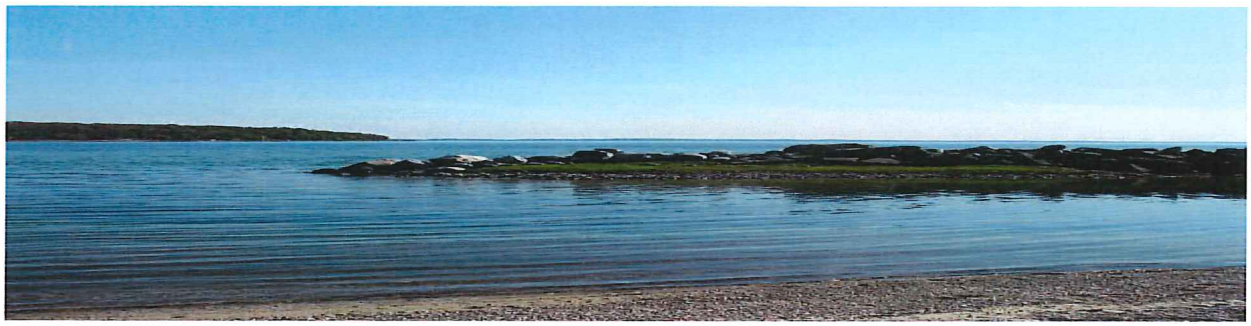


August 12, 2016

Dear Residents of Maple Harbor,

For several months, your friends and neighbors of Maple Harbor have been working to secure a long term solution to the septic system issues in this neighborhood. Our neighborhood was platted in 1912 with lot sizes too small to meet the health department codes of today. Many of these systems are the original ones. When systems fail from age or improper maintenance, they will contaminate surface and groundwater by seeping into the surrounding soils. Ultimately, it will threaten public health with the spread of hepatitis, dysentery and other diseases resulting from pathogens in the drinking water, while also compromising the purity of the lake. This improperly treated sewage increases nitrates in the local water supplies. It also leads to plant growth in the lake and the ecosystem's ability to handle it.

Antrim county health department requirements are that a septic/drain field must be a minimum of 50 feet from yours or your neighbor's well and a minimum of 100 feet from the lake. (Note: most of the lots in Maple Harbor do not meet one or both of these restrictions). If your drain field fails or needs repair you will not have alternatives to meet these present requirements. Permits will likely not be issued for any repairs to the field. Holding tanks for all waste water/sewage may be the only one which is considered a temporary fix that are expensive to install and maintain.

A shared sewer system is a much better solution and benefit to all of us for the future of our neighborhood. We have that opportunity now to go ahead with such a system. It would handle a much larger capacity, be maintained by the township with all repairs, and send our wastewater to the treatment plant in Elk Rapids. Please join with your neighbors and support this longtime effort and make it a reality.

Sincerely,

Maple Harbor Sewer Committee

Township of Elk Rapids

315 Bridge Street • P.O. Box 365 • Elk Rapids, Michigan 49629
Telephone 231-264-9333 • Fax 231-264-6676

August 12, 2016

To Residents and Property Owners in the Maple Harbor Area

Elk Rapids Township held a meeting in May to discuss extending pressure sewer to the properties in Maple Harbor. A group of residents are very concerned about the integrity of the septic systems and are afraid of what may be happening to Elk Lake due to compromised systems. There were a lot of questions at that time so a small committee was formed to gather more information and to see if the property owners were ready to finally move forward.

Attached is an updated Engineering Investigation Summary from Gosling Czubak that breaks down and answers the questions and concerns residents had from last May.

Another meeting for residents and property owners in the Maple Harbor area has been set.

This will be a special meeting for the Elk Rapids Township Board with representatives from Gosling Czubak Engineering and the Antrim County Health Department along with the Township Attorney.

There will be a petition available at the meeting for those interested in pursuing the installation of pressure sewer that will be extended from the Birch Lake sewer system. This is a necessary step to set up funding, in the form of a Special Assessment, for the project.

Please review all the attached information and come to the meeting with any questions you may have.

MEETING INFORMATION

Date: **August 29, 2016**

Time: **6:00 PM**

Location: **Elk Rapids Governmental Center**
315 Bridge Street, Elk Rapids

MEMORANDUM

Maple Harbor Sewer – Preliminary Engineering Investigation

To:	Elk Rapids Township	Date:	August 12, 2016
From:	Gosling Czubak Engineering Sciences, Inc.	Re:	Maple Harbor Sewer – Preliminary Engineering Investigation

1.0 BACKGROUND

1.1 Purpose and Goals

1. Purpose: Continue general discussion regarding providing sewer service to the Maple Harbor area
2. Goals: Provide preliminary opinion of costs and see if there is continued interest to proceed.

1.2 Reasons to consider a sewer system in Maple Harbor area

1. Lot density – small lot sizes leave little room for properly sized on-site drainfields
2. County sanitary code and isolation distances
    a. Health Department standards for new drainfileds require a 100 foot isolation from the lake edge and 50 isolation from any water well
3. Elk Lake water quality
4. Protection of drinking water quality
5. Dwellings on holding tanks

1.3 Existing Sewer System

1. Birch Lake Sewer (owned by Twp)
2. Sewer Treatment under contract with the Village of Elk Rapids Treatment Plant
3. Existing and Future sewer service areas (Sewer Master Plan)

2.0 PROJECT DESCRIPTION

2.1 Scope

1. Connect to the existing 4" Birch Lake pressure sewer system near the intersection of Williams Drive and Williams Court.
2. Construct a 3" pressure sewer along Williams Drive to the intersection of Williams Road and Cairn Highway.
3. Construct a 3" pressure sewer along Terrace Avenue to the southern end of Terrace Avenue.
4. Construct a 2" pressure Sewer along Oakwood Street and connect to 3" sewer at Terrace Avenue.
5. Construct a 2" pressure Sewer along Wahboos Trail and connect to 3" sewer at Terrace Avenue.

6. The proposed pressure sewer will service 34 homes.

2.2 Project Assumptions

1. No "downstream" system improvements will be needed.
2. Pressure sewer/grinder system will be similar to the existing Birch Lake sewer system.
3. Each dwelling will have its own grinder pump that will connect to the pressure sewer.
4. The grinder pump will require electrical service from the dwelling.
5. Terrace Ave, Oakwood Street, and Wahboos Trail road pavement will be replaced as part of the project. Some or all of this cost may be offset by Township road funds.
6. The forcemain along Williams Road can be open cut or directionally drilled next to the road.
7. Service line length is estimated to be approximately 60' for each connected parcel.
8. Cost and quantities are subject to change after detailed design engineering.
9. The project cost will depend on a number of factors, including the size of the service district and final design details.

3.0 HOW MUCH WILL IT COST?

3.1 Customers

1. Based on input from homeowner representatives, and a walkthrough of the service area, there are 34 dwellings within the proposed service district. See attached service area map.
2. Vacant parcels were not counted if they were adjacent to, and under common ownership with, a parcel with a dwelling unit on it.
3. All 34 dwellings are presumed to require a sewer connection and grinder pump and will be connected to the system.
4. The forcemain connecting Maple Harbor to the Birch Lake sewer system will be installed along Williams Road. Parcels along this route are assumed to NOT be included in the sewer service area. The Township will need to review its policy and Ordinance language regarding mandatory hookup. It is recommended that any future connections be charged the same amount as existing Maple Harbor dwellings.

3.2 Opinion of Construction Cost

Item No.	Item	Quantity	Unit	Unit Cost	Total
1	2" Pressure Sewer	700	l.f.	$15	$10,500
2	3" Pressure Sewer	1900	l.f.	$20	$38,000
3	Pressure Sewer Cleanouts	4	each	$1,000	$4,000
4	Air Release Structures	3	each	$4,000	$12,000
5	1½" Pressure Sewer Service	2100	l.f.	$15	$31,500
6	Pressure Sewer Service Fittings and Valves	34	each	$900	$30,600
7	Grinder Pump - Furnished and Installed	34	each	$8,000	$272,000
8	Pavement Replacement	3200	s.y.	$18	$57,600
9	Grass Restoration	1	Ac.	$6,000	$6,000
10	Traffic Control	1	lump sum		$3,000
11	Contingencies Allowance	1	lump sum	10%	$46,500
	Sub Total Construction				$511,700
12	Engineering, Legal, & Administration Allowance	1	lump sum	20%	$102,300
	Total Opinion of Probable Cost				**$614,000**

3.3 Construction Cost Summary

1. Total project preliminary opinion of cost: $614,000
2. Number of dwelling units: 34
3. Preliminary opinion of cost per dwelling unit: $18,100/dwelling (approx. $1,330 per year)

3.4 Cost Summary if Road Funding is Available

1. Total project preliminary opinion of cost: $614,000
2. Less Total road restoration (item 8): ($ 58,000)
3. Total project preliminary opinion of cost: $556,000
4. Number of dwelling units: 34
5. Preliminary opinion of cost per dwelling unit: $16,400/dwelling (approx. $1,205 per year)

3.5 Cost per Front Foot

Preliminary discussions suggested a payment program based on a "per foot" basis. This approach is not recommended since it is complicated by corner lots, lots with more homes on one side than the other, and ROW crossings. Best practice is that the amount assessed to a parcel must be based on the benefit received. Using the "front foot" method does not meet that standard and could expose the project to litigation.

3.6 Estimated Funding Costs

Project costs could be paid in an upfront lump sum, or financed over time. For financing, it is anticipated that the Township would establish a Special Assessment District and charge an annual tax over a 20 year period. Assuming financing at a range of 2% to 4%, the following annual payments would be required:

1. Total Project Cost = $18,100 lump sum OR $1,330 per year per dwelling ($1,100 per year at 2%).
2. Project Cost less Road Funding = $16,400 lump sum OR $1,205 per year per dwelling ($1,000/year at 2%).

3.7 Septic System Abandonment

1. The cost of abandoning septic systems will vary for each customer depending on existing system, location, restoration, etc. A rough estimate per system is $750 in addition to the project costs described above.

3.8 Monthly Sewer Bill

1. Existing Birch Lake sewer customers pay $52.20 per month per customer. It is reasonable to assume this rate could decrease with more customers connected to the system, but it is too early in the process to provide a firm estimate.

4.0 WHAT NEXT?

4.1 Progress Meeting

1. Present findings of the preliminary engineering study at a public meeting
2. Re-confirm interest in proceeding, or not

4.2 Petition Township to create a Special Assessment District

1. A formal petition from residents is required for the Township to take action to create a SAD
2. Requires legal process to implement

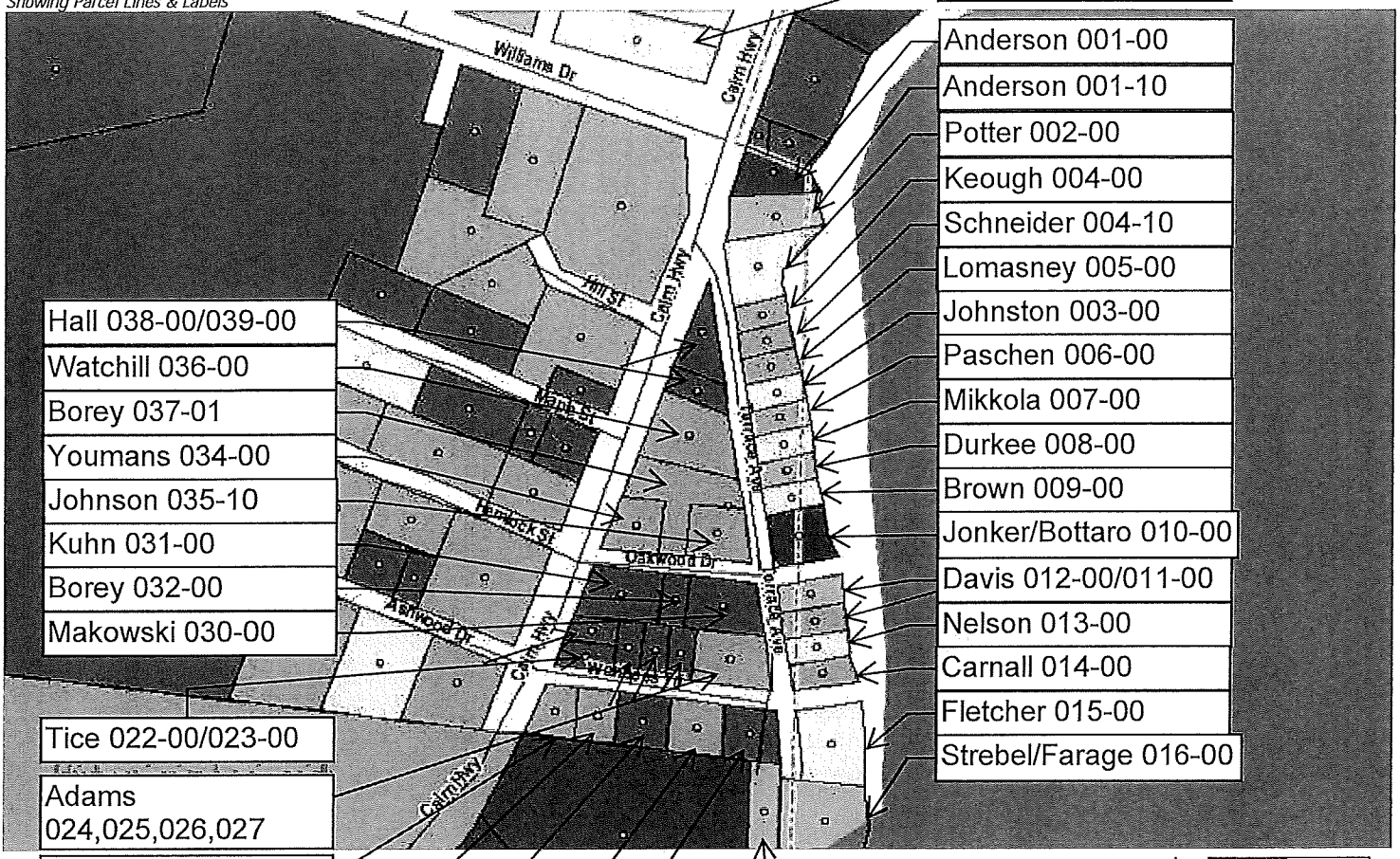
4.3 Township Considerations

1. Make a determination on proceeding with the project.
2. Review, modify, or create an Ordinance regarding how and when a connection to a public sewer is required.
3. Conduct discussion with the Village of Elk Rapids regarding creating a new sewer treatment and operations agreement, or modifying the existing Birch Lake Sewer agreement to include the Maple Harbor service area.
4. Contact a Financial Advisor regarding a construction loan or bond requirements.
5. Authorize engineering and legal services
6. Review sewer rates and connection fee structure

Proposed Maple Harbor Sewer Service Area
Elk Rapids Township

Current Taxable Value

Showing Parcel Lines & Labels



Current Taxable Value (2016 Assessment)

The property taxable value information was obtained from the tax parcel database provided by the Antrim County Equalization Department.

The property line data for Antrim County was provided by the Equalization Department. The parcel areas shown are meant to represent ownership parcels as described by the TAX ID number (each parcel area should correspond to a single TAX ID number, except where a road or other area splits the parcel into multiple areas). Where possible, the parcel map was adjusted to "fit" the database. However, there remains parcels on the map for which no data is attached, and database records for which no mapped parcel could be identified.

The computerized version of the tax parcel map seen here has NOT been VERIFIED as being correct and accurate, and inconsistencies between the parcel data and data sets provided by other agencies (e.g., the MDNR) do exist. This parcel information is included for general reference purposes only and should only be used to identify the general vicinity of a particular piece of property.

Wilson 021-10

Gruber 020-00

Glinski 021-00

Fletcher 019-00

Gruber 017-00

250 US Feet

- $0
- $1 - 29,999
- $30,000 - 79,999
- $80,000 - 109,999
- $110,000 - 159,999
- $160,000 & Over
- Unknown
- Lakes and Rivers
- County Border
- Municipal Boundary
- Public Roads
- Property Lines
- Property Lines

- Sewer Service Area includes 34 occupied parcels (service connections).

- Vacant parcels under common ownership and adjacent to an occupied parcel are considered as one service connection.

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Gosling Czubak

Village of Elk Rapids
Elk Rapids Township
Antrim County, Michigan

MAPLE HARBOR SANITARY SEWER SERVICE AREA

N

- PROPOSED FORCEMAIN
- LOT WITH AN EXISTING HOME (34)
- SERVICE AREA

Gosling Czubak