Creek Forest Preserve
Long Grove, Illinois
GHA #5000.017

Date: October 9, 2015
Prepared by: Geoffrey Perry, P.E.

GHA GEWALT HAMILTON ASSOCIATES, INC.
CONSULTING ENGINEERS
625 Forest Edge Drive, Vernon Hills, IL 60061
Tel 847.478.9700 ■ Fax 847.478.9701
www.gha-engineers.com

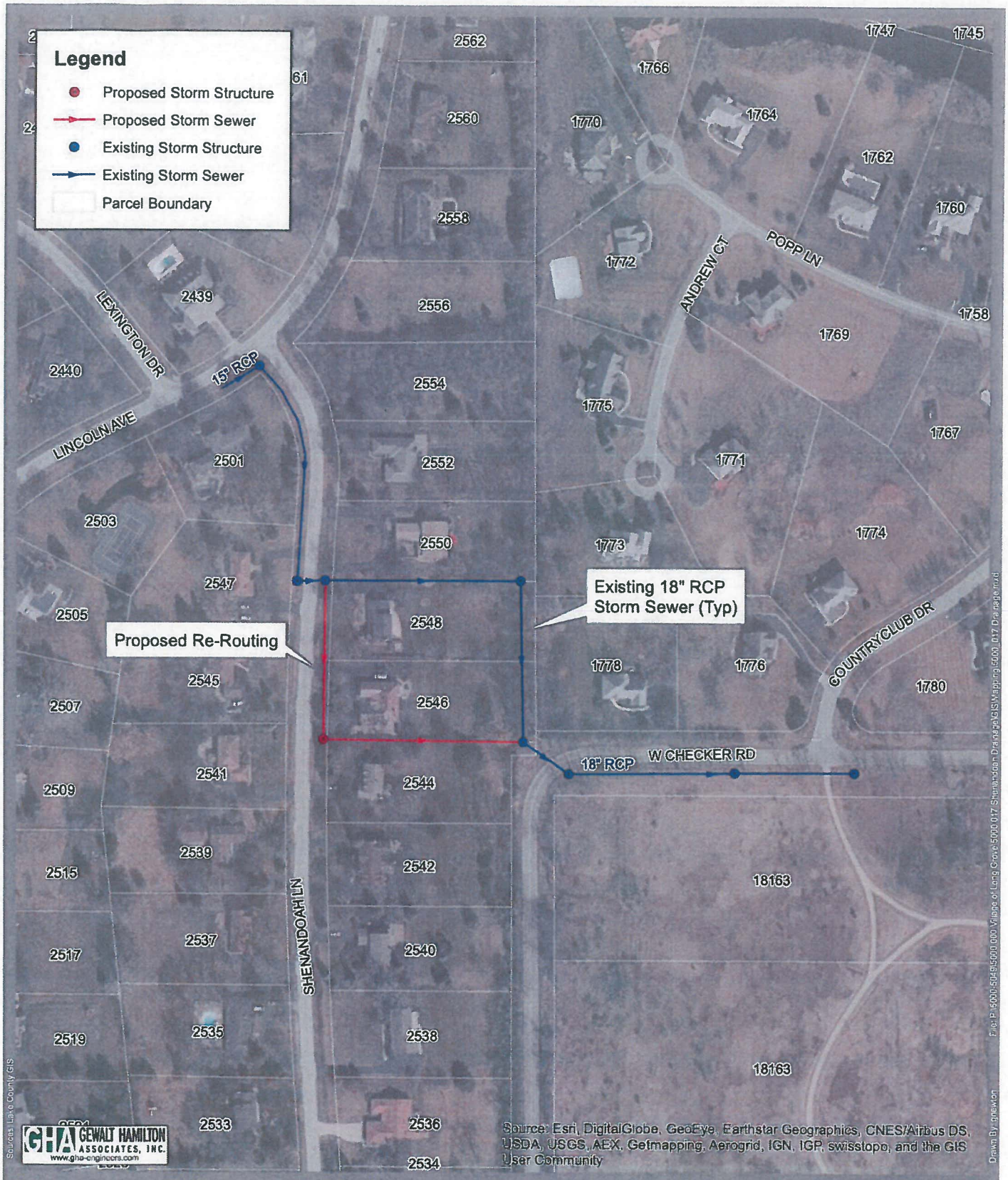
SHENANDOAH LANE DRAINAGE IMPROVEMENTS (PREFERRED OPTION)

Pay Item	Description	Quantity	Unit	Unit Price	Value
20100110	Tree Removal (6 to 15 Units Diameter)	72.0	UNIT	$35.00	$2,520.00
20100210	Tree Removal (Over 15 Units Diameter)	144.0	UNIT	$30.00	$4,320.00
20101200	Tree Root Pruning	6.0	EA	$300.00	$1,800.00
20800150	Trench Backfill	50.0	CY	$100.00	$5,000.00
21101600	Topsoil Furnish and Place, Variable Depth	2,200.0	SY	$3.00	$6,600.00
25000110	Seeding, Class 1A	0.45	AC	$6,500.00	$2,954.55
25000400	Nitrogen Fertilizer Nutrient	40.9	LB	$2.00	$81.82
25000500	Phosphorus Fertilizer Nutrient	40.9	LB	$2.00	$81.82
25000600	Potassium Fertilizer Nutrient	40.9	LB	$2.00	$81.82
25100127	Mulch, Method 3A	2,200.0	SY	$3.00	$6,600.00
28000400	Perimeter Erosion Barrier	1,050.0	FT	$4.00	$4,200.00
44000100	Pavement Removal	150.0	SY	$15.00	$2,250.00
44000200	Driveway Pavement Removal	60.0	SY	$12.00	$720.00
50105220	Pipe Culvert Removal	600.0	FT	$20.00	$12,000.00
542C0220	Pipe Culverts, Class C, Type 1 15"	60.0	FT	$65.00	$3,900.00
550A0090	Storm Sewers, Class A, Type 1 18"	1,030.0	FT	$100.00	$103,000.00
60220200	Manholes, Type A, 4'-Diameter	5.0	EA	$4,000.00	$20,000.00
X2010510	Clearing & Grubbing	1.0	LS	$5,000.00	$5,000.00
Z0004510	Hot-Mix Asphalt Driveway Pavement, 3"	60.0	SY	$35.00	$2,100.00
	Precast Corrugated Metal End Sections 15"	4.0	EA	$900.00	$3,600.00
	Hot-Mix Asphalt Roadway Pavement, 6"	150.0	SY	$85.00	$12,750.00
	Core & Connect to Ex. Structure	1.0	EA	$500.00	$500.00
	Replacement Trees, 3" cal.	20.0	EA	$650.00	$13,000.00
	Bulkhead Ex. Drain tile	2.0	EA	$500.00	$1,000.00
	Drainage Structure Removal	2.0	EA	$500.00	$1,000.00

Sub-Total Construction Costs:	$215,060.00
Contingency (10%):	$21,506.00
Total Construction Costs:	**$236,566.00**
Topographic Survey:	$5,000.00
Tree Survey:	$950.00
Phase II Engineering:	$7,000.00
Phase III Engineering:	$11,000.00
Record Drawings:	$1,500.00
Total Soft Costs:	**$25,450.00**
Grand Total Project Costs:	**$262,016.00**

Detailed Description:
This is a preliminary Engineer's Opinion of Probable Cost for submission with the Lake County Watershed Management Board Grant Application (2015). The scope of work is generally depicted on the aerial exhibit, prepared by Gewalt Hamilton Associates, Inc. dated October 9, 2015 and more fully described in the grant application.

*Since Gewalt-Hamilton Associates Inc. Has No Control Over the Cost of Labor, Materials, or Equipment, or Over the Contractor's Methods of Determining Prices, or Over Competitive Bidding of Market Conditions, Opinions of Probable Costs, as Provided for Herein, Are to be Made on the Basis of Experience and Qualifications and Represent the Best Judgment as a Design Professional Familiar with the Construction Industry. Gewalt-Hamilton Associates, Inc., Cannot and Does Not Guarantee That Proposals, Bids, or The Construction Costs Will Not Vary From Opinions of Probable Cost Prepared for the Owner.



Proposed Improvements

Shenandoah Lane Drainage Improvements

Long Grove, IL

2548 Shenandoah Drainage History

October 12, 2010 Executive Session Meeting Minutes – CONFIDENTIAL

May 25, 2010 Executive Session Meeting Minutes – CONFIDENTIAL

June 23, 2009 Executive Session Meeting Minutes – CONFIDENTIAL.

June 9, 2009 Board Meeting Minutes.
Flood Issues on Shenandoah – Mike Lavezzorio of 2548 Shenandoah said that over the past nine years there have been flooding issues at his home and the homes of nearby neighbors. He said that there was a question as to ownership of the sewer line. He also said that there were biological problems with septic runoff. Superintendent Block noted that the Village had applied for Storm water funding, but had been turned down. Village Manager Lothspeich said that the challenge was that the storm sewer was not in the easement or right-of-way, and that the costs associated with the large pipes would be expensive Village Manager Lothspeich said that the Village would follow up with the homeowner. – **No action was taken.**

April 22, 2008 Board Meeting Minutes.
Shenandoah: - Superintendent Block mentioned drainage issues between two parcels. Village Counsel said that no one entity has the specific job to clear or fix the problem; but that some entity could make repairs without the Village having to pay for it. He said that the Village was also prohibited from incur the cost of a repairing a private property. It was mentioned that an SSA might be set up to that could use the drainage element; and that proportionate contributions could be made. Village Manager Lothspeich said that he would write a letter to the residents of the area and the Home Owners Association – **No action was taken.**

From: David Lothspeich
Sent: Monday, June 07, 2004 11:54 AM
To: Robert G. Block; Joe Chiczewski; julie.tappendorf@hklaw.com; victor.filippini@hklaw.com
Subject: COMMITTEE REPORT TO THE LONG GROVE VILLAGE BOARD CCE

2002 Report from Former Trustee Re: Drainage. We are still experienceing these same type of problems but do not have a formal policy addressing such. In order to reduce future conflicts we need to develop a formal policy for approval by the board. Your thoughts are appreciated.

03-11-2002: Village Board Stormsewer Committee Report Re: Country Club Estates Drainage.

COMMITTEE REPORT
TO THE LONG GROVE VILLAGE BOARD
INVESTIGATION OF ISSUES RELATED TO STORM SEWERS
IN COUNTRY CLUB ESTATES AND RECOMMENDATIONS

BACKGROUND:

Country Club Estates (CCE) of Long Grove was developed with numerous storm sewers that drain storm water from low areas to even lower areas, and ultimately to several ponds contained within the subdivision. A vast majority of the storm sewers run along or within the utility easements within the subdivision. However, approximately 10% of the storm sewers are on private property for which there are no easements, utility or otherwise.

Last October, during what has been described as a 100 year flood, there was flooding in some low-lying areas in CCE. A storm sewer, having an intake adjacent the roadway and running between two lots on private property was not draining away the accumulating storm water. The affected storm sewer was located wholly on private property for which there was no utility easement. (As noted above, approximately 10% of the storm sewers in CCE lack a utility easement) Residents tell me that the water levels were up to their front door stoop. Others had flooded basements due to the high levels of water filling their window wells. You may recall, that as a result of the flooding, and at the request of the affected residents, the Village of Long Grove made several attempts before successfully solving the problem. By way of summary, a roto-router treatment of the storm sewer was unsuccessful and reflected the presence of tree roots. Ultimately, a large bucket with sharp edges was lowered into one end of the sewer and was dragged through to the other end on a chain. The bucket cut through tree roots as thick as 6 inches and ultimately the sewer was cleared. Also, the bricks had to be re-laid at the sewer opening, as water infiltration had worn away the mortar, and the downspout portion of the sewer was collapsing. I do not have the amount paid for these repairs.

The storm sewer that was cleaned out lies either directly underneath or adjacent a row of large trees, some of them having (by my estimate) 18 inch diameter trunks. Thus, the problem will reoccur since the pruned roots will send out laterals seeking the same source of water.

In the absence of a drainage or utility easement granted to the Village of Long Grove ("the Village"), the Village of Long Grove generally has no legal right to enter upon the private property of another to affect repairs. If the Village does so, it exposes itself to liability from the property owners for damage caused to their properties while trying to affect a cure. An exception may occur where an emergency situation arises that may cause harm or injury to Village residents.

ISSUES:

1. Under what circumstances should the Village assume responsibility for storm sewers on private property for which there is no easement?

2. Should the Village seek utility or drainage easements for the approximately 10% of storm sewers in CCE that are located on private property and not subject to any easement?

3. Where does the Village obtain funds for repairing and/or rebuilding storm sewers?

    A) Village funds; or
    B) create a TIF district.

4. If the Village does assume responsibility (emergency or otherwise) for storm sewers located on private property for which there is no utility easement, should farm drain tiles, which carry storm water and are also a source of flooding in residential areas, be treated on equal footing with storm sewers?

    A) Are storm sewers just a more recent (or modern) form of drain tiles?

5. If the Village does assume responsibility for storm sewer repairs (with or without a drainage/utility easement), what advice do we give to residents who experience flooding due to drain tile failure?

CONSIDERATION OF THE ISSUES:

1 In the absence of an emergency situation, it is my recommendation that the Village not assume responsibility for repairing storm sewers located on private property for which there is no drainage or utility easement. To do so, the Village runs a

substantial and unjustifiable risk of suit for trespass and damage to private property by the affected residents.

An emergency situation can be said to exist when harm is threatened to the residents in the affected area. Such harm need not be overt but can be insidious and arise such as when the poorly draining flood waters overlay septic fields (or open sanitary sewers, if present) and cause a commingling of sanitary waste with the flood waters. Such a commingling can result in numerous bacterial diseases being carried by the flood waters.

2. Before considering whether the Village wants to assume responsibility for the approximately 10% of the storm sewers in CCE that are on private property and not subject to a utility easement, it is my recommendation that the Village Board consider the big picture, including the issues 3), 4) and 5) as raised above.

3. All man-made objects have a fixed life span. The storm sewers in CCE have been in the ground since its initial development, which was well over twenty years ago. Trees are one of the major obstacles to the life span of storm sewers, drain tiles and septic fields. As trees get older, their deep and burrowing roots grow towards sources of moisture, such as the leakage provided by storm sewers, drain tiles and septic fields. Ultimately, they find their way into the storm sewers and tiles via cracks or spaces between the tiles. Once inside, they expand to take up as much water as they can, ultimately filling the entire sewer or tile. Thus, as trees planted in any subdivision get older, their size and the time in the soil presents an increasing risk that they will infiltrate and clog sewer, tile or septic lines. Many times the roots will damage the lines by cracking them such that they leak even more water, are weakened and are more susceptible to further damage from tree roots or collapse due to surface water infiltration. In short, sewer lines, drain tiles and septic field lines are like time bombs wherein the risk of further failure increases with time.

Recently, the Village used its own funds to fix the sewer lines on private property in CCE. As time goes on, the sewer lines will age further and many will have lived their useful lives due to the ravages of tree roots and weather. The Village can continue to act as an insurer of the sewer lines and use Village funds as the need arises. Alternatively, the Village can set aside funds in a contingency fund designated for sewer repair, so that when replacement comes due, the Village will have funds for such an emergency. As a third option, the Village can set up a TIF district in CCE to collect funds that would be pooled and used for sewer replacement. Currently, CCE homeowners pay homeowners' association dues of about $50. It was just raised by $15 in the last year and collection by the homeowners is not 100%. Other subdivisions that maintain their own roads, such as Cobblestone of Long Grove, pay an annual assessment of $500. Some subdivisions that maintain their own roadways and a central pump house pay over $1,000 in annual assessments. Thus, it would not be a relative burden upon CCE

to pay an extra $50-$100/year/household as taxes to a TIF district to guarantee the maintenance of all storm sewers within the CCE subdivision.

4. Long before storm sewers were installed in subdivisions to drain water to lower lands from lands surrounded by higher lands, farmers were installing row after row of drain tiles across farm fields to carry away the water that would accumulate in lands surrounded by land of higher elevations. The drain tiles worked by accepting ground water that infiltrated between the loosely laid tiles and carrying the water off to a lower elevation and ultimately to the watershed that drained the area. When corn and soybeans grew in the fields, the roots of these annuals never penetrated deep enough or long enough to disrupt or block the drain tiles. However, when the farm lands were developed into subdivisions that were planted with trees, the tree roots began to find, infiltrate and block the drain tiles as occurred in the storm sewers in CCE. An example of this occurred on Lot 6 in Cobblestone of Long Grove. In December of 1998, the back yard of Lot 6 began to flood for unknown reasons. The flooding overlaid the septic field and the backyard of the adjacent lot was under construction. The homeowners' association and the Village of Long Grove would do nothing as it was looked upon as an individual problem. The water reached the homeowners back door and was in danger of flooding the basement of the adjacent house under construction. Fortunately, the resident owner of the house with water up to his back door was a building contractor. He hired drain tile experts who found the drain tile in his back yard and began digging up its length (and over 360 feet into the conservancy area of Cobblestone of Long Grove) until they found the blockage, which turned out be tree roots that looked like a mop that completely occluded the tile. Thus, this situation has all of the characteristics (including a flooded septic field) of the occluded sewer in CCE, except that the latter did not occur as a result of a 100 year flood but rather continuous drainage of water from higher ground.

5. If the Village does assume responsibility for storm sewer repairs (with or without a drainage/utility easement), the Village needs to do the same for drain tiles or the Village needs to come up with a logical rationale why it does not do so (that it could provide to residents who experience flooding due to drain tile failure).

   One rationale is that the storm sewers are of known location and a known distance and a risk/cost model is capable of being made that would allow a budget for such an item or the creation of a TIF district to cover its anticipated repair. In contrast, drain tiles are totally latent and the risk is incapable of being fully assessed.

   Actually, the location of drain tiles can be mapped, as was done for the District 96 Woodlawn School. It might be useful to have developers map out the drain tiles in their developments and provide such maps to the Village of Long Grove (for creation of a TIF district) or to the Homeowners' association, so that they can assess what lies beneath and decide where to plant or not plant trees.

Dated: March 11, 2002 Donald J. Pochopien, Trustee

9-20-01: National Power Rodding rodded out the 18 inch storm sewer from Shenandoah to the East. (5 loads of water from Country Glen. Water was gone this morning from Shenandoah.

9-19-01: National Power Rodding rodded out the 18 inch storm sewer from Checker Road to the North.(4 loads of water @1500) 2 from fire department two from Country Glen. Water went down during the evening on Shenandoah.

9-19-01: Michael Lavezzorio, 2548 Shenandoah, called to complain about flooding on Shenandoah.

8-23-01: Mr. Lavezzorio met with Bob Block at his office and discussed the flooding of his front property up to his garage doors after the heavy rainfall storm on 8-22-01. 9-10-01: Block to have Lake County clean storm sewer out lines, because they are still clogged.

8-14-01: Scott Ward Underground repaired catch basin.

5-10-01: Mr. Lavezzorio spoke with Bob Block on the unsafe condition of catch basin in front of his property. Would like the basin to be repaired. Bob Block will take a look at the catch basin and determine who is responsible for the repair. 5/15: Village responsibility. Block to meet Lester on site.

02-09-01 10:10. Lavezzorio called Ron Damitz concerned about the water not going anywhere. He thinks that the strom sewer is stopped up. I told him that could be possible with the rain & melting ice & chunks of ice could be stopping up the culverts.I told him that as long as the water did'nt get to the house it will go away. Damitz

7-7-99: Lavezzorio called Damitz concerned with water not going anywhere in swale. 7-8-99: Damitz met Mr. L. & told him after some discussion about installing a 4" tile in ditch line that was already about 6"+ deep that would be allright to do, but don't fill in any more than what would make a nice swale. He agreed. Will probably do it this weekend. He also asked about why his sump keeps running. Damitz checked it out and told him that he might raise the pump about 6"-8" and it won't run continually. He was very happy for advise and Damitz stopping in.

Lavezzorio moved in 7-1-99

Nolte moved in 1992