

**GRAND HAVEN CHARTER TOWNSHIP BOARD
MONDAY, MAY 13, 2019**

WORK SESSION – CANCELLED

REGULAR MEETING – 7:00 P.M.

- I. CALL TO ORDER
- II. APPOINT PRESIDENT PRO TEM
- III. PLEDGE TO THE FLAG
- IV. ROLL CALL
- V. APPROVAL OF MEETING AGENDA
- VI. CONSENT AGENDA
 1. Approve April 22, 2019 Regular Board Minutes
 2. Approve Payment of Invoices in the amount of \$805,778.06 (*A/P checks of \$581,803.25 and payroll of \$223,974.81*)
- VII. OLD BUSINESS
 1. Resolution 19-05-01 – Grand River Waterways Project
 2. Resolution 19-05-02 – Approve Waste Management License Agreement
- VIII. NEW BUSINESS
 1. Approve Three-Year Contract with Plummer’s Environmental – Camera and Clean Sanitary Sewer Mains (*\$121,342.55*)
- IX. REPORTS AND CORRESPONDENCE
 1. Committee Reports
 2. Manager’s Report
 - a. 2019 Project List
 - b. April Building Report
 - c. April Enforcement Report
 - d. April Public Works Report
 - e. March Legal Review
 3. Others
- X. EXTENDED PUBLIC COMMENTS/QUESTIONS ON NON-AGENDA ITEMS ONLY
(*LIMITED TO THREE MINUTES, PLEASE.*)
- XI. ADJOURNMENT

NOTE: The public will be given an opportunity to comment on any agenda item when the item is brought up for discussion. The supervisor will initiate comment time.

**GRAND HAVEN CHARTER TOWNSHIP BOARD
MONDAY, APRIL 22, 2019**

WORK SESSION – 6:30 P.M.

1. The Executive Director of the Ottawa County Road Commission (i.e., Brett Laughlin) gave a presentation regarding the 107.1 miles of public roadways within the Township.

REGULAR MEETING

I. **CALL TO ORDER**

Supervisor Reenders called the regular meeting of the Grand Haven Charter Township Board to order at 7:00 p.m.

II. **PLEDGE TO THE FLAG**

III. **ROLL CALL**

Board members present: Redick, Reenders, Larsen, Kieft, Gignac, and Meeusen

Board members absent: Behm

Also, present was Manager Cargo, and Human Resources Director Dumbrell.

IV. **APPROVAL OF MEETING AGENDA**

Motion by Trustee Meeusen and seconded by Trustee Gignac to approve the meeting agenda. **Which motion carried.**

V. **APPROVAL OF CONSENT AGENDA**

1. Approve April 8, 2019 Regular Board Minutes
2. Approve Payment of Invoices in the amount of \$264,849.93 (*A/P checks of*
3. *\$144,180.87 and payroll of \$120,669.06*)
4. Approve Emergency Water Interconnection Agreement (*NOWS and MRWA*)
5. Approve Reappointment of Construction Board of Appeals Members (*i.e., Rich Buitenhuis, Randy Wagenmaker, Brock Hesselsweet, Lyle Rycenga and Patrick Morden*) for a term ending April 1, 2021.

Motion by Clerk Larsen and seconded by Trustee Meeusen to approve the items listed on the Consent Agenda. **Which motion carried.**

VI. **PUBLIC HEARINGS**

1. **Warner Street East SAD – Prime and Double Chip – Second Hearing**
Supervisor Reenders opened the public hearing at 7:05 p.m.

Manager Cargo presented a memorandum on the proposed assessment roll for improvement to Warner Street East of US-31 to 160th Avenue based upon 50% of the cost (*i.e., an estimated \$38,000*) and an equal benefit per lot of \$2,111.11 payable over 3 years at 4.25%.

Comments from the public included:

- a. Greg Camp (16161 Warner Street) is opposed to the Assessing roll being based on benefit per lot and would rather have the formula be on front footage.
- b. Marla Holmes (16062 Warner Street) believes that the Township should be able to fund 100% of the road improvement; but, also supports using a front foot formula.

There being no further public comments, Supervisor Reenders closed the public hearing at 7:18 p.m.

2. Bluewater Trail SAD – Water Main Extension – First Hearing
Supervisor Reenders opened the public hearing at 7:18 p.m.

Manager Cargo noted that three of the five property owners asked to have their names removed from the petition due to the estimated construction cost. As a result, Manager Cargo announced that the project will not be pursued because the petition is deficient.

There being no further public comments, Supervisor Reenders closed the public hearing at 7:19 p.m.

VII. OLD BUSINESS

1. **Motion** by Trustee Redick supported by Trustee Meeusen to approve and adopt Resolution 19-04-04 that approves the special assessment roll for Warner Street East defraying a portion of the cost of street improvements, payable over three years at 4.25% interest. **Which motion carried** pursuant to the following roll call vote:
Ayes: Gignac, Kieft, Meeusen, Redick, Reenders, Larsen
Nays:
Absent: Behm
2. **Motion** by Clerk Larsen supported by Trustee Gignac to approve the Township to fund the surfacing of Warner Street east of US-31 to 16th Avenue with “prime and double chip” and for the Township Superintendent to execute the Project Estimate agreement with the Ottawa County Road Commission at an estimated cost of \$75,000. It is noted that this is a pre-bid estimate. **Which motion carried.**

VIII. NEW BUSINESS

1. **Motion** by Trustee Gignac supported by Trustee Meeusen to approve Resolution 19-04-07 authorizing the revisions of the Alcohol and Drug Free Workplace Policy, as submitted. **Which motion carried** pursuant to the following roll call vote:
Ayes: Gignac, Meeusen, Redick, Kieft, Reenders, Larsen
Nays:
Absent: Behm

IX. REPORTS AND CORESPONDENCE

1. Committee Reports
 - a. Clerk Larsen requested that the Personnel Committee scheduled for May 8th be

- changed to either May 7th or May 15th.
- b. Trustee Meeusen noted that the Public Safety Committee was changed to May 1st.
 - c. Trustee Redick noted that NORA has hired a new Director (*i.e., Chris Van Hekken*) and that there will be an open House on Wednesday, May 15th from 4:30 p.m. to 5:30 p.m. at the ESC Building on Beechtree Street.
2. Manager's Report
- a. Manager Cargo noted that he and Supervisor Reenders will be meeting on Wednesday with a group of local units regarding a proposed coalition to address the issue of tax-exempt businesses.
 - b. Manager Cargo noted that discussions have resumed regarding the Schmidt land donation proposal.
3. Others
- a. The Board requested that staff examine the rezoning of the non-conforming AG lots within the Lincoln Farms Estates development to RR. Manager Cargo noted that staff will report back at the May 13th meeting.
 - b. Clerk Larsen noted that the Board will be collecting donations for "Women in Transition".

X. PUBLIC COMMENTS
None

XI. ADJOURNMENT
Motion by Clerk Larsen and seconded by Trustee Meeusen to adjourn the meeting at 7:39 p.m. **Which motion carried.**

Respectfully Submitted,

Laurie Larsen
Grand Haven Charter Township Clerk

Mark Reenders
Grand Haven Charter Township Supervisor

SUPERINTENDENT'S MEMO

DATE: April 7, 2019
TO: Township Board
FROM: Cargo
SUBJECT: Grand River Waterways Dredging Proposal

An initiative to dredge the Grand River from the Bass River inlet to downtown Grand Rapids has received considerable attention. Various individuals, local governments, and organizations have adopted positions on the proposal – mostly in opposition.

Attached, please find a few of the myriad of reports and papers on the proposal, which include:

- ✓ Executive Summary of the Grand River Waterway project;
- ✓ Executive Summary of the Grand River Waterway Feasibility Study;
- ✓ Topline Findings of a “Grand River” Attitudes and Opinions Survey;
- ✓ A Critique of the Grand River Waterway Project;
- ✓ An email from a resident opposing the Grand River Waterway Project; and,
- ✓ MSU Extension “Working Paper” Related to Potential Physical and Biological Impacts of the Grand River Waterways project.

There are numerous other emails, reports and summaries of the proposed project. But I concluded that the attached would be sufficient for the elected officials to gain the insight necessary to discuss a proposed resolution opposing the Grand River Waterways project.

If the Board is opposed to the proposed dredging project, the following motion can be offered:

Motion to approve and adopt Resolution 19-05-01 opposing the Grand River Waterway dredging project.

If you have any questions or comments, please contact me at your convenience.

EXCERPTS OF MINUTES

At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at 13300 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 13th day of May 2019 at 7:00 p.m., local time.

PRESENT:

ABSENT: Reenders

The Township President Pro Tem advised the Township Board that the next order of business was the consideration of a resolution concerning the Proposed Grand River Waterway Dredging Project.

After discussion, the following Resolution was offered by _____ and supported by _____:

RESOLUTION #19-05-01

WHEREAS, the Township Board is aware that the State of Michigan is considering a project to dredge a 50-foot-wide, 7-foot-deep channel in the bottom of the Grand River from Fulton Street in Grand Rapids extending 22.5 miles downriver to the Bass River inlet near Eastmanville (hereinafter “Dredging Project”)

WHEREAS, a development group operating under the name of the “Grand River Waterway Organization” has commissioned certain reports, feasibility studies and economic benefit studies, for the purpose of pursuing and promoting the Dredging Project; and

WHEREAS, the feasibility studies and other reports commissioned by the Grand River Waterway Organization have projected that the initial dredging project would require expenditures of public monies in the amount of approximately \$2.2 million, followed by ongoing dredging and maintenance cost of approximately \$170,000 per year; and

WHEREAS, there are unsettled legal concerns as to whether the State of Michigan possesses the statutory or common law authority to undertake the Dredging Project without the express permission of riverfront property owners who possess riparian rights to the center of the Grand River; and,

WHEREAS, the majority of Township residents that have discussed the project have expressed opposition and concerns regarding the environmental and fiscal impact of the Dredging Project;

NOW, THEREFORE, BE IT RESOLVED, that the Grand Haven Charter Township Board of Trustees does **not** support, and hereby formally opposes the Dredging Project for reasons that include but are not limited to the following:

1. The economic benefit to large power boat owners who would use the dredged channel does not justify the public monetary costs of the Dredging Project or the on going channel maintenance and law enforcement;
2. There are substantial, unresolved geological, hydrogeological and water quality risks associated with disturbing over 22.5 miles of Grand River bottomlands that risk the health of the river, including its fishery and other aquatic life;
3. The Dredging Project is a possible threat to the North Ottawa Water System source beds located near the mouth of the Grand River by the disturbance of decades of potentially contaminated waste that may be loosed and travel to the intakes;
4. There are substantial, unresolved concerns regarding the threat of erosion that large boat wakes or an increase in watercraft speeds will have on the current river banks and adjacent wetlands;
5. There is no apparent funding sources for the hundreds of thousands of recurring public safety dollars that local units would have to incur to accommodate law enforcement patrolling and rescues along an extensive portion of the river.

BE IT FURTHER RESOLVED, that with numerous legal, economic, recreational, commercial and environmental issues and uncertainty that the Board urges the State of Michigan to study the matter in depth and make policy decisions in cooperation with local units of government impacted by the proposed Dredging Project.

BE IT FURTHER RESOLVED, that the Grand Haven Charter Township Clerk mail a copy of this resolution to the Michigan Governor, local representatives for the State Legislature, and the Administrative Office of County of Ottawa.

All resolutions in conflict with this resolution are revoked to the extent of such conflict.

YES:

NO:

ABSENT: Reenders

RESOLUTION DECLARED ADOPTED.

Dated: May 13, 2019

Laurie Larsen, Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and acting Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of a Resolution adopted by the Township Board at a regular meeting of the Township Board held on the 13th day of May 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen, Township Clerk

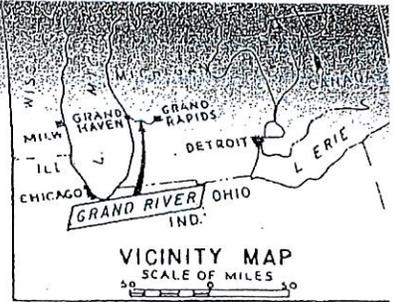


Grand River Waterway

Connecting West Michigan to Lake Michigan and the Great Lakes

- The Grand River Waterway Project goal is for safe navigational use of the Grand River from Grand Rapids to Lake Michigan by providing a waterway from Fulton St. down river 22.5 miles to the Bass River inlet (project area) near Eastmanville in Ottawa County. This is the area of the two existing river marinas and will effectively allow for boating to Lake Michigan. The Waterway would be marked with buoys. The distance from GR to Lake Michigan is 40 miles. GR Rapids project ends at Fulton where this project begins.
- In the 1830s Steam boats ran up and down the river until the early 1900s. The names of those river boats are carved in the ceiling beams of the Cottage Bar.
- In 1910 pilings and wing walls were installed on the river to try and create a natural corridor for commercial boats. This didn't work and some of the pilings are with us today.
- U. S. Representative Gerald Ford in 1957 and U. S. Representatives Vander Jagt and VanderVeen in 1976 supported Grand River resolutions which resulted in a 1978 study by the Army Corp of Engineers for shallow draft navigation from Fulton St. to the Bass Inlet. The study indicated we'd need to remove 400,000 yards to create a 50' x 5' waterway.
- 2016 Grand Action Asset Destination Study mentions the Grand River Waterway and suggests it could contribute to making Grand Rapids a unique destination.
- 2017 the State funded Edgewater Resources to complete a topographic sonar study of the project area. A 50' X 7' waterway required removal of 97,000 yards of material. The estimated cost of the project is \$2.15 million.
- 2018 EcoAnalysts completed the first environmental study. More studies are required.
- 2018 Anderson Economic Group completed an economic impact study. The study reflects a 10 year economic impact of \$57million plus \$54.4million in increased property values for a total of \$111.4 million.
- 2019 Edgewater Resources will complete 87 soil samples from 34 excavation areas.
- The Grand River is an underused recreational asset. The waterway will be a signature project that will make a wide positive contribution in making West Michigan a great place to work, live, and play! www.grandriverwaterway.com Like us on Facebook!

PROJECT STUDY LIMITS
22.5 MILES



NOTE:

EXISTING PROJECT DOWNSTREAM FROM STUDY LIMITS PROVIDES FOR 6-FOOT CONTROLLING DEPTH FOR 14.5 MILES TO THE DEEP DRAFT CHANNEL IN GRAND HAVEN, MICHIGAN.

SEE PLATE I FOR CHANNEL LOCATION DOWNSTREAM OF BASS RIVER.

GRAND RIVER, MICHIGAN
SHALLOW-DRAFT NAVIGATION
REACH

UNDER CONSIDERATION

U. S. ARMY ENGINEER DISTRICT, DETROIT

PLATE 2

NOTES



Grand River Waterway Dredging Feasibility Study Overview

- **GOAL:** Determine feasibility of dredging 23 miles of the Grand River, 50' wide, from the Fulton Street Bridge to the Bass River inlet to allow for a safe, navigable waterway and improve accessibility of 46 miles of river frontage
- Conducted by Edgewater Resources LLC, based in St. Joseph, MI and prepared for State of Michigan, MI Department of Natural Resources and the MI Department of Technology, Management and Budget
- Forty miles of the Grand River from Grand Haven to the Fulton Street Bridge are recognized as navigable by the U.S. Army Corps of Engineers (USACE), and subject to Section 10 of the Rivers and Harbors Appropriation Act of 1899. USACE maintains the 17 miles of waterway between Grand Haven and the Bass River Inlet
- In 1978, the USACE commissioned a study to determine the feasibility of maintaining the entire 40 miles. This study considered a vessel of 49' and an AWL-5' and estimated 400,000 CY of material to be removed from Bass River Inlet to Fulton St. Bridge.
- Hydrographic survey data was conducted using GPS positioning. More than 550,000 individual survey points were collected. A side scan survey was also conducted, which will more accurately determine obstructions, ensuring a focused, efficient dredging plan
- The study analyzed data collected over sixty years during the months of May through September to determine average water levels
- Study considered scenarios with average waters levels (AWL) of 5', 6' and 7'. The study will recommend AWL-7'. Estimated amount of material to be removed for each dredge scenario: 5' – 10,263 CY; 6' – 40,956 CY; 7' – 97,732 CY
- Material to be removed in dredging is approximately 6% of total river volume in affected project area: $97,732 \text{ CY} / 1,574,222 \text{ CY} (50' \times 7' \times 23 \text{ miles}) = .0621$ or 6%
- Cost of project estimated to be approximately \$2.15M. Ongoing maintenance and season installation/storage of buoys estimated at an annual expense of \$165,000
- Project contingent on environmental and economic studies, as well as permitting and construction plans

Survey of Ottawa County Grand River - Attitudes and Opinions Topline Findings

Conducted: April 17 - 18, 2019
Number of Respondents: 400
MoE: ±4.9%

Q. Thinking specifically now about Ottawa County, is Boating and/or Water Recreation a part of the Culture of Ottawa County?

Yes, it is a Significant Part	71%
Yes, it is not Significant, but it is a Part	20%
No, it is not a Part	3%
Not sure	7%
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Total	100%

Q. Do you own a Boat, Personal watercraft such as a Kayak or Canoe, or are you a Boating enthusiast, even if you don't own personally own a boat?

Yes	54%
No	46%
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Total	100%

Q. How frequently do you use State and County waterways (Lake Michigan, Regional Lakes, Rivers, etc) for recreation or sporting purposes?

Frequently, year round	16%
Frequently, mostly during the warm weather season	30%
Occasionally, year round	9%
Occasionally, mostly during the warm weather season	22%
Rarely	18%
Never	5%
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Total	100%

Q. In your personal opinion, does Boating and Water Recreation have a Positive or Negative impact on the economy, and quality of life, in Ottawa County?

Very Positive	62%
Somewhat Positive	29%
Somewhat Negative	3%
Very Negative	1%
Not sure	5%
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Total	100%

-continued-

Topline findings/Page 2

Q. Thinking now about State-owned resources, such as state lakes and rivers...should they be used for open and safe recreation for all Michigan residents?

Yes	80%
No	5%
Not sure	14%
Total	100%

Q. Have you seen, read, or heard recently about the "Grand River Waterway" project?

Yes	48%
No	45%
Not sure	6%
Total	100%

Q. And does what you have Seen, Read, or Heard make you more or less likely to support the Grand River Waterway project?

More Likely	39%
Less Likely	36%
No change	25%
Total	100%

Q. There is a project that is under consideration that would create additional opportunities for water recreation by dredging a small portion of the Grand River between Grand Haven and Grand Rapids. This would be done in an environmentally sound manner, and allow for boating and personal watercraft enthusiasts of all sizes and stripes (such as pontoons, kayaks, canoes, boats, sport fishers, and others) to enjoy and travel the Grand River safely from Grand Haven to Grand Rapids and back. Do you have a Favorable or Unfavorable view of such a project?

Very Favorable	36%
Somewhat Favorable	31%
Somewhat Unfavorable	11%
Very Unfavorable	12%
Not sure	9%
Total	100%

Negative Impacts of Dredging 22.5 Miles of the Grand River

A Critique of the Grand River Waterway Project

What is being proposed?

The Grand River Waterway project plans to dredge a 22.5-mile channel between the Fulton Street bridge in Grand Rapids and the Bass River State Recreation Area (near Eastmanville in Ottawa County). The channel would be 50 feet wide by 7 feet deep and designed to allow large power boats from 26 to 49 feet long.

Who is behind the Grand River Waterway project?

The Grand River Waterway is a pet project created by commercial real estate developer, Dan Hibma, who is promoting the building of a marina in order to profit from development of nearly 200 acres of riverfront property his companies own near Grandville. The Grand River Waterway Annual Report filed with the State for 2018 lists Daniel Hibma as the President, Treasurer, Secretary, and one of the Directors. The other two Directors listed are his business partner and attorney.

How did they get \$3.15 million in taxpayer funding?

The real-estate developers behind the project influenced politicians in the Michigan State Legislature to get appropriations passed totaling \$3,150,000. The latest appropriation was quietly passed during the December 2018 lame duck session.

Why is the Michigan DNR managing the project if it violates their own Wildlife Action Plan?

The Michigan DNR's 2015-2025 Wildlife Action Plan identifies dredging and channelization of rivers as one of the top threats to wildlife because it typically results in decreased habitat diversity, loss of natural aquatic vegetation and floodplain habitats, bank instability and erosion, and increased sediment transport. The Michigan DNR has no choice but to be involved because it has been directed to do so by the Michigan Legislature.

How is dredging and channelization devastating to the environment?

Channelization of the river is known to lower water quality, increase water velocity, carry sediment further downstream, and it would likely expand the large brown plume of sediment that already extends into Lake Michigan at Grand Haven.

Dredging would destroy important river-bottom habitats essential to protected fish and shellfish species. Increased riverbank erosion could threaten protected plant species.

Disturbing the riverbed and riverbanks has the potential to unlock trapped contaminants that may have accumulated from decades of industrial activity, sewage discharge, and the abandoned Fenske landfill site which borders the river.

During dry periods, channelization can further lower water levels and cause ecological harm along the shoreline, as well as in adjacent bayous and wetland areas.

What about potential impacts to threatened and endangered species?

Nearly 50 species of concern associated with the river corridor have been documented to occur in Ottawa County. The Grand River, its tributaries, and its banks are home to many species of State-protected plants, birds, amphibians, reptiles, fish, and shellfish species. Disruption of the river substrate, flow channels, spawning grounds, banks, and connected wetlands poses a significant threat to their habitats.

What are the ongoing impacts and costs of repeated dredging?

Maintenance dredging would need to happen on a regular basis and would continue to disrupt and destroy riverbottom habitats for years and decades to come. The cost to taxpayers for ongoing dredging and maintenance of the channel has been estimated by Grand River Waterway to be \$160,000 annually, an estimate that is almost certainly low.

How would the project impact local law enforcement and emergency rescue services?

Routine patrolling, law enforcement, and emergency rescue services would rely primarily on local law enforcement such as the Ottawa County Sheriff's Department. It would be a burden on their already limited budget and resources.

Who would be responsible for no-wake zones?

Local communities would be responsible to pass no-wake zone ordinances, and purchase and maintain signage.

Who would handle channel buoys and signs?

The Grand River Waterway group estimates the need for 450 buoys, channel signage, and seasonal installation, removal, and storage. The Grand River from Bass River Recreation Area to Grand Rapids is a navigable waterway, but is not a Federally recognized channel. As such, the Army Corps of Engineers and the U.S. Coast Guard does not have the authority or funding to maintain the channel. This burden would fall on State and local government.

How could public and private boat launches and docks be affected?

During low-water periods, channelization of the river could impede access to boat launches and docks, creating the need for further dredging or modification of these facilities at the expense of property owners and local government.

How could Ottawa County Parks programs and property be harmed?

The Ottawa County Parks' mission includes "protecting critical watersheds, maintaining native wildlife and plant species, and providing high-quality recreational activities." It has established the Grand River Heritage Water Trail and has made significant investments in its Grand River Greenway initiative that now includes 2400 acres and 13 miles of Grand River shoreline. Environmental harm from ongoing dredging, and the noise, wakes, and erosion caused by large boat traffic would impede the quiet enjoyment of shoreline parks and pathways, peaceful paddling, fishing, birdwatching, and other low-impact activities.

How would riverfront homeowners be impacted?

Increased erosion from channelization and boat wakes could cause loss of property and the need for expensive shore stabilization investments. Noise pollution from large boats and onboard partying would impact homeowners' rights to quiet enjoyment of their property. During low-water periods, channelization could make private docks and boat ramps unusable.

Wouldn't increased spending in the local economy offset the costs?

No. The cost to our natural environment and wildlife would be immeasurable.

Additionally, the economic study performed on behalf of the Grand River Waterway group was self-serving, based on suspect premises, and failed to consider a number of factors. For example, calculating the potential economic benefits of this project to inland and rural communities should not be based on data from Lake Michigan harbor and resort communities such as Grand Haven.

Any theoretical increase in tax revenue and spending at local businesses would largely benefit Grand Rapids and Grand Haven, while local governments between the two points would bear much of the burden for law enforcement and rescue, creating no-wake zones, shore stabilization, ensuring access to boat ramps, and other unforeseen costs.

The study based its assumptions on anticipated visits by tens of thousands of small watercraft that are already able to safely navigate the Grand River without the need for dredging. Even the Grand Lady Riverboat, at 26 feet wide by 105 feet long, regularly navigates the Grand River, and its owners are opposed to this dredging project.

Wouldn't increased property values expand tax revenue?

Not likely. A majority of the shoreline property is owned by Ottawa and Kent Counties, Grand Valley State University, the State of Michigan, the Cities of Grand Rapids, Grandville, and Wyoming, and other public entities. Any theoretical increase in the value of those properties would not generate tax revenue.

Dredging would almost certainly make the water murkier for years or decades to come, and declines in water clarity are linked to declines in property value. Dirtier water, eroding shorelines, exposed mudflats, noisy boaters, and damage to private docks could easily result in property value declines.

How could historic and Native American sites be impacted?

There are many documented historic and Native American sites on the riverbank and within the river channel that could be negatively impacted by dredging and expanded shore erosion. The Grand River Heritage Water Trail includes many of these sites.

What section of river is best suited for large, powered watercraft?

The Army Corps of Engineers maintains a channel between Grand Haven and the Bass River Recreation Area that is suited for traffic by large watercraft. It is important to preserve the portion of river upstream from Bass River for paddlers, anglers, fishing boats, and other low-impact watercraft and activities.

Have public hearings been held or planned?

No. To date we are unaware of any public hearings that have been held or planned by State or Federal agencies. This project has moved forward with very little input from local governments, property owners, and the public.

What about the rights of public and private property owners?

Since the State of Michigan has taken over project management from the private Grand River Waterway group, and the Michigan Attorney General has ruled that a State of Michigan dredging project doesn't require landowner permission, owners of shoreline and bottomland property have lost legal rights to prevent the project.

Is this the same as the Grand Rapids Whitewater Project or an extension of it?

No. Grand Rapids Whitewater is working to restore the historic rapids in downtown Grand Rapids. Its vision includes quiet use of the river by paddlers and anglers, and the project ends at the Fulton Street Bridge.

Would the project affect the GVSU Rowing Team?

Yes. The Grand Valley State University Rowing Team uses approximately two miles of the river in the project area for practice. Initial dredging, ongoing maintenance dredging, and increased boat traffic and wakes would be disruptive to their program.

Hasn't dredging already been attempted and failed?

Yes. An attempt was made to dredge a 45-foot-wide by 4.5-foot-deep channel in the late 1800s. The project was abandoned partway through after the futility of holding back the shifting sand and silt was realized. In the early 1900s, miles of wooden walls were installed within the river to attempt to keep a channel open. Those walls are largely still present and didn't produce the long-term effect intended. In 1930, Congress passed the Rivers and Harbors Act which abandoned a Federally recognized channel in this section of the river. In 1978, the Army Corps of Engineers decided not to pursue another proposal to

dredge this length of the Grand River because of the potentially devastating environmental impact and immense long-term costs to create and maintain a channel.

What can you do to stop this project?

While there are permits and testing required before dredging can occur, there is no guarantee that will prevent it. Funding is already in place, testing is moving forward, and backers hope to have dredging completed by 2020.

Contact your local, State, and Federal lawmakers to let them know your concerns and objections to the Grand River Waterway dredging project.

Connect with *Friends of the Lower Grand River* by email at info@friendsofthelowergrandriver.org

Friends of the Lower Grand River is a grassroots coalition of concerned citizens, paddling enthusiasts, anglers, property owners, government officials, parks supporters, university professors, environmental protection organizations, business owners, and taxpayers.

Charles M Peterson
17257 Buchanan St
Grand Haven, Mich 49417

May 7, 2019

To whom this may concern:

Opposition of proposed Dredging of 22.5 miles of the Grand River

As a member of the Trout Unlimited (TU) organization which is a National Group dedicated to preservation, restoration, and health of our fisheries in coldwater streams throughout the nation, I wish to advise that I am seriously opposed to the dredging effort of the 22.5 mile channel proposed within the Grand River. Because there are approximately 50 species reported to be adversely effected, including the migration of Salmon and Steelhead during spawning season, I reject this dredging effort for many reasons some of which are shown below. The comments contained herein do not represent the TU organization views but are solely my thoughts.

Dredging of the channel to 50 feet wide and 7 feet deep will uncover many environmental concerns. The proposal is a multi-million dollar operation that lends itself to a monetary real estate investment that benefit few investors. I venture to say that only a small population of boat owners have the resources to own, store and operate 26' to 49' long vessels. Some of these vessels may have a height greater than overpass, and bridge clearance and therefore passage beyond these obstacles may be impossible. Disposal of sewerage from large vessels through overboard discharge presents another issue especially without designated dump stations.

Although it has been stated that the Grand River is not a Federally controlled waterway it seems that the United States Coast Guard and the United States Corps of Engineers are essential to provide input of jurisdictional regulations of navigable waterways and other important matters. The following is submitted for review and consideration:

- Removal of sediment and other debris such as downed and submerged trees will upset the river bottom and possibly cause objectionable contaminates to flow down stream. This may require the Michigan Department of Environmental Quality to perform periodic water analysis to assure acceptable quality levels. Chemical analysis of removed materials is needed to detect contaminates and also to select an acceptable dumping ground and method of disposal if objectionable contaminates are found.
- The habitat of resident fish and all other aquatic life including vegetation will be harmed and require long term recovery.
- The State of Michigan and local County Building Codes for residential and commercial structures may require revision to reflect provisions for safe elevation above the projected high water mark during flood conditions.
- Costly Sheriff patrol and enforcement is needed to monitor boat traffic. Relative fines levied must be established.

- Responsibility for design, purchase, fabrication and required Installation of navigation aids and no wake zones must be established. Location of the navigation markers must be established by proper Authorities.
- Speed requirements must be established for residential and commercial areas and straightaways. Prevention of the wash from a wake is needed to prevent unnecessary bank erosion and instability. In addition, noise from high speed power boats will be cause for complaints in residential areas otherwise quiet and peaceful. Restricting horse power is not an option.
- It will be necessary to establish laws for disposal of garbage, cans, bottles, plastics and all other debris. Fines levied for improper disposal of the above must be in place.

For the purpose of protecting and preserving the boundaries of the Grand River and more specifically the 21.5 mile stretch addressed, I request that the dredging proposal be rejected.

Sincerely,

Charles M Peterson

Cc: Cris Wood, President/Chief Executive Officer of TU

Washington, DC



Summary of Research Related to the Potential Physical and Biological Impacts of Dredging to Channelize the Grand River

A Working Paper, April 9, 2019 Version



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Introduction

The Grand River Waterway proposal is not a typical harbor dredging project, but rather a river channelization project that would remove roughly 50 acres of shallow habitat through dredging portions of the Grand River in Kent and Ottawa counties. The project seeks to create a 7-foot deep channel through a 22.5-mile stretch of the Grand River between Grand Rapids and Bass River State Recreation Area near Eastmanville.

The Grand River Waterway economic impact study stated that river channelization via dredging will “help return the river to its natural state” and that “increased recreational opportunities and improved water quality may generate up to 49,000 net new visitor days annually ... and an annual net new economic impact of up to \$5.7 million.” Research suggests that dredging will not improve water quality. A more likely scenario is reduced water quality, increased erosion of private and public land, increased deposition of sand and silt in certain areas, and harm to fish and wildlife populations. This paper deals specifically with physical and biological impacts, but it is important to note that these have economic implications, as well.

The physical and biological impacts of the Grand River Waterway project would likely extend far beyond the 50 acres that would be removed initially. Dredging to channelize a river causes radical changes to the way a river functions, affecting the shape of the channel and patterns of erosion and sediment deposition. Channelization typically harms water quality and destroys or reduces the quality of fish and wildlife habitat. It can be difficult to predict the severity of these impacts and specific locations that will be affected. However, the general pattern of negative consequences for the river environment are very well documented and supported by scientific research from around the world.

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Summary of Key Points

- The Grand River Waterway plan is fundamentally different than harbor dredging projects in river mouth areas. It is a **river channelization** plan that would deepen portions of the Grand River to form a continuous 22.5-mile channel.
- River channelization will **not return the Grand River to its natural state**. This reach of the Grand River was shallow prior to dredging attempts that began in 1886. Michigan's Wildlife Action Plan notes channelization as one of the most serious threats to big river habitats including the Grand River.
- The Grand River Waterway plan is not the first attempt to channelize the Grand River between Grand Rapids and Eastmanville and improve conditions for navigation. The first attempt was a failure, and **reasons for that failure have not been fully addressed** by the Grand River Waterway plan.

Summary of Physical Impacts

- Available scientific literature suggests that **dredging will not improve water quality** in the Grand River. In fact, dredging to channelize a river typically leads to increased turbidity and dirtier water.
- Channelization often leads to **increased erosion of the stream bed** even after dredging is completed. The Grand River Waterway plan does not quantify the additional erosion and downstream sedimentation that would likely occur for many years after dredging.
- Channelization and increased boat traffic often lead to **increased erosion of the riverbanks**. The Grand River Waterway plan does not quantify the additional bankside erosion and loss of land, vegetation, and cultural resources that could occur.
- Channelization lowers the bottom of the river and therefore lowers the surface of the river, as well. This makes all non-dredged (off-channel) areas of the river shallower. The Grand River Waterway plan does not address the **loss of off-channel, wetland, and island areas** that could result from lowering the surface of the river.
- Plans for river channelization often fail to consider how **dredging can create more erosion upstream** of the dredged area and in tributary streams that flow into the dredged area. The Grand River Waterway feasibility study did not consider the potential impact of this upstream erosion (known as head-cutting) in areas including the Grand River in downtown Grand Rapids and in the lower end of tributaries such as Plaster Creek, Sand Creek, Buck Creek, and Deer Creek.

Summary of Biological Impacts

- Channelization has profound negative impacts on bottom-dwelling creatures that form the base of the food chain in rivers. The Grand River Waterway plan would almost certainly do **great harm to benthic macroinvertebrates** that include snails, rare native mussels and larval insects that provide fish food.



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- Channelization destroys shallow riffles and gravel bars that many fish species require for successful spawning. The Grand River Waterway plan specifically includes **dredging of a gravel bar area that provides high-quality spawning habitat** for state-threatened river redhorse. The same gravel bar area is a known destination for walleye, steelhead, and smallmouth bass anglers and provides habitat for northern pike, muskellunge, and possibly lake sturgeon.
- Channelization harms valuable gamefish and sensitive threatened and endangered fish species, leading to low-quality fish communities and **reduced fishing opportunities**.
- Even after maintenance dredging stops, a **river may not fully recover for several decades**. Even if the river does return to a new equilibrium state it will be different from the river as it was before channelization.

Key Points

The Grand River Waterway plan is fundamentally different than harbor dredging projects in river mouth areas. It is a **river channelization** plan that would deepen portions of the Grand River to form a continuous 22.5-mile channel.

- River channelization involves “straightening, widening, and/or deepening of stream channels, as well as bank stabilization and clearing or snagging operations” according to Mattingly et al. (1993). The Grand River Waterway proposal specifically involves both deepening of the stream channel and the removal of snags and other obstructions.

River channelization **will not return the Grand River to its natural state**. This reach of the Grand River was shallow prior to dredging attempts that began in 1886. Michigan’s Wildlife Action Plan notes channelization as one of the most serious threats to big river habitats including the Grand River.

- The Grand River was not naturally deep enough for deep draft vessels to navigate. That is why dredging of a 4.5-foot deep channel was attempted in 1886 (USACE 1978).
- The predictably negative impacts of dredging for river channelization were summarized in Michigan DNR’s Grand River Assessment (Hanshue and Harrington 2017). “As a result of channelization, the stream becomes incised and is cut off from its adjacent floodplain. Therefore, the channel is forced to convey discharges that exceed original bankfull conditions. The kinetic energy that would normally be dissipated in the vegetated floodplain is directed to the stream bank, resulting in higher shear stress and bank instability. As the banks begin to fail, sediment loads increase, resulting in increased bar deposition, further acceleration of bank erosion, increased sediment supply, channel widening and aggradation. The stream channel will continue to evolve toward a balance between the slope and valley and will ultimately form a new floodplain at a lower elevation. As these adjustments occur, subsequent responses to tributary morphology can be expected.”

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- Michigan's Wildlife Action Plan (DeRosier et al. 2015) lists channelization as one of the most serious threats to big rivers including the Grand River, stating that "channelization often results in decreased habitat diversity and increased channel instability."
- Like all rivers, the Grand River is a complex and dynamic system that involves four types of connections (lateral, longitudinal, vertical, and temporal) and changes to any of these dimensions can have ripple effects throughout the system (Ward 1989). Dredging to channelize a river increases its depth (a vertical change) and therefore has the potential for impacts up and down the river (longitudinally), to the side of the river in floodplains (laterally) and through time (temporally).

The Grand River Waterway plan is not the first attempt to channelize the Grand River between Grand Rapids and Eastmanville and improve conditions for navigation. The first attempt was a failure, and **reasons for that failure have not been fully addressed** by the Grand River Waterway plan.

- A 60-foot wide channel 4.5 feet deep was dredged in 1886. This channel extended for 11.25 miles downstream of Grand Rapids and was never completed. Highly variable water flows and shoaling that resulted from excessive erosion and deposition of sediment made it impossible to maintain the 4.5-foot depth. In 1887, a report concluded that a deep-water connection between Lake Michigan and Grand Rapids was impossible within the channel of the Grand River (Hanshue and Harrington 2017).
- The U.S. Army Corps of Engineers (USACE) is no longer responsible for dredging the Grand River between Grand Rapids and Bass River State Recreation Area. This reach (section) of river was officially abandoned as a commercial channel when Congress adopted the River and Harbor Act of 1930. The feasibility of re-opening this reach of the Grand River to federal dredging was investigated by USACE in 1978. Five alternative plans were addressed, including a "No Action" plan and a "Channel Dredging Plan" very similar to the 7-foot channel proposed by Grand River Waterway (USACE 1978). Ultimately, no action was taken to re-open this reach of river to dredging.
- The Army Corps' study concluded that the Channel Dredging Plan would both: 1) require removal of pilings and wingwalls that were originally placed in the river to aid navigation in 1930, and 2) likely require addition of new wingwalls to maintain the depth of the new channel (USACE 1978).
- The 2017 Grand River Waterway feasibility study (Edgewater Resources, LLC 2017) does not address the potential need for construction of new wingwalls identified in the 1977 study or the demonstrated inability of channelization and wingwall construction to maintain a 4.5-foot depth in 1886.

Physical Impacts

Available scientific literature suggests that **dredging will not improve water quality** in the Grand River. In fact, dredging to channelize a river typically leads to increased turbidity and dirtier water.

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- A study of economic benefits of the Grand River Waterway used dredging of toxic contaminated sediment from the Toledo harbor as evidence that dredging can improve water quality (Benton and Bowers 2018), but the dredging in Toledo occurred from the mouth of the Ottawa River at Lake Erie upstream for 5.5 miles. This Ottawa River Cleanup was funded by the EPA and designed to remove PCBs and PAHs from the lower river (USEPA 2009). Channelization of 22.5 miles of the Grand River for navigational purposes is not at all comparable to the carefully designed removal of contaminant sediments from Toledo's harbor.
- While carefully designed dredging projects at river mouth areas can be an effective way to remove contaminants from the environment, dredging projects designed only to facilitate navigation are more likely to have the opposite effect. A review of research on the subject (Seelye and Mac 1984) concluded "The annual movement of over 10 million cubic meters of sediment by dredging activities in the Great Lakes is potentially harmful to the biota of the Great Lakes, not only due to the physical disruption of the habitat associated with dredging and dredged material disposal ... but also the relocation and resuspension of sediments often contaminated with toxic organic and inorganic chemicals."
- Channelization of the River Main in Ireland led to greatly increased peak sediment loads (Wilcock and Essery 1991). Although toxic sediments were not an issue, the median amount of sediment in the water increased sevenfold after channelization destabilized the river bed and river banks, leading to increased erosion. The authors noted that "dirty water is not therefore an infrequent event during channelization."
- Mainstem habitats in channelized sections of the Missouri River in Nebraska had turbidity values 4.5 times higher than un-channelized sections. Side-channel habitats with lower current velocity had turbidity values 2.5 times higher in channelized versus un-channelized sections (Morris et al. 1968).

Channelization often leads to **increased erosion of the stream bed** even after dredging is completed. The Grand River Waterway plan does not quantify the additional erosion and downstream sedimentation that would likely occur for many years after dredging.

- In a summary of the effects of channelization, Brooker (1985) wrote, "in a natural system, channel width and depth are also adjusted to flow regime ... any destruction of this equilibrium may lead to the erosion of bed and bank material."
- The increased net erosion and downstream sedimentation that results from destroying this equilibrium state through deepening of the river is very different from the one-time impact of dredging itself. The disturbed river bottom can continue to erode for years as the river attempts to return to a state of dynamic equilibrium (Lane 1955; Langbein and Leopold 1964).
- An incised river can develop either from the direct result of dredging or from ongoing erosion post-channelization. The incised river channel has been cut so deeply that floodplains are abandoned, adjacent wetlands are drained, and formerly wetted banks are left exposed for much of the year (Rosgen 1997).

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- In extreme examples, rampant erosion following de-stabilization of the stream bottom can be devastating to the entire river channel, bridges, and other riparian infrastructure. The Homochitto River in Mississippi was degraded to such an extent that the level of the river bottom eroded to drop 15 feet in elevation while the width of the river increased from an average of 96 feet to 328 feet, while deposition of sediment along the shore after floods left a sand-filled flood channel over 3,000 feet wide (Hartfield 1993).
- In a case study of channelization impacts on the Blackwater River and its tributaries in Johnson County, Missouri, Emerson (1971) found that “most bridges in Johnson County have been replaced or lengthened and have had vertical extensions added to the lower supports. In most cases the ends of the present bridges are threatened by bank erosion.” Emerson also noted increased flooding following channelization and the deposition of eroded sediment on riparian land after floods, which amounted to “about 2 m {over 6.5 feet} of deposition in 50-60 years.”
- The Grand River Waterway project area is particularly vulnerable to the effects of increased erosion after dredging. Substrate in this reach is primarily composed of sand and silt, which are very unstable and prone to erosion (Allan 1995; MDEQ 2011). Furthermore, many of the obstructions that would be removed under the Grand River Waterway plan are training walls (USACE 1909), some of which are still functioning to hold massive quantities of sand and sediment between the training wall and the bank.
- The feasibility study (Edgewater Resources, LLC 2017) did not fully account for the long-term erosion that would likely occur following dredging removal of training walls (which are referred as wingwalls in the feasibility study).

Channelization and increased boat traffic often lead to **increased erosion of the riverbanks**. The Grand River Waterway plan does not quantify the additional bankside erosion and loss of land, vegetation, and cultural resources that could occur.

- Dredging lowers the level of the river bottom, which also lowers the surface of the river. Continuing erosion can lead to development of an incised river, which forms new banks and leaves the old riverbank dry during periods of base flow. Periodical exposure of the riverbank, along with increases in current velocity, can result in extensive streambank erosion in channelized rivers (Brooker 1985; Rosgen 1997).
- A study of boat wakes in the Waikato River, New Zealand (McConchie and Toleman 2003), found that wakes from small boats (less than 18 feet long) generated wakes in excess of 100 times more powerful than natural background waves. Wakes from small boats generated far more suspended sediment than natural waves (up to 740 mg/l as opposed to 31 mg/l or less) due to increased streambank erosion.
- In the Grand River Waterway, boats could potentially be much larger than 18 feet, and larger boats generate far more erosive power (Parchure et al. 2001).
- Narrow channels are more subject to erosion than wide channels because the power of a boat’s wake begins to decay as the wake moves away from the sailing line of the boat. If a channel does not allow for a wake to travel 4-6 times the length of the boat before hitting the shore, the riverbank will be subject to maximal erosion (McConchie and Toleman 2003).

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- Based on the criteria above, the design vessel for the Grand River Waterway feasibility study (26 feet long with 8.5-foot beam; Edgewater Recourses, LLC 2017) would require a river 216.5 to 320.5 feet wide if it were travelling in the dead center of the river. Many areas of the Grand River in the project area are narrower than this (particularly areas where the channel is adjacent to an island).
- The dredged section of the Grand River below Bass River State Recreation area already experiences damaging and costly problems associated with erosion caused by boat wakes. Riverside Park in Ottawa County is one example where boat wakes are implicated in bank failure, substantial loss of park land, and the loss of many mature trees.

Channelization lowers the bottom of the river and therefore lowers the surface of the river, as well. This makes all non-dredged (off-channel) areas of the river shallower. The Grand River Waterway plan does not address the **loss of off-channel, wetland, and island areas** that could result from lowering the surface of the river.

- Portions of the Grand River are wide, shallow, sandy, and split into channels that form islands in the river. These areas may be susceptible to dewatering of the natural river channel and side-channels during periods of low flow if channelization lowers the river bottom too much.
- It is possible that portions of the current river channel, riverine wetlands, and side channels adjacent to islands would be seasonally dewatered if the Grand River is channelized. Over a relatively short period of time, some of these seasonally dry areas would be colonized by vegetation and converted to terrestrial habitat. Vegetation further reduces current velocity during high water and promotes accelerated accretion of silty sediment. On the Missouri River, side-channel “chute” habitats were almost completely eliminated from channelized sections due to the accumulation of silt (Morris et al. 1968).
- Loss of side-channels has the additional effect of connecting islands permanently to the mainland, with the possibility of connecting an island that is the property of a landowner on one side of the river to the property across the river.
- An incised river channel develops when erosion of the streambed is so severe that the river abandons its natural floodplain (Rosgen 1997). If an incised river develops after dredging of the Grand River, some connected bayous could become disconnected from the river, with potential impacts to fish and wildlife.

Plans for river channelization often fail to consider how **dredging can create more erosion upstream** of the dredged area and in tributary streams that flow into the dredged area. The Grand River Waterway feasibility study did not consider the potential impact of this upstream erosion (known as head-cutting) in areas including the Grand River in downtown Grand Rapids and in the lower end of tributaries such as Plaster Creek, Sand Creek, Buck Creek, and Deer Creek.

- Dredging lowers the bottom of the river. This can create an incised river channel and lead to head-cutting. According to Watters (2000), “headcuts are regions of disturbance moving upstream in zipper-like fashion, as the result of the upper boundary of the modification collapsing. Headcuts may move miles upstream.”

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- According to Hartfield (1993), “a stream that is actively, or that has been recently, headcut may be identified by combinations of the following characteristics: extensive bank erosion; wide, degraded channels; meander cutoffs; uniform, shallow flows; chute formation; numerous whole trees within the channel; quicksand, or otherwise loose, unstable sediments; perched tributaries at low water.”
- Channelization of the Tombigbee River to form the Tenn-Tom Waterway in Mississippi and Alabama created headcuts in streams that flowed into the waterway. One of these streams was Magby Creek where a drop-control structure was necessary to prevent upstream erosion and stream degradation (USACE 1985).
- Dredging the lower four miles of Luxapalila Creek required the construction of grade control structures (small dams) to prevent head-cutting that would have eroded the stream farther upstream (Hartfield 1993).
- In tributaries of the Blackwater River, Missouri, Emerson (1971) noted that “the widening and deepening of the streams have caused serious erosional problems along their banks and headward erosion of gullies that lead into the tributaries.”

Biological Impacts

Channelization has profound negative impacts on bottom-dwelling creatures that form the base of the food chain in rivers. The Grand River Waterway plan would almost certainly do **great harm to benthic macroinvertebrates** that include snails, rare native mussels and larval insects that provide fish food.

- A study of channelized and un-channelized sections of the Missouri River in Nebraska (Morris et al. 1968) concluded that “channelization of the river has reduced both the size and variety of aquatic habitat by destroying key productive areas.” Channelization reduced the area of productive benthic habitat by 67%. The biomass of benthic macroinvertebrates drifting in the current was found to be 8.5 times higher in un-channelized versus channelized areas of the Missouri River.
- Macroinvertebrate communities in Ottawa County waters of the Grand River were characterized as “poor” based on sampling of river sediments in 2009. The study concluded that this reach of the Grand River still has not fully recovered from historic dredging (MDEQ 2011).
- Channelization reduced benthic macroinvertebrates by 90% in the River Moy, Ireland (McCarthy 1981).
- The removal of snags and other obstructions from the Grand River would include pilings and wingwalls that were initially placed in the river to improve navigation in addition to submerged logs and other natural large woody debris (Edgewater Resources, LLC 2017). Large woody debris is extremely important for sandy rivers like the Grand. Benthic macroinvertebrates that provide food for fish often have difficulty living on sand. Because of this, large woody debris can support 20 to 50 times more biomass (weight of fish food) than sandy habitat of similar area (Benke et al. 1984).

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- By lowering the surface of the river, channelization would also affect the hyporheic zone (Ward 1998). This sub-surface zone of interaction between surface and groundwater provides habitat for a variety of insects and microbes that are important for nutrient cycling (Boulton et al. 1998).
- Dredging, channelization, and the excessive erosion and deposition of sediment that result are recognized as major threats to native mussels (Family: Unionidae). Mussels are directly destroyed and/or removed from the river by dredging, and mussels that remain in the river are subject to being smothered by silt deposition (Watters 1999).
- Dams and channelization are leading causes of extinction for freshwater mollusks in North America and have contributed to the extinction of at least 12 species of mussels and 45 species of snails (FMCS 2016).

Channelization destroys shallow riffles and gravel bars that many fish species require for successful spawning. The Grand River Waterway plan specifically includes **dredging of a gravel bar area that provides high-quality spawning habitat** for state-threatened river redhorse. The same gravel bar area is a known destination for walleye, steelhead, and smallmouth bass anglers and provides habitat for northern pike, muskellunge, and possibly lake sturgeon.

- The River Main was one of the best Atlantic salmon fishing rivers in Northern Ireland. Channelization destroyed gravel habitat where salmon and brown trout built their nests (which are called redds), leading to declines in redd counts after the river was channelized (Wilcock and Essery 1991).
- The 1978 U.S. Army Corps of Engineers study acknowledged that a Channel Dredging Plan similar to the Grand River Waterway plan would cause the greatest environmental impacts including destruction of fish spawning habitat (USACE 1978).
- Channelization removes shallow riffle habitats and reduces the depth in pool habitat. This creates a more uniform river environment. A study of 40 streams in east central Indiana found that the loss of riffle and pool habitat was the main reason for the loss of several fish species from channelized streams (Lau et al. 2006).
- Research conducted during 2018 revealed a large congregation of spawning river redhorse at a gravel bar slated for dredging under the Grand River Waterway plan (Nick Preville, Grand Valley State University, unpublished data). The same gravel bar is a known destination for walleye, steelhead, and smallmouth bass anglers and provides habitat for northern pike, muskellunge, and possibly lake sturgeon.

Channelization harms valuable gamefish and sensitive threatened and endangered fish species, leading to low-quality fish communities and **reduced fishing opportunities**.

- A summary of research on channelized rivers concluded that channelization typically results in substantial detrimental effects on fish populations (Brooker 1985).

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- In the Luxapalila River, Mississippi and Alabama, the average weight of largemouth bass was eight times higher in un-channelized segments of the river versus channelized segments. The lengths of largemouth bass in the channelized segment were highly skewed toward smaller size-classes with very few catchable bass present (Arner et al. 1976).
- Fish communities in channelized sections of the Luxapalila River were dominated by migratory fish species that were just passing through the poor-quality habitat. Un-channelized sections of the Luxapalila River supported a wider variety of sport fish (Arner et al. 1976).
- Electrofishing in 20 channelized and 20 natural streams in Indiana found that natural streams had higher quality fish communities with higher IBI (Index of Biotic Integrity) scores. Natural streams held, on average, 4.2 environmentally sensitive fish species and channelized streams held an average of only 2.2. Species lost from channelized streams included valuable gamefish like smallmouth bass along with environmentally sensitive species like black redhorse and rainbow darter (Lau et al. 2006).
- Un-channelized sections of the Chariton River, Missouri, were home to 21 species of fish. Channelized sections held 13 species of fish, with biomass (the weight of all fish) reduced by 80% in channelized sections (Congdon 1971).
- In the River Boyne, Ireland, the ratio of salmonines (salmon and trout) to other less-valuable species was 14:1 before channelization. Erosion of and deposition of silty sediments degraded salmon and trout habitat, dropping this ratio to 5:1 following channelization (McCarthy 1981).

Even after maintenance dredging stops, a river **may not fully recover for several decades**. Even if the river does return to a new equilibrium state it will be different from the river as it was before channelization.

- In summarizing literature on river channelization, Brooker (1985) stated that “the rate of recovery for fish populations from the effects of channelization has been shown to be extremely slow, some streams showing no significant recovery after 30–40 years.
- Salmon and trout take the longest time to recover following disturbance, while species in the family Cyprinidae (including invasive common carp and native minnows) tend to recover in the shortest amount of time. Fishes in the sucker and perch families recover at intermediate rates (Detenbeck et al. 1992).
- A review of case histories from 49 rivers and streams around North America characterized channelization as a “press disturbance.” This is in contrast to “pulse disturbances” that included chemical spills, major flooding, and other one-time disturbances. Fish recovered from pulse disturbances within one year 70% of the time. However, fish communities took 5 to 52 years or more to recover from the long-term impacts of channelization and other press disturbances (Detenbeck et al. 1992).



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To contact an expert in your area, visit msue.anr.msu.edu/experts or call 888-MSUE4MI (888-678-3464)



Manager's Memo

DATE: May 8, 2019
TO: Township Board
FROM: Cargo
RE: Waste Management of Michigan - 2019 Waste Hauling License

Attached, please find a proposed resolution authorizing Waste Management of Michigan to operate within GHT.

Their proposed fee is a maximum of \$26.00 per month with a cart (*i.e., an increase of about 6.1%*), which includes the recycling. The company also offers yard waste at a maximum of \$12.50 per month with a cart. (*This is the same price as was authorized since 2015.*)

A copy of their application and supporting documentation will be available for review at Monday's meeting

To approve the application for Waste Management, the following motion can be offered:

Move to approve Resolution 19-05-03 approving a one-year license agreement with Waste Management of Michigan for waste collection and hauling services in Grand Haven Charter Township.

If there are any questions or comments, please contact me at your convenience.



At a regular meeting of the Township Board of the Charter Township of Grand Haven, Ottawa County, Michigan, held at the Township Hall at 13300 - 168th Avenue, Grand Haven Charter Township, Ottawa County, Michigan, on the 13th day of May 2019, at 7:00 p.m., local time.

After certain matters of business had been completed, the President Pro Tem announced that the next order of business was the consideration of a license to operate in the Township for Waste Management of Michigan.

The proposed license agreement was discussed by the members of the Board, and after discussion was completed the following resolution was offered by _____ and seconded by _____:

**GRAND HAVEN CHARTER TOWNSHIP
RESOLUTION 19-05-02**

**APPROVING THE LICENSE APPLICATION OF WASTE MANAGEMENT OF
MICHIGAN TO OPERATE WITHIN GRAND HAVEN CHARTER TOWNSHIP
AND THE SCHEDULE OF FEES FOR SERVICE.**

WHEREAS, Grand Haven Charter Township adopted and amended Ordinance No. 334 which provides for the licensing of garbage, trash, and recyclable collectors or haulers; and

WHEREAS, Waste Management of Michigan applied for a license to operate within Grand Haven Charter Township pursuant to said Ordinance; and

WHEREAS, Waste Management of Michigan meets all the requirements of said Ordinance for operating within the Township, as shown by their license application, which has been reviewed and approved by the Township Superintendent; and

WHEREAS, Waste Management of Michigan provided a schedule of fees to be charged for said services, which is included within said application.

NOW, THEREFORE, BE IT RESOLVED AS FOLLOWS:

- 1) The application of Waste Management of Michigan to provide trash and recyclable collection and hauling services pursuant to Ordinance No. 334, as amended, within the Charter Township of Grand Haven is hereby approved until May 1, 2020.
- 2) That application's schedule of fees, which indicates no increase in the maximum rate that can be charged when compared to the previous application, is approved until May 1, 2020, at which time a new schedule of rates must be submitted for review and approval by the Township Board. *(Any change of the rates prior to May 1, 2020 must be submitted to the Township Board for approval pursuant to Ordinance No. 334, as amended.)*
- 3) That a copy of this resolution will be forwarded by the Township Clerk to Waste Management of Michigan and that it shall be considered a license to operate waste and recyclable collection and hauling within Grand Haven Charter Township until May 1, 2020.

AYES:

NAYS:

ABSENT: Reenders

RESOLUTION DECLARED: Adopted.

ADOPTED ON May 13, 2019

Laurie Larsen
Grand Haven Charter Township Clerk

CERTIFICATE

I, the undersigned, the duly qualified and Township Clerk of the Charter Township of Grand Haven, Ottawa County, Michigan, certify that the foregoing is a true and complete copy of the resolution adopted by the Township Board at a regular meeting of the Township Board held on the 13th day of May 2019. I further certify that public notice of the meeting was given pursuant to and in full compliance with Michigan Act 267 of 1976, as amended, and that the minutes of the meeting were kept and will be or have been made available as required by the Act.

Laurie Larsen
Grand Haven Charter Township Clerk

SUPERINTENDENT'S MEMO

DATE: April 8, 2019
TO: Township Board
FROM: Cargo
SUBJECT: Approve Low Bid – Camera and Clean Sanitary Sewers

The FY 2019 Sewer budget contained **\$75,000** for the initial year of the three-year project to video and clean various sections of the Township's sanitary sewer system. (*This is part of the Township's Wastewater Asset Management Plan and System Evaluation.*)

Bids on the three-year project were received from two firms (*i.e., Plumbers Environmental and Ryan's Municipal Services*). The low bid was from Plumbers at **\$121,342.55** – or about \$2,000 or 1.65% less than Ryan's Municipal Services.

Attached, please find a letter from the Township's engineering firm recommending that the Township hire Plummer's Environmental. If the Board agrees, the following motion can be offered:

Motion to authorize the Township Manager to execute a three-year contract with Plummer's Environmental for Sanitary Sewer Televising and Cleaning at an estimated cost of \$121,342.55.

If you have any questions or comments, please contact me at your convenience.

April 11, 2019
2190247

Mr. Mark Verberkmoes
Grand Haven Charter Township
13300 168th Avenue
Grand Haven, MI 49417

RE: Cost proposals for Sanitary Sewer Televising and Cleaning

Dear Mark:

The Wastewater Asset Management Plan and System Evaluation completed earlier this year recommended cleaning and televising for areas shown on the attached map. These areas were chosen based on pipe age and material. As requested, Proposals for sanitary sewer cleaning and televising for the 2019-2021 were submitted to Ryan's Municipal Services, Plummer's Environmental, and Elite Pipeline and summaries have been attached. Elite Pipeline was unresponsive after several attempts to obtain a quote.

Attached is a breakdown of costs provided by both Plummer's Environmental and Ryan's Municipal Services. The information submitted by Plummer's Environmental appears to be the most cost effective option with less contingency in their pricing. Ryan's Municipal services included costs for heavy cleaning, root cutting, dump fees and landfill costs as additional costs rather than incorporating them into their line item bid price.

Plummer's Environmental has worked successfully with several local communities including Spring Lake Township and the City of Ferrysburg for providing cleaning and televising services on recent projects. Based on the above, our recommendation is to use Plummer's Environmental for their services.

Please give me a call with any questions.

Sincerely,

Prein&Newhof



Kevin S. Kieft, P.E.

KSK/rdt

Enclosure(s): Summary of proposal from Ryan's Municipal Services
Summary of proposal from Plummer's Environmental

cc: Bill Cargo, Grand Haven Charter Township

Plumbers

2019	Quantity	Price	Unit	Cost
8"-18" Sanitary Sewer Inspection	14,995	\$ 0.80	LF	\$ 11,996.00
6"-8" Sanitary Sewer Cleaning	4504	\$ 0.95	LF	\$ 4,278.80
12" Sanitary Sewer Cleaning	0	\$ 1.10	LF	\$ -
15" Sanitary Sewer Cleaning	4318	\$ 1.35	LF	\$ 5,829.30
18" Sanitary Sewer Cleaning	5733	\$ 1.65	LF	\$ 9,459.45
Traffic Control Adder	5000	\$ 0.38	LF	\$ 1,900.00
Off Road Easement Adder	0	\$ 0.55	LF	\$ -
2019 Total:				\$ 33,463.55

2020	Quantity	Price	Unit	Cost
8"-18" Sanitary Sewer Inspection	16,123	\$ 0.80	LF	\$ 12,898.40
6"-8" Sanitary Sewer Cleaning	2268	\$ 0.95	LF	\$ 2,154.60
12" Sanitary Sewer Cleaning	7015	\$ 1.10	LF	\$ 7,716.50
15" Sanitary Sewer Cleaning	6840	\$ 1.35	LF	\$ 9,234.00
18" Sanitary Sewer Cleaning	0	\$ 1.65	LF	\$ -
Traffic Control Adder	4500	\$ 0.38	LF	\$ 1,710.00
Off Road Easement Adder	4500	\$ 0.95	LF	\$ 4,275.00
2020 Total:				\$ 37,988.50

2021	Quantity	Price	Unit	Cost
8"-18" Sanitary Sewer Inspection	26,250	\$ 0.80	LF	\$ 21,000.00
6"-8" Sanitary Sewer Cleaning	18230	\$ 0.95	LF	\$ 17,318.50
12" Sanitary Sewer Cleaning	8020	\$ 1.10	LF	\$ 8,822.00
15" Sanitary Sewer Cleaning	0	\$ 1.35	LF	\$ -
18" Sanitary Sewer Cleaning	0	\$ 1.65	LF	\$ -
Traffic Control Adder	0	\$ 0.38	LF	\$ -
Off Road Easement Adder	5000	\$ 0.55	LF	\$ 2,750.00
2021 Total:				\$ 49,890.50

Total: \$ 121,342.55

Ryans

2019	Quantity	Price	Unit	Cost
Televising	14,995	\$ 1.15	LF	\$ 17,244.25
Light Cleaning	14995	\$ 1.00	LF	\$ 14,995.00
Heavy Cleaning and/or Root Cutting (as needed)		\$ 190.00	HR	\$ -
Dump Fees		\$ 75.00	TON	\$ -
Landfill Application Fee		\$ 250.00	VISIT	\$ -

2019 Total: \$ 32,239.25

2020	Quantity	Price	Unit	Cost
Televising	16,123	\$ 1.15	LF	\$ 18,541.45
Light Cleaning	16123	\$ 1.00	LF	\$ 16,123.00
Heavy Cleaning and/or Root Cutting (as needed)		\$ 190.00	HR	\$ -
Dump Fees		\$ 75.00	TON	\$ -
Landfill Application Fee		\$ 250.00	VISIT	\$ -

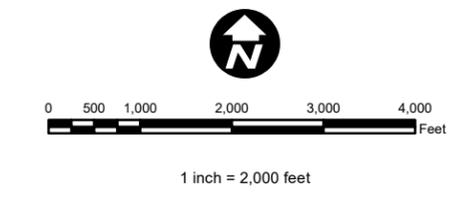
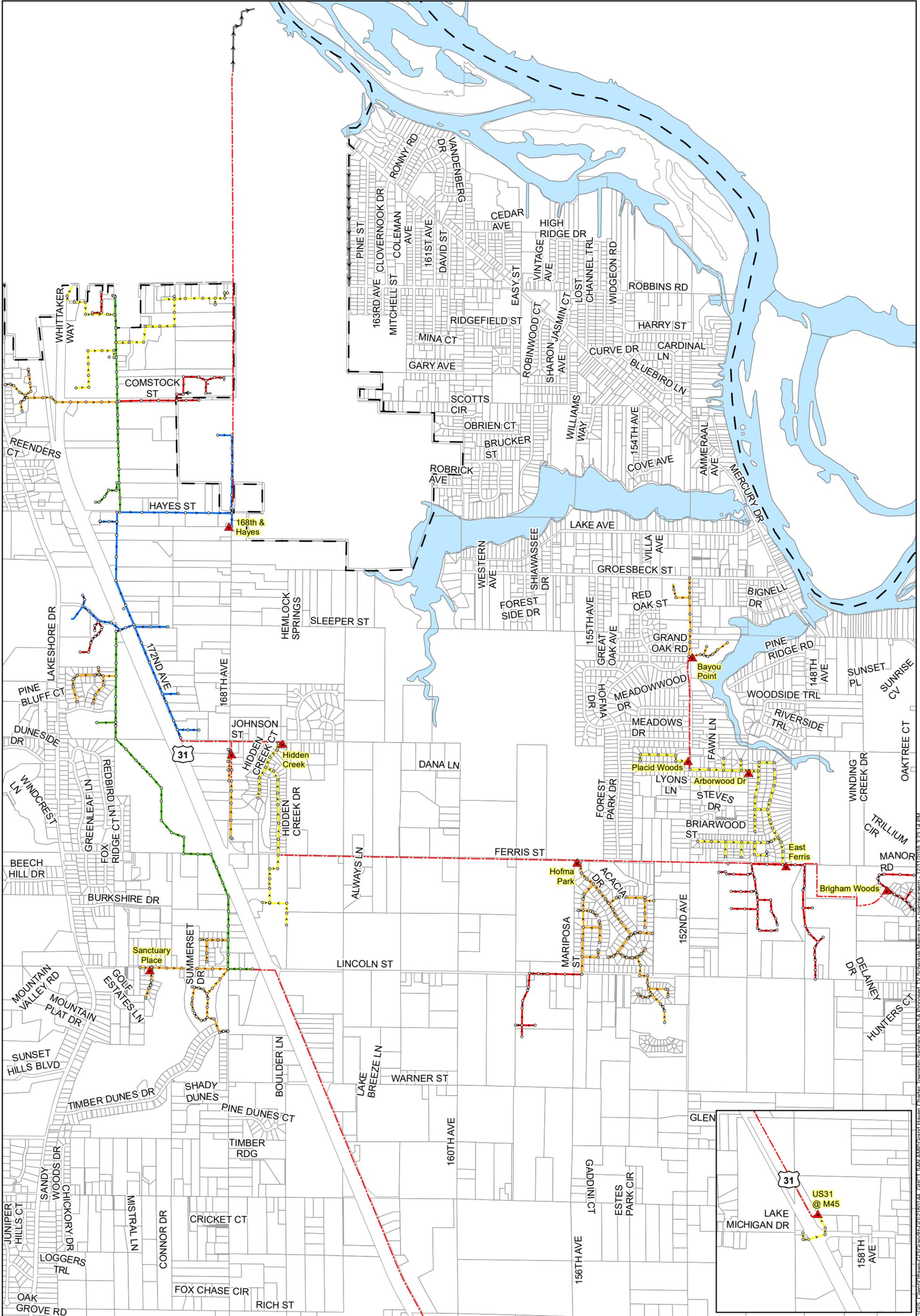
2020 Total: \$ 34,664.45

2021	Quantity	Price	Unit	Cost
Televising	26,250	\$ 1.15	LF	\$ 30,187.50
Light Cleaning	26250	\$ 1.00	LF	\$ 26,250.00
Heavy Cleaning and/or Root Cutting (as needed)		\$ 190.00	HR	\$ -
Dump Fees		\$ 75.00	TON	\$ -
Landfill Application Fee		\$ 250.00	VISIT	\$ -

2021 Total: \$ 56,437.50

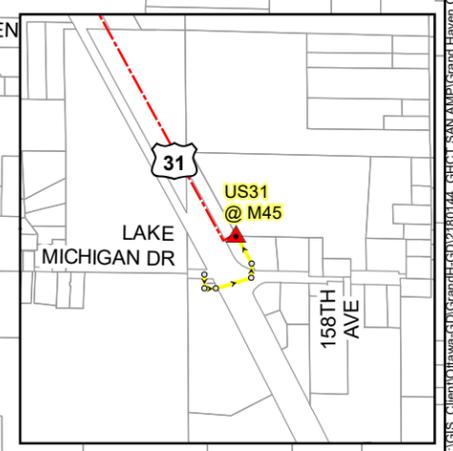
Total \$ 123,341.20

Dump fees are not applicable if the Township provides an onsite dump site
Costs do not include Dump Fees or Lanfill Fees (Unknown)



LEGEND

- | | | | |
|--|------|--|------------------------|
| | 2019 | | Manhole |
| | 2020 | | Pump Station |
| | 2021 | | Force Main |
| | 2025 | | Gravity Main by Others |
| | 2035 | | |




GRAND HAVEN CHARTER TOWNSHIP
SANITARY SEWER SYSTEM
MAP 5A: PROPOSED MAINS INSPECTION
SCHEDULE
 Prein&Newhof
 2180144

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2019 PROJECT LIST

DATE: May 9, 2019

TO: Township Board and Department Directors

FROM: Cargo

ADMINISTRATION (101, 171 & 172)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Strategic Plan Update – 2019 through 2022 (to be approved at May 28 th Board meeting)	Board, Cargo, Fedewa
Adjustment of border/boundaries between City/Township (<i>staff need to coordinate with city on start date</i>)	Fedewa, Cargo, Board, Bultje
March Change of Assessment Insert	Cargo
November Newsletter	Cargo
Summer Tax Insert	Cargo
Winter Tax Insert	Cargo
Monthly Electronic Newsletters (<i>4 completed</i>)	Cargo
CCR Annual Report NOWS and GR (<i>posted on website</i>)	Cargo, Walsh
Freedom of Information Requests (<i>26 thus far in 2018</i>)	Cargo
Waste Hauler Licenses (2018) ➤ Republic Services ➤ Waste Management ➤ Potluck Pick up	DeVerney, Cargo
Appointments to Committee/Board vacancies	Reenders, Cargo, DeVerney
Selection of 2019 Chamber Business Recognition Recipient (June)	Reenders, DeVerney
Funding – July 4 th Fireworks (\$7,500)	Cargo
Grand Haven Neighborhood Housing Program (\$8,100)	Cargo
Funding – Coast Guard Festival Heroes and Legends Dinner (\$2,500)	Cargo
December Appreciation Dinner (<i>Scheduled for December 5th at Grand Hall – Porto Bello</i>)	Reenders, Dumbrell, Walsh
Noise Ordinance – Review for Constitutionality (<i>low priority</i>)	Cargo, Fedewa, Bultje
Examine Master Plan change of former Zelenka property to Industrial	Chamber, Fedewa, Planning Commission, Board, Cargo
Re-draft of Defined Contribution Pension Plan Ordinance	Cargo, Dumbrell, Bultje
Re-draft of Deferred Compensation Agreement Ordinance	Cargo, Dumbrell, Bultje
ASSESSING (257)	RESPONSIBLE
PROJECT OR TASK	RESPONSIBLE

	EMPLOYEE(S)
Annual mailing of Change of Assessment notices in February	Schmidt, Larrison
Board of Review— March, challenges to assessment roll	BOR, Schmidt, Larrison
Board of Review— July, technical and clerical adjustments to assessment roll	BOR, Schmidt, Larrison
EMPP Export to State of Michigan— April 1, 2018 State audit of all personal property data on assessment roll	Schmidt
Board of Review— December, technical and clerical adjustments to assessment roll	BOR, Schmidt, Larrison
Board of Review— Annual, February BOR, appearances and written ➤— L 4022 Report Board of Review Change Log ➤— 2019 Classification Change ➤— 2019 Equivalent SEV Roll ➤— Industrial real and personal report to State ➤— L 4626 Assessing Officer's Report of Taxable Values	BOR, Schmidt, Larrison
Land Divisions; 1 approved and 0 denied ,2 Lot line adjustments, * combinations	Schmidt
Prepare Summer warrant for Tax Collection	Larrison
Prepare Winter warrant for Tax Collection	Larrison
Send out IFT surveys (December) (none for 2018) Prepare the IFT report for State (October) Prepare the L-4626 for County filing (April) Prepare form 5429 – Personal Property Taxable Value for Expired/ Expiring Renaissance Zones (June) Prepare form 5403 – Personal Property Taxable Value for Expired Tax Exemptions (June) Prepare form 3369 Renaissance Zone Tax Reimbursement Data for State filing (June) Form 4564 – IFT Exemption certificates (September) Prepare L-4016 Special Assessment report (December)	Schmidt Schmidt Schmidt Schmidt Schmidt Schmidt Schmidt Schmidt
Annual re-audit of residential neighborhoods + sales and new construction. (i.e., goal is 400 for Spring)	Larrison, Hoisington, Schmidt
Major MTT Actions a. Walmart (appraisal complete) b. Grand Haven Golf Course c. VanBlaren (Appraisal complete) stipulation in progress Done	Schmidt, Fischer, Shannon, Ottawa County
Health Pointe Tax Exemption Application	Schmidt, Attorney Wood, Board
Exemption denied by Assessor-granted by Board of Review	
BIKE PATH (408)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Bike Path construction for 2019 (Lincoln & 144 th) ➤ Connector Route Discussion and Board decision ➤ Informal/optional open house to view plans and discuss project schedule ➤ Easements (all have been mailed, waiting for signatures) ➤ Survey, Design, Bid ➤ Construction (\$1.85 million)	Cargo Cargo, Board Fedewa, VerBerkmoes, Bultje, Kieft Kieft, VerBerkmoes Fedewa, P & N, Bultje K Kieft, VerBerkmoes VerBerkmoes, Kieft, Cargo
2019 Pathway maintenance	Tlachac, VerBerkmoes

➤ Paint crosswalks (\$10k)	VerBerkmoes
➤ Retaining wall repairs (\$40k)	
Amend Ordinance to require escrow for openings and for specifications	VerBerkmoes, Cargo, Bultje
Purchase second ToolCat for pathway maintenance/plowing (\$76k) ordered	VerBerkmoes, Tlachac
BUILDING AND GROUNDS (265)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Generator Maintenance (November)	Tlachac, VerBerkmoes
Annual Fertilizer Quotes (including cemeteries)	Tlachac, Walsh
Manual "J" HVAC study	VerBerkmoes / Consultant
Administrative Building – replace portion of roof (\$**k) (requires budget amendment – carryforward from 2018)	VerBerkmoes / Consultant
Replace Server Room A/C (\$7k)	VerBerkmoes / Consultant
Seal and Re-coat parking lots (\$12k)	Tlachac
Re-caulk base of Administrative Building (\$5k)	Tlachac
Re-paint red façade of buildings (\$15k)	Tlachac
Replace sections of carpet in Administrative building (\$10k)	Tlachac
Dryvit repairs on Administrative building (\$8k)	Tlachac
CEMETERY (276)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Purchase vaults, memorials and urns for contract holders	Walsh
Plat new section of Historic Cemetery (\$150k)	VerBerkmoes, Glueck, P&N
COMMUNITY DEVELOPMENT (371)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Landscape Compliance Inspections (to begin 2019 in June)	K. French, Fedewa
➤ Divided into 3-year cycles	
April 2019 Builders Forum (scheduled for April 17th)	DeVerney, Corbat
December 2019 Builders Forum	DeVerney, Fedewa, Corbat
DOWNTOWN DEVELOPMENT AUTHORITY (248)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Submit Development/TIF Plan to the State of Michigan (April 1st)	Larrison
Annual DDA Report (and publish in the Tribune) (Form 2604 because the GHT DDA does not collect the Education Tax,) (July)	Schmidt, Cargo
Annual Act 381 Report (Brownfield project) (August)	Schmidt
Act 381 DEQ Brownfield Reporting Verification Worksheet – (September)	Schmidt
GASB 77 Tax Abatement Disclosure Statements Ottawa Area ISD Grand Haven Public Schools Ottawa County Treasurer Loutit Library	Schmidt
Post Required DDA Information on Township Website (December)	Larrison/Sandoval
File Annual DDA report with the State of Michigan (December)	Larrison/Sandoval

Fill vacancy on DDA Board	Reenders
Form 5176-Request for State Reimbursement of TIF- (<i>June 15th</i>)	Schmidt
ELECTIONS (262)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
May School Election	Larsen, DeVerney
Inactive Voter File maintenance (<i>ongoing & up-to-date</i>)	DeVerney, Slater
Actions Related to State Changes include: ✓ – Letters for Permanent AV List	DeVerney
ENFORCEMENT/LEGAL ACTIONS – DIFFICULT ISSUES	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
None ☺	
FINANCE/ACCOUNTING (191)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
2018 Financial Audit (<i>Week of April 8th</i>)	Sandoval, Cargo
Audit Report submitted to the State of Michigan	Vredeveld
MD&A Audit Letter	Sandoval, Cargo, Vredeveld
F-65 Report (<i>prior to July</i>)	Sandoval
Quarterly – prepare and send 941's and UIA 1028 forms to State	Shastri, Sandoval
End of Year (2018) prepare W-2s, 1099s, and SUW-165	Shastri, Sandoval
Unclaimed Property Report to State (<i>June</i>)	Sandoval
Update Township's Dashboard (<i>June</i>)	Sandoval
Qualifying Statement to State (<i>June</i>)	Sandoval
Continuing Disclosure to EMMA (<i>June</i>)	Sandoval
Complete Form 5572 – Retirement System Annual Report (<i>June</i>)	Sandoval
2019 Bond Payments (<i>about \$1.24 million</i>)	Sandoval
<ul style="list-style-type: none"> ➤ 2019 Transmission Main Bond July & December (301k) ➤ 2021 Water Intake Expansion May & November (122k) ➤ 2021 Refunded Building Bond May & October (220k) ➤ 2028 Sewer Lift Station Bond July & December (80k) ➤ 2034 NOWS Plant Expansion May & November (228k) ➤ 2035 Pathway Bond May & November (285k) 	
Metro Authority Report (<i>April</i>)	Larrison
Budget Amendments – 1 st Quarter	Cargo, Sandoval
Budget Amendments – 2 nd Quarter	Cargo, Sandoval
Budget Amendments – 3 rd Quarter	Cargo, Sandoval
Budget Amendments – Final in December	Cargo, Sandoval
2020 Budget	Cargo, Department Directors
<ul style="list-style-type: none"> ➤ 08-28 – Budget policies submitted to the Board ➤ 08-31 – Initial department director meeting ➤ 09-24 – Truth-in-Taxation Hearing ➤ 10-12 – Department directors submit initial figures ➤ 10-18 – Department directors complete final draft ➤ 10-30 – Board holds budget work session ➤ 11-12 – SAD Hearing 	Cargo, Board Cargo, Department Directors Larrison Cargo, Department Directors Cargo, Department Directors Cargo, Chalifoux, Board Board, Cargo

➤ 11-26 – Final Approval of 2019 Budget	Board, Cargo
Centron Tax Mailing – Summer of 2019 <i>(include newsletter insert)</i>	Larrison, B. Kieft, Cargo
Centron Tax Mailing – Winter of 2019 <i>(include newsletter insert)</i>	Larrison, B. Kieft, Cargo
Complete 170-B Industrial Facilities Report to State (July 31 st)	Schmidt
Complete CVTRS Annual Report to the State (December)	Sandoval
Complete SET Tax Report (December)	Larrison
Truth-in-Taxation Hearing	Larrison
Update – Ten-Year Building Department Revenue/Expenditure Report	Sandoval, Cargo
Annual Asset Forfeiture Report (February 1st)	Sandoval
Purchase chip credit card readers (2) <i>(awaiting Point&Pay)</i>	Sandoval
Update General Ledger Chart of Accounts <i>(Project postponed by State)</i>	Sandoval
FIRE\RESCUE (206)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Fire Prevention Open House – October 8 th	Peterson, Gerencer
2019 commercial inspection program (44 completed of 180)	Marshall, Kriger, DeDoes
2019 Private road inspections (18 inspected of 126)	Kriger, Gerencer
Team 911 Academy June 17 th – 24 th	Peterson, Gerencer
Equipment Purchases: ➤ Four sets of turnout gear ➤ Knox key holders for vehicles ➤ 15 helmets ➤ Rescue Randy ➤ 30 Lined Nomex hoods	Schrader, Schweitzer, Peterson
Design and Order Replacement for 1021 Fire Apparatus <i>(\$155k partial payment)</i>	Marshall, Schrader, Gerencer
Auction of 2006 Chevy Suburban (\$6,630)	Gerencer, Schweitzer
Evaluate new Rescue Extrication tools for 2020 budget	Schweitzer
SOP for Employee Recognition and Retirement	Dumbrell, Gerencer
INFORMATION SYSTEMS (645)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Implement Mobile Device Management for tablets/phones/mobile PC's (Will require policy to manage both Township and non-Township owned devices) <i>(testing software)</i>	VerBerkmoes, EGL
Replace Cisco switches/hubs (\$38k)	VerBerkmoes, Consultant
Wireless upgrade (\$4k)	Verberkmoes, Consultant
LAW ENFORCEMENT (207)	
Purchase miscellaneous equipment: ➤ Promotional items ➤ Drug testing kits	Cargo, Christiansen
PARKS AND RECREATION (751)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
MNRTF Grant Application (submitted April 1st)	Fedewa
Parks & Recreation Committee decision on Mercury Park improvements (no improvements – grass multi purpose field)	Cargo, Parks & Recreation Committee

Maintenance Projects, including: (<i>partial list</i>) <ul style="list-style-type: none"> ➤ Pottawattomie Deck Erosion – grant received – study stage ➤ Hydroseed and sprinkling at Mercury Park ➤ Replace landscaping at Boat launch ➤ New dugout benches ➤ Pottawattomie sign and sprinkling ➤ Hofma Park gates replaced ➤ Security camera updates 	Tlachac, VerBerkmoes Fedewa Tlachac Tlachac Tlachac Tlachac Tlachac VerBerkmoes
MDNR – Monitor and Testing of 9 wells – ends in November	Tlachac
“Blowout” wells (<i>If issues remain with testing, will change to municipal water</i>)	Tlachac, Cargo
PERSONNEL / HUMAN RESOURCES	
PROJECT OR TASK	
RESPONSIBLE EMPLOYEE(S)	
Hire PT Fire/Rescue staff (2)	Gerencer, Dumbrell
Hire Seasonal DPW staff (3)	Tlachac, Dumbrell
Employee recognition luncheon (January) <ul style="list-style-type: none"> ➤ – Select caterer ➤ – Anniversary gifts and certificates 	Dumbrell, Larsen, Walsh
Annual Job Descriptions – review and amend <ul style="list-style-type: none"> ➤ Fire/Rescue ➤ Public Works ➤ Administration ➤ Assessing/Accounting ➤ Community Development 	Cargo, Department Directors
Annual Workers Compensation Review and Renewal (June)	Cargo, Dumbrell, Sandoval
Complete a review of employee health insurance options (September)	Cargo, Dumbrell, Gerencer
Annual Benefits Renewal Negotiations (September)	Cargo, Dumbrell
Review Retiree Medicare Options (October)	Cargo, Dumbrell
Annual Property & Liability Renewal (October)	Cargo, Dumbrell, Sandoval
The Grand Way Codes of Conduct training for all staff (ongoing)	Dumbrell, Peterson, Walsh
Leadership Storyboarding (ongoing)	Dumbrell
Stay Interviews (Supervisors)	Dumbrell, Department Directors
Semi-Annual All Staff Meetings (May & October)	Cargo, Dumbrell
Safety trainings for DPW staff	Dumbrell, VerBerkmoes
Modify performance evaluations	Cargo, Dumbrell
Semi-Annual Retirement Readiness Meetings for Staff	Dumbrell
Board Performance Evaluation of Superintendent (December)	Board
Annual Compensation Summaries (December)	Dumbrell
Annual Background Checks (December)	Dumbrell
Annual Driver’s License Record Program Review (December)	Dumbrell
Review and update required labor law postings (December)	Dumbrell
SANITARY SEWER (590)	
PROJECT OR TASK	
RESPONSIBLE EMPLOYEE(S)	
Adopt sanitary sewer construction standards (<i>drafted, pending review</i>)	VerBerkmoes, P&N
Wet Well Cleaning (<i>October or November</i>)	Tlachac, Pollution Control Systems

Equipment purchases: ➤ Upgrade SCADA at Weyburn pump station (\$15k) ➤ Install “fall arrest” equipment at three pump stations	Tlachac, VerBerkmoes
Brucker Beach Woods sewer special assessment contract (recorded 5/17)	Fedewa, Bultje
Camera & Cleaning (year one of three)	Tlachac, VerBerkmoes
Asset Management Plan	VerBerkmoes, P & N
Wet well cleaning	Tlachac
Calibration of cathodic protection at four pump stations	Tlachac
Jet clean dead end portions/low flow sewer	Tlachac
STORM SEWER (445)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Funding of Township/Public and/or At-Large Portions of various Drain Work projects (\$26k±)	Drain Commissioner, Cargo
Warber Drain – Replacement (<i>Robbins Road – 168th to 172nd</i>) ➤ Complete engineering review ➤ Board petition for improvements ➤ Replacement / Construction (include DDA project)	Drain Commissioner, Cargo Drain Commissioner Board, Cargo Drain Commissioner, Cargo
Orphan Drain Identification and BOD process to bring into County system (<i>five year project</i>) (\$20k) ➤ Project (<i>identify orphan drains, BOD hearings, etc.</i>)	Cargo, P & N, Water Resources Commissioner Consultant, Cargo
Recommendation / Decision on 172 nd Avenue Drain (Shape Corporation)	VerBerkmoes, Cargo, DDA
STREETS AND ROADS / TRANSPORTATION (204)	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Township Funded Road Maintenance - Resurfacing (\$225k from GF and \$258k from Municipal Street Fund) ✓ Dust Control Contract (\$38k) ✓ Street Paving OCRC Contract ✓ Warner Street (Double Chip and Seal SADs)	Cargo
Harbor Transit – Transfer (\$430k)	Sandoval, Larrison
Public Notice on availability of “Prime & Double Chip”	Cargo
Ordinances – Control of Water and Sewer projects in street ROW	Cargo, Bultje, VerBerkmoes
VEHICLES	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Purchase 2 trucks (pathway and parks) Ordered	VerBerkmoes, Tlachac
WASTE MANAGEMENT	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
Christmas tree collection program	Tlachae
Spring yard waste collection program	Tlachae
Fall yard waste collection program	Tlachac
WATER (591)	
PROJECT OR TASK	RESPONSIBLE

	EMPLOYEE(S)
2019 hydrant maintenance/painting/signs program (complete 300± of 1,080) (***) completed)	Tlachac
Bluewater SAD— water main extension	VerBerkmoes, Cargo
Draft and adopt policy regarding multiple uses on single service	VerBerkmoes, Bultje
Install generators (4) at tanks and meter stations	Tlachac, VerBerkmoes
Install altitude valve at West Tank	VerBerkmoes
Bi-annual quote/purchase of service line parts including hydrants, brass, curb boxes, copper and meter setters (\$65k)	Walsh
Annual testing of large meters	Tlachac, Walsh
2019 testing for unregulated contaminants (EPA - UCMR3 and 4 Rules)	VerBerkmoes, Tlachac
Draft and adopt policy regarding extensions of water lines and sewer lines	VerBerkmoes, Bultje
Annual calibration of cathodic protection for water and sewer equipment (includes replacement of harnesses for west tank)	VerBerkmoes, Tlachac
Annual calibration of telemetry equipment (<i>master meters</i>)	VerBerkmoes, OCRC
Complete and post 2018 CCR (<i>NOWS and GR</i>)	Cargo, Walsh
MXU Replacement Program (<i>year 4</i>) (<i>completed 700 of the 1,100 goal</i>)	VerBerkmoes
Equipment Purchases: <ul style="list-style-type: none"> ➤ Hand held meter reader / programmer ➤ Location wand ➤ Tablets for trucks 	
Amend ordinance for work in ROW to be controlled by Township, Cross Connection language and specifications	VerBerkmoes, Cargo, Bultje
Install four generator sets for meter and tank locations (<i>purchased</i>)	Tlachac, VerBerkmoes
NOWS Reimbursement for “water loss”	Cargo, OCRC
WMRWA Interconnection Agreement	Cargo, OCRC
Clean exterior of East Tank	Tlachac
Repair ice damage at West tank (\$10k)	Tlachac
ZONING / DEVELOPMENT PROJECTS	
PROJECT OR TASK	RESPONSIBLE EMPLOYEE(S)
<i>Re-Draft of Zoning Ordinance with McKenna Associates</i> (Joint meeting complete, follow-up scheduled May 15 th)	<i>Planning Commission, Fedewa, McKenna</i>
ZBA Applications (3 for 2019, scheduled for May 29 th)	Fedewa, Hoisington
Rezoning (0 for 2019)	Fedewa, Hoisington
Stonewater – Phase 1 Subdivision Platting (<i>obtaining financial surety for final plat</i>)	Fedewa
Lincoln Pines – Phase 2 Subdivision Platting (<i>started construction</i>)	Fedewa
River Watch PUD – David Bos – reviving residential development on River near 160 th & Mercury (<i>sewer cost discussions</i>)	Fedewa
Regency at Grand Haven PUD (<i>new project manager, PUD extension granted</i>)	Fedewa
MCC Satellite Campus (PC hearing on April 15th)	Fedewa
Reenders Store ‘n Locks (<i>PC tabled, waiting for applicant to resubmit</i>)	Fedewa
VIP Outdoor Power – Propane Fueling Station (<i>waiting for new ordinance</i>)	Fedewa
Zoning Ordinance Design Toolkit for Overlay Zones (<i>to begin after new ordinance adopted</i>)	Planning Commission, Fedewa, McKenna
Select firm for Mid-Block Crosswalk Study	Fedewa, VerBerkmoes

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
ACCESSORY BUILDING				
P19BU0129	BLACKMER TRUST	14291 VIRGINIA WAY PVT	\$15,350	\$218.00
P19BU0148	TIBALDI ERIN S	14906 172ND AVE	\$51,000	\$457.75
			\$66,350	\$675.75
			<i>Total Permits For Type:</i>	2
ADDITIONS				
P19BU0064	HWACINSKI ROBERT DONALD-ELIZABETH	12836 SUMMERSET DR	\$36,900	\$361.85
P19BU0098	FAHNDRICH-EDWARD DIANE	16917 PIERCE ST	\$65,000	\$553.65
			\$101,900	\$915.50
			<i>Total Permits For Type:</i>	2
ALTERATIONS				
P19BU0099	MCFARLANE JUSTIN	15914 GROESBECK ST	\$2,500	\$63.00
P19BU0133	GUTHRIE WARREN E-LAURIE A	17150 MAJESTIC RIDGE CT	\$561	\$36.75
P19BU0141	EVERMAN CHARLES-JACI SUE TRUST	13291 LAKESHORE DR	\$6,000	\$105.00
			\$9,061	\$204.75
			<i>Total Permits For Type:</i>	3
DECK				
P19BU0104	JOB JOHN T-MIKA MARY ELLEN	12905 WILDERNESS TR PVT	\$21,000	\$252.25
P19BU0121	RIVET JOSEPH-CINDY	13030 BLACKHAWK AVE	\$7,500	\$136.50
P19BU0125	GEORGE CHRISTOPHER F	12966 WILDVIEW DR	\$13,500	\$204.30
P19BU0142	REDDER CURT	16159 MERCURY DR	\$1,500	\$42.00
P19BU0145	HAGEMAN PAULA	15116 BRIARWOOD ST	\$4,500	\$89.25
			\$48,000	\$724.30
			<i>Total Permits For Type:</i>	5
DEMOLITION				
P19DE0004	TIBALDI ERIN S	14906 172ND AVE	\$0	\$20.00
P19DE0005	BUSH CHAD D	17114 ROBBINS RD	\$0	\$20.00
P19DE0006	ROBBINS ROAD REAL ESTATE LLC	17202 ROBBINS RD MAIN PARCL	\$0	\$20.00
			\$0	\$60.00
			<i>Total Permits For Type:</i>	3
ELECTRICAL				
P19EL0064	CAMILLERI DEREK	14734 160TH AVE	\$0	\$50.00
P19EL0065	KOBEL PAUL H-KOBEL SUZANNE D	11837 GARNSEY AVE	\$0	\$100.00
P19EL0066	LAUGHLIN VICTOR TRUST	11858 LAKESHORE DR	\$0	\$54.00
P19EL0067	WILSON RON W TRUST	9953 HIAWATHA DR	\$0	\$50.00
P19EL0068	KING BRIAN-SARAH	13005 COPPERWAY DR	\$0	\$100.00
P19EL0069	METHRIC JOHN-TRACY	10330 BIRDSEYE CT	\$0	\$54.00
P19EL0070	SOLTYS DOROTHY M-SKEELS JANE	14494 ANGELUS CIR	\$0	\$196.00
P19EL0071	DREESE MICHAEL T-CHRISTINE S	15456 WOODRUSH DR	\$0	\$106.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19EL0072	GRAY CHRYSTEEN	13243 FOREST PARK DR	\$0	\$54.00
P19EL0073	BUSH CHAD D	16976 LAKESHORE GARDENS DR M/	\$0	\$70.00
P19EL0074	BUSH CHAD D	14928 KAYE LN MAIN BLDG D	\$0	\$118.00
P19EL0075	BUSH CHAD D	16976 LAKESHORE GARDENS DR M/	\$0	\$118.00
P19EL0076	BUSH CHAD D	14928 KAYE LN 107 - BLDG D	\$0	\$127.00
P19EL0077	BUSH CHAD D	14928 KAYE LN 108 - BLDG D	\$0	\$127.00
P19EL0078	BUSH CHAD D	14928 KAYE LN 207 - BLDG D	\$0	\$127.00
P19EL0079	BUSH CHAD D	14928 KAYE LN 208 - BLDG D	\$0	\$127.00
P19EL0080	BUSH CHAD D	14928 KAYE LN 307 - BLDG D	\$0	\$127.00
P19EL0081	BUSH CHAD D	14928 KAYE LN 308 - BLDG D	\$0	\$127.00
P19EL0082	BUSH CHAD D	14942 KAYE LN 105 - BLDG D	\$0	\$127.00
P19EL0083	BUSH CHAD D	14942 KAYE LN 106 - BLDG D	\$0	\$127.00
P19EL0084	BUSH CHAD D	14942 KAYE LN 205 - BLDG D	\$0	\$127.00
P19EL0085	BUSH CHAD D	14942 KAYE LN 206 - BLDG D	\$0	\$127.00
P19EL0086	BUSH CHAD D	14942 KAYE LN 305 - BLDG D	\$0	\$127.00
P19EL0087	BUSH CHAD D	14942 KAYE LN 306 - BLDG D	\$0	\$127.00
P19EL0088	BUSH CHAD D	14958 KAYE LN 103 - BLDG D	\$0	\$127.00
P19EL0089	BUSH CHAD D	14958 KAYE LN 104 - BLDG D	\$0	\$127.00
P19EL0090	BUSH CHAD D	14958 KAYE LN 203 - BLDG D	\$0	\$127.00
P19EL0091	BUSH CHAD D	14958 KAYE LN 204 - BLDG D	\$0	\$127.00
P19EL0092	BUSH CHAD D	14958 KAYE LN 303 - BLDG D	\$0	\$127.00
P19EL0093	BUSH CHAD D	14958 KAYE LN 304 - BLDG D	\$0	\$127.00
P19EL0094	BUSH CHAD D	14972 KAYE LN 101 - BLDG D	\$0	\$127.00
P19EL0095	BUSH CHAD D	14972 KAYE LN 102 - BLDG D	\$0	\$127.00
P19EL0096	BUSH CHAD D	14972 KAYE LN 201 - BLDG D	\$0	\$127.00
P19EL0097	BUSH CHAD D	14972 KAYE LN 202 - BLDG D	\$0	\$127.00
P19EL0098	BUSH CHAD D	14972 KAYE LN 301 - BLDG D	\$0	\$127.00
P19EL0099	BUSH CHAD D	14972 KAYE LN 302 - BLDG D	\$0	\$127.00
P19EL0100	BUSH CHAD D	16976 LAKESHORE GARDENS DR 10'	\$0	\$127.00
P19EL0101	BUSH CHAD D	16976 LAKESHORE GARDENS DR 10'	\$0	\$127.00
P19EL0102	BUSH CHAD D	16976 LAKESHORE GARDENS DR 20'	\$0	\$127.00
P19EL0103	BUSH CHAD D	16976 LAKESHORE GARDENS DR 20'	\$0	\$127.00
P19EL0104	BUSH CHAD D	16976 LAKESHORE GARDENS DR 30'	\$0	\$127.00
P19EL0105	BUSH CHAD D	16976 LAKESHORE GARDENS DR 30'	\$0	\$127.00
P19EL0106	BUSH CHAD D	16982 LAKESHORE GARDENS DR 10'	\$0	\$127.00
P19EL0107	BUSH CHAD D	16982 LAKESHORE GARDENS DR 10'	\$0	\$127.00
P19EL0108	BUSH CHAD D	16982 LAKESHORE GARDENS DR 20'	\$0	\$127.00
P19EL0109	BUSH CHAD D	16982 LAKESHORE GARDENS DR 20'	\$0	\$127.00
P19EL0110	BUSH CHAD D	16982 LAKESHORE GARDENS DR 30'	\$0	\$127.00

Building Permit Report - Monthly

		Estimated Cost	Permit Fee
P19EL0111	BUSH CHAD D	16982 LAKESHORE GARDENS DR 30:\$0	\$127.00
P19EL0112	BUSH CHAD D	16988 LAKESHORE GARDENS DR 10:\$0	\$127.00
P19EL0113	BUSH CHAD D	16988 LAKESHORE GARDENS DR 10:\$0	\$127.00
P19EL0114	BUSH CHAD D	16988 LAKESHORE GARDENS DR 20:\$0	\$127.00
P19EL0115	BUSH CHAD D	16988 LAKESHORE GARDENS DR 20:\$0	\$127.00
P19EL0116	BUSH CHAD D	16988 LAKESHORE GARDENS DR 30:\$0	\$127.00
P19EL0117	BUSH CHAD D	16988 LAKESHORE GARDENS DR 30:\$0	\$127.00
P19EL0118	BUSH CHAD D	16994 LAKESHORE GARDENS DR 10:\$0	\$127.00
P19EL0119	BUSH CHAD D	16994 LAKESHORE GARDENS DR 10:\$0	\$127.00
P19EL0120	BUSH CHAD D	16994 LAKESHORE GARDENS DR 20:\$0	\$127.00
P19EL0121	BUSH CHAD D	16994 LAKESHORE GARDENS DR 20:\$0	\$127.00
P19EL0122	BUSH CHAD D	16994 LAKESHORE GARDENS DR 30:\$0	\$127.00
P19EL0123	BUSH CHAD D	16994 LAKESHORE GARDENS DR 30:\$0	\$127.00
P19EL0124	HORTON TROY-PAIGE	16263 LAKE MICHIGAN DR \$0	\$60.00
P19EL0125	REDD FAMILY TRUST	13790 FOREST PARK DR \$0	\$55.00
P19EL0126	BROCHU GERALD J-GWEN	11303 OAK GROVE RD \$0	\$66.00
P19EL0127	CARLSEN DONALD-LYNN TRUST	13901 BITTERSWEET DR \$0	\$87.00
P19EL0128	GRAND HAVEN DEVELOPMENT GROUP LLC	5047 COPPERWOOD DR \$0	\$301.00
P19EL0129	RAUCH DIANA B	15997 PIERCE ST \$0	\$64.00
P19EL0130	SPEEDWAY LLC	17281 HAYES ST \$0	\$66.00
P19EL0131	ATCOFLEX INC	14260 172ND AVE \$0	\$100.00
P19EL0132	RIVER HAVEN OPERATING COMPANY LLC	13761 SUNRISE COVE \$0	\$56.00
P19EL0133	RIVER HAVEN OPERATING COMPANY LLC	13767 SUNRISE COVE \$0	\$56.00
P19EL0134	RIVER HAVEN OPERATING COMPANY LLC	14500 MAGNOLIA DR \$0	\$56.00
P19EL0135	RIVER HAVEN OPERATING COMPANY LLC	14480 MAGNOLIA DR \$0	\$56.00
P19EL0136	RIVER HAVEN OPERATING COMPANY LLC	14522 CROOKED TREE LN \$0	\$56.00
P19EL0137	RIVER HAVEN OPERATING COMPANY LLC	14468 WINTERGREEN DR \$0	\$56.00
P19EL0138	RIVER HAVEN OPERATING COMPANY LLC	13231 WINDING CREEK DR \$0	\$56.00
P19EL0139	RIVER HAVEN OPERATING COMPANY LLC	13299 PINWOOD DR \$0	\$56.00
P19EL0140	RIVER HAVEN OPERATING COMPANY LLC	13315 PINWOOD DR \$0	\$56.00
P19EL0141	RIVER HAVEN OPERATING COMPANY LLC	13327 PINWOOD DR \$0	\$56.00
P19EL0142	RIVER HAVEN OPERATING COMPANY LLC	14494 TRILLIUM CIRCLE \$0	\$56.00
P19EL0143	RIVER HAVEN OPERATING COMPANY LLC	14512 TRILLIUM CIRCLE \$0	\$56.00
P19EL0144	CHRISTIAN REFORMED CONF GROUNDS	12253 LAKESHORE DR \$0	\$130.00
P19EL0145	BUSH KAREN A TRUST	16592 PINE DUNES CT \$0	\$110.00
P19EL0146	BUSH KAREN A TRUST	16592 PINE DUNES CT \$0	\$60.00
P19EL0147	CHRISTY RUSSELL R-DENISE L	12949 WILDERNESS TR PVT \$0	\$158.00
P19EL0148	GRAND HAVEN CHARTER TWP	15175 LINCOLN ST \$0	\$0.00
P19EL0149	GRAND HAVEN CHARTER TWP	15863 ROBBINS RD \$0	\$0.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19EL0150	OTTAWA COUNTY ROAD COMM	17974 ROBBINS RD	\$0	\$0.00
P19EL0151	OTTAWA COUNTY ROAD COMM	SUNSET HILLS BLVD	\$0	\$0.00
P19EL0152	DEMPSEY JOSEPH-PATRICIA	14878 CANARY DR	\$0	\$60.00
P19EL0153	BRADLEY AYRES	15525 SWEETBRIAR DR	\$0	\$246.00
			\$0	\$9,401.00
			<i>Total Permits For Type:</i>	90

FENCE

P19ZL0013	GURUNG DIL KUMAR-BINITA M	15106 PINE ST	\$0	\$40.00
P19ZL0016	HARBOR INDUSTRIES INC	14130 172ND AVE	\$1,000	\$40.00
P19ZL0017	WHITE TONY-MADONNA R	11361 144TH AVE	\$3,500	\$40.00
P19ZL0018	DAVID JOANNE L-RODRIGO	14501 BRIGHAM DR	\$11,000	\$40.00
P19ZL0019	COHEN JUDITH ELLEN LVG TRUST	13390 LAKESHORE DR	\$0	\$40.00
P19ZL0020	SHUMWAY ANDREW-DANGREMOND DARC	4352 WOODHAVEN CT	\$6,632	\$40.00
P19ZL0021	GREHAN MICHAEL S	14865 PARKWOOD DR	\$6,350	\$40.00
P19ZL0022	REUTERDAHL KENNETH D JR	15301 MERCURY DR	\$400	\$40.00
P19ZL0025	RIGOLI ROSS JR-ROBERTA	17241 TIMBER DUNES DR	\$1,246	\$40.00
			\$30,128	\$360.00
			<i>Total Permits For Type:</i>	9

MANUFACTURED HOME SET-UP

P19BU0106	RIVER HAVEN OPERATING COMPANY LLC	14500 MAGNOLIA DR	\$0	\$300.00
P19BU0107	RIVER HAVEN OPERATING COMPANY LLC	13767 SUNRISE COVE	\$0	\$300.00
P19BU0108	RIVER HAVEN OPERATING COMPANY LLC	14480 MAGNOLIA DR	\$0	\$300.00
P19BU0109	RIVER HAVEN OPERATING COMPANY LLC	14522 CROOKED TREE LN	\$0	\$300.00
P19BU0110	RIVER HAVEN OPERATING COMPANY LLC	13299 PINWOOD DR	\$0	\$300.00
P19BU0111	RIVER HAVEN OPERATING COMPANY LLC	13315 PINWOOD DR	\$0	\$300.00
P19BU0112	RIVER HAVEN OPERATING COMPANY LLC	13327 PINWOOD DR	\$0	\$300.00
P19BU0113	RIVER HAVEN OPERATING COMPANY LLC	14494 TRILLIUM CIRCLE	\$0	\$300.00
P19BU0114	RIVER HAVEN OPERATING COMPANY LLC	14512 TRILLIUM CIRCLE	\$0	\$300.00
P19BU0115	RIVER HAVEN OPERATING COMPANY LLC	13231 WINDING CREEK DR	\$0	\$300.00
P19BU0117	RIVER HAVEN OPERATING COMPANY LLC	14468 WINTERGREEN DR	\$0	\$300.00
P19BU0118	RIVER HAVEN OPERATING COMPANY LLC	13761 SUNRISE COVE	\$0	\$300.00
			\$0	\$3,600.00
			<i>Total Permits For Type:</i>	12

MECHANICAL

P19ME0158	BUSH CHAD D	16990 TYSMAN WY 303 - BLDG B	\$0	\$77.50
P19ME0159	BUSH CHAD D	16990 TYSMAN WY 304 - BLDG B	\$0	\$77.50
P19ME0160	BUSH CHAD D	16984 TYSMAN WY 105 - BLDG B	\$0	\$80.00
P19ME0161	BUSH CHAD D	16984 TYSMAN WY 106 - BLDG B	\$0	\$80.00
P19ME0162	BUSH CHAD D	16984 TYSMAN WY 205 - BLDG B	\$0	\$80.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19ME0163	BUSH CHAD D	16984 TYSMAN WY 206 - BLDG B	\$0	\$80.00
P19ME0164	BUSH CHAD D	16984 TYSMAN WY 305 - BLDG B	\$0	\$80.00
P19ME0165	BUSH CHAD D	16984 TYSMAN WY 306 - BLDG B	\$0	\$80.00
P19ME0166	BUSH CHAD D	16978 TYSMAN WY 107 - BLDG B	\$0	\$77.50
P19ME0167	BUSH CHAD D	16978 TYSMAN WY 108 - BLDG B	\$0	\$80.00
P19ME0168	BUSH CHAD D	16978 TYSMAN WY 207 - BLDG B	\$0	\$80.00
P19ME0169	BUSH CHAD D	16978 TYSMAN WY 208 - BLDG B	\$0	\$80.00
P19ME0170	BUSH CHAD D	16978 TYSMAN WY 307 - BLDG B	\$0	\$80.00
P19ME0171	BUSH CHAD D	16978 TYSMAN WY 308 - BLDG B	\$0	\$80.00
P19ME0172	BUSH CHAD D	16972 TYSMAN WY 109 - BLDG B	\$0	\$80.00
P19ME0173	BUSH CHAD D	16972 TYSMAN WY 110 - BLDG B	\$0	\$80.00
P19ME0174	BUSH CHAD D	16972 TYSMAN WY 209 - BLDG B	\$0	\$80.00
P19ME0175	BUSH CHAD D	16972 TYSMAN WY 210 - BLDG B	\$0	\$80.00
P19ME0176	BUSH CHAD D	16972 TYSMAN WY 309 - BLDG B	\$0	\$80.00
P19ME0177	BUSH CHAD D	16972 TYSMAN WY 310 - BLDG B	\$0	\$80.00
P19ME0178	BUSH CHAD D	15048 KAYE LN 109 - BLDG C	\$0	\$80.00
P19ME0179	BUSH CHAD D	15048 KAYE LN 110 - BLDG C	\$0	\$80.00
P19ME0180	BUSH CHAD D	15048 KAYE LN 209 - BLDG C	\$0	\$80.00
P19ME0181	BUSH CHAD D	15048 KAYE LN 210 - BLDG C	\$0	\$80.00
P19ME0182	BUSH CHAD D	15048 KAYE LN 309 - BLDG C	\$0	\$80.00
P19ME0183	BUSH CHAD D	15048 KAYE LN 310 - BLDG C	\$0	\$80.00
P19ME0184	BUSH CHAD D	15064 KAYE LN 107 - BLDG C	\$0	\$77.50
P19ME0185	BUSH CHAD D	15064 KAYE LN 108 - BLDG C	\$0	\$80.00
P19ME0186	BUSH CHAD D	15064 KAYE LN 207 - BLDG C	\$0	\$80.00
P19ME0187	BUSH CHAD D	15064 KAYE LN 208 - BLDG C	\$0	\$80.00
P19ME0188	BUSH CHAD D	15064 KAYE LN 307 - BLDG C	\$0	\$80.00
P19ME0189	BUSH CHAD D	15064 KAYE LN 308 - BLDG C	\$0	\$80.00
P19ME0190	BUSH CHAD D	15078 KAYE LN 105 - BLDG C	\$0	\$80.00
P19ME0191	BUSH CHAD D	15078 KAYE LN 106 - BLDG C	\$0	\$80.00
P19ME0192	BUSH CHAD D	15078 KAYE LN 205 - BLDG C	\$0	\$80.00
P19ME0193	BUSH CHAD D	15078 KAYE LN 206 - BLDG C	\$0	\$80.00
P19ME0194	BUSH CHAD D	15078 KAYE LN 305 - BLDG C	\$0	\$80.00
P19ME0195	BUSH CHAD D	15078 KAYE LN 306 - BLDG C	\$0	\$80.00
P19ME0196	BUSH CHAD D	15094 KAYE LN 103 - BLDG C	\$0	\$77.50
P19ME0197	BUSH CHAD D	15094 KAYE LN 104 - BLDG C	\$0	\$77.50
P19ME0198	BUSH CHAD D	15094 KAYE LN 203 - BLDG C	\$0	\$77.50
P19ME0199	BUSH CHAD D	15094 KAYE LN 204 - BLDG C	\$0	\$77.50
P19ME0200	BUSH CHAD D	15094 KAYE LN 303 - BLDG C	\$0	\$77.50
P19ME0201	BUSH CHAD D	15094 KAYE LN 304 - BLDG C	\$0	\$77.50

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19ME0202	BUSH CHAD D	15110 KAYE LN 101 - BLDG C	\$0	\$80.00
P19ME0203	BUSH CHAD D	15110 KAYE LN 102 - BLDG C	\$0	\$80.00
P19ME0204	BUSH CHAD D	15110 KAYE LN 201 - BLDG C	\$0	\$80.00
P19ME0205	BUSH CHAD D	15110 KAYE LN 202 - BLDG C	\$0	\$80.00
P19ME0206	BUSH CHAD D	15110 KAYE LN 301 - BLDG C	\$0	\$80.00
P19ME0207	BUSH CHAD D	15110 KAYE LN 302 - BLDG C	\$0	\$80.00
P19ME0208	EAGLE CREEK HOMES LLC	10262 MESIC DR	\$0	\$125.00
P19ME0209	ABBIT PARTNERS LLC	16986 ROBBINS RD	\$0	\$130.00
P19ME0210	ZEILER SUSAN L TRUST	16870 CRICKET CT	\$0	\$80.00
P19ME0211	GARRETT JOY TRUST	15629 GROESBECK ST	\$0	\$55.00
P19ME0212	CARON JOHN-LAURA	10361 MESIC DR	\$0	\$130.00
P19ME0213	BARRON TIMOTHY J-ALANNA P	13441 WINDCREST LN	\$0	\$220.00
P19ME0214	GEURINK TODD-COURTNEY	14667 INDIAN TRAILS DR	\$0	\$80.00
P19ME0215	SIGNATURE LAND DEVELOPMENT CORP	12993 WILDVIEW DR	\$0	\$135.00
P19ME0216	CLARK ADAM-TARYN	9665 168TH AVE	\$0	\$135.00
P19ME0217	SIGNATURE LAND DEVELOPMENT CORP	12993 WILDVIEW DR	\$0	\$195.00
P19ME0218	ZEILER SUSAN L TRUST	16870 CRICKET CT	\$0	\$70.00
P19ME0219	YASICK ANTHONY J-RENEE	17287 BEACH RIDGE WY PVT	\$0	\$55.00
P19ME0220	SOLTYS DOROTHY M-SKEELS JANE	14494 ANGELUS CIR	\$0	\$130.00
P19ME0221	LLOVET LUIS F-DEBBIE R	11352 PRESERVE RD PVT	\$0	\$80.00
P19ME0222	TEG 43 NORTH LLC	14767 SHADOWOOD CRT 202	\$0	\$55.00
P19ME0223	BIONDO NICHOLAS	15337 COLEMAN AVE	\$0	\$85.00
P19ME0224	BROCHU GERALD J-GWEN	11303 OAK GROVE RD	\$0	\$55.00
P19ME0225	FERGEN CYNTHIA J	15228 ARBORWOOD DR	\$0	\$55.00
P19ME0226	SHAPE CORP	14600 172ND AVE	\$0	\$120.00
P19ME0227	LAUGHLIN VICTOR TRUST	11858 LAKESHORE DR	\$0	\$55.00
P19ME0228	RIVER HAVEN OPERATING COMPANY LLC	13767 SUNRISE COVE	\$0	\$80.00
P19ME0229	RIVER HAVEN OPERATING COMPANY LLC	14500 MAGNOLIA DR	\$0	\$80.00
P19ME0230	RIVER HAVEN OPERATING COMPANY LLC	14480 MAGNOLIA DR	\$0	\$80.00
P19ME0231	RIVER HAVEN OPERATING COMPANY LLC	14522 CROOKED TREE LN	\$0	\$80.00
P19ME0232	RIVER HAVEN OPERATING COMPANY LLC	13299 PINWOOD DR	\$0	\$80.00
P19ME0233	RIVER HAVEN OPERATING COMPANY LLC	13315 PINWOOD DR	\$0	\$80.00
P19ME0234	RIVER HAVEN OPERATING COMPANY LLC	13327 PINWOOD DR	\$0	\$80.00
P19ME0235	RIVER HAVEN OPERATING COMPANY LLC	14494 TRILLIUM CIRCLE	\$0	\$80.00
P19ME0236	RIVER HAVEN OPERATING COMPANY LLC	14512 TRILLIUM CIRCLE	\$0	\$80.00
P19ME0237	RIVER HAVEN OPERATING COMPANY LLC	13761 SUNRISE COVE	\$0	\$80.00
P19ME0238	RIVER HAVEN OPERATING COMPANY LLC	14468 WINTERGREEN DR	\$0	\$80.00
P19ME0239	RIVER HAVEN OPERATING COMPANY LLC	13231 WINDING CREEK DR	\$0	\$80.00
P19ME0240	ROTHE RICHARD-SHARON	15396 CANARY DR	\$0	\$80.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19ME0241	SZYMAS TRUST	15110 164TH AVE	\$0	\$80.00
P19ME0242	LUDE DEANNA N-BERGSTROM ASHLEY	17232 MAPLERIDGE DR	\$0	\$135.00
P19ME0243	LUDE DEANNA N-BERGSTROM ASHLEY	17232 MAPLERIDGE DR	\$0	\$235.00
P19ME0244	VANDERVEEN ERIC-JENNIFER	13531 REDBIRD LN	\$0	\$80.00
P19ME0245	RAUCH DIANA B	15997 PIERCE ST	\$0	\$55.00
			\$0	\$7,645.00
			<i>Total Permits For Type:</i>	88

PLUMBING

P19PL0037	FRETT CHRISTOPHER W	14408 WESTWIND LN	\$0	\$130.00
P19PL0038	BUSH CHAD D	15048 KAYE LN 109 - BLDG C	\$0	\$108.00
P19PL0039	BUSH CHAD D	15048 KAYE LN 110 - BLDG C	\$0	\$108.00
P19PL0040	BUSH CHAD D	15048 KAYE LN 209 - BLDG C	\$0	\$83.00
P19PL0041	BUSH CHAD D	15048 KAYE LN 210 - BLDG C	\$0	\$83.00
P19PL0042	BUSH CHAD D	15048 KAYE LN 309 - BLDG C	\$0	\$83.00
P19PL0043	BUSH CHAD D	15048 KAYE LN 310 - BLDG C	\$0	\$83.00
P19PL0044	BUSH CHAD D	15064 KAYE LN 107 - BLDG C	\$0	\$108.00
P19PL0045	BUSH CHAD D	15064 KAYE LN 108 - BLDG C	\$0	\$108.00
P19PL0046	BUSH CHAD D	15064 KAYE LN 207 - BLDG C	\$0	\$83.00
P19PL0047	BUSH CHAD D	15064 KAYE LN 208 - BLDG C	\$0	\$83.00
P19PL0048	BUSH CHAD D	15064 KAYE LN 307 - BLDG C	\$0	\$83.00
P19PL0049	BUSH CHAD D	15064 KAYE LN 308 - BLDG C	\$0	\$83.00
P19PL0050	BUSH CHAD D	15078 KAYE LN 105 - BLDG C	\$0	\$108.00
P19PL0051	BUSH CHAD D	15078 KAYE LN 106 - BLDG C	\$0	\$108.00
P19PL0052	BUSH CHAD D	15078 KAYE LN 205 - BLDG C	\$0	\$83.00
P19PL0053	BUSH CHAD D	15078 KAYE LN 206 - BLDG C	\$0	\$83.00
P19PL0054	BUSH CHAD D	15078 KAYE LN 305 - BLDG C	\$0	\$83.00
P19PL0055	BUSH CHAD D	15078 KAYE LN 306 - BLDG C	\$0	\$83.00
P19PL0056	BUSH CHAD D	15094 KAYE LN 103 - BLDG C	\$0	\$99.00
P19PL0057	BUSH CHAD D	15094 KAYE LN 104 - BLDG C	\$0	\$99.00
P19PL0058	BUSH CHAD D	15094 KAYE LN 203 - BLDG C	\$0	\$74.00
P19PL0059	BUSH CHAD D	15094 KAYE LN 204 - BLDG C	\$0	\$74.00
P19PL0060	BUSH CHAD D	15094 KAYE LN 303 - BLDG C	\$0	\$74.00
P19PL0061	BUSH CHAD D	15094 KAYE LN 304 - BLDG C	\$0	\$74.00
P19PL0062	BUSH CHAD D	15110 KAYE LN 101 - BLDG C	\$0	\$108.00
P19PL0063	BUSH CHAD D	15110 KAYE LN 102 - BLDG C	\$0	\$108.00
P19PL0064	BUSH CHAD D	15110 KAYE LN 201 - BLDG C	\$0	\$83.00
P19PL0065	BUSH CHAD D	15110 KAYE LN 202 - BLDG C	\$0	\$83.00
P19PL0066	BUSH CHAD D	15110 KAYE LN 301 - BLDG C	\$0	\$83.00
P19PL0067	BUSH CHAD D	15110 KAYE LN 302 - BLDG C	\$0	\$83.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19PL0068	BUSH CHAD D	14928 KAYE LN 107 - BLDG D	\$0	\$99.00
P19PL0069	BUSH CHAD D	14928 KAYE LN 108 - BLDG D	\$0	\$108.00
P19PL0070	BUSH CHAD D	14928 KAYE LN 207 - BLDG D	\$0	\$74.00
P19PL0071	BUSH CHAD D	14928 KAYE LN 208 - BLDG D	\$0	\$83.00
P19PL0072	BUSH CHAD D	14928 KAYE LN 307 - BLDG D	\$0	\$74.00
P19PL0073	BUSH CHAD D	14928 KAYE LN 308 - BLDG D	\$0	\$83.00
P19PL0074	BUSH CHAD D	14942 KAYE LN 105 - BLDG D	\$0	\$108.00
P19PL0075	BUSH CHAD D	14942 KAYE LN 106 - BLDG D	\$0	\$108.00
P19PL0076	BUSH CHAD D	14942 KAYE LN 205 - BLDG D	\$0	\$83.00
P19PL0077	BUSH CHAD D	14942 KAYE LN 206 - BLDG D	\$0	\$83.00
P19PL0078	BUSH CHAD D	14942 KAYE LN 305 - BLDG D	\$0	\$83.00
P19PL0079	BUSH CHAD D	14942 KAYE LN 306 - BLDG D	\$0	\$83.00
P19PL0080	BUSH CHAD D	14958 KAYE LN 103 - BLDG D	\$0	\$99.00
P19PL0081	BUSH CHAD D	14958 KAYE LN 104 - BLDG D	\$0	\$99.00
P19PL0082	BUSH CHAD D	14958 KAYE LN 203 - BLDG D	\$0	\$74.00
P19PL0083	BUSH CHAD D	14958 KAYE LN 204 - BLDG D	\$0	\$74.00
P19PL0084	BUSH CHAD D	14958 KAYE LN 303 - BLDG D	\$0	\$74.00
P19PL0085	BUSH CHAD D	14958 KAYE LN 304 - BLDG D	\$0	\$74.00
P19PL0086	BUSH CHAD D	14972 KAYE LN 101 - BLDG D	\$0	\$108.00
P19PL0087	BUSH CHAD D	14972 KAYE LN 102 - BLDG D	\$0	\$108.00
P19PL0088	BUSH CHAD D	14972 KAYE LN 201 - BLDG D	\$0	\$83.00
P19PL0089	BUSH CHAD D	14972 KAYE LN 202 - BLDG D	\$0	\$83.00
P19PL0090	BUSH CHAD D	14972 KAYE LN 301 - BLDG D	\$0	\$83.00
P19PL0091	BUSH CHAD D	14972 KAYE LN 302 - BLDG D	\$0	\$83.00
P19PL0092	BUSH CHAD D	16976 LAKESHORE GARDENS DR 10*\$0		\$99.00
P19PL0093	BUSH CHAD D	16976 LAKESHORE GARDENS DR 10*\$0		\$108.00
P19PL0094	BUSH CHAD D	16976 LAKESHORE GARDENS DR 20*\$0		\$74.00
P19PL0095	BUSH CHAD D	16976 LAKESHORE GARDENS DR 20*\$0		\$83.00
P19PL0096	BUSH CHAD D	16976 LAKESHORE GARDENS DR 30*\$0		\$74.00
P19PL0097	BUSH CHAD D	16976 LAKESHORE GARDENS DR 30*\$0		\$83.00
P19PL0098	BUSH CHAD D	16982 LAKESHORE GARDENS DR 10*\$0		\$108.00
P19PL0099	BUSH CHAD D	16982 LAKESHORE GARDENS DR 10*\$0		\$108.00
P19PL0100	BUSH CHAD D	16982 LAKESHORE GARDENS DR 20*\$0		\$83.00
P19PL0101	BUSH CHAD D	16982 LAKESHORE GARDENS DR 20*\$0		\$83.00
P19PL0102	BUSH CHAD D	16982 LAKESHORE GARDENS DR 30*\$0		\$83.00
P19PL0103	BUSH CHAD D	16982 LAKESHORE GARDENS DR 30*\$0		\$83.00
P19PL0104	BUSH CHAD D	16988 LAKESHORE GARDENS DR 10*\$0		\$99.00
P19PL0105	BUSH CHAD D	16988 LAKESHORE GARDENS DR 10*\$0		\$99.00
P19PL0106	BUSH CHAD D	16988 LAKESHORE GARDENS DR 20*\$0		\$74.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19PL0107	BUSH CHAD D	16988 LAKESHORE GARDENS DR 20	\$0	\$74.00
P19PL0108	BUSH CHAD D	16988 LAKESHORE GARDENS DR 30	\$0	\$74.00
P19PL0109	BUSH CHAD D	16988 LAKESHORE GARDENS DR 30	\$0	\$74.00
P19PL0110	BUSH CHAD D	16994 LAKESHORE GARDENS DR 10	\$0	\$108.00
P19PL0111	BUSH CHAD D	16994 LAKESHORE GARDENS DR 10	\$0	\$108.00
P19PL0112	BUSH CHAD D	16994 LAKESHORE GARDENS DR 20	\$0	\$83.00
P19PL0113	BUSH CHAD D	16994 LAKESHORE GARDENS DR 20	\$0	\$83.00
P19PL0114	BUSH CHAD D	16994 LAKESHORE GARDENS DR 30	\$0	\$83.00
P19PL0115	BUSH CHAD D	16994 LAKESHORE GARDENS DR 30	\$0	\$83.00
P19PL0116	BEDAN ANDREW-MEGAN	11273 EVERT CT	\$0	\$55.00
P19PL0117	MEIJER INC	15000 US-31 14900	\$0	\$271.00
P19PL0118	GRAND HAVEN DEVELOPMENT GROUP LLC	5047 COPPERWOOD DR	\$0	\$233.00
P19PL0119	RIVER HAVEN OPERATING COMPANY LLC	13767 SUNRISE COVE	\$0	\$55.00
P19PL0120	RIVER HAVEN OPERATING COMPANY LLC	14500 MAGNOLIA DR	\$0	\$55.00
P19PL0121	RIVER HAVEN OPERATING COMPANY LLC	14480 MAGNOLIA DR	\$0	\$55.00
P19PL0122	RIVER HAVEN OPERATING COMPANY LLC	14522 CROOKED TREE LN	\$0	\$55.00
P19PL0123	RIVER HAVEN OPERATING COMPANY LLC	13299 PINWOOD DR	\$0	\$55.00
P19PL0124	RIVER HAVEN OPERATING COMPANY LLC	13315 PINWOOD DR	\$0	\$55.00
P19PL0125	RIVER HAVEN OPERATING COMPANY LLC	13327 PINWOOD DR	\$0	\$55.00
P19PL0126	RIVER HAVEN OPERATING COMPANY LLC	14494 TRILLIUM CIRCLE	\$0	\$55.00
P19PL0127	RIVER HAVEN OPERATING COMPANY LLC	14512 TRILLIUM CIRCLE	\$0	\$55.00
P19PL0128	RIVER HAVEN OPERATING COMPANY LLC	13761 SUNRISE COVE	\$0	\$55.00
P19PL0129	RIVER HAVEN OPERATING COMPANY LLC	14468 WINTERGREEN DR	\$0	\$55.00
P19PL0130	RIVER HAVEN OPERATING COMPANY LLC	13231 WINDING CREEK DR	\$0	\$55.00
P19PL0131	CHAPEL KARL	15628 GRAND POINT DR	\$0	\$208.00
P19PL0132	BUSH KAREN A TRUST	16592 PINE DUNES CT	\$0	\$60.00
P19PL0133	CHRISTNER JEFF	15271 WINANS ST	\$0	\$164.00
P19PL0134	MILLS GERALD D-KENNETH D	13797 LAKESHORE DR	\$0	\$58.00
P19PL0135	KIEFT BARTEL G-RAQUEL HALL	12358 152ND AVE	\$0	\$226.00

\$0 **\$8,973.00**
Total Permits For Type: **99**

POOL/SPA/HOT TUB

P19BU0102	DREESE MICHAEL T-CHRISTINE S	15456 WOODRUSH DR	\$9,600	\$168.00
P19BU0103	CHRISTY RUSSELL R-DENISE L	12949 WILDERNESS TR PVT	\$100,000	\$793.40

\$109,600 **\$961.40**
Total Permits For Type: **2**

REPLACEMENT WINDOWS/DOORS

P19BU0089	GURUNG OM P-MON W	15353 161ST AVE	\$8,000	\$136.50
P19BU0097	WESSEL EDWARD J-PATRICIA A	15848 COMSTOCK ST	\$7,777	\$136.50

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
P19BU0100	GUTHRIE WARREN E-LAURIE A	17150 MAJESTIC RIDGE CT	\$1,500	\$42.00
P19BU0130	HEAVILIN JEREMY D-KELLI	13545 HIDDEN CREEK CT	\$986	\$36.75
P19BU0131	PURDY JAMES A-JOANN C	15719 COMSTOCK ST	\$14,479	\$211.15
P19BU0132	SMIDT BETTY M	10188 LAKESHORE DR	\$7,661	\$136.50
			\$40,403	\$699.40
			<i>Total Permits For Type:</i>	6

RE-ROOFING

P19BU0086	SMITH LAURIE M	15159 WESTRAY ST	\$6,490	\$100.00
P19BU0088	HOLT DANIEL	13477 RAVINE VIEW DR	\$10,740	\$100.00
P19BU0090	WILLIAMS LORI JO	15100 WESTRAY ST	\$21,652	\$100.00
P19BU0091	GRAND HAVEN INVESTMENTS LLC	15661 GROESBECK ST	\$4,870	\$100.00
P19BU0092	ANDERSEN RUSSELL-FLORENCE	15380 CANARY DR	\$2,500	\$100.00
P19BU0093	KEMPERMAN CHRISTIAN M-KARA J	14556 160TH AVE	\$12,376	\$100.00
P19BU0094	CLOVERNOOK FARMS LLC	15200 CLOVERNOOK DR	\$10,000	\$100.00
P19BU0095	SCHUCHARDT MATTHEW L- ASHLEIGH	15319 MEADOWS DR	\$6,868	\$100.00
P19BU0096	RUSCETT RONDA V	14229 CRICKLEWOOD RD	\$8,030	\$100.00
P19BU0105	BROLICK WILLIAM JR-TERESA M	17882 COMSTOCK ST	\$7,900	\$100.00
P19BU0116	RIVER HAVEN OPERATING COMPANY LLC	13825 SUNSET PLACE	\$6,000	\$100.00
P19BU0119	VAN HUESEN PHILIP-EVANGELINE TRUST	18277 HOLCOMB RD	\$3,380	\$100.00
P19BU0120	MCGUIRE MICHAEL-KATHLEEN	17596 ROBBINS RD	\$9,875	\$100.00
P19BU0123	MOELLER CHRISTOPHER J-CAROLYN A	13547 FOREST PARK DR	\$9,788	\$100.00
P19BU0124	WIERENGA ANNE M	14140 PAYNE FOREST AVE	\$2,000	\$100.00
P19BU0126	BEEBE RAYMOND D	16025 FERRIS ST	\$5,900	\$100.00
P19BU0127	BILLMAIER MICHAEL-DANIELLE	15455 ROYAL OAK DR	\$12,985	\$100.00
P19BU0134	FREUNDL THOMAS J	13700 148TH AVE	\$9,900	\$100.00
P19BU0135	PEERBOLT DOUGLAS J	14570 160TH AVE	\$11,000	\$100.00
P19BU0136	AUBRY RICHARD C	13264 HIDDEN CREEK DR	\$8,960	\$100.00
P19BU0137	VANZANDT ILENE TRUST 04/03/02	16637 PINE DUNES CT	\$0	\$100.00
P19BU0138	DIRKSE MIKEL-DEBORAH	13636 HOFMA CT	\$18,180	\$100.00
P19BU0143	HODGES DEAN R-LISA K	13793 LAKE SEDGE DR	\$15,900	\$100.00
P19BU0144	CARGO WILLIAM D-DEBRA K	13387 HIDDEN CREEK DR	\$12,887	\$100.00
P19BU0149	WOLFFIS ERIC	15167 BRIARWOOD ST	\$5,900	\$100.00
P19BU0150	PALMER RICHARD-LYNDA	15202 164TH AVE	\$8,600	\$100.00
P19BU0151	FOWLER BLAIR-SANDY	17395 BEECH HILL DR	\$9,440	\$100.00
P19BU0152	REISS JOSEPH-CHERYL	15843 OBRIEN CT	\$10,563	\$100.00
P19BU0153	DWYER CELESTE M	17910 COMSTOCK ST	\$3,400	\$100.00
P19BU0154	FULMER PAUL-KOWALCZYK-FULMER KATHI	1321 OAK GROVE RD	\$17,300	\$100.00
P19BU0156	DEROSE CHRISTOPHER-BARBARA	14380 WOODHAVEN CT	\$9,790	\$100.00
P19BU0157	INMAN CHAD M-LAURA A	13139 SIKKEMA DR	\$9,000	\$100.00

Building Permit Report - Monthly

			Estimated Cost	Permit Fee
			\$292,174	\$3,200.00
			<i>Total Permits For Type:</i>	<i>32</i>
RE-SIDING				
P19BU0122	GOLDEN JAMES D II-CAROLYN A	16977 BUCHANAN ST	\$11,300	\$190.60
			\$11,300	\$190.60
			<i>Total Permits For Type:</i>	<i>1</i>
SHED (<200 SQFT)				
P19ZL0014	DUFF PAUL K-KAREN M	15540 SWEETBRIAR DR	\$6,000	\$40.00
P19ZL0015	KING BRIAN-SARAH	13005 COPPERWAY DR	\$2,500	\$40.00
P19ZL0023	ELLIS RANDALL	14523 MANOR RD	\$0	\$40.00
			\$8,500	\$120.00
			<i>Total Permits For Type:</i>	<i>3</i>
SINGLE FAMILY DWELLING				
P19BU0081	KIEFT BARTEL G-RAQUEL HALL	12358 152ND AVE	\$150,000	\$1,376.15
P19BU0128	GRAND HAVEN DEVELOPMENT GROUP LLC	5047 COPPERWOOD DR	\$214,038	\$1,323.65
P19BU0139	SOMERS JEFF-JENNIFER	12400 LINCOLN FARMS DR	\$285,000	\$1,790.90
P19BU0140	BRADLEY AYRES	15525 SWEETBRIAR DR	\$255,162	\$1,612.40
P19BU0155	EVELAND JOSEPH-CAROL	12500 168TH AVE	\$500,000	\$1,995.65
			\$1,404,200	\$8,098.75
			<i>Total Permits For Type:</i>	<i>5</i>
VEHICLE SALES				
P19VS0012	DIEPEN MICHAEL- RENEE M	15912 MERCURY DR	\$0	\$0.00
P19VS0013	REENDERS KENNETH-SHIRLEY TRUST	14257 168TH AVE	\$0	\$0.00
P19VS0014	DEMARSE WILLIAM-LYNN	16270 ROBBINS RD	\$0	\$0.00
P19VS0015	SEES AUSTIN-HANSON MEGAN	14110 168TH AVE	\$0	\$0.00
P19VS0016	DEMARSE WILLIAM-LYNN	16270 ROBBINS RD	\$0	\$0.00
P19VS0017	KAMINSKI JAMES	14830 LAKESHORE DR	\$0	\$0.00
P19VS0018	HUBBELL BRANDON M	15957 ROBBINS RD	\$0	\$0.00
P19VS0019	ZIMONICK SUSAN	14134 152ND AVE 14140	\$0	\$0.00
P19VS0020	ZIMONICK SUSAN	14134 152ND AVE 14140	\$0	\$0.00
P19VS0021	JACOBS CHARLES H JR-PATRICIA L	11525 152ND AVE	\$0	\$0.00
			\$0	\$0.00
			<i>Total Permits For Type:</i>	<i>10</i>
Totals			\$2,121,616	\$45,829.45
			<i>Total Permits In Month:</i>	<i>372</i>

April Enforcement Letters By Category

All enforcement letters sent the previous month

Type of Enforcement Letter	Number Mailed
BASEMENT FINISH-CURRENT OWNER-1ST NOTICE	2
DECK WITHOUT PERMIT	1
LITTER - 1ST NOTICE	8
LITTER - 2ND NOTICE	2
PARKED ON GRASS - 1ST NOTICE	4
PARKED ON GRASS - 2ND NOTICE	1
SHED - 1ST NOTICE	7
VEHICLE FOR SALE - 1ST NOTICE	1
VEHICLE IN ROW - 1ST NOTICE	1
WORK WITHOUT PERMITS - 1ST NOTICE	2

Total Letters Sent: 29

Letter.DateTimeCreated Between 04/01/2019 AND 0
Letter.LinkFromType = Enforcement

April Open Enforcements By Category Monthly Report

ACCESSORY BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0094	17684 ROBBINS RD	1ST NOTICE OF VIOLATION LETTER	04/11/19		
E19CE0097	9787 168TH AVE	1ST NOTICE OF VIOLATION LETTER	04/16/19		
E19CE0098	18003 BRUCKER ST	1ST NOTICE OF VIOLATION LETTER	04/17/19		
E19CE0101	10811 168TH AVE	1ST NOTICE OF VIOLATION LETTER	04/17/19		
E19CE0103	15719 COMSTOCK ST	1ST NOTICE OF VIOLATION LETTER	04/18/19		
E19CE0107	15775 LINCOLN ST	1ST NOTICE OF VIOLATION LETTER	04/25/19		
E19CE0117	15653 CHARLES CT	1ST NOTICE OF VIOLATION LETTER	04/30/19		

Total Entries: 7

BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0089	14944 WOODACRE CT	1ST NOTICE OF VIOLATION LETTER	04/10/19		
E19CE0100	14187 PAYNE FOREST AVE	NO VIOLATION	04/17/19	04/23/19	
E19CE0102	14924 WOODSIDE TR	1ST NOTICE OF VIOLATION LETTER	04/17/19		
E19CE0108	15202 164TH AVE	CLOSED	04/25/19	04/30/19	
E19CE0109	15653 LAKE AVE	COMPLAINT LOGGED	04/25/19		
E19CE0111	14889 LAKESHORE DR	COMPLAINT LOGGED	04/25/19		

Total Entries: 6

HOME OCCUPATION

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0110	15601 KITCHEL LN	1ST NOTICE OF VIOLATION LETTER	04/25/19		

Total Entries: 1

JUNK & RUBBISH

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0093	15060 WESTRAY ST	CLOSED	04/11/19	04/29/19	
E19CE0095	16258 COMSTOCK ST	CLOSED	04/11/19	04/29/19	
E19CE0096	16200 COMSTOCK ST	CLOSED	04/11/19	04/29/19	
E19CE0104	11232 156TH AVE	1ST NOTICE OF VIOLATION LETTER	04/18/19		

April Open Enforcements By Category Monthly Report

Total Entries: 4

LITTER

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0090	13599 152ND AVE	1ST NOTICE OF VIOLATION LETTER	04/10/19		
E19CE0092	15628 164TH AVE	CLOSED	04/11/19	04/24/19	
E19CE0113	15135 WESTRAY ST	1ST NOTICE OF VIOLATION LETTER	04/29/19		
E19CE0114	14924 FERRIS ST	1ST NOTICE OF VIOLATION LETTER	04/30/19		

Total Entries: 4

PARKING ON THE GRASS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0099	15081 DAVID ST	1ST NOTICE OF VIOLATION LETTER	04/17/19		
E19CE0105	15211 CHANNEL RD	CITATION/CIVIL INFRACTION	04/24/19		
E19CE0106	15127 160TH AVE	1ST NOTICE OF VIOLATION LETTER	04/25/19		
E19CE0112	12072 SANDY WOODS DR	1ST NOTICE OF VIOLATION LETTER	04/29/19		
E19CE0115	15127 154TH AVE	1ST NOTICE OF VIOLATION LETTER	04/30/19		

Total Entries: 5

VEHICLE SALES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0116	14873 MERCURY DR	1ST NOTICE OF VIOLATION LETTER	04/30/19		

Total Entries: 1

WATER METER REPLACEMENT

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0085	15395 COLEMAN AVE	1ST NOTICE OF VIOLATION LETTER	04/10/19		
E19CE0086	15638 RONNY RD	CLOSED	04/10/19	04/23/19	
E19CE0087	15316 MERCURY DR	CLOSED	04/10/19	04/29/19	
E19CE0088	15912 MERCURY DR	1ST NOTICE OF VIOLATION LETTER	04/10/19		
E19CE0091	15278 WIDGEON RD	CLOSED	04/11/19	04/24/19	

Total Entries: 5

ZONING

April Open Enforcements By Category Monthly Report

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0084	17281 HAYES ST	VERBAL WARNING	04/10/19		

Total Entries: 1

Total Records: 34

Enforcement.DateFiled Between 4/1/2019 12:00:00 AM
AND 4/30/2019 11:59:59 PM

Total Pages: 3

Report Created: 04/30/19

April Closed Enforcements By Category

Monthly Report

ACCESSORY BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E18CE0276	15508 COLEMAN AVE	CLOSED	09/13/18	04/18/19	
E18CE0300	14913 SHARON AVE	CLOSED	10/16/18	04/18/19	
E18CE0367	13342 FOREST PARK DR	CLOSED	12/13/18	04/18/19	
E19CE0013	14779 WILLIAMS WY	CLOSED	01/28/19	04/10/19	
E19CE0068	13005 COPPERWAY DR	CLOSED	03/24/19	04/10/19	

Total Entries: 5

BUILDING

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E18CE0303	15116 BRIARWOOD ST	RESOLVED	10/18/18	04/23/19	
E19CE0057	15100 STICKNEY RIDGE	CLOSED	03/14/19	04/24/19	
E19CE0061	15914 GROESBECK ST	CLOSED	03/19/19	04/08/19	
E19CE0100	14187 PAYNE FOREST AVE	NO VIOLATION	04/17/19	04/23/19	
E19CE0108	15202 164TH AVE	CLOSED	04/25/19	04/30/19	

Total Entries: 5

JUNK & RUBBISH

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E18CE0344	14711 154TH AVE	CLOSED	11/21/18	04/08/19	
E19CE0062	15906 CEDAR AVE 15900	CLOSED	03/19/19	04/10/19	
E19CE0093	15060 WESTRAY ST	CLOSED	04/11/19	04/29/19	
E19CE0095	16258 COMSTOCK ST	CLOSED	04/11/19	04/29/19	
E19CE0096	16200 COMSTOCK ST	CLOSED	04/11/19	04/29/19	

Total Entries: 5

LITTER

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0006	12471 168TH AVE	CLOSED	01/17/19	04/11/19	
E19CE0069	16202 VANDEN BERG DR	CLOSED	03/24/19	04/10/19	
E19CE0072	15133 FERRIS ST	CLOSED	03/24/19	04/10/19	
E19CE0076	13461 RAVINE VIEW DR	CLOSED	03/26/19	04/08/19	

April Closed Enforcements By Category Monthly Report

E19CE0092	15628 164TH AVE	CLOSED	04/11/19	04/24/19	Total Entries: 5
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PARKING ON THE GRASS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0063	14919 160TH AVE	CLOSED	03/19/19	04/10/19	
E19CE0064	15136 DAVID ST	CLOSED	03/19/19	04/10/19	
E19CE0070	14475 ANGELUS CIR	CLOSED	03/24/19	04/23/19	
E19CE0073	14830 160TH AVE	CLOSED	03/24/19	04/23/19	
E19CE0079	10108 LAKESHORE DR	CLOSED	03/28/19	04/16/19	

Total Entries: 5

POOL & HOT TUB/SPA

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0077	15694 KITCHEL LN	NO VIOLATION	03/26/19	04/10/19	
E19CE0081	15456 WOODRUSH DR	CLOSED	03/28/19	04/11/19	

Total Entries: 2

SIGNS

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E18CE0197	14130 172ND AVE	RESOLVED	07/18/18	04/21/19	

Total Entries: 1

TRASH RECEPTACLES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E14CE0078	15045 155TH AVE	EXPIRED - CLOSED BY STAFF	05/14/14	04/30/19	
E19CE0049	14535 MANOR RD	CLOSED	03/13/19	04/16/19	
E19CE0078	14441 MANOR RD	CLOSED	03/27/19	04/24/19	

Total Entries: 3

VEHICLE SALES

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0065	9816 HIAWATHA DR	CLOSED	03/19/19	04/10/19	

Total Entries: 1

April Closed Enforcements By Category Monthly Report

WATER METER REPLACEMENT

Enforcement No.	Address	Status	Filed	Closed	Last Action Date & Last Action
E19CE0029	15201 PINE ST	CLOSED	02/27/19	04/10/19	
E19CE0031	14931 160TH AVE	CLOSED	02/27/19	04/10/19	
E19CE0032	15281 160TH AVE	RESOLVED	02/27/19	04/29/19	
E19CE0033	15467 160TH AVE	CLOSED	02/27/19	04/23/19	
E19CE0058	15823 MERCURY DR 15825	CLOSED	03/18/19	04/10/19	
E19CE0060	15154 PINE ST	CLOSED	03/18/19	04/21/19	
E19CE0086	15638 RONNY RD	CLOSED	04/10/19	04/23/19	
E19CE0087	15316 MERCURY DR	CLOSED	04/10/19	04/29/19	
E19CE0091	15278 WIDGEON RD	CLOSED	04/11/19	04/24/19	

Total Entries: 9

Total Records: 41

Enforcement.DateClosed Between 4/1/2019 12:00:00 AM
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**PUBLIC SERVICES DEPARTMENT
END OF THE MONTH REPORT
2019**

WATER

MONTH	WORK ORDERS	METER INSTALLS		REPLACED METERS	REPLACED MXU'S	NEW TAPS		MAIN INSTALLED IN FEET	MILLION GALLONS OF WATER	MILLION GALLONS OF G.R. WATER	G.R. SUPPLIMENTAL WATER
		3/4"	1"			3/4"	1"				
JANUARY	187	3	3	13	129	0	0	0	40.08	1.53	0.00
FEBRUARY	239	1	2	9	161	1	2	0	33.97	0.86	0.00
MARCH	314	2	2	8	232	0	1	0	41.38	1.35	0.00
APRIL	274	4	3	13	183	3	1	0	30.74	1.76	0.00
MAY									0.00	0.00	0.00
JUNE									0.00	0.00	0.00
JULY									0.00	0.00	0.00
AUGUST									0.00	0.00	0.00
SEPTEMBER									0.00	0.00	0.00
OCTOBER									0.00	0.00	0.00
NOVEMBER									0.00	0.00	0.00
DECEMBER									0.00	0.00	0.00
TOTAL YTD	1014	10	10	43	705	4	4	0	146.17	5.50	0.00
TOTALS		20				8				5.50	
TOTALS						5365			151.67		

NOTES:

WASTEWATER

MONTH	WORK ORDERS	NEW TAPS	MAIN INSTALLED IN FEET	MILLION GALLONS OF WASTE PUMPED
JANUARY	0	0	0	11.14
FEBRUARY	0	1	0	7.80
MARCH	1	1	0	16.51
APRIL	1	4	0	15.68
MAY				0.00
JUNE				0.00
JULY				0.00
AUGUST				0.00
SEPTEMBER				0.00
OCTOBER				0.00
NOVEMBER				0.00
DECEMBER				0.00
TOTAL YTD	2	6	0	51.14
TOTALS		864		

NOTES: