



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

NOTICE OF PUBLIC MEETING VIA VIDEO CONFERENCE

In accordance with Executive Order 2020-129, which declares that public bodies subject to the Open Meetings Act can use telephone and/or video conferencing technology to meet and conduct business during the ongoing COVID-19 pandemic, the Cascade Charter Township Board of Trustees will conduct a regular meeting on Wednesday, July 8, 2020 at 7pm utilizing the Zoom video conferencing platform, for the purpose of conducting official business while complying with the Governor's "Stay Safe, Stay Home" executive orders and the Michigan Department of Health and Human Services recommendations designed to help prevent the spread of COVID-19. For up-to-date information regarding the ongoing public health crisis, please visit:

<http://www.Michigan.gov/coronavirus> or <http://www.CDC.gov/coronavirus>

INSTRUCTIONS FOR ACCESS AND PARTICIPATION

Meeting ID: 850 9551 2434

Please click the link below to join the webinar:

<https://us02web.zoom.us/j/85095512434>

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or

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Telephone:

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+1 312 626 6799

or +1 929 205 6099

or +1 346 248 7799

or +1 669 900 6833

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Members of the public with disabilities may utilize the Michigan Relay System (7-1-1) to participate in the meeting. If other aids or services are needed for individuals with disabilities please contact the Township Deputy Clerk, Padley Gallagher, at pgallagher@cascadetwp.com or 616-949-1500 at least 24 hours prior to the meeting

PUBLIC PARTICIPATION

Members of the public will be able to listen to and view all discussion by the Township Board and all official materials for this meeting prepared for the Township Board will be included in the meeting packet and available to the public on the Township website www.cascadetwp.com Individuals will be permitted to speak during public comment periods in accordance with the Township Remote Public Meeting Procedure Policy.

If you would like to contact the Cascade Township Board about any matter, on the agenda or otherwise, please do so via email at the addresses below a minimum of 8 hours prior to the meeting. If you wish comments to be read into the public record during the public comment period, you must indicate so and draft communication that can be read in the allotted 3-minute timeframe.

Supervisor Rob Beahan: rbeahan@cascadetwp.com

Clerk Sue Slater: sslater@cascadetwp.com

Treasurer Ken Peirce: kpeirce@cascadetwp.com

Trustee Jim Koessel: jkoessel@cascadetwp.com

Trustee Jack Lewis: jlewis@cascadetwp.com

Trustee Tom McDonald: tmdonald@cascadetwp.com

Trustee John Shipley: jshipley@cascadetwp.com

Manager Ben Swayze: bswayze@cascadetwp.com

**AGENDA
CASCADE CHARTER TOWNSHIP
REGULAR BOARD MEETING**

Wednesday, July 8, 2020
7:00 P.M.

Expected Meeting Procedures

1. During public comments you may speak on any item not noted on the agenda for a public hearing.
2. Please limit comments to 3 minutes per person and the Board may or may not choose to respond.
3. Please limit your comments to a specific issue.
4. Please turn OFF cellular phones.

- Article 1. Call to Order, Roll Call**
- Article 2. Pledge of Allegiance to the Flag**
- Article 3. Approval of Agenda**
- Article 4. Presentations**
- Article 5. Public Comments-Anything on the Agenda not scheduled for a public hearing. (limit comments to 3 minutes)**
- Article 6. Approval of Consent Agenda**
- Article 7. Financial Actions**
- Article 8. Unfinished Business**
- Article 9. New Business**
- 032-2020 Consider Acceptance of the 2020 Cascade Fire Department ISO Public Protection Classification Report. (roll call)**
- 033-2020 Consider Approval of Outdoor Gathering Permit for Academy of Music in Grand Rapids. (roll call)**
- 034-2020 Consider Resolution of “Declaration of Intent to Make Public Improvements; Tentative Designation of the Special Assessment District; Notice of Public Hearing” for Thornapple River Special Assessment District No. 1. (roll call)**
- 035-2020 Consider Appointments to Various Boards and Commissions. (roll call)**
- 036-2020 Consider Amendment to Kraft Street Partners Ordinance for the Construction of a Dental Office. (roll call)**
- a. Public Hearing for Amendment to Kraft Street Partners Ordinance for the Construction of a Dental Office.**

- b. Consider Approval of Amendment to Kraft Street Partners Ordinance for the Construction of a Dental Office

Article 11. Public Comments – Any comments...whether it is on the Agenda or not. (limit comments to 3 minutes)

Article 12. Manager Comments

Article 13. Board Member Comments

Article 14. Adjournment

CASCADE TOWNSHIP  FIRE DEPARTMENT

Dedicated to Serving You

July 8, 2020
Cascade Township Board
ISO Report Review

Members of the Board,

The results from the latest Insurance Services Office (ISO) inspection has been published and will become effective September 1, 2020. We are pleased to report significant improvement in Cascade Township's rating. The current split class rating of a 05/10 and 06/10, will change to an overall 04/10. This significant increase is reflected in our score of 58.43 improving to 69.14.

Factors contributing to the improved rating:

- Fire Department Restructuring. Officers/Improved Staff numbers
- Adjustments to policies/reporting/redundancies at Kent County Dispatch
- Automatic Aid agreement analysis/implementation with Kentwood, Ada, Caledonia, Lowell, Dutton, Alto, and GR Ford Airport Fire departments.
- Training/Demonstrating/Documenting Water Shuttle Capability in Cascade TS FDS.
- Live Fire Academy participation in Indianapolis, IN.
- Fire Officer Professional Development. National Fire Academy, Eastern Michigan University Fire Staff and Command School, Fema Certification Course attendance, and Michigan Fire Officer certification courses.
- Computer Software Program installation.
- Increased training.
- Increase in municipal water connection/supply initiatives.
- Implementation of a Community Risk Reduction Officer.
- Additional Fire Inspector.

What does this mean?

Insurance companies use ISO ratings to set insurance rates for residents and businesses. Generally speaking, a better ISO score should equal better insurance rates.

Will the insurance companies automatically lower rates?

Not always, residents should call and check after September 1st.

What do the numbers mean?

The current class rating of 5 represents areas of the township within 1000 ft of a fire hydrant.

The class rating of 6 represents areas farther than 1000ft of a hydrant but less than 5 road miles from a fire station.

Both of the 5 and 6 ratings will change to a 4 on September 1, 2020.

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(616) 949-1320 • FAX (616) 285-2330

Class 10 represents two small areas in the southeast portion of the township that are farther than 5 road miles from a fire station. This rating will remain unchanged.

When is Cascade Township due for another inspection?

We are scheduled for the fall of 2024. Typically conducted every 5 years.

How does Cascade Township improve going forward?

ISO scores are based on a 5 year average. The plan that Township Administration and Fire Department Command Staff put together over the last 3 years will continue to score well at the next inspection.

Tangible improvements that can be made to improve class rating to a 3 or possible 2 in the future include:

- A third fire station in the southwest portion of the township. Airport is currently a geographical barrier to emergency response.
- Purchase of an aerial apparatus.
- Maintaining a "reserve" apparatus.
- Increase staffing.
- Continue to promote municipal water supply connection/expansion.

I would like to acknowledge and thank Supervisor Beahan and Manager Swayze for all of their help in developing the ISO plan, the PSAC Committee for all of the meetings on this over the last 30 months, and the Township Board as a whole for supporting the purchases and initiatives needed to get the rating improved.

Thank you for your time,



Adam Magers
Chief, Cascade Fire



1000 Bishops Gate Blvd. Ste 300
Mt. Laurel, NJ 08054-5404

t1.800.444.4554 Opt.2
f1.800.777.3929

May 25, 2020

Mr. Ben Swayze, Township Manager
Cascade TS FPSA
2865 Thornhills Ave
Grand Rapids, Michigan, 49546

RE: Cascade Ts Fpsa, Kent County, Michigan
Public Protection Classification: 04/10
Effective Date: September 01, 2020

Dear Mr. Ben Swayze,

We wish to thank you and Chief Adam Magers for your cooperation during our recent Public Protection Classification (PPC) survey. ISO has completed its analysis of the structural fire suppression delivery system provided in your community. The resulting classification is indicated above.

If you would like to know more about your community's PPC classification, or if you would like to learn about the potential effect of proposed changes to your fire suppression delivery system, please call us at the phone number listed below.

ISO's Public Protection Classification Program (PPC) plays an important role in the underwriting process at insurance companies. In fact, most U.S. insurers – including the largest ones – use PPC information as part of their decision-making when deciding what business to write, coverage's to offer or prices to charge for personal or commercial property insurance.

Each insurance company independently determines the premiums it charges its policyholders. The way an insurer uses ISO's information on public fire protection may depend on several things – the company's fire-loss experience, ratemaking methodology, underwriting guidelines, and its marketing strategy.

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new classifications will improve the predictive value for insurers while benefiting both commercial and residential property owners. We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently graded as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9."
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B."

- Communities graded with single “9” or “8B” classifications will remain intact.
- Properties over 5 road miles from a recognized fire station would receive a class 10.

PPC is important to communities and fire departments as well. Communities whose PPC improves may get lower insurance prices. PPC also provides fire departments with a valuable benchmark, and is used by many departments as a valuable tool when planning, budgeting and justifying fire protection improvements.

ISO appreciates the high level of cooperation extended by local officials during the entire PPC survey process. The community protection baseline information gathered by ISO is an essential foundation upon which determination of the relative level of fire protection is made using the Fire Suppression Rating Schedule.

The classification is a direct result of the information gathered, and is dependent on the resource levels devoted to fire protection in existence at the time of survey. Material changes in those resources that occur after the survey is completed may affect the classification. Although ISO maintains a pro-active process to keep baseline information as current as possible, in the event of changes please call us at 1-800-444-4554, option 2 to expedite the update activity.

ISO is the leading supplier of data and analytics for the property/casualty insurance industry. Most insurers use PPC classifications for underwriting and calculating premiums for residential, commercial and industrial properties. The PPC program is not intended to analyze all aspects of a comprehensive structural fire suppression delivery system program. It is not for purposes of determining compliance with any state or local law, nor is it for making loss prevention or life safety recommendations.

If you have any questions about your classification, please let us know.

Sincerely,

Alex Shubert

Alex Shubert

Manager -National Processing Center

cc: Mr. Wayne Jernberg, PE, Manager, Grand Rapids Water Department
Mr. Matthew Groesser, Communications Manager, Kent County Communications Center
Mr. Rob Beahan, Township Supervisor, CASCADE TS, KENT
Chief Adam Magers, Chief, Cascade Charter Township Fire Department

**Public Protection Classification
(PPC™)
Summary Report**

Cascade TS FPSA

MICHIGAN

Prepared by

**Insurance Services Office, Inc.
1000 Bishops Gate Blvd., Ste. 300
P.O. Box 5404
Mt. Laurel, New Jersey 08054-5404
1-800-444-4554**

**Report Created May 25, 2020
Effective September 1, 2020**

Background Information

Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS) and then a Public Protection Classification (PPC™) grade is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a PPC change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The FSRS recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's PPC grade, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual PPC grade.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC grade is substantially lower than in a community with a poor PPC grade, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a PPC grade – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC grade depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Emergency Communications**, including emergency reporting, telecommunicators, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- **Water Supply**, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

Data Collection and Analysis

ISO has evaluated and classified over 39,000 fire protection areas across the United States using its FSRS. A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC grade. In order for a community to obtain a grade better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Emergency Communications, Fire Department, and Water Supply.

A review of the **Emergency Communications** accounts for 10% of the total classification. This section is weighted at **10 points**, as follows:

- Emergency Reporting 3 points
- Telecommunicators 4 points
- Dispatch Circuits 3 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. The fire department section is weighted at **50 points**, as follows:

- Engine Companies 6 points
- Reserve Pumpers 0.5 points
- Pump Capacity 3 points
- Ladder/Service Companies 4 points
- Reserve Ladder/Service Trucks 0.5 points
- Deployment Analysis 10 points
- Company Personnel 15 points
- Training 9 points
- Operational considerations 2 points
- Community Risk Reduction 5.5 points (in addition to the 50 points above)

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. The water supply system is weighted at **40 points**, as follows:

- Credit for Supply System 30 points
- Hydrant Size, Type & Installation 3 points
- Inspection & Flow Testing of Hydrants 7 points

There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRs score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

PPC Grade

The PPC grade assigned to the community will depend on the community's score on a 100-point scale:

PPC	Points
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRs creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRs fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRs creditable water supply.
- Class 10 does not meet minimum FSRs criteria for recognition, including areas that are beyond five road miles of a recognized fire station.

New PPC program changes effective July 1, 2014

We have revised the PPC program to capture the effects of enhanced fire protection capabilities that reduce fire loss and fire severity in Split Class 9 and Split Class 8B areas (as outlined below). This new structure benefits the fire service, community, and property owner.

New classifications

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new PPC classes will improve the predictive value for insurers while benefiting both commercial and residential property owners. Here are the new classifications and what they mean.

Split classifications

When we develop a split classification for a community — for example 5/9 — the first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant. The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. We have revised the classification to reflect more precisely the risk of loss in a community, replacing Class 9 and 8B in the second part of a split classification with revised designations.

What's changed with the new classifications?

We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently displayed as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9".
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B".
- Communities graded with single "9" or "8B" classifications will remain intact.

Prior Classification	New Classification
1/9	1/1X
2/9	2/2X
3/9	3/3X
4/9	4/4X
5/9	5/5X
6/9	6/6X
7/9	7/7X
8/9	8/8X
9	9

Prior Classification	New Classification
1/8B	1/1Y
2/8B	2/2Y
3/8B	3/3Y
4/8B	4/4Y
5/8B	5/5Y
6/8B	6/6Y
7/8B	7/7Y
8/8B	8/8Y
8B	8B

What's changed?

As you can see, we're still maintaining split classes, but it's how we represent them to insurers that's changed. The new designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

Benefits of the revised split class designations

- To the fire service, the revised designations identify enhanced fire suppression capabilities used throughout the fire protection area
- To the community, the new classes reward a community's fire suppression efforts by showing a more reflective designation
- To the individual property owner, the revisions offer the potential for decreased property insurance premiums

New water class

Our data also shows that risks located more than 5 but less than 7 road miles from a responding fire station with a creditable water source within 1,000 feet had better loss experience than those farther than 5 road miles from a responding fire station with no creditable water source. We've introduced a new classification —10W— to recognize the reduced loss potential of such properties.

What's changed with Class 10W?

Class 10W is property-specific. Not all properties in the 5-to-7-mile area around the responding fire station will qualify. The difference between Class 10 and 10W is that the 10W-graded risk or property is within 1,000 feet of a creditable water supply. Creditable water supplies include fire protection systems using hauled water in any of the split classification areas.

What's the benefit of Class 10W?

10W gives credit to risks within 5 to 7 road miles of the responding fire station and within 1,000 feet of a creditable water supply. That's reflective of the potential for reduced property insurance premiums.

What does the fire chief have to do?

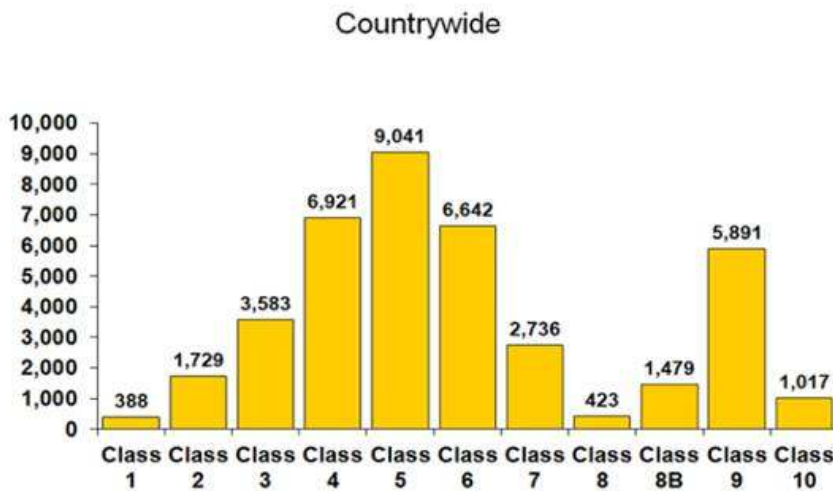
Fire chiefs don't have to do anything at all. The revised classifications went in place automatically effective July 1, 2014 (July 1, 2015 for Texas).

What if I have additional questions?

Feel free to contact ISO at 800.444.4554 or email us at PPC-Cust-Serv@iso.com.

Distribution of PPC Grades

The 2020 published countrywide distribution of communities by the PPC grade is as follows:



Assistance

The PPC program offers help to communities, fire departments, and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

The PPC program representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your questions regarding the PPC program. What's more, we can be reached via the internet at www.isomitigation.com/talk/.

We also have a website dedicated to our Community Hazard Mitigation Classification programs at www.isomitigation.com. Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about the PPC program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special, secured website with information and features that can help improve your PPC grade, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the FSRS and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at www.isomitigation.com.

PPC Review

ISO concluded its review of the fire suppression features being provided for Cascade TS FPSA. The resulting community classification is **Class 04/10**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/XX):

- The first class (e.g., “6” in a 6/XX) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- The second class (XX or XY) applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., “6” in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Class 10W applies to properties within 5 to 7 road miles of a recognized fire station with a recognized water supply within 1,000 feet.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

FSRS Feature	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.99	4
432. Credit for Dispatch Circuits	2.76	3
440. Credit for Emergency Communications	9.75	10
Fire Department		
513. Credit for Engine Companies	6.00	6
523. Credit for Reserve Pumpers	0.00	0.50
532. Credit for Pump Capacity	3.00	3
549. Credit for Ladder Service	1.09	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.50
561. Credit for Deployment Analysis	3.04	10
571. Credit for Company Personnel	6.26	15
581. Credit for Training	5.31	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	26.70	50
Water Supply		
616. Credit for Supply System	28.19	30
621. Credit for Hydrants	2.80	3
631. Credit for Inspection and Flow Testing	3.20	7
640. Credit for Water Supply	34.19	40
Divergence	-6.41	--
1050. Community Risk Reduction	4.91	5.50
Total Credit	69.14	105.50

Emergency Communications

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- Communications facilities provided for the general public to report structure fires
- Enhanced 9-1-1 Telephone Service including wireless
- Computer-aided dispatch (CAD) facilities
- Alarm receipt and processing at the communication center
- Training and certification of telecommunicators
- Facilities used to dispatch fire department companies to reported structure fires

	Earned Credit	Credit Available
414. Credit Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.99	4
432. Credit for Dispatch Circuits	2.76	3
Item 440. Credit for Emergency Communications:	9.75	10

Item 414 - Credit for Emergency Reporting (3 points)

The first item reviewed is Item 414 "Credit for Emergency Reporting (CER)". This item reviews the emergency communication center facilities provided for the public to report fires including 911 systems (Basic or Enhanced), Wireless Phase I and Phase II, Voice over Internet Protocol, Computer Aided Dispatch and Geographic Information Systems for automatic vehicle location. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.

Item 410. Emergency Reporting (CER)	Earned Credit	Credit Available
<p>A./B. Basic 9-1-1, Enhanced 9-1-1 or No 9-1-1</p> <p>For maximum credit, there should be an Enhanced 9-1-1 system, Basic 9-1-1 and No 9-1-1 will receive partial credit.</p>	20.00	20
<p>1. E9-1-1 Wireless</p> <p>Wireless Phase I using Static ALI (automatic location identification) Functionality (10 points); Wireless Phase II using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	25.00	25
<p>2. E9-1-1 Voice over Internet Protocol (VoIP)</p> <p>Static VoIP using Static ALI Functionality (10 points); Nomadic VoIP using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	25.00	25
<p>3. Computer Aided Dispatch</p> <p>Basic CAD (5 points); CAD with Management Information System (5 points); CAD with Interoperability (5 points)</p>	15.00	15
<p>4. Geographic Information System (GIS/AVL)</p> <p>The PSAP uses a fully integrated CAD/GIS management system with automatic vehicle location (AVL) integrated with a CAD system providing dispatch assignments.</p> <p>The individual fire departments being dispatched <u>do not</u> need GIS/AVL capability to obtain this credit.</p>	15.00	15
<p>Review of Emergency Reporting total:</p>	100.00	100

Item 422- Credit for Telecommunicators (4 points)

The second item reviewed is Item 422 "Credit for Telecommunicators (TC)". This item reviews the number of Telecommunicators on duty at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. The 2013 Edition of NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*, recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that eighty percent of emergency alarm processing shall be completed within 60 seconds and ninety-five percent of alarm processing shall be completed within 106 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS).

Item 420. Telecommunicators (CTC)	Earned Credit	Credit Available
<p>A1. Alarm Receipt (AR)</p> <p>Receipt of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	19.85	20
<p>A2. Alarm Processing (AP)</p> <p>Processing of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	20.00	20
<p>B. Emergency Dispatch Protocols (EDP)</p> <p>Telecommunicators have emergency dispatch protocols (EDP) containing questions and a decision-support process to facilitate correct call categorization and prioritization.</p>	20.00	20
<p>C. Telecommunicator Training and Certification (TTC)</p> <p>Telecommunicators meet the qualification requirements referenced in NFPA 1061, <i>Standard for Professional Qualifications for Public Safety Telecommunicator</i>, and/or the Association of Public-Safety Communications Officials - International (APCO) <i>Project 33</i>. Telecommunicators are certified in the knowledge, skills, and abilities corresponding to their job functions.</p>	20.00	20
<p>D. Telecommunicator Continuing Education and Quality Assurance (TQA)</p> <p>Telecommunicators participate in continuing education and/or in-service training and quality-assurance programs as appropriate for their positions</p>	20.00	20
<p>Review of Telecommunicators total:</p>	99.85	100

Item 432 - Credit for Dispatch Circuits (3 points)

The third item reviewed is Item 432 “Credit for Dispatch Circuits (CDC)”. This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A “Dispatch Circuit” is defined in NFPA 1221 as “A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency”. All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. “Alarms” are defined in this Standard as “A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency”.

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 0.90 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item. ISO's evaluation also includes a review of the communication system's emergency power supplies.

Item 432 “Credit for Dispatch Circuits (CDC)” = 2.76 points

Fire Department

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Response to reported structure fires
- Deployment analysis of companies
- Available and/or responding firefighters
- Training

	Earned Credit	Credit Available
513. Credit for Engine Companies	6.00	6
523. Credit for Reserve Pumpers	0.00	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.09	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	3.04	10
571. Credit for Company Personnel	6.26	15
581. Credit for Training	5.31	9
730. Credit for Operational Considerations	2.00	2
Item 590. Credit for Fire Department:	26.70	50

Basic Fire Flow

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. The Basic Fire Flow has been determined to be 3500 gpm.

Item 513 - Credit for Engine Companies (6 points)

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose. At least 1 apparatus must have a permanently mounted pump rated at 750 gpm or more at 150 psi.

The review of the number of needed pumpers considers the response distance to built-upon areas; the Basic Fire Flow; and the method of operation. Multiple alarms, simultaneous incidents, and life safety are not considered.

The greatest value of A, B, or C below is needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less: **3 engine companies**

- a) **2 engine companies** to provide fire suppression services to areas to meet NFPA 1710 criteria or within 1½ miles.
- b) **3 engine companies** to support a Basic Fire Flow of 3500 gpm.
- c) **3 engine companies** based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

The FSRS recognizes that there are **3 engine companies** in service.

The FSRS also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to all reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 1.00 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) all contribute to the calculation for the percent of credit the FSRS provides to that engine company.

Item 513 "Credit for Engine Companies (CEC)" = 6.00 points

Item 523 - Credit for Reserve Pumpers (0.50 points)

The item is Item 523 “Credit for Reserve Pumpers (CRP)”. This item reviews the number and adequacy of the pumpers and their equipment. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof.

Item 523 “Credit for Reserve Pumpers (CRP)” = 0.00 points

Item 532 – Credit for Pumper Capacity (3 points)

The next item reviewed is Item 532 “Credit for Pumper Capacity (CPC)”. The total pump capacity available should be sufficient for the Basic Fire Flow of 3500 gpm. The maximum needed pump capacity credited is the Basic Fire Flow of the community.

Item 532 “Credit for Pumper Capacity (CPC)” = 3.00 points

Item 549 – Credit for Ladder Service (4 points)

The next item reviewed is Item 549 “Credit for Ladder Service (CLS)”. This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. Response areas not needing a ladder company should have a service company. Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list. Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, and the method of operation.

The FSRS recognizes that there are **1 ladder companies** in service. These companies are needed to provide fire suppression services to areas to meet NFPA 1710 criteria or within 2½ miles and the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, or the method of operation.

The FSRS recognizes that there are **1 service companies** in service.

Item 549 “Credit for Ladder Service (CLS)” = 1.09 points

Item 553 – Credit for Reserve Ladder and Service Trucks (0.50 points)

The next item reviewed is Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”. This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof.

Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)” = 0.00 points

Item 561 – Deployment Analysis (10 points)

Next, Item 561 “Deployment Analysis (DA)” is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, as an alternative to determining the number of needed engine and ladder/service companies through the road-mile analysis, a fire protection area may use the results of a systematic performance evaluation. This type of evaluation analyzes computer-aided dispatch (CAD) history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full alarm assignment in accordance with the general criteria of in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

A determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

Item 561 “Credit Deployment Analysis (DA)” = 3.04 points

Item 571 – Credit for Company Personnel (15 points)

Item 571 “Credit for Company Personnel (CCP)” reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, “Kelley” days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder, and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

On-Call members are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as on-call personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm.

The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or on-call company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and on-call firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRS recognizes **4.31 on-duty personnel** and an average of **7.00 on-call personnel** responding on first alarm structure fires.

Item 571 “Credit for Company Personnel (CCP)” = 6.26 points

Item 581 – Credit for Training (9 points)

Training	Earned Credit	Credit Available
<p>A. Facilities, and Use</p> <p>For maximum credit, each firefighter should receive 18 hours per year in structure fire related subjects as outlined in NFPA 1001.</p>	11.90	35
<p>B. Company Training</p> <p>For maximum credit, each firefighter should receive 16 hours per month in structure fire related subjects as outlined in NFPA 1001.</p>	14.50	25
<p>C. Classes for Officers</p> <p>For maximum credit, each officer should be certified in accordance with the general criteria of NFPA 1021. Additionally, each officer should receive 12 hours of continuing education on or off site.</p>	12.00	12
<p>D. New Driver and Operator Training</p> <p>For maximum credit, each new driver and operator should receive 60 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	5.00	5
<p>E. Existing Driver and Operator Training</p> <p>For maximum credit, each existing driver and operator should receive 12 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	3.39	5
<p>F. Training on Hazardous Materials</p> <p>For maximum credit, each firefighter should receive 6 hours of training for incidents involving hazardous materials in accordance with NFPA 472.</p>	0.54	1
<p>G. Recruit Training</p> <p>For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure.</p>	5.00	5
<p>H. Pre-Fire Planning Inspections</p> <p>For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made annually by company members. Records of inspections should include up-to date notes and sketches.</p>	6.67	12

Item 580 “Credit for Training (CT)” = 5.31 points

Item 730 – Operational Considerations (2 points)

Item 730 “Credit for Operational Considerations (COC)” evaluates fire department standard operating procedures and incident management systems for emergency operations involving structure fires.

Operational Considerations	Earned Credit	Credit Available
Standard Operating Procedures The department should have established SOPs for fire department general emergency operations	50	50
Incident Management Systems The department should use an established incident management system (IMS)	50	50
Operational Considerations total:	100	100

Item 730 “Credit for Operational Considerations (COC)” = 2.00 points

Water Supply

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and flow testing of fire hydrants.

	Earned Credit	Credit Available
616. Credit for Supply System	28.19	30
621. Credit for Hydrants	2.80	3
631. Credit for Inspection and Flow Testing	3.20	7
Item 640. Credit for Water Supply:	34.19	40

Item 616 – Credit for Supply System (30 points)

The first item reviewed is Item 616 “Credit for Supply System (CSS)”. This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

Item 616 “Credit for Supply System (CSS)” = 28.19 points

Item 621 – Credit for Hydrants (3 points)

The second item reviewed is Item 621 “Credit for Hydrants (CH)”. This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

There are a total of 253 hydrants in the graded area.

620. Hydrants, - Size, Type and Installation	Number of Hydrants
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ -inch outlets	230
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel	0
C./D. With only a 2½ -inch outlet or with less than a 6 -inch branch	23
E./F. Flush Type, Cistern, or Suction Point	0

Item 621 “Credit for Hydrants (CH)” = 2.80 points

Item 630 – Credit for Inspection and Flow Testing (7 points)

The third item reviewed is Item 630 “Credit for Inspection and Flow Testing (CIT)”. This item reviews the fire hydrant inspection frequency, and the completeness of the inspections. Inspection of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants*.

Frequency of Inspection (FI): Average interval between the 3 most recent inspections.

Frequency	Points
1 year	30
2 years	20
3 years	10
4 years	5
5 years or more	No Credit

Note: The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 20 points are deducted.

Total points for Inspections = 3.20 points

Frequency of Fire Flow Testing (FF): Average interval between the 3 most recent inspections.

Frequency	Points
5 years	40
6 years	30
7 years	20
8 years	10
9 years	5
10 years or more	No Credit

Total points for Fire Flow Testing = 0.00 points

Item 631 “Credit for Inspection and Fire Flow Testing (CIT)” = 3.20 points

Divergence = -6.41

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

Community Risk Reduction

	Earned Credit	Credit Available
1025. Credit for Fire Prevention and Code Enforcement (CPCE)	2.07	2.2
1033. Credit for Public Fire Safety Education (CFSE)	1.86	2.2
1044. Credit for Fire Investigation Programs (CIP)	0.98	1.1
Item 1050. Credit for Community Risk Reduction	4.91	5.50

Item 1025 – Credit for Fire Prevention Code Adoption and Enforcement (2.2 points)	Earned Credit	Credit Available
Fire Prevention Code Regulations (PCR)	10.00	10

Evaluation of fire prevention code regulations in effect.		
Fire Prevention Staffing (PS) Evaluation of staffing for fire prevention activities.	7.47	8
Fire Prevention Certification and Training (PCT) Evaluation of the certification and training of fire prevention code enforcement personnel.	5.50	6
Fire Prevention Programs (PCP) Evaluation of fire prevention programs.	14.60	16
Review of Fire Prevention Code and Enforcement (CPCE) subtotal:	37.57	40

Item 1033 – Credit for Public Fire Safety Education (2.2 points)	Earned Credit	Credit Available
Public Fire Safety Educators Qualifications and Training (FSQT) Evaluation of public fire safety education personnel training and qualification as specified by the authority having jurisdiction.	6.00	10
Public Fire Safety Education Programs (FSP) Evaluation of programs for public fire safety education.	27.78	30
Review of Public Safety Education Programs (CFSE) subtotal:	33.78	40

Item 1044 – Credit for Fire Investigation Programs (1.1 points)	Earned Credit	Credit Available
Fire Investigation Organization and Staffing (IOS) Evaluation of organization and staffing for fire investigations.	8.00	8
Fire Investigator Certification and Training (IQT) Evaluation of fire investigator certification and training.	3.75	6
Use of National Fire Incident Reporting System (IRS) Evaluation of the use of the National Fire Incident Reporting System (NFIRS) for the 3 years before the evaluation.	6.00	6
Review of Fire Investigation Programs (CIP) subtotal:	17.75	20

Summary of PPC Review
for
Cascade TS FPSA

FSRS Item	Earned Credit	Credit Available
Emergency Communications		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	3.99	4
432. Credit for Dispatch Circuits	2.76	3
440. Credit for Emergency Communications	9.75	10
Fire Department		
513. Credit for Engine Companies	6.00	6
523. Credit for Reserve Pumpers	0.00	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	1.09	4
553. Credit for Reserve Ladder and Service Trucks	0.00	0.5
561. Credit for Deployment Analysis	3.04	10
571. Credit for Company Personnel	6.26	15
581. Credit for Training	5.31	9
730. Credit for Operational Considerations	2.00	2
590. Credit for Fire Department	26.70	50
Water Supply		
616. Credit for Supply System	28.19	30
621. Credit for Hydrants	2.80	3
631. Credit for Inspection and Flow Testing	3.20	7
640. Credit for Water Supply	34.19	40
Divergence	-6.41	--
1050. Community Risk Reduction	4.91	5.50
Total Credit	69.14	105.5

Final Community Classification = 04/10

INSURANCE SERVICES OFFICE, INC.
HYDRANT FLOW DATA SUMMARY

Community Cascade Ts Fpsa

County Michigan(Kent), State MICHIGAN (21)

Witnessed by: Cascade TS Fire Department

Survey Date: Jun 26, 2014

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q=(29.83(C(d^2)p^{0.5}))$				PRESSURE PSI		FLOW -AT 20 PSI		REMARKS***	MODEL TYPE	FLOW TEST DATE
				INDIVIDUAL HYDRANTS			TOTAL	STATIC	RESID.	NEEDED **	AVAIL.			
1		Kraft Ave, 1st N of Coach Ln	Grand Rapids Water Department, East High PZ	1060	1090	1090	3240	62	54	7000	7900		FTPC	03/12/2020
1.1		Kraft Ave, 1st N of Coach Ln	Grand Rapids Water Department, East High PZ	1060	1090	1090	3240	62	54	7000	7900		FTPC	03/12/2020
1.2		Kraft Ave, 1st N of Coach Ln	Grand Rapids Water Department, East High PZ	1060	1090	1090	3240	62	54	3000	7900		FTPC	03/12/2020
15H		Air Cargo Dr SE, Airport Entrance @ Thornapple River Dr	Fire Department Supply	0	0	0	700	0	0	2500	700		CTR	03/12/2020
16H		36th @ Buttrick	Fire Department Supply	0	0	0	750	0	0	1250	750		CTR	03/12/2020
17H		7963 Jonathan Woods SE	Fire Department Supply	0	0	0	650	0	0	750	650		CTR	03/12/2020
2		5361 52nd St	Grand Rapids Water Department, East High PZ	1670	1670	1630	4970	50	40	7000	9000		FTPC	03/12/2020
2.1		5361 52nd St	Grand Rapids Water Department, East High PZ	1670	1670	1630	4970	50	40	3500	9000		FTPC	03/12/2020
3		28th St, 1st W of Lucerne Dr	Grand Rapids Water Department, East High PZ	2020	2020	0	4040	65	55	5000	9100		FTPC	03/12/2020
3.1		28th St, 1st W of Lucerne Dr	Grand Rapids Water Department, East High PZ	2020	2020	0	4040	65	55	4500	9100		FTPC	03/12/2020
3.2		28th St, 1st W of Lucerne Dr	Grand Rapids Water Department, East High PZ	2020	2020	0	4040	65	55	3500	9100		FTPC	03/12/2020
4		Lucerne Dr & Tahoe Dr	Grand Rapids Water Department, East High PZ	1820	1510	0	3330	64	55	4000	7800		FTPC	03/12/2020
4.1		Lucerne Dr & Tahoe Dr	Grand Rapids Water Department, East High PZ	1820	1510	0	3330	64	55	2250	7800		FTPC	03/12/2020
5		28th @ Cascade Rd	Grand Rapids Water Department, East High PZ	1950	920	0	2870	84	59	3500	4800		FTPC	03/12/2020
6		Thornhills Dr, 1st hydrant S of Tahoe Dr	Grand Rapids Water Department, East High PZ	2200	2200	0	4400	80	64	3500	9000		FTPC	03/12/2020
7		Woodcreek @ Patterson	Grand Rapids Water Department, East High PZ	1160	1630	0	2790	80	73	3500	8900		FTPC	03/12/2020

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION.

THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential.

**Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.

*** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

INSURANCE SERVICES OFFICE, INC.
HYDRANT FLOW DATA SUMMARY

Community Cascade Ts Fpsa

County Michigan(Kent), State MICHIGAN (21)

Witnessed by: Cascade TS Fire Department

Survey Date: Jun 26, 2014

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM				PRESSURE		FLOW -AT 20 PSI		REMARKS***	MODEL TYPE	FLOW TEST DATE
				INDIVIDUAL HYDRANTS			TOTAL	STATIC	RESID.	NEEDED **	AVAIL.			
8		front of 5116 36th St	Grand Rapids Water Department, East High PZ	860	820	860	2540	56	46	3500	5100		FTPC	03/12/2020
9		Kendrick St, first hydrant E of Patterson Ave	Grand Rapids Water Department, East High PZ	1890	1950	0	3840	60	51	3000	8600		FTPC	03/12/2020
10		1st hydrant, East side of 1616 Galbraith	Grand Rapids Water Department, East High PZ	1590	1630	0	3220	75	47	2500	4600		FTPC	03/12/2020
11		Executive Pkwy, 1st hydrant E of Corp Exchange Blvd	Grand Rapids Water Department, East High PZ	2020	2020	0	4040	62	50	2500	7900		FTPC	03/12/2020
12		NE side of WM Aviation Academy	Grand Rapids Water Department, East High PZ	1590	1670	0	3260	45	37	2000	6000		FTPC	03/12/2020
13		Entrance to 6932 Bridgewater	Grand Rapids Water Department, East High PZ	1240	0	0	1240	97	29	1750	1300		FTPC	03/12/2020
14		Cascade Rd, 2nd hydrant NE of Hidden Hills Dr	Grand Rapids Water Department, East High PZ	1090	1050	0	2140	82	60	2500	3700		FTPC	03/12/2020
18		Dogwood Meadows @ Thornapple Club Dr	Grand Rapids Water Department, East High PZ	1780	0	0	1780	66	54	750	3700		FTPC	03/12/2020
19		2954 Buttrick Ave SE	Grand Rapids Water Department, East High PZ	1550	0	0	1550	72	45	750	2200		FTPC	03/12/2020
20		6595 Woodbrook Dr SE	Grand Rapids Water Department, East High PZ	2020	0	0	2020	80	63	750	4000		FTPC	03/12/2020

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*Comm = Commercial; Res = Residential.

**Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.

*** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus consumption for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

TOWNSHIP BOARD MEMORANDUM

To: Cascade Charter Township Board

From: Sandra Korhorn, DDA/Economic Development Director *SKK*

Subject: Consider Approval of Outdoor Gathering Permit for Academy of Music in Grand Rapids

Meeting Date: July 8, 2020

Music Moves LLC dba Academy of Music in Grand Rapids is looking for an outdoor space to hold a summer recital in August. They will need a stage and a space large enough to accommodate approximately 75 people in the audience at one time.

After discussion with Township staff, they are requesting use of the outdoor space at the library (between 28th St. & Jacksmith Dr.).

The date of the event is Saturday, August 15 with a rain date of Saturday, August 22. Event hours are 4 p.m. to 7 p.m. with setup taking place from 2pm-3pm. They anticipate 15 students/hour plus family members.

The recitals will not conflict with the Township noise ordinance since they will be done by 7:00 p.m. There should be no need for police and fire protection for this event. They do plan to have an ice cream truck or ice cream cart available during the recitals. They will need power for musical equipment. Parking should be accommodated between on-street parking and the library parking lot. There will be no camping, illumination or communication facilities needed.

Staff is recommending approval of the outdoor gathering permit.



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7192

OUTDOOR GATHERING APPLICATION

1. Name of Applicant: Barbara Hendricks 2. Name of Property Owner: Music Moves LLC DBA Academy of Music & Grand Rapids

3. Address of Event: Library lawn

4. Type of Event to be Held: Outdoor recital for Academy of Music

5. Date of Event: Sat ~~8/14~~ 8/15 6. Hours of Event: 4-7pm (setup 2-3pm)

7. Number of Attendants: ? 15 students / hour plus family 75 / hour
* rain date ~~8/21~~ 8/22

Each application shall be accompanied by a detailed explanation, including drawings and diagrams where applicable, of the prospective licensee's plans to provide for the following:

- a. Police and Fire Protection
- b. Food and Water Supply and Facilities → Plan to have Bumblebee Ice Cream Truck or Calvers Ice Cream Cart
- c. Health and Sanitation Facilities
- d. Medical Facilities and Services, including Emergency Vehicles and Equipment
- e. Vehicle Access and Parking
- f. Camping and Trailer Facilities
- g. Illumination Facilities
- h. Communications Facilities
- i. Noise Control and Abatement
- j. Facilities for Clean up and Waste Disposal
- k. Insurance and Bonding Arrangements

In addition, the application shall be accompanied by a map or maps of the overall site of the proposed outdoor assembly.

Signature of Applicant/Property Owner: Barbara Hendricks Date: 6/23/20

Office Use Only

Township Board:

Approved: _____ Denied: _____ Date: _____





CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

Date: July 8th, 2020
To: Supervisor Beahan and Township Board Members
From: Ben Swayze, Township Manager
Subject: Consider Resolution of “Declaration of Intent to Make Public Improvements; Tentative Designation of the Special Assessment District; Notice of Public Hearing” For Thornapple River Special Assessment District No. 1

FACTS:

The Township has received a petition, circulated by members of the Cascade Thornapple River Association (CTRA), to make certain improvements to the Thornapple River including weed control and removal, debris removal and safety enhancements, and silt control and removal, and for the cost of the improvements to be special assessed against each parcel of land within the district. The request is for the cost to be equally assessed against all parcels that front the Thornapple River between the dam and 60th Street, including those parcels that from Township owned property on the river.

They have requested that the special assessment district be implemented for 15 years. The total parcel count for the special assessment district is 305, and the requested work to be done is approximately \$91,500 meaning each parcel will be assessed \$300 per year during the duration of the special assessment district.

The Special Assessment District is being established pursuant to Public Act 188 of the Public Acts of Michigan of 1954, as amended (the “Act” or “Act 188”). It should be noted while the petition has been received by the CTRA, this process is being moved forward on the initiative of the Township Board and, legally, the Township Board is not compelled to carry through the Special Assessment District if it determines it is not in the best interest of the public.

Attached for your review are:

- Step Sheet to Create a Special Assessment District Pursuant to Public Act 199 of 1954 for Thornapple River - Aquatic Weed Treatment and Improvements
- Resolution of “Declaration of Intent to Make Public Improvements; Tentative Designation of the Special Assessment District; Notice of Public Hearing” For Thornapple River Special Assessment District No. 1
- Petitions for Special Assessment District for Improvement of Thornapple River
- Public Act 188 of the Public Acts of Michigan of 1954

ANALYSIS & CONCLUSIONS:

The Township have enlisted the help of attorney Clifford Bloom of Bloom Sluggert to assist in the establishment of the Thornapple River Special Assessment District. Mr. Bloom has a

specialty in this work and him and his firm have helped to establish similar improvement districts across Michigan. The cost of Mr. Bloom's services, as well as all other direct costs related to the establishment of the district (i.e. printing, mailing, publication) will be charged to the SAD if it is established. If the SAD is not established, the Township is responsible for those costs.

By approving the SAD Resolution tonight, the Township Board declares its intent to make the Public Improvements as outlined in Exhibit "A" of the resolution, tentatively designates the SAD to fund the cost of said improvements, and declares a public hearing to be held at the regularly scheduled Township Board meeting on August 12th, 2020.

If the resolution is approved, Township staff will prepare the notices to be mailed and published in accordance with the act. In its entirety, the SAD process is expected to be completed by the end of September. If approved, the SAD will be collected on the Winter 2020 tax roll, and the first year of improvements will begin in Spring 2021.

If the SAD is established, it is recommended that the Township Board approve an ad-hoc committee, consisting of Township staff, officials, and residents included in the SAD, to provide direction on the expenditure of SAD dollars (...though final appropriation will be at the sole discretion of the Township Board.)

FINANCIAL CONSIDERATIONS:

It is anticipated that the establishment of the Special Assessment District will be between \$5,000 and \$10,000, primarily consisting of legal fees and printing/publication costs. If the SAD is established, these fees can be recovered through the SAD. If it is not established, the Township is responsible for these fees. The Township staff is not recommending that staff time costs or administrative overhead be recovered through the SAD.

If established, the SAD will produce \$91,500 per year. These funds are kept in a separate fund and can only be utilized for the purposes outlined in the SAD plan documents.

RECOMMENDED ACTION:

Consider approval of Resolution of "Declaration of Intent to Make Public Improvements; Tentative Designation of the Special Assessment District; Notice of Public Hearing" For Thornapple River Special Assessment District No. 1

CASCADE CHARTER TOWNSHIP

STEP SHEET TO CREATE A SPECIAL ASSESSMENT DISTRICT PURSUANT TO
PUBLIC ACT 188 OF 1954
(THORNAPPLE RIVER - AQUATIC WEED TREATMENT AND MAINTENANCE)

This step sheet sets forth in outline form the procedure for establishing a Special Assessment District pursuant to Michigan Public Act 188 of 1954, for an authorized project or activity (“Public Improvements”).

<u>Dates</u>	<u>Description</u>
Prior to July 3, 2020 (Completed)	Step 1. <u>Filing of Plans</u> – The Township receives plans and estimates for the Public Improvements and the plans and estimates are filed with the Township Clerk.
Regular Township Board Mtg July 8, 2020	Step 2. <u>Resolution No. 1</u> – The Township Board adopts a resolution tentatively declaring its intent to make the Public Improvements, tentatively designating the special assessment district and setting a public hearing to hear any objections to the improvement, the costs, the plans, and the district.
	Step 3. <u>Notice of the First Public Hearing</u> – Notice of the public hearing must be given and must, among other things, include the date, time and place of the hearing, a brief description of the special assessment district, and a statement that the plans and estimates are on file with the Township Clerk for public examination. The notice must be given as follows:
<u>First Publication:</u> July 30, 2020 <u>Second Publication:</u> Aug 1, 2020	(a) The notice must be given by publication <u>twice</u> in a newspaper of general circulation designated by the Township, the first of which shall not be less than 10 days before the date set for the hearing.
<u>Mailing:</u> July 27, 2020	(b) The notice must also be given by first-class mail to all property owners of record according to Township tax rolls in the special assessment district not less than 10 days before the hearing.
Regular Township Board Mtg August 12, 2020	Step 4. <u>First Public Hearing</u> – At the hearing, the Township Board must hear any objections to the proposed improvements, the Township’s determination to proceed, and the proposed special assessment district.

<p>Regular Township Board Mtg August 12, 2020</p>	<p>Step 5. <u>Resolution No. 2</u> – After the public hearing is held (and at the same meeting if the Township Board desires), if the Township Board decides to proceed, it adopts a resolution determining to make the improvements, approving the plans and costs estimates, and the district. The resolution also directs the Township Supervisor to make the special assessment roll.</p>
<p>Regular Township Board Mtg August 26, 2020</p>	<p>Step 6. <u>Resolution No. 3</u> – When the special assessment roll is reported, the roll is filed with the Township Clerk and the Township Board adopts a resolution setting a public hearing on the roll.</p>
	<p>Step 7. <u>Notice of the Second Public Hearing</u> – Notice of the second public hearing must be given and must, among other things, include the date, time and place of the hearing, and the property owners’ right of appeal to the Michigan Tax Tribunal. The notice must be given as follows:</p>
<p><u>First Publication:</u> Sept 3, 2020 <u>Second Publication:</u> Sept 6, 2020</p>	<p>(a) The notice must be given by publication <u>twice</u> in a newspaper of general circulation designated by the Township, the first of which shall not be less than 10 days before the date set for the hearing.</p>
<p><u>Mailing:</u> August 31, 2020</p>	<p>(b) The notice must also be mailed to all property owners of record according to Township tax rolls in the special assessment district not less than 10 days before the hearing.</p>
<p>Regular Township Board Mtg September 23, 2020</p>	<p>Step 8. <u>Second Public Hearing</u> – At the hearing, the Township Board reviews the roll, and hears any objections to it.</p>
<p>Regular Township Board Mtg September 23, 2020</p>	<p>Step 9. <u>Resolution No. 4</u> – After the public hearing is held (and at the same meeting if the Township Board desires), the Township Board adopts a resolution confirming the roll as reported by the Township Assessor or as corrected by the Township Board, or refers it back to the Township Assessor.</p>
<p>September 24, 2020</p>	<p>Step 10. <u>Roll Endorsed</u> – After the Township Board confirms the roll, the Township Clerk endorses it.</p>

	Step 11. <u>Assessment Appeals</u> – Property owners who have protested the roll at the public hearing may appeal the roll to the Michigan Tax Tribunal within 30 days of the confirmation of the roll. After that time period has passed, the Tax Tribunal generally does not have jurisdiction to hear appeals.
<u>Mailing:</u>	Step 12. <u>Final Notice/Letter to Property Owners</u> – Send out the final notice/letter to property owners within 7 days.

**CASCADE CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN**

RESOLUTION NO. _____

THORNAPPLE RIVER SPECIAL ASSESSMENT DISTRICT NO. 1

**DECLARATION OF INTENT TO MAKE PUBLIC
IMPROVEMENTS; TENTATIVE DESIGNATION
OF THE SPECIAL ASSESSMENT DISTRICT;
NOTICE OF PUBLIC HEARING**

Minutes of a _____ meeting of the Township Board of Cascade Charter Township, Kent County, Michigan, held via remote conferencing software ZOOM in accordance with State of Michigan Governor’s Executive Order No. 2020-129 on July 8th, 2020, at 7:00 p.m., local time.

PRESENT: Members _____

ABSENT: Members _____

The following resolution was offered for adoption by Member _____ and supported by Member _____:

WHEREAS, Public Act 188 of the Public Acts of Michigan of 1954, as amended (the “Act” or “Act 188”) provides for the making of certain improvements by townships and provides the means to finance the improvements; and

WHEREAS, in the case of public improvements involving the improvement to or maintenance of a lake or other body of water, Section 3 of the Act provides that the Township Board may proceed, on its own initiative, to carry out the public improvements unless sufficient written objections are filed with the Township Board at or before the first public hearing on the special assessment district; and

WHEREAS, the Township intends to proceed to undertake certain public improvements (i.e. the control and eradication of certain aquatic weeds and river management) as described in Exhibit A attached hereto (the “Public Improvements”) with regard to the portion of the Thornapple River located between the Cascade Dam upstream to 60th Street downstream (“Covered Portion”) within Cascade Charter Township; and

WHEREAS, the nature of the Public Improvements is such that a periodic redetermination of costs may be necessary without a change in the special assessment district boundaries and, if at any time during the term of the special assessment district an actual incremental cost equals or exceeds the estimate or the prior year's costs by 10% or more, notice shall be given and a hearing afforded to the property owners and interested parties of record in the special assessment district; and

WHEREAS, there exists a need for the Public Improvements in the Township; and

WHEREAS, Act 188 provides the means to finance the Public Improvements in this matter.

NOW, THEREFORE, BE IT HEREBY RESOLVED:

1. That the Township Board intends to proceed on its own initiative, and to make the Public Improvements as described in Exhibit A.

2. That the Township Board has authorized the preparation of plans showing the Public Improvements, their location, and an estimate of the costs thereof.

3. That the plans and the estimate of costs have been filed with the Township Clerk.

4. That the Township Board anticipates assessing the costs of the Public Improvements on a yearly basis beginning in 2020 based upon the estimates on file with the Township and the resolutions adopted by the Township Board pursuant to this process. Each year thereafter on or before September 30, the Township Board shall, to the extent possible, ascertain the project costs for the coming year. The Township Board shall establish the amount to be assessed based on unexpended funds, cash on hand, and the estimated project costs for that year and assesses that amount. The costs for administration and legal expenses for setting up this special assessment district shall be assessed in 2020.

5. That the Township Board hereby tentatively designates a special assessment district known as the Thornapple River Special Assessment District No. 1, consisting of certain parcels of property described as set forth in the Notice of Public Hearing attached hereto as Exhibit B, which descriptions are incorporated herein by reference for the special assessment district, and against which parcels all or a portion of the cost of said Public Improvements shall be assessed.

6. That the Township Board shall hold a public hearing on August 12, 2020, at 7:00 p.m. at the Kent District Library-Cascade Township Branch at 2870 Jacksmith Avenue SE, Grand Rapids, Michigan 49546, or via remote conferencing software ZOOM in accordance with State of Michigan Governor's Executive Order No. 2020-129 or any subsequent Executive Order, to hear and consider objections to the proposed Public Improvements, the special assessment district tentatively designated herein, and all other matters relating to said proposed Public Improvements.

7. That the Township Clerk shall cause to be published a Notice of the Public Hearing in the Grand Rapids Press, a newspaper of general circulation within the Township, at least two (2) times prior to the public hearing, with the first publication at least ten (10) days prior to the public hearing. Proofs of publication of such notice shall be filed with the Township Board.

8. That the Township Clerk, at least ten (10) days prior to the date of the public hearing, shall also send a Notice of the Public Hearing by first class mail addressed to each record owner, or party in interest, of each parcel of property to be assessed, at the address shown for each such owner or party in interest upon the last Township tax assessment records and roll for ad valorem tax purposes, as supplemented by any subsequent changes in the names or addresses of the owners or parties listed therein, except in the case of railroad companies, who shall be mailed a Notice of the Public Hearing by registered mail within five (5) days after the first publication of the notice described in Paragraph 7 above. If a record owner's name does not appear on the Township tax assessment records, then the notice required by this paragraph shall be given to the record owner at the address shown by the records of the Kent County Register of Deeds.

9. That the form of the Notice of the Public Hearing to be mailed and published, as required herein, shall be substantially as set forth in Exhibit B hereto.

10. That all actions heretofore taken by Township officials, employees, and agents with respect to the Public Improvements and proceedings under Act 188 are hereby ratified and confirmed.

11. That all resolutions or parts of resolutions in conflict herewith shall be and the same are hereby rescinded.

YEAS: Members _____

NAYS: Members _____

ABSENT: Members _____

RESOLUTION DECLARED ADOPTED.

Susan Slater
Township Clerk

STATE OF MICHIGAN)
) ss.
COUNTY OF _____)

I, Susan Slater, Cascade Charter Township Clerk, hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Cascade Charter Township Board at a meeting held on _____, 2020, and that public notice of said meeting was given pursuant to Act No. 267, Public Acts of Michigan, 1976, as amended, including, in the case of a special or rescheduled meeting, notice by publication or posting at least eighteen (18) hours prior to the time set for the meeting.

IN WITNESS WHEREOF, I have affixed my official signature this ____ day of _____, 2020.

Susan Slater
Township Clerk

EXHIBIT A

Description of the Public Improvements; Cost Estimates

Control and partial eradication of aquatic plants and weeds within the Covered Portion of the Thornapple River by means of chemical and/or biological means and/or weed harvesting and also river management (including, but not limited to, river studies, removal of blockages, dredging, sedimentation control and similar undertakings).

Projected/Estimated Total Cost for the Public Improvements for the Entire Duration of the Special Assessment (15 years)-	\$ <u>1,372,500</u> total
Projected/Estimated Total Cost per Year of the Public Improvements -	\$ <u>\$91,500</u>
Projected/Estimated Cost per Assessed Parcel per Year -	\$ <u>\$91,500</u>

[All costs and assessments are subject to changes and increases as provided by Act 188]

Special Assessment District - Projected 5 Year Budget

Parcel Scope: Frontage on the Thornapple River from the Cascade Dam to 60th Street
 Parcel Count: 305

Projected Annual Parcel Assessment: \$300 per parcel for 15 years

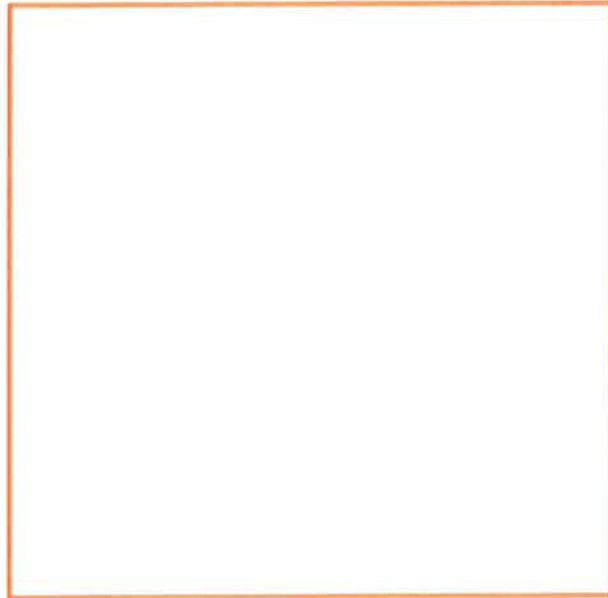
Year	2021	2022	2023	2024	2025
Weed control and removal	\$66,000	\$56,000	\$57,680	\$59,410	\$61,192
Debris removal and safety enhancements	\$10,250	\$17,250	\$16,395	\$15,515	\$14,608
Silt control and removal	\$10,250	\$17,250	\$16,395	\$15,515	\$14,608
Township administrative fees	\$5,000	\$1,000	\$1,030	\$1,061	\$1,093
Total annual budget	\$91,500	\$91,500	\$91,500	\$91,500	\$91,500

Notes:

- Year 1 weed control is \$10,000 higher than year 2 and subsequent years are increased by 3%
- Year 1 township administrative fee is \$4,000 higher than year 2 and subsequent years are increased by 3%
 - Higher year 1 fees should be taken from year 1 silt allocation
 - Higher subsequent year fees should be taken equally from silt and debris allocations

Map-area within the special assessment district (shaded):

[Insert map of the Covered Portion of the Thornapple River involved]



FIRST PUBLIC HEARING

TAKE NOTICE that the Township Board of Cascade Charter Township will hold a public hearing on _____, 2020 at 7:00 p.m. in the Kent District Library-Cascade Township Branch at 2870 Jacksmith Avenue SE Grand Rapids, Michigan 49546, to hear and consider any objections to the proposed Public Improvements, the proposed Special Assessment District, the proposed special assessment, and all other matters relating to the Public Improvements.

TAKE FURTHER NOTICE that a description of the Public Improvements and estimates of cost for the Public Improvements are on file with the Township Clerk for public examination.

PROPERTY SHALL NOT BE ADDED TO THE PROPOSED SPECIAL ASSESSMENT DISTRICT AND THE ORIGINAL ESTIMATE OF COSTS SHALL NOT BE INCREASED BY 10% OR MORE PER YEAR WITHOUT FURTHER NOTICE AND PUBLIC HEARING.

Periodic redeterminations of the costs of the Public Improvements may be necessary, without a change in the Special Assessment District, and in that event, such redeterminations may be made by the Township Board without further notice to record owners or parties in interest in the lands in the Special Assessment District, in accordance with the provisions of said Act 188 (unless the amounts assessed increase by 10% or more from the prior year, in which case notice and public hearing will occur).

TAKE FURTHER NOTICE that a property owner or person in interest must either appear and object at the public hearing or submit a letter of appearance and objection to the Township prior to the public hearing in order to preserve the person's right to appeal the special assessment to the Michigan Tax Tribunal. A record owner of land may appeal a special assessment by filing a written appeal with the Michigan Tax Tribunal within 30 days after written confirmation of the special assessment roll.

Should the Township Board determine at the above-mentioned hearing to approve the proposed special assessment district, then thereafter, a second hearing will be held to confirm the tax roll for the special assessment district.

This notice was authorized by the Township Board of Cascade Charter Township.

FOR FURTHER INFORMATION, PLEASE CONTACT:

Susan Slater
Township Clerk
Cascade Charter Township
2865 Thornhills Avenue SE
Grand Rapids, Michigan 49546
Phone: (616) 949-1508

Dated: _____, 2020

Susan Slater, Township Clerk

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing.

We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Hoyt Carol	7205 60th Street SE	#411934351004		
2. Reid Mike & Sheila	7275 60th Street SE	#411933400039	<i>Shirley Reid</i>	2/17/16
3. Williams Tom	7201 60th Street SE	#411933400034		
4. Kamphuis Rhonda	???? ???????????	#411933400037, #411933400038		
7 VEENSTRA LARRY	5909 TANNON CT. SE	#411934378013	<i>[Signature]</i>	2/17/16
8 TAYLOR VINYL	5915 TANNON CT. SE	#411934378014	<i>[Signature]</i>	2-17-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Am 2019/1/11

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (Included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1 Chris Hull	5909 Tannock	419934371013	<i>Chris Hull</i>	4/23/19
2 STEVEN WESSEL	3150 THORNAPPLE RIVER DR		<i>S Wessel</i>	4/23/19
3 Michael Almassian	7259 60th Street	41133400038	<i>Michael Almassian</i>	4/23/19
4 Jim Datson	7732 Thornapple Road SE		<i>Jim Datson</i>	4/23/19
5 EDWARD LEE	4545 LITTLE HARBOUR		<i>Edward Lee</i>	4-23-19
6 Karl Smith	7227 Kilmer	411934152002	<i>Karl Smith</i>	4-23-19
7 <i>Judy Ryland</i>	7370 Coopers Rd	411915351037	<i>Judy Ryland</i>	4-23-19
STEVEN WESSEL	EDWARD LEE	411927230011	←	
EDWARD LEE	STEVEN WESSEL	411916176012	←	

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

AMEET/21
2016

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing.

We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (Included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1 Ron McCollin	3010 Thornapple	411916176017 411916176018	[Signature]	May 10, 2018
2 " "	3000 "	411916176018	[Signature]	" " "
3 Kerry Gorsucht	3044 TRD	411916176004	[Signature]	5/10/18 DUP
4	3042 TRD	411916176005	[Signature]	5/10/18 DUP
5 ALAN BERKHA	4919 SPANNA	411916176006	[Signature]	5/10/18
6 ROBERT RILEY	7476 CASCHAE	411922126002	Robert Riley	5/10/18
7 KATHLEEN PLAKMEYER	3115 THORNCREST	411916251016	Kathleen Plakmeyer	5-10-18 DUP
8 SHERYL D'AMATO	6804 W. MAPLE CR. ST. DR.	411921400008	[Signature]	5-10-18
9 Paul Wesselink	6995 BURGER DR	41191640400 416 217 7321	[Signature]	5-10-18
10 Rachel Ralya	4015 Moravia	[Signature]	Rm	5/10/18 DUP

0106
2017

0106
2017

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)
Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
Kent County, Michigan
My commission expires: _____

CTRA Signatures Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Wolfe Bud & Margie	7160 Aqua Fria Ct SE	#411922151006		
2. Hudson Ron & Cara	7165 Aqua Fria Ct SE	#411921228012	<i>R. Hudson</i>	4/16/16
3. Rowland Paul & Leann	7176 Aqua Fria Ct SE	#411921228015	<i>Paul Rowland</i>	2-17-16
4. Oberlin Mark & Kathy	7177 Aqua Fria Ct SE	#411921228013		
5. BLS Ventures	7178 Aqua Fria Ct SE	#411921228014		

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: *[Signature]* John A. MEYER

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT

Subscribed and sworn to before me this 19th day of April 2016.

Randi L. Wilson
Notary Public
Kent County, Michigan
My commission expires: 7-31-2020

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

RANDI L. WILSON
Notary Public, State of Michigan
County of Kent
My Commission Expires Jul. 31, 2020
Acting in the County of Kent



BAWREDA/

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing.

We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTPA Signatures Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
Justin Bawred	3426 Coopers	41-19 16-11148	Justin Bawred	4/15/19

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on this petition.

Signed _____

STATE OF MICHIGAN _____

COUNTY OF KENT _____

Subscribed and sworn to before me this _____ day of _____, 2019.

Notary Public
Kent County, Michigan
My Commission Expires _____

CTPA Signature Gatherers do not verify, issue, and certify the collective signatures of the Cascade Township voters.

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Singh Usha	6555 Burger Dr SE	#411916326001		
2. Bennett Jeff & Meg	6577 Burger Dr SE	#411916326003, #411916326004		
4. Duiven Don & Margie	6579 Burger Dr SE	#411916326002		
5. Sears Josh & Carol	6625 Burger Dr SE	#411916326019		
6. Grias Thomas	6677 Burger Dr SE	#411916326008		
7. Carpenter Ken & Judi	6681 Burger Dr SE	#411916326009		
8. Thieme Paul & Marcia	??? ???	#411916326010		
9. Deyoung & Cole Morgan Jaculin	6717 Burger Dr SE	#411916326011	<i>Jaculin D. Cole</i>	2-17-14
10. Hudson Tim	6727 Burger Dr SE	#411916326012		
11. Finkelstein David	6755 Burger Dr SE	#411916326013		
12. Malhoira Renu Sophat	???? ???????????	#411916326018		
13. Shooks Michael	6811 Burger Dr SE	#411916403004		
14. Donker Dick & Sandra	6825 Burger Dr SE	#411916403003	<i>Dick Donker</i>	4/19/16
15. Walco Mrs. Elaine	6881 Burger Dr SE	#411916404010		

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)		Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1.	Klamer Craig & Janet	6891 Burger Dr SE	#411916404011		
2.	Dean David	6921 Burger Dr SE	#411916404002		
3.	Greemann Ben & Liz	6831 Burger Dr SE	#411916404003	<i>Ben Greemann</i>	2/18/16
4.	Uecker Bill & Cathy	6937 Burger Dr SE	#411916404004	<i>Bill Uecker</i>	2/18/16
5.	DesJardin Evelyn	6943 Burger Dr SE	#411916404005	<i>Evelyn DesJardin</i>	2/18/16
6.	Spykman Don & Chris	6953 Burger Dr SE	#411916404006	<i>Don Spykman</i>	2/18/16
7.	Veldman Richard & Kristi	6965 Burger Dr SE	#411916404007	<i>Richard Veldman</i>	2/18/16
8.	Ling Ms. Christie	6985 Burger Dr SE	#411916404008	<i>Christie Ling</i>	2/18/16
9.	Wesselink Paul & Julie	6995 Burger Dr SE	#411916404009	<i>Paul Wesselink</i>	2/18/16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.



Petition for Special Assessment District

For improvement of Thomapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thomapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thomapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thomapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Gottlieb	Jeffery & Lori	7100 Cascade Rd. SE		4/17/16 no!
2. Azeem	Asif & Tahira	7110 Cascade Rd. SE	<i>John Azeem</i>	4/15/16
3. Azzar	James & Linda	7120 Cascade Rd. SE		
4. Clark	Mr. George	7124 Cascade Rd. SE		
5. Hammerman	Diane	7130 Cascade Rd. SE	<i>Diane Hammerman</i>	4/15/16
6. Hendricks	Todd & Hester	7138 Cascade Rd. SE	<i>Todd Hendricks</i>	4/16/16
7. Berkshire	Brad & Stacy	7146 Cascade Rd. SE		
8. Mancini	Michael & Lisa K.	7160 Cascade Rd. SE	<i>Michael Mancini</i>	4-16-16
9. Linden	Mary	7168 Cascade Rd. SE	<i>Mary Linden</i>	5-18-17
10. Ralston	Thomas	???? ??????????		
11. Widdis	Melinda	7180 Cascade Rd. SE	<i>Melinda Widdis</i>	4/14/16 <i>noles</i>
12. Ben Boerkoel	Dan Kantorowski &	7186 Cascade Rd. SE	<i>Dan Kantorowski</i>	
13. Breen	Lyle & Judy	7196 Cascade Rd. SE	<i>Judy Breen</i>	4-15-16
15. Rissi	Scott & Hazel	7238 Cascade Rd. SE	<i>Scott Rissi</i>	2-17-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: *[Signature]*

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

7

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Thompson & Harmon	Jannah	3402 Goodwood Dr. SE	#411916477001	4-17-16
2. Getschow	Mr. Glenn	3406 Goodwood Dr. SE	#411916477002	4-12-2016
3. Watt	Stephen	3412 Goodwood Dr. SE	#411916477003	4-17-2016
4. Bradley	Mr. Edward	3420 Goodwood Dr. SE	#411916477004	2-17-16
5. VandeGuchte	Mr. Wesley	3426 Goodwood Dr. SE	#411916477005	
6. Merrill	Win & Julie	3434 Goodwood Dr. SE	#411916477006	4-16-16
7. Meyer	John & Diana	3444 Goodwood Dr. SE	#411916477007	2/17/16
8. Hoy	Michael & Erika	3452 Goodwood Dr. SE	#411916477008	2-17-16
9. Brundidge	Jim & Chris	3462 Goodwood Dr. SE	#411916477009	4/12/18
10. Christensen	Dave & Jessica	3468 Goodwood Dr. SE	#411916477010	2/17/16
11. Clapp	Kenneth & Rosaiba	3474 Goodwood Dr. SE	#411916203018, #411916477011	
13. Linden	David & Kay	3480 Goodwood Dr. SE	#411916477012	
14. Carlson	Scott & Robyn	3486 Goodwood Dr. SE	#411916477013	4/12/16 MOVED
15. Cramer	Jack	3494 Goodwood Dr. SE	#411916477014	

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: John A. Meyer

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT

Subscribed and sworn to before me this 19th day of April 2016.

Randi L. Wilson
Notary Public
Kent County, Michigan
My commission expires: 7-31-2020

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

RANDI L. WILSON
Notary Public, State of Michigan
County of Kent
My Commission Expires Jul. 31, 2020
Acting in the County of Kent

(10)

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (Included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Erdall Mr. Thomas	3500 Goodwood Dr. SE	#411916477015	<i>[Signature]</i>	4/17/2016
2. Hamlin Mr. William	3506 Goodwood Dr. SE	#411916477016		
3. Werkema Tim & Heather	3516 Goodwood Dr. SE	#411916477017	<i>[Signature]</i>	4/16/16
4. Dowling Amy & [unclear]	3528 Goodwood Dr. SE	#411916477018	<i>[Signature]</i>	4-17-16
5. Shoemaker Dale & Melodie	3544 Goodwood Dr. SE	#411916477024	<i>[Signature]</i>	4-16-16
6. Demorest Mr. Michael	3556 Goodwood Dr. SE	#411916477025		
7. Weber Scott & Marybeth	3584 Goodwood Dr. SE	#411916477022	<i>[Signature]</i>	4-16-16
8. Slauer Charles & Shelly	3624 Goodwood Dr. SE	#411922151011	<i>[Signature]</i>	4-16-16
9. Munger Gerald & Kathy	3840 Goodwood Dr. SE	#411922151009		
10. Tobian John & Lydia	3888 Goodwood Dr. SE	#411921279013		

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: *[Signature]* John A. Meyer

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT

Subscribed and sworn to before me this 19th day of April 2016.

[Signature]
Randi O Wilson
Notary Public
Kent County, Michigan
My commission expires: 7-31-2020

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

RANDI L. WILSON
Notary Public, State of Michigan
County of Kent
My Commission Expires Jul. 31, 2020
Acting in the County of Kent

[Handwritten mark]

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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1. Vancoevering Mr. James	7201 Kilmer Dr. SE	#411934101002	<i>David Vancoevering</i>	7-29-16
2. Genovese Mr. Salvatore	7219 Kilmer Dr. SE	#411934101003		
3. Smith Keith	7223 Kilmer Dr. SE	#411934101004		
4. Boert Mrs. Patricia	7227 Kilmer Dr. SE	#411934152002	<i>Patricia Boert</i>	4/15/16 <i>now 50</i>
5. McKeown Peg	7231 Kilmer Dr. SE	#411934152003	<i>Peg McKeown</i>	4/15/16
6. Wiegand Mike & Debbie	7243 Kilmer Dr. SE	#411934152004		
7. Clem Jesse & Rebecca	7249 Kilmer Dr. SE	#411934152005	<i>Jesse A. Clem</i>	5/1/16
8. Daley Barbara	7255 Kilmer Dr. SE	#411934152006		
9. Frey Dwight G	7261 Kilmer Dr. SE	#411934152007	<i>Dwight G. Frey</i>	7-29-16
10. Rundhaug David & Marcia	7271 Kilmer Dr. SE	#411934152008	<i>David Rundhaug</i>	2-17-16
11. Parent Brett & Stacy	7281 Kilmer Dr. SE	#411934152009	<i>Brett Parent</i>	4/15/16
12. MacAllister Wes & Lorissa	7291 Kilmer Dr. SE	#411934152010, #411934152011	<i>Wes MacAllister</i>	29 July 16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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1. Lewis	W. David & Julie A.	7310 Kilmer Dr. SE	#411934152012	<i>[Signature]</i> 2/17/16
2. Tarr	Steve & Ann	7319 Kilmer Dr. SE	#411934152014	<i>[Signature]</i> 7-31-16
3. Swider	Dawn	7335 Kilmer Dr. SE	#411934302002	<i>[Signature]</i> 3/14/16
4. Osborne	Loretta	7349 Kilmer Dr. SE	#411934302014	<i>[Signature]</i> 3/15/16
5. McIntyre	Ms. Lisa	7357 Kilmer Dr. SE	#411934302005	<i>[Signature]</i> 4/15/16
6. Andrakowicz	Mark	7365 Kilmer Dr. SE	#411934302006	<i>[Signature]</i> 5/17/16
7. Smith	Patricia & Edward	7373 Kilmer Dr. SE	#411934302007	<i>[Signature]</i> 3/15-16
8. VanderWeele	Robert & Kay	7379 Kilmer Dr. SE	#411934302008	<i>[Signature]</i> 2/17/16
9. Keeler	Nick & Kathy	7385 Kilmer Dr. SE	#411934302009	<i>[Signature]</i> 2/15/16
10. Orr	Alan & Sally Jo	7389 Kilmer Dr. SE	#411934302010	<i>[Signature]</i> 3/9/16 <i>revised</i>
11. Cumow	Peter & Ava	7393 Kilmer Dr. SE	#411934302015	<i>[Signature]</i> 5/2/16
12. Ladner	Don & Kathy	7394 Kilmer Dr. SE	#411934301009	<i>[Signature]</i> 2/17/16
13. Damghani	Kevin & Marita	7395 Kilmer Dr. SE	#411934302016	<i>[Signature]</i> 2/17/16
14. Kunnen	Jeffrey & Jean	7397 Kilmer Dr. SE	#411934302013	<i>[Signature]</i> 3/9/16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
Kent County, Michigan
My commission expires: _____

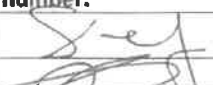

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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1.	Gary Shannon & Molly	7300 Kirkwood trail	#411934201044		4-19-17
2.	Hyde Ron & Lisa	7400 Kirkwood trail	#411934201043		4/19/17

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.



Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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1 Barb Eisen	7233 60th	4193340003	Barb Eisen	9-30-19
2 Tom Eisen	7233 60th			
3 Paul Strauss	7474 Hoskins Bridge SE		Paul Strauss	10-1-19
4 George Clark	7124 Cascade Rd		George Clark	10-4-19
5 Chris Clark	7443 Kenob Dr	41922176025	Chris Clark	10-4-19
6 Chris Clark	7447 Kenob Dr	41922176024	Chris Clark	10-4-19
7 Harry Herbawick	7314 Cascade Rd		Harry Herbawick	10-5-19
8 Brent Johnson	7430 Cascade Rd		Brent Johnson	10-6-19
		41915351009		
		4193432602		
		4191642605		
		41915351038		

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (Included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Lewis	Charles & Cheri	4505 Little Harbor Dr. SE	#411927230015	<i>C. Lewis</i> 7/7/16
2. Robertson	Dan & Karen	4535 Little Harbor Dr. SE	#411927230012	<i>Karen Robertson</i> 7/7/16
3. Lee	Ed & Gloria NA	4545 Little Harbor Dr. SE	#411927230011	
4. Van Til	Gary & Maxine	4555 Little Harbor Dr. SE	#411927230006	<i>Maxine Van Til</i> 7/7/16 <i>noted</i>
5. Hartman	Carl & Janet NH	4567 Little Harbor Dr. SE	#411927260001	
6. Miller	Ron	4581 Little Harbor Dr. SE	#411927260002	<i>Ron Miller</i> 2/17/16
7. Morris	Mr. John Foran & Brenda NA	4593 Little Harbor Dr. SE	#411927260003	<i>John Foran</i> 9-20-19
8. Puskala	Larry & Christina	4607 Little Harbor Dr. SE	#411927260004	<i>Christina Puskala</i>
9. Degraaf	Dean & Amanda	4623 Little Harbor Dr. SE	#411927260005	<i>Dean Degraaf</i> 2/17/16
10. Renzenbrink	Mark & Robin	4637 Little Harbor Dr. SE	#411927260006	<i>Mark Renzenbrink</i> 2/17/16
11. Pamela Cummings	Thomas Bement &	4651 Little Harbor Dr. SE	#411927260007	<i>Thomas E. Bement</i> 5/10/17
12. Hillman	Gary & Mary Brad/Ann	4667 Little Harbor Dr. SE	#411927260008	<i>Ann Hillman</i> 2/17/16
13. Brown	Andrew & Ashely	4689 Little Harbor Dr. SE	#411927260009	<i>Ashely Brown</i> 7/7/16
14. Wolters	David & Sarah No	4707 Little Harbor Dr. SE	#411927260010	
15. Keith	Mr. Daniel	4717 Little Harbor Dr. SE	#411927260014	

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: *[Signature]*

STATE OF MICHIGAN)

) ss.

COUNTY OF KENT)

Subscribed and sworn to before me this 19th day of July 2016.

[Signature]
Notary Public: Hazel Rissi
Kent County, Michigan
My commission expires: 1-28-19

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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Names (to assist the CTRA Signature Gatherers)		Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1.	Ralya Josh & Rachel	4015 Maracaibo Shores SE	#411922301001		2/16/2016
2.	Maanohar Vinayak & Anand	4031 Maracaibo Shores SE	#411922301003		
3.	De Kok Dennis	4045 Maracaibo Shores SE	#411922301004		2/16/2016
4.	Dale Michael & Deana	4061 Maracaibo Shores SE	#411922301005		4/23/16
5.	Wickering Ms. Charlene	4089 Maracaibo Shores SE	#411922301006		
6.	May Amy	4105 Maracaibo Shores SE	#411922301007		4-23-16
7.	Adams Mr. Mark	4121 Maracaibo Shores SE	#411922301008		

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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1. Stacy	Todd & Michelle	7156 Placita Ct SE	#411921228021	<i>Michelle Stacy</i> 4/17/16
2. Koops	James & Christine	7157 Placita Ct SE	#411921228029	
3. Asadi-Moghaddam		7166 Placita Ct SE	#411921228022	
4. Stein	Jim & Sheri	7169 Placita Ct SE	#411921228028	<i>Jim Stein</i> 4-17-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: *[Signature]*
 STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)
 Subscribed and sworn to before me this 19th day of April 2016.

[Signature]
 Notary Public
 Kent County, Michigan
 My commission expires: 7-31-2020

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

RANDI L. WILSON
 Notary Public, State of Michigan
 County of Kent
 My Commission Expires Jul. 31, 2020
 Acting in the County of Kent

Rowland
X101

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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2 Kathryn Oberlin	6575 Burger	41-19-16-326-004	Kathryn Oberlin	2-10-18
4 Windchill Products (MARK OBERLIN)	6577 Burger	41-19-16-326-003	[Signature]	2-10-18 ^{50% moved}
7 James Koops	7157 PLACITA CT	41-19-21-228-029	[Signature]	2-11-18
9 BEN FERWERDA	7177 AQUA FRIA	41-19-21-228-013	[Signature]	2.27.18
10 Alison Ferwerda	7177 Aqua Fria	228-013	Alison Ferwerda	2.27.18 ^{DUPLICATE}

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signature: *David Austin*

STATE OF MICHIGAN)

) ss.

COUNTY OF KENT)

Subscribed and sworn to before me this 28th day of February 2018.

DAVID AUSTIN
Notary Public - State of Michigan
County of Kent
My Commission Expires Dec 1, 2022
Acting in the County of Kent

[Signature]
Notary Public
Kent County, Michigan
My commission expires 12/01/2022

ROLAND | 2
X101

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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		41-19-16		
1 Paul Hamlin	3506 CROOKWOOD	477-016	Paul Hamlin	1-28-18
2 CHERYL TIMYAN	7415 KENROBE	41-19-22-176-032	Cheryl Timyan	1-28-18
3 AUDREY LOBBEL	7421 KENROBE	41-19-22-176-031	Audrey Lobbel	1-28-18
4 Suzette Colón	7178 Agua Fria	41-19-21-	Suzette Colón	1-28-18
5 Anton Colón	7178 Agua Fria	228-014	Anton Colón	1-28-18
6 Kristy Hecht	7300 Cascade	41-19-15-351	Kristy Hecht	2-4-18
7 DAVID HECHT	7300 CASCADE RD	025	David Hecht	2-4-18

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signature: *David Austin*

STATE OF MICHIGAN)
COUNTY OF KENT) ss.

Subscribed and sworn to before me this 28th day of February 2018

DAVID AUSTIN
Notary Public - State of Michigan
County of Kent
My Commission Expires Dec 1, 2022
Acting in the County of Kent

LR

David Austin

Notary Public
Kent County, Michigan
My commission expires: 12/01/2022

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

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1. Ohlman Robert	6757 Cascade Rd. SE #126	#411927451009		
2. Smith Ross		#411927451008		
3. Juneja Mr. Girsh	7675 Sandy Hollow Lane	#411927451003		
4. Clem Jesse & Rebecca	7733 Sandy Hollow Lane	#411927451004		
5. BURKET SHAWN WILSON KATHI	7785 SANDY HOLLOW DR. SE	#411927476003	<i>Shawn Burket</i>	
6. BURKET SHAWN WILSON KATHI	7802 C THORNAPPLE BLVD SE	#411927427017	<i>Kathi Wilson-Burket</i>	
7. BURKET SHAWN WILSON KATHI	7804 THORNAPPLE BLVD SE	#411927427035	<i>Kathi Wilson-Burket</i>	

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) es.
COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
Kent County, Michigan
My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

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1. Dowling Greg	4910 Sequoia SE	#411927402010	<i>Greg Dowling</i>	2-17-16
2. Carpenter, Jeffrey T.	5016 Sequoia SE	411927376006	<i>Jeffrey T. Carpenter</i>	8-6-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
Kent County, Michigan
My commission expires: _____

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1. Grifhorst Mr. Steven J	4812 Sequoia SE	#411927402001, #411927402002		
3. Meeuwesen Mr. Nathan & Carolyn	4826 Sequoia SE	#411927402003	<i>[Signature]</i>	04/16/2016
4. Dowling Rex & Connie	4854 Sequoia SE	#411927402004, #411927402005	<i>[Signature]</i>	2/17/16 No
6. VanHoven Jim & Diane	4864 Sequoia SE	#411927402006	<i>[Signature]</i>	2/17/16 No
* 7. Hayes Sue Ann	4872 Sequoia SE	#411927402007		
8. Cutler Dar	4884 Sequoia SE	#411927402008	<i>[Signature]</i>	2/17/16
9. Zadvinskis John	4920 Sequoia SE	#411927402011, #411927402012	<i>[Signature]</i>	4-19-16
10. <i>Hannah Craigs</i>	<i>4968 Sequoia</i>	<i>411927402015</i>	<i>[Signature]</i>	<i>5-18-17</i>
11. Stanton Pat & Diane	4942 Sequoia SE	#411927402018	<i>[Signature]</i>	7-3-16
12. Smith Steven & Pamela	4452 Sequoia LA	#411927402019	<i>[Signature]</i>	5-18-16 TC
13. Shutich Ms. Carole	4960 Sequoia SE	#411927402014	<i>[Signature]</i>	4/3/16
14. Grassmid Kenton	715 Gladstone Dr SE	#411927402015		
* 15. Resident	4976 Sequoia SE	#411927402016	<i>[Signature]</i>	3/31/16 PROVED

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

⑦

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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1. Walker Heath & Tracy	4984 Sequoia SE	#411927402017	<i>Tracy Walker</i>	2/17/16
2. Prindville Marilyn	4994 Sequoia SE	#411927376015	<i>Marilyn Prindville</i>	5-18-16
3. Brown Ken & Amy	5006 Sequoia SE	#411927376007		
4. Munford Sally	5020 Sequoia SE	#411927376005	<i>Sally Munford</i>	3/31/16
5. Whitley Chuck & Kathy	5030 Sequoia SE	#411927376016	<i>Chuck & Kathy Whitley</i>	3/31/16
6. Neitzel Shirley	5060 Sequoia SE	#411927376003	<i>Shirley Neitzel</i>	5/19/17
7. Hagan Scott & Kathy	5070 Sequoia SE	#411927376002		
8. Vanvolkinburg Mr. Craig	5080 Sequoia SE	#411927376001		
9. Ochalek Edward & Mary	5090 Sequoia SE	#411927376014		
10. Niedzwiecki Greg & Sarah	5100 Sequoia SE	#411927376013	<i>Greg & Sarah Niedzwiecki</i>	2/17/16
11. Shephard Donovan & Stephanie	5110 Sequoia SE	#411927376010	<i>Stephanie Shephard</i>	3/31/16
12. Peters Barbara J	5140 Sequoia SE	#411927376011	<i>Barbara J. Peters</i>	4-16-16
<i>Dupli #13 Dowling Greg</i>	<i>4910 Sequoia</i>		<i>Greg Dowling</i>	<i>2-17-16</i>

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

7

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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1. Hayes Sue Ann	4872 Sequoia SE	#411927402007		
2. Hagan Scott & Kathy	5070 Sequoia SE	#411927376002		
3. Vanvolkinburg Mr. Craig	5080 Sequoia SE	#411927376001	<i>DC Van Volkinburg</i>	7/31/18
4. Ochalek Edward & Mary	5090 Sequoia SE	#411927376014		
5			<i>Marlene [unclear]</i>	7-31-18
6 BUTTS BILL & ANGE	4996 SE Sequoia Dr	411927402009	<i>M. Butts</i>	9-22-19

8 DUP

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

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1. Butts Bill & Angie	4896 Sequoia SE	#411927402009		
2 Mary Kuukler	5969 Tannen Ct	411934378010	Mary Kuukler	4-18-16
3 Liz Damghan	5985 Tannon Ct	411934378001	Liz Damghan	4-19-16
<i>Duplicate</i> Mike DeB	4261 Maracibo		Mike DeB	4/19/16
<i>Duplicate</i> Mike DeB	4261 Maracibo		Mike DeB	4/19/16
6 Clem Rebecca	7733 Sandy Hollow	411927451004	Rebecca Clem	7/11/16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

(4)

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Timmer Dirk	7700 Thornapple Bayou Dr SE	#411927427037		
2. Kortman Jon & Jodi	7704 Thornapple Bayou Dr SE	#411927427039	<i>[Signature]</i>	4-13-16 <i>mevz</i>
3. Gritter Ms. Marilyn	7706 Thornapple Bayou Dr SE	#411927427040		
4. Gritter Ruth	7710 Thornapple Bayou Dr SE	#411927427004		
5. Risner David	7712 Thornapple Bayou Dr SE	#411927427005		
6. Gatti John & Kathy	7714 Thornapple Bayou Dr SE	#411927427006		
7. Gray James & Paivi	7718 Thornapple Bayou Dr SE	#411927427007		
8. Sanns Mr. Thomas	7720 Thornapple Bayou Dr SE	#411927427008	<i>[Signature]</i>	4-17-16
9. Dewald Mr. Kelly	7730 Thornapple Bayou Dr SE	#411927427009		
10. Strove <i>Hemmes Mark, Julie</i> Mr. Ench	7734 Thornapple Bayou Dr SE	#411927427030, #411927427044	<i>[Signature]</i>	4-17-16
12. Olsen Olie	7744 Thornapple Bayou Dr SE	#411927427031		
13. Dewitt <i>Clem</i> Ms. Laura Mr. Rebecca	7750 Thornapple Bayou Dr SE	#411927427011	<i>[Signature]</i>	7/11/19
14. Barwacz Mr. David	7778 Thornapple Bayou Dr SE	#411927427042		
15. Resident <i>STEVEN DEVRIES</i>	7780 Thornapple Bayou Dr SE	#411927427024	<i>[Signature]</i>	2/17/16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Hoebeke Charles	7782 Thomapple Bayou Dr SE	#411927427023		
2. Babb Richard & Barbara	7784 Thomapple Bayou Dr SE	#411927427034		
3. Reidsma Dale & Joy	7786 Thomapple Bayou Dr SE	#411927427021	<i>Dale Reidsma</i>	2/17/16
4. Shaarda Todd & Amanda	7788 Thomapple Bayou Dr SE	#411927427020	<i>Amanda Shaarda</i>	04-18-16
5. Kelly Therese	7790 Thomapple Bayou Dr SE	#411927427019		
6. Watts Mr. Danny	7792 Thomapple Bayou Dr SE	#411927427041		
7. Mast Carl & Michelle	7796 Thomapple Bayou Dr SE	#411927427014	<i>Carl Mast</i>	05-17-17
8. McKinney Richard & Leslie	7798 Thomapple Bayou Dr SE	#411927427015		
9. Starkweather Kermit & Carol	7800 Thomapple Bayou Dr SE	#411627427016		
10. Burkett Shaun & Kathi	2802 Sandy Hollow	#411927427017, #411927427035, #411927476003		
11. Lang Kurt	7752 Thomapple Bayou		<i>Kurt Lang</i>	5/18/17 SOLD

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
Kent County, Michigan
My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For Improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thornapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Thornley Arthur	3049 Thomcrest SE	#411916251006	<i>[Signature]</i>	4/14/16
2. Van Ham Dawn	3059 Thomcrest SE	#411916251007	<i>[Signature]</i>	4-14-16
3. Belknap Mr. Raymond	3081 Thomcrest SE	#411916251008	<i>[Signature]</i>	
4. Koetje Harold & Anneta	3083 Thomcrest SE	#411916251009	<i>[Signature]</i>	4-14-16
5. Bos Jack	3095 Thomcrest SE	#411916251010	<i>[Signature]</i>	4-14-16
6. Gaviglio Jim & Vicki	3115 Thomcrest SE	#411916251016	<i>[Signature]</i>	4/14/16 <i>2000</i>
7. Kohn Jeanne	3143 Thomcrest SE	#411916251013	<i>[Signature]</i>	4-17-16
8. VanderBurg Duane & Adele	3157 Thomcrest SE	#411916251019	<i>[Signature]</i>	3-17-16 <i>2000</i>
9. Vashaw Scott & Elaine	3169 Thomcrest SE	#411916251021	<i>[Signature]</i>	4/17/16 <i>2000</i>
10. Bouwer Doug & Chris	3177 Thomcrest SE	#411916251018	<i>[Signature]</i>	4/14/16
11. Schrand Mr. George	3187 Thomcrest SE	#411916401013	<i>[Signature]</i>	4/14/16
12. Salisbury Greg & Julie	3193 Thomcrest SE	#411916401012	<i>[Signature]</i>	4/14/16
13. Jeffreys Scott & Kimberly	3206 Thomcrest SE	#411916401002	<i>[Signature]</i>	2-17-16
14. Rissi Jeanne	3216 Thomcrest SE	#411916401003	<i>[Signature]</i>	4-6-16
15. Grubbs Dan & Julie	3230 Thomcrest SE	#411916401004	<i>[Signature]</i>	2-17-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

For improvement of Thomapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thomapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thomapple River. The proposed special assessment district is legally described as follows:

Each owner of land abutting Thomapple River will be assessed for one (1) unit per parcel. The special assessment is for an estimated amount of \$300 per year, per assessment unit share for an initial period of 15 Years. Budgets for subsequent years shall be determined during the last year of the assessment and will be subject to public hearing. We the petitioners understand that the improvement shall be conducted in accordance with the plans for the same to be prepared, reviewed, and approved by the township board, and the costs thereof, including expenses connected with engineering, planning, and legal costs will be assessed against each parcel of land within said proposed district.

Names (to assist the CTRA Signature Gatherers)	Owners Address (may not match the property addresses for the associated Permanent Parcel Numbers)	Permanent Parcel Numbers (included in the proposed district)	Signature of Record Owner of Land (if being sold under land contract, buyer and seller must sign) Owners with more than one parcel should sign for each parcel number.	Date Signed
1. Gorski Jeff	3238 Thomcrest SE	#411916401014	<i>Leah Gorski</i>	2/16/16
2. Hansen Eric & Helen	3250 Thomcrest SE	#411926401015	<i>Helen Hansen</i>	2-16-16
3. Brummel Nelson & Susan	3262 Thomcrest SE	#411916401007	<i>Nelson Brummel</i>	4-17-16
4. Blake Max & Tootie	3272 Thomcrest SE	#411916401008	<i>Max Blake</i>	4-17-16
5. Duty Jimmy	3284 Thomcrest SE	#411916401009	<i>Jimmy Duty</i>	4-17-16
6. Newby Frances	3294 Thomcrest SE	#411916426001, #411916401010	<i>Frances Newby</i>	4-17-16
8. Stuft Donna	3300 Thomcrest SE	#411916426022	<i>Donna Stuft</i>	4-14-16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

 Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.



TRIVER *at*

Petition for Special Assessment District

For improvement of Thornapple River - Cascade Township, Kent County, Michigan

We, the undersigned, representing the record owners of more than (51%) percent of the total parcels abutting the Thornapple River hereby petition the Cascade Township Board to create a special assessment district for the purpose of river management, aquatic vegetation control and related services to improve the Thornapple River. The proposed special assessment district is legally described as follows:

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Petrie Julie / Jim	3032 Thornapple Dr SE	411916176006	Julie & Petrie James E. Petrie	6/18/17
Barbara Skinner	3024 Thornapple Dr SE	411916176007	Barbara Skinner	5/18/17
Jeff & Lisa Dionne	2984 Thornapple Dr SE	411916176010	Jeff & Lisa	5-18-17
Kerry Gorsuch	3044 Thornapple Dr SE	411916176004	<i>[Signature]</i>	5/18/17
	3042 " "	411916176005	<i>[Signature]</i>	5/18/17

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) as.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

CTRA Signature Gatherers to sign this form and certify the collected signatures at the Cascade Township offices.

Petition for Special Assessment District

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1.	Wolbers Rich & Jennifer	7320 Whispering Ridge SE	#411922126030	<i>Rich Wolbers</i>	2-17-16
2.	Staclauskas Ron & Catherine	7334 Whispering Ridge SE	#411922126031	<i>Ron Staclauskas</i>	2-17-2016
3.	Munir Mazhar & Yhazala	7350 Whispering Ridge SE	#411922126032	<i>Mazhar Munir</i>	8-5/2016
4.	Messner James & Jennifer	7370 Whispering Ridge SE	#411922126033	<i>James Messner</i>	9-18/2016
5.	Quinn Ned & Michelle	7382 Whispering Ridge SE	#411922126034	<i>Ned Quinn</i>	3-19-2016
6.	Trapp S-J & Rusty	7400 Whispering Ridge SE	#411922126035	<i>S-J Trapp</i>	7-31/16
7.	Ines Desi & Evelyn	7428 Whispering Ridge SE	#411922126036	<i>Desi Ines</i>	8/2/16
8.	Metwalli Ali & Nadia	7444 Whispering Ridge SE	#411922126037	<i>Ali Metwalli</i>	4/19/16

I hereby certify that each of the above signatures were obtained in my presence and are the actual signatures of the persons whose names are signed on the petition.

Signed: _____

STATE OF MICHIGAN)
) ss.
 COUNTY OF KENT)

Subscribed and sworn to before me this _____ day of _____ 2016.

Notary Public
 Kent County, Michigan
 My commission expires: _____

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PUBLIC IMPROVEMENTS
Act 188 of 1954

AN ACT to provide for the making of certain improvements by townships; to provide for paying for the improvements by the issuance of bonds; to provide for the levying of taxes; to provide for assessing the whole or a part of the cost of improvements against property benefited; and to provide for the issuance of bonds in anticipation of the collection of special assessments and for the obligation of the township on the bonds.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1995, Act 139, Imd. Eff. July 10, 1995.

The People of the State of Michigan enact:

41.721 Public improvements by township board; bonds; special assessments to defray costs.

Sec. 1. The township board has the power to make an improvement named in this act, to provide for the payment of an improvement by the issuance of bonds as provided in section 15, and to determine that the whole or any part of the cost of an improvement shall be defrayed by special assessments against the property especially benefited by the improvement. The cost of engineering services and all expenses incident to the proceedings for the making and financing of the improvement shall be deemed to be a part of the cost of the improvement.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1986, Act 180, Imd. Eff. July 8, 1986.

41.721a "Record owner" defined.

Sec. 1a. As used in this act, "record owner" means a person, sole proprietorship, partnership, association, firm, corporation, or other legal entity, possessed of the most recent fee title or a land contract vendee's interest in the land as shown by the records of the county register of deeds.

History: Add. 1986, Act 180, Imd. Eff. July 8, 1986.

41.722 Types of improvements authorized; approval; conditions.

Sec. 2. (1) The following improvements may be made under this act:

(a) The construction, improvement, and maintenance of storm or sanitary sewers or the improvement and maintenance of, but not the construction of new or expanded, combined storm and sanitary sewer systems.

(b) The construction, improvement, and maintenance of water systems.

(c) The construction, improvement, and maintenance of public roads.

(d) The acquisition, improvement, and maintenance of public parks.

(e) The construction, improvement, and maintenance of elevated structures for foot travel over roads in the township.

(f) The collection and disposal of garbage and rubbish.

(g) The construction, maintenance, and improvement of bicycle paths.

(h) The construction, maintenance, and improvement of erosion control structures or dikes.

(i) The planting, maintenance, and removal of trees.

(j) The installation, improvement, and maintenance of lighting systems.

(k) The construction, improvement, and maintenance of sidewalks.

(l) The eradication or control of aquatic weeds and plants.

(m) The construction, improvement, and maintenance of private roads.

(n) The construction, improvement, and maintenance of a lake, pond, river, stream, lagoon, or other body of water or of an improvement to the body of water. This subdivision includes, but is not limited to, dredging.

(o) The construction, improvement, and maintenance of dams and other structures that retain the waters of this state for recreational purposes.

(p) The construction, improvement, and maintenance of sound attenuation walls, pavement, or other sound mitigation treatments unless a written objection is filed in the same manner as provided under section 3 by the record owners of land constituting more than 20% of the total area in the proposed special assessment district. If a written objection is filed, then the township board shall not proceed with the improvement until a petition signed by the record owners of land constituting more than 50% of the total land area in the special assessment district as finally established is filed with the board.

(2) A road under the jurisdiction of either the state transportation department or the board of county road commissioners shall not be improved under this act without the written approval of the state transportation

department or the board of county road commissioners. As a condition to the granting of approval, the state transportation department or the board of county road commissioners may require 1 or more of the following:

(a) That all engineering with respect to the improvement be performed by the state transportation department or the board of county road commissioners.

(b) That all construction, including the awarding of contracts for construction, in connection with the improvement be pursuant to the specifications of the state transportation department or the board of county road commissioners.

(c) That the cost of the engineering and supervision be paid to the state transportation department or the board of county road commissioners from the funds of the special assessment district.

(3) A lake, pond, river, stream, lagoon, or other body of water under the jurisdiction of a county drain commissioner shall not be improved under this act without the written approval of the county drain commissioner of the county in which the lake, pond, river, stream, lagoon, or other body of water is located.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1958, Act 163, Eff. Sept. 13, 1958;—Am. 1964, Act 30, Imd. Eff. May 1, 1964;—Am. 1966, Act 116, Imd. Eff. June 22, 1966;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1976, Act 148, Imd. Eff. June 16, 1976;—Am. 1986, Act 180, Imd. Eff. July 8, 1986;—Am. 1995, Act 139, Imd. Eff. July 10, 1995;—Am. 2002, Act 585, Imd. Eff. Oct. 14, 2002.

41.723 Written objections; petition; filing; signatures; determining record owners; determining sufficiency of petition; supplement to petition; validity of signatures.

Sec. 3. (1) The township board may proceed to carry out an improvement as provided in this act unless written objections to the improvement are filed with the township board at or before the hearing provided in section 4 by property owners as follows:

(a) For an improvement under section 2(1)(a), (b), (d), (e), (f), (h), (i), (j), (l), (n), or (o) by the record owners of land constituting more than 20% of the total land area in the proposed special assessment district.

(b) For an improvement under section 2(1)(c), (g), (k), or (m), by the record owners of land constituting more than 20% of the total frontage upon the road, bicycle path, or sidewalk.

(2) A township board may require the filing of a petition meeting the requirements of subsection (3) before proceeding with an improvement under this act.

(3) If written objections are filed as provided in subsection (1), or if the township board requires a petition before proceeding, the township board shall not proceed with the improvement until there is filed with the board a petition signed as follows:

(a) For an improvement under section 2(1)(a), (b), (d), (e), (f), (h), (i), (j), (l), (n), or (o) by the record owners of land constituting more than 50% of the total land area in the special assessment district as finally established by the township board.

(b) For an improvement under section 2(1)(c), (g), (k), or (m), by the record owners of land constituting more than 50% of the total frontage upon the road, bicycle path, or sidewalk.

(4) Record owners shall be determined by the records in the register of deeds' office as of the day of the filing of a petition, or if written objections are filed as provided in subsection (1), then on the day of the hearing. In determining the sufficiency of the petition, lands not subject to special assessment and lands within a public highway or alley shall not be included in computing frontage or an assessment district area. A filed petition may be supplemented as to signatures by the filing of an additional signed copy or copies of the petition. The validity of the signatures on a supplemental petition shall be determined by the records as of the day of filing the supplemental petition.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1957, Act 187, Imd. Eff. June 4, 1957;—Am. 1961, Act 143, Eff. Sept. 8, 1961;—Am. 1976, Act 113, Imd. Eff. May 14, 1976;—Am. 1976, Act 148, Imd. Eff. June 16, 1976;—Am. 1976, Act 332, Imd. Eff. Dec. 15, 1976;—Am. 1986, Act 180, Imd. Eff. July 8, 1986;—Am. 1995, Act 139, Imd. Eff. July 10, 1995.

41.724 Plans; cost estimate; resolution; designation of special assessment district; hearing; notice; periodic redeterminations of cost; objections; adding property to special assessment district; supplemental petition; filing by railroad companies; additional notice; affidavit of service.

Sec. 4. (1) Upon receipt of a petition or upon determination of the township board if a petition is not required under section 3, the township board, if it desires to proceed on the improvement, shall cause to be prepared plans describing the improvement and the location of the improvement with an estimate of the cost of the improvement on a fixed or periodic basis, as appropriate. Upon receipt of the plans and estimate, the township board shall order the same to be filed with the township clerk. If the township board desires to proceed with the improvement, the township board shall tentatively declare by resolution its intention to make the improvement and tentatively designate the special assessment district against which the cost of the

improvement or a designated part of the improvement is to be assessed.

(2) The township board shall fix a time and place to meet and hear any objections to the petition, if a petition is required, to the improvement, and to the special assessment district, and shall cause notice of the hearing to be given as provided in section 4a. The notice shall state that the plans and estimates are on file with the township clerk for public examination and shall contain a description of the proposed special assessment district. If periodic redeterminations of cost will be necessary without a change in the special assessment district, the notice shall state that such redeterminations may be made without further notice to record owners or parties in interest in the property.

(3) At the hearing, or any adjournment of the hearing which may be without further notice, the township board shall hear any objections to the petition, if a petition is required, to the improvement, and to the special assessment district. The township board may revise, correct, amend, or change the plans, estimate of cost, or special assessment district.

(4) Property shall not be added to the district unless notice is given as provided in section 4a, or by personal service upon the record owners of the property in the entire proposed special assessment district, and a hearing afforded to the record owners. If a petition is required because property is added to the special assessment district which makes the original petition insufficient, then a supplemental petition shall be filed containing sufficient additional signatures of record owners. If the nature of the improvement to be made is such that a periodic redetermination of costs will be necessary without a change in the special assessment district boundaries, the township board shall include in its estimate of costs any projected incremental increases. If at any time during the term of the special assessment district an actual incremental cost increase exceeds the estimate therefor by 10% or more, notice shall be given as provided in section 4a and a hearing afforded to the record owners of property to be assessed.

(5) Railroad companies shall file in writing with the secretary of state the name and post office address of the person upon whom may be served notice of any proceedings under this act. After the name and address has been filed, notice in addition to the notice by publication shall be given to the person by registered mail, or personally, within 5 days after the first publication of the notice. An affidavit of the service shall be filed by the township board with the proof of publication of the notice.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1986, Act 180, Imd. Eff. July 8, 1986.

41.724a Notice of hearings in special assessment proceedings.

Sec. 4a. (1) If special assessments are made against property, notice of hearings in the special assessment proceedings shall be given as provided in this section.

(2) Notice of hearings in special assessment proceedings shall be given to each record owner of, or party in interest in, property to be assessed whose name appears upon the last township tax assessment records by first-class mail addressed to the record owner or party in interest at the address shown on the tax records, at least 10 days before the date of the hearing. The last township tax assessment records means the last assessment roll for ad valorem tax purposes that was reviewed by the township board of review, as supplemented by any subsequent changes in the names or the addresses of the owners or parties listed on that roll. If a record owner's name does not appear on the township tax assessment records, then notice shall be given by first-class mail addressed to the record owner at the address shown by the records of the county register of deeds at least 10 days before the date of the hearing. Notice shall also be published twice before the hearing in a newspaper circulating in the township. The first publication shall be at least 10 days before the date of the hearing. If a published notice includes a list of the property identification numbers of the property to be assessed, that list may provide either the individual property identification number for each parcel of property to be assessed or 1 or more sequential sets of property identification numbers, which include each parcel of property to be assessed. If a published notice includes a list of the property identification numbers of the property to be assessed, that published notice shall also include either a map depicting the area of the proposed special assessment district or a written description of the proposed special assessment district.

(3) If a person whose name and correct address do not appear upon the last township tax assessment records claims an interest in real property, that person shall immediately file his or her name and address with the township supervisor. This filing is effective only for the purpose of establishing a record of the names and addresses of those persons entitled to notice of hearings in special assessment proceedings. The supervisor shall immediately enter on the tax assessment records any changes in the names and addresses of record owners or parties in interest filed with the supervisor and at all times shall keep the tax assessment records current, complete, and available for public inspection.

(4) A township officer required to give notice of a hearing in special assessment proceedings may rely upon the last township tax assessment records in giving notice of the hearing by mail. The method of giving

notice by mail as provided in this section is declared to be the method that is reasonably certain to inform those to be assessed of the special assessment proceedings.

(5) Failure to give notice as required in this section shall not invalidate an entire assessment roll, but only the assessment on property affected by the lack of notice. A special assessment shall not be declared invalid as to any property if the owner or the party in interest of that property actually received notice, waived notice, or paid any part of the assessment. If an assessment is declared void by court decree or judgment, a reassessment against the property may be made.

(6) A special assessment hearing held before June 5, 1974 is validated, insofar as any notice of hearing is concerned, if notice was given by mail to the owners or parties in interest whose names appeared at the time of mailing on the last township tax assessment records. Any such special assessment hearing is validated as to any owner or party in interest who actually received notice of hearing, waived the notice, or paid any part of the special assessment.

History: Add. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1986, Act 180, Imd. Eff. July 8, 1986;—Am. 2000, Act 331, Imd. Eff. Dec. 14, 2000.

41.725 Approval or determination by township board; levy of special assessment.

Sec. 5. (1) If, after the hearing provided for in section 4, the township board desires to proceed with the improvement, the township board shall approve or determine by resolution all of the following:

- (a) The completion of the improvement.
- (b) The plans and estimate of cost as originally presented or as revised, corrected, amended, or changed.
- (c) The sufficiency of the petition for the improvement if a petition is required. After this determination, the sufficiency of the petition is not subject to attack except in an action brought in a court of competent jurisdiction within 30 days after the adoption of the resolution determining the sufficiency of the petition.
- (d) The special assessment district including the term of the special assessment district's existence. If the nature of the improvement to be made is such that a periodic redetermination of cost will be necessary without a change in the special assessment district boundaries, the township board shall state that in the resolution and shall set the dates when the redeterminations shall be made. After finally determining the special assessment district, the township board shall direct the supervisor to make a special assessment roll in which are entered and described all the parcels of land to be assessed, with the names of the respective record owners of each parcel, if known, and the total amount to be assessed against each parcel of land, which amount shall be the relative portion of the whole sum to be levied against all parcels of land in the special assessment district as the benefit to the parcel of land bears to the total benefit to all parcels of land in the special assessment district. When the supervisor completes the assessment roll, the supervisor shall affix to the roll his or her certificate stating that the roll was made pursuant to a resolution of the township board adopted on a specified date, and that in making the assessment roll the supervisor, according to his or her best judgment, has conformed in all respects to the directions contained in the resolution and the statutes of this state.

(2) After December 31, 1998, an ad valorem special assessment levied under this act shall be levied on the taxable value of the property assessed.

(3) If the levy of an ad valorem special assessment on the property's taxable value is found to be invalid by a court of competent jurisdiction, the levy of the ad valorem special assessment shall be levied on the property's state equalized value.

(4) As used in this section and section 15b, "taxable value" means that value determined under section 27a of the general property tax act, 1893 PA 206, MCL 211.27a.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1986, Act 180, Imd. Eff. July 8, 1986;—Am. 1998, Act 544, Imd. Eff. Jan. 20, 1999.

41.726 Filing and review of special assessment roll; hearing; notice; adjournments; objections; confirmation, referral, or annulment; endorsement; finality; action contesting assessment.

Sec. 6. (1) When a special assessment roll is reported by the supervisor to the township board, the assessment roll shall be filed in the office of the township clerk. Before confirming the assessment roll, the township board shall appoint a time and place when it will meet, review, and hear any objections to the assessment roll. The township board shall give notice of the hearing and the filing of the assessment roll as required by section 4a.

(2) A hearing under this section may be adjourned from time to time without further notice. A person objecting to the assessment roll shall file the objection in writing with the township clerk before the close of the hearing or within such further time as the township board may grant. After the hearing the township

board, at the same or at a subsequent meeting, may confirm the special assessment roll as reported to the township board by the supervisor or as amended or corrected by the township board; may refer the assessment roll back to the supervisor for revision; or may annul it and direct a new roll to be made.

(3) If a special assessment roll is confirmed, the township clerk shall endorse on the assessment roll the date of the confirmation. After the confirmation of the special assessment roll, all assessments on that assessment roll shall be final and conclusive unless an action contesting an assessment is filed in a court of competent jurisdiction within 30 days after the date of confirmation.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1986, Act 180, Imd. Eff. July 8, 1986.

41.727 Payment of special assessments in installments; amount of installment; extension; due dates; interest on unpaid installments; lien; limitation; statement of amount; payment of future due installments; delinquent installment; penalty.

Sec. 7. (1) The township board may provide that special assessments are payable in 1 or more installments, but the amount of an installment shall not be less than 1/2 of any subsequent installment. The amount of each installment, if more than 1, shall not be extended upon the special assessment roll until after confirmation of that assessment roll. Subject to the provisions of section 4(4), the amount of installments for improvements subject to periodic cost revision may be extended upon the special assessment roll by the township board without additional public hearings or public notice, provided that additional property is not added to the special assessment roll.

(2) The first installment of a special assessment is due on or before the time after confirmation of that special assessment roll as determined by the township board. Subsequent installments are due at intervals of 12 months from the due date of the first installment or from a date determined by the township board.

(3) All unpaid installments, prior to their transfer to the township tax roll as provided by this act, shall bear interest, payable annually on each installment due date, at a rate to be set by the township board, not exceeding 1% above the average rate of interest borne by special assessment bonds issued by the township in anticipation of all or part of the unpaid installments; or not exceeding 1% above the average rate of interest borne by bonds issued by a county, drainage district, or authority if the unpaid installments are to be applied to the payment of a contract obligation of the township to the county or authority or to the payment of an assessment obligation of the township to the drainage district; or, if bonds are not issued by the township, a county, a drainage district, or an authority, not exceeding 8% per annum, commencing in each case from a date fixed by the township board.

(4) Future due installments of an assessment against any parcel of property may be paid to the township treasurer at any time in full, with interest accrued through the month in which the final installment is paid.

(5) If the township board provides that a special assessment is payable in installments under subsection (1), the amount of any lien on the parcel of property assessed for that special assessment is limited to each individual installment and shall not attach to the property assessed until that individual installment is due as provided in subsection (2).

(6) Upon written request, the township treasurer shall provide a statement of the amount of any lien under subsection (1) and (2) on the property, with interest accrued through the end of the month in which the statement is provided.

(7) If an installment of a special assessment is not paid when due, then the installment shall be considered to be delinquent and there shall be collected, in addition to interest as provided by this section, a penalty at the rate of not more than 1% for each month, or fraction of a month, that the installment remains unpaid before being reported to the township board for reassessment upon the township tax roll.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1957, Act 187, Imd. Eff. June 4, 1957;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 1979, Act 173, Imd. Eff. Dec. 13, 1979;—Am. 1981, Act 57, Imd. Eff. June 4, 1981;—Am. 1986, Act 180, Imd. Eff. July 8, 1986;—Am. 2014, Act 429, Eff. Jan. 15, 2015.

41.728 Special assessments to constitute lien; limitation; character and effect.

Sec. 8. (1) Except as otherwise provided in subsection (2), all special assessments contained in any special assessment roll shall, from the date of confirmation of that roll, constitute a lien upon the respective parcels of property assessed.

(2) If the township board provides that a special assessment is payable in installments under section 7(1), the amount of any lien on the parcel of property assessed for that special assessment is limited to each individual installment and shall not attach to the property assessed until that individual installment is due as provided in section 7(2).

(3) A lien for a special assessment under this act shall be of the same character and effect as a lien created

for township taxes and shall include accrued interest and penalties.

(4) No judgment or decree or any act of the township board vacating a special assessment shall destroy or impair a lien of the township upon the property assessed for the amount of the assessment that may be equitably charged against that property, or through a regular mode of proceeding may be lawfully assessed on that property.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 2014, Act 561, Imd. Eff. Jan 15, 2015.

41.729 Special assessments; collection by township treasurer, report of delinquencies.

Sec. 9. When any special assessment roll shall be confirmed the township board shall direct the assessments made therein to be collected. The township clerk shall thereupon deliver to the township treasurer such special assessment roll, to which he shall attach his warrant commanding the township treasurer to collect the assessments therein in accordance with the directions of the township board in respect thereto. Said warrant shall further require the township treasurer on the 1st day of September following the date when any such assessments or any part thereof have become due to submit to the township board a sworn statement setting forth the names of the persons delinquent, if known, a description of the parcels of land upon which there are delinquent assessments and the amount of such delinquency, including accrued interest and penalties computed to September 1 of such year. Upon receiving such special assessment roll and warrant the treasurer shall proceed to collect the several amounts assessed therein as the same shall become due.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.729a Deferred assessment; application; evidence of hardship; ordinance; deferred assessment as recorded lien.

Sec. 9a. (1) An owner of property who by reason of hardship is unable to contribute to the cost of an assessment for an improvement authorized in section 2(1)(a), (b), (c), (g), (h), or (n) may have the assessment deferred by application to the assessing officer. Upon receipt of evidence of hardship, the township may defer partial or total payment of the assessment.

(2) The township board may enact an ordinance to define hardship and to permit deferred or partial payment of an assessment pursuant to this section. As a condition of granting the deferred or partial payment of an assessment, the township board shall require that any deferred assessment constitute a recorded lien against the property, subject to section 8(2).

History: Add. 1976, Act 148, Imd. Eff. June 16, 1976;—Am. 1995, Act 139, Imd. Eff. July 10, 1995;—Am. 2014, Act 561, Imd. Eff. Jan. 15, 2015.

41.730 Special assessments; delinquencies, reassessment.

Sec. 10. In case the treasurer shall, as above provided, report as delinquent any assessment or part thereof, the township board shall certify the same to the supervisor, who shall reassess on the annual township tax roll of such year in a column headed "special assessments" the sum so delinquent, with interest and penalties to September 1 of such year, and an additional penalty of 6% of the total amount. Thereafter the statutes relating to township taxes shall be applicable to such reassessments.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.731 Division of lands; apportionment of uncollected assessments.

Sec. 11. Should any parcel of land be divided after a special assessment thereon has been confirmed, and before the collection thereof, the township board may require the supervisor to apportion the uncollected amounts between the several divisions thereof and the report of such apportionment when confirmed by the township board shall be conclusive upon all parties: Provided, That if the interested parties do not agree in writing to such apportionment, then before such confirmation notice of hearing shall be given to all the interested parties, either by personal service or by publication as above provided in case of an original assessment roll.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.732 Special assessment roll; insufficiency, additional pro rata assessments; surplus, refunds.

Sec. 12. Should the assessments in any special assessment roll prove insufficient for any reason, including the noncollection thereof, to pay for the improvement for which they were made or to pay the principal and interest on the bonds issued in anticipation of the collection thereof, then the township board shall make additional pro rata assessments to supply the deficiency, but the total amount assessed against any parcel of land shall not exceed the value of the benefits received from the improvement. Should the total amount

collected on assessments prove larger than necessary by more than 5% of the original roll, then the surplus shall be prorated among the properties assessed in accordance with the amount assessed against each and applied toward the payment of the next township tax levied against such properties, respectively, or if there be no such tax then it shall be refunded to the persons who are the respective record owners of the properties on the date of the passage of the resolution ordering such refund. Any such surplus of 5% or less may be paid into the township contingent funds disposed of as above provided.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.733 Illegal special assessment; reassessment proceedings.

Sec. 13. Whenever any special assessment shall, in the opinion of the township board, be invalid by reason of irregularities or informalities in the proceedings, or if any court of competent jurisdiction shall adjudge such assessment to be illegal, the township board shall, whether the improvement has been made or not, whether any part of the assessment has been paid or not, have power to proceed from the last step at which the proceedings were legal and cause a new assessment to be made for the same purpose for which the former assessment was made. All proceedings on such reassessment and for the collection thereof shall be conducted in the same manner as provided for the original assessment, and whenever an assessment or any part thereof levied upon any premises has been so set aside, if the same has been paid and not refunded, the payment so made shall be applied upon the reassessment.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.734 Exempt corporations; agreement to pay assessment.

Sec. 14. The governing body of any public or private corporation whose lands are exempt by law may, by resolution, agree to pay the special assessments against such lands, and in such case the assessment, including all the installments thereof, shall be a valid claim against such corporation.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.734a Assessment on platted corner lots; payment of portion by governing body.

Sec. 14a. The governing body of any township, by resolution, may agree to pay up to 1/3 of the cost of the special assessment levied against any platted corner lot for the payment of public improvements authorized under the provisions of this act.

History: Add. 1959, Act 196, Eff. Mar. 19, 1960.

41.735 Bonds.

Sec. 15. The township board may borrow money and issue the bonds of the township in anticipation of the collection of special assessments to defray all or any part of the cost of any improvement made under this act after the special assessment roll is confirmed. Bonds issued under this section shall not exceed the amount of the special assessments in anticipation of the collection of which they are issued. Bonds may be issued in anticipation of the collection of special assessments levied in respect to 1 or more public improvements, but no special assessment district shall be compelled to pay the obligation of any other special assessment district. The township board may pledge the full faith and credit of the township for the prompt payment of the principal of and interest on the bonds authorized under this section. The issuance of bonds under this section is subject to the revised municipal finance act, 2001 PA 34, MCL 141.2101 to 141.2821.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1974, Act 143, Imd. Eff. June 5, 1974;—Am. 2002, Act 229, Imd. Eff. Apr. 29, 2002.

41.735a Township improvement revolving fund; advances; interest.

Sec. 15a. As an alternate method of defraying the cost of an improvement made under this act, after the special assessment roll for the improvement is confirmed, the township board may pay the cost of the improvement from the township improvement revolving fund. The amount advanced shall not exceed the amount the board anticipates will be collected by the special assessments. The amount advanced by the township shall bear interest at a rate not exceeding 5% per annum.

History: Add. 1956, Act 109, Eff. Aug. 11, 1956;—Am. 1986, Act 180, Imd. Eff. July 8, 1986.

41.735b Township improvement revolving fund; transfer of funds; amount.

Sec. 15b. The township board of any township by resolution may create and designate a fund to be known as the township improvement revolving fund. Before January 1, 1999, the township board may transfer to the township improvement revolving fund from the general fund of the township in any 1 year an amount not exceeding 2 mills of the state equalized valuation of the real and personal property in the township and in each subsequent year may transfer from the general fund to the township improvement revolving fund until

that fund equals 5 mills of the state equalized valuation of the real and personal property in the township. After December 31, 1998, the township board may transfer to the township improvement revolving fund from the general fund of the township in any 1 year an amount not exceeding 2 mills of the taxable value of the real and personal property in the township and in each subsequent year may transfer from the general fund to the township improvement revolving fund until that fund equals 5 mills of the taxable value of the real and personal property in the township. All interest charges collected are a part of the township improvement revolving fund. The township board may transfer funds from the township improvement revolving fund to the general fund when, in the judgment of the board, funds should be transferred.

History: Add. 1956, Act 109, Eff. Aug. 11, 1956;—Am. 1998, Act 544, Imd. Eff. Jan. 20, 1999.

41.735c Special assessments to defray certain obligations.

Sec. 15c. The township board may determine that the whole or any part of an obligation of the township assessed or contracted for pursuant to Act No. 342 of the Public Acts of 1939, as amended, being sections 46.171 to 46.187 of the Michigan Compiled Laws; Act No. 185 of the Public Acts of 1957, as amended, being sections 123.731 to 123.786 of the Michigan Compiled Laws; Act No. 40 of the Public Acts of 1956, as amended, being sections 280.1 to 280.623 of the Michigan Compiled Laws; and Act No. 233 of the Public Acts of 1955, as amended, being sections 124.281 to 124.294 of the Michigan Compiled Laws, shall be defrayed by special assessments against the property specially benefited thereby and in such case, the special assessments may be levied and collected in accordance with this act except as herein provided. The requirements of section 3 with respect to requiring a petition and section 4 with respect to the hearing therein required shall not apply to any special assessments levied and collected in accordance with this section and the above described acts.

History: Add. 1974, Act 143, Imd. Eff. June 5, 1974.

41.736 Public improvements; powers granted to townships.

Sec. 16. The powers herein granted may be exercised by any township and shall be in addition to the powers granted by any other statute.

History: 1954, Act 188, Imd. Eff. May 5, 1954;—Am. 1961, Act 14, Imd. Eff. May 9, 1961.

41.737 Scope of act.

Sec. 17. The provisions of this act shall not apply to any obligations issued or assessments levied except in accordance with the provisions of this act after the effective date thereof, and shall not validate any proceedings or action taken by any township prior to the effective date of this act.

History: 1954, Act 188, Imd. Eff. May 5, 1954.

41.738 Use of interest earned from investments, money from bond proceeds, or money from interest and penalties on unpaid special assessment.

Sec. 18. Interest earned from the investment of money collected under a special assessment under this act or of money received as bond proceeds from a bond issued under this act, or money from interest or penalties charged and collected on an unpaid special assessment under this act shall only be used for the following:

- (a) To pay for the improvement for which the special assessment is assessed.
- (b) To pay the principal and interest of bonds that are issued for the improvement for which the special assessment is assessed.
- (c) To pay the principal and interest of an advance from the township that is used for the improvement for which the special assessment is assessed.

History: Add. 1986, Act 180, Imd. Eff. July 8, 1986.



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

Date: July 8, 2020
To: Cascade Charter Township Board
From: Supervisor Rob Beahan
Subject: Consider Appointments to Various Boards and Commissions

I ask that the Township Board confirm the following appointments to the Boards and Commissions of Cascade Charter Township:

Downtown Development Authority

Name

Scott Vogel

Term

Unexpired Three-year Term (Exp. 12/31/20)

(Mr. Vogel will be filling the unexpired term of Haley McNeil-Chapman who has resigned due to family obligations)



APPLICATION FOR CASCADE TOWNSHIP APPOINTED BOARD,
COMMISSIONS AND COMMITTEES

www.cascadetwp.com

Name: Scott Vogel

Address: (H) 7620 Lime Hollow Dr SE, 49546 (W) 5121 28th St SE, 49512

Phone: (work) 616-734-6995 (home) N/A (cell) 616-578-9086

Email: Scott @ Ohana Ventures. com

Position Applying For: DDA Board

Why are you interested in serving on this board/committee? As a resident and business owner in Cascade Township I'm "all in" to play a positive helping role to support the community I love

Please indicate any information (experience, education, community activities, organizations, etc.), which you think should be considered for your appointment to a Board or Commission.

My wife and I have the benefit of living in multiple communities (Chicago, Boston, Cleveland & Kansas City) and bring a diverse perspective. I've benefited by 20 years of business/leadership positions in hyper growth companies (i.e. Keurig), turn around companies (i.e. Shark Ninja) and technology driven companies (i.e. business bought by Dun & Bradstreet). Currently, I'm owner/operator of Nothing Bundt Cakes Grand Rapids and do consulting work.

Date: June 23rd, 2020

Signature: 

SCOTT MILLER VOGEL

2A HOLLY STREET, UNIT 2
SALEM, MASSACHUSETTS 01970

224-875-0742 (CELL)
VOGELSM@GMAIL.COM

Areas of Excellence

- Product Innovation
- Competitive Analysis
- New Business Development
- Strategic Alliances
- Aligning & Motivating Teams
- Product Lifecycle Management
- Cost Management
- Project Management
- Channel Management

Professional Experience

Keurig, Inc. (GMCR Company), December 2008 to Present

Reading, MA

Senior Marketing Manager, Core Systems Innovation, March 2013 to Present

- Product marketing lead for the Keurig® 2.0 brewer (design/features) – disclosed at the GMCR 2013 Investor Day as the “finest Keurig® hot system ever built” and “delivers game-changing performance and functionality”.
 - ⇒ Named as a joint inventor to several pending Keurig® 2.0 design patents.
 - ⇒ Organized and facilitated a 2-day offsite strategic war game workshop with 50 GMCR leaders.
 - ⇒ Identified and implemented a brewer differentiation strategy that is estimated to save \$1M+ in the first 12 months.

Senior Product Manager, At Home K-Cup® Brewers, November 2012 to March 2013

- Managed a \$700M+ business – responsible for leading a cross-functional team, creating/executing business plan(s), new product development, product launch and sustaining activities.
 - ⇒ Created FY14 K-Cup® brewer marketing plan and gained senior management approval to execute.
 - ⇒ Established a relationship with Pantone to leverage their color expertise/credibility for brewer color development.
 - ⇒ Identified the need and implemented a process for reviewing/communicating competitive product intelligence.

Senior Product Manager, At Home Accessories Division, April 2011 to October 2012

- Managed a \$50M+ business – responsible for leading a cross-functional team, P&L, creating/executing business plan(s), new product development, product launch and sustaining activities.
 - ⇒ Achieved 19%+ year over year growth & launched 5+ new products.
 - ⇒ Successfully gained approval, assisted building and integrating a 6 person cross-functional team.
 - ⇒ Developed a 4-year product roadmap estimated to generate \$100M+ in incremental revenue.
 - ⇒ Developed, negotiated and managed licensing/manufacturing relationships with Ignite USA, LLC and Urnex Brands, Inc. for entry into new business categories.
 - ⇒ Constructed and implemented the “Keurig Brewed®” seal of approval licensing program.
 - Successfully negotiated and executed pilot licensing program with Capital® Products.
 - ⇒ Identified the opportunity and implemented plan to quadruple the water filter business in less than 3 years.
- Recipient of the Spirit Award – 2012 Keurig® Excellence Awards.
- Member of the Keurig® Great Place to Work Task Force.

Product Manager, At Home K-Cup® Brewers, Accessories & Packaging, December 2008 to March 2011

- Responsible for the complete product lifecycle management of a \$300M+ brewer and accessory business, including product development, launch and sustaining activities.
 - ⇒ Successfully managed a product line of 25+ brewers.
 - December 2010 – #1, #2, #3 and #4 coffeemaker in dollar share (NPD Group).
 - Maintained 90% or greater average customer satisfaction rating since 2008 (internal brewer surveys).
 - Implemented an initiative that netted a \$213k cost savings within a 12 month period.
 - Identified an accounting error that resulted in a \$120k+ correction in Keurig’s favor.
 - ⇒ Led a cross-functional product development team for the successful B31 MINI Plus brewer launch (March ’10).
 - Managed project from concept ideation through the multichannel retail launch.
 - December 2010 – #3 coffeemaker in dollar and unit share (NPD Group).
 - First profitable brewer and lowest warranty return rate of all Keurig® brewers.
- Nominated and was selected to participate in the 2010 GMCR Costa Rica Origins Trip.

Euro-Pro Operating LLC, Senior Product Manager, October 2007 to December 2008 **West Newton, MA**

- Responsible for the complete product life cycle management of a \$100M+ steam cleaning product category, including product development, launch and sustaining activities.
 - ⇒ Managed the largest product category, attaining revenue of \$100M+ /140%+ growth in less than 14 months.
 - ⇒ Effectively managed the expansion and channel management strategy across all North American retailers.
 - ⇒ Responsible for development and execution of the 2nd generation steam mop.
 - In 2010, the Shark® Steam Pocket attained unit sales of 1M+ at a premium price point.
- Co-managed product development for multiple programs.
 - ⇒ Led product ideation and trend discussions with a cross-functional team.
 - ⇒ Verified and approved final product specifications; assisted in managing the quality standards.
 - ⇒ Managed outside product development resources (i.e. Design Firm & Factory Engineers).
- Directed creative production of packaging, instruction manual, POP displays and sales material.

Salton, Inc. (acquired by Spectrum Brands Holdings), January 2004 to September 2007 **Lake Forest, IL**

- Product Manager**, Beverage Category, June 2005 to September 2007
- Invented the Melitta® Smart Mill & Brew™ with MSN® Direct, 10-cup coffeemaker, named 2007 CES finalist in Yahoo! Tech's "Last Gadget Standing" Competition.
 - ⇒ Developed and managed relationship with Microsoft.
 - ⇒ Developed and executed the marketing and PR plan.
 - ⇒ Contacted and signed Al Roker to an endorsement contract.
 - Managed the North American Brand/Product for Melitta®, One:One® Coffee Club, Juan Valdez®, Russell Hobbs®, Affinitea® and commercial division.
 - ⇒ Sourced product and negotiated pricing with manufacturers in Asia, Europe and the United States.
 - ⇒ Collaborated and presented to major retailers (i.e. Best Buy, Costco, Macy's, Target).
 - ⇒ Managed product development, lifecycle and the pricing program.
 - ⇒ Directed creative production of packaging, internet, instruction manual, advertising/PR and sales material.
 - ⇒ Negotiated contracts with new and existing partners (i.e. Celebrities, Inventors & Manufacturers).
 - ⇒ Managed patent and trademark process with internal and outside legal representatives.
 - Served as a consultant to Salton Europe to re-launch and grow the coffee maker category in the U.K. and Germany.

Product Manager, Personal Care, January 2005 to June 2005. Managed the Brands/Product for Personal Care: Carmen®, Carmengirls.com® and Relaxor®

Assistant Product Manager, Personal Care, January 2004 to December 2004

News America Marketing (News Corp. Company), Account Coordinator, March 2003 to January 2004 **Chicago, IL**

- Sales consultant for F.S.I. and in-store media placement for Glade®, Drano®, OFF!®, Oust®, Raid® and Windex® brands.
- Served as liaison between S.C. Johnson & Sons, Inc., their advertising agency and internal departments at News America.

Harris InfoSource (Dun & Bradstreet Company), Assistant Product Mgr., January 2001 to March 2003 **Twinsburg, OH**

- Managed and edited a 784-page reference book, *Harris' Complete Guide to NAICS*.
 - ⇒ Created the idea and gained financial approval to develop and produce the reference publication.
- Served as a liaison between marketing and sales; trained and tested sales force on product knowledge and positioning.
- Managed product and aided in the redevelopment of the *Technology Companies Database*, with \$100,000+ in annual sales.
- Constructed a 32-sector industry taxonomy that Dun & Bradstreet continues to utilize.

Education

Boston University, Management Training Program
Spring, 2010

Boston, Massachusetts

Miami University, Richard T. Farmer School of Business
B.S. in Business, Majoring in Marketing, 2000 Graduate

Oxford, Ohio

University of New South Wales, School of Economics
Spring/Summer, 1999

Sydney, Australia

MEMORANDUM

To: Cascade Charter Township Board
From: Brian Hilbrands, Planner
Subject: Consider amendment to Kraft Street Partners PUD for the construction of a dental office.
Meeting Date: July 8, 2020

The applicant is requesting final plan approval in order to amend the existing Planned Unit Development to accommodate the construction of a dental office. The proposed building would be approximately 8,500 square feet with 60 parking spaces. Attached to this memo is the Planning Commission staff report for changes to the Kraft Street Partners PUD. The Kraft Street Partners PUD was created in 2005 and has previously gone through one amendment.

The Planning Commission held a public hearing on this matter at their June 1, 2020 meeting and has recommended approval of the site plan along with the amendment to the PUD Ordinance.

Attachments: Planning Commission Staff Report
Application package and site plan
Township Engineer Letter
Proposed PUD Ordinance Amendment

STAFF REPORT

STAFF REPORT: Case #20-3583/Robinson Dental
REPORT DATE: May 22, 2020
PREPARED FOR: Cascade Charter Township Planning Commission
MEETING DATE: June 1, 2020
PREPARED BY: Brian Hilbrands, Planner

APPLICANT:

Venture Engineering, PLLC, Jeff Brinks
8515 Ridgebluff Dr. SW
Byron Center, MI 49315

STATUS

OF APPLICANT: Engineer for the owner.

REQUESTED ACTION: The applicant is requesting preliminary plan approval to amend the existing P.U.D. to allow for the construction of a dental office.

EXISTING ZONING OF
SUBJECT PARCEL(S): P.U.D. 82

GENERAL LOCATION: NE corner of Kraft Ave and 28th St.

PARCEL SIZE: Approximately 3 acres

EXISTING LAND USE
ON THE PROPERTY: Vacant

ADJACENT AREA
LAND USES: N – Residential
S – Commercial
E – Commercial
W – Commercial

ZONING ON
ADJOINING PARCELS: N – PUD 23
S – B-2, PUD 31
E – PUD 82
W – PUD 82

STAFF COMMENTS:

1. The applicant is requesting Preliminary Plan Approval in order to amend the existing Planned Unit Development to allow for construction of a dental office.

2. The proposed building would be approximately 8,500 square-feet. Our zoning requirements call for 34 parking spaces to be provided for a dental office of that size. There are 60 parking spaces being proposed, with adequate landscaping islands included.
3. There is a 60' setback requirement from the northern property line which abuts a residential use. The trash enclosure and all parking has been moved out of this setback.
4. The driveway accesses an internal private road so there are no minimum driveway spacing requirements.
5. The Township Engineer has reviewed the detention and stormwater plans and his comments are included in your packet. The detention basin on site is sized for the entire PUD, so no additional stormwater detention is required. The applicant will need to apply for and obtain several permits such as SESC and water and sanitary sewer before beginning construction. The Township Engineer also notes that the applicant should submit a stormwater Maintenance Agreement to the Township before construction begins.
6. The Zoning Ordinance requires a 40' wide bufferyard along the north property line between the proposed building and the residential. The bufferyard shown exceeds that width. Along with the landscaping shown, there is an existing privacy fence that was installed when the PUD was created. A note on the site plan indicates that the applicant must inspect and repair the fence.
7. The Zoning Ordinance requires a 25' wide bufferyard along the east property line between the proposed building and the existing commercial use, also located in PUD 82. The bufferyard shown in the plan is narrower than the required width. However, what they are requesting is consistent with what we have allowed on the site to the east. The bufferyard on the parcel to the east is also narrower than the required width. The applicant was asked to include landscaping along the entire east property line. The narrow bufferyard on the east property line can be addressed in the PUD amendment.
8. An approximately 4,000 square-foot future building addition and 18 space parking lot are shown on the site plan, but no timeline has been indicated for when those might be added. The PUD Ordinance requires that any future building additions shall require review and approval of the Township Planning Commission.
9. The PUD Ordinance for Kraft Street Partners – PUD 82, states that the developer must come back to the Township to amend the PUD Ordinance for this phase of the project. If Preliminary Plan Approval is given, then a PUD amendment will be written and brought back before the Planning Commission for a recommendation to the Township Board.

10. Standards

Section 16.03 of the Zoning Ordinance requires that a Planned Unit Development must demonstrate that:

Standard	Staff Comment
Granting of the Planned Unit Development rezoning will result in a recognizable and substantial benefit to the ultimate users of the project and to the community, where such benefit would otherwise be unfeasible or unlikely to be achieved.	The property is already zoned PUD. A dental office falls under the allowed uses for both the PUD and the underlying zoning.
In relation to underlying zoning, the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment.	The proposed use would not result in an increase in the need of public services.
The proposed development shall be compatible with the General Development Plan of the Township, and shall be consistent with the intent and spirit of this Chapter.	The proposed use is consistent with the master plan.
In relation to the underlying zoning, the proposed development shall not result in an unreasonable negative economic impact upon surrounding properties.	The proposed use should not result in an unreasonable economic impact.
The proposed development shall contain at least as much green area and usable open space as would otherwise be required by this Ordinance with respect to the most dominant use in the development.	Met
The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with this Ordinance. This provision shall not prohibit a transfer of ownership or control, upon due notice to the Planning Director of the Township.	Met

Staff recommends approval of the preliminary plan with the following conditions:

1. The applicant complies with the Township Engineer's letter dated May 19, 2020, and all necessary permits are obtained before construction begins.
2. Record the stormwater maintenance agreement.

Attachments: application package, site plan, Township Engineer letter, Section 16.03 of the zoning ordinance, PUD Ordinance



LETTER OF TRANSMITTAL

venturecivil.com • 616.490.0329
8515 Ridgebluff Dr SW
Byron Center MI 49315

for Brian

To: Mr. Steve Peterson
Cascade Charter Township
2865 Thornhills Ave. SE
Grand Rapids, MI 49546

Date: 3/19/20

Project Name: Robinson Dental Project No: 19149

- We are sending you:
[checked] Attached [] Under Separate Cover
[checked] Original [] Tracing [] Specifications
[checked] Copy of Letter/Document [checked] Print [] Shop Drawings

Table with 2 columns: Quantity, Description. Rows include: 1 Completed Application, 1 Check for \$500 fee, 5 Sets of proposed site plans.

- [] For Your Records [] As Requested [] Revise & Resubmit
[] For Approval [checked] For Review [] Rejected
[] Approved As Noted [] Approved [] For Your Use

Remarks: Please let me know if you have any questions or need any additional information. Thanks!

Sent By: Jeffrey M. Brinks, PE
jbrinks@venturecivil.com



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan
49546-7140

PLANNING & ZONING APPLICATION

APPLICANT: Name: Venture Engineering, PLLC, Jeff Brinks
Address: 8515 Ridgebluff Dr. SW
City & Zip Code Byron Center, MI 49315
Telephone: 616-490-0329
Email Address: jbrinks@venturecivil.com

OWNER: * (If different from Applicant)
Name: COCO Properties, LLC, Elizabeth Robinson
Address: 8117 Ashwood
City & Zip Code: Ada, MI 49301
Telephone: 616-550-9720
Email Address: scottrob93@yahoo.com

NATURE OF THE REQUEST: (Please check the appropriate box or boxes)

- | | |
|--|--|
| <input type="checkbox"/> Administrative Appeal | <input type="checkbox"/> Administrative Site Plan Review |
| <input type="checkbox"/> Deferred Parking | <input type="checkbox"/> P.U.D. – Rezoning * |
| <input type="checkbox"/> P.U.D. – Site Condominium * | <input type="checkbox"/> Rezoning |
| <input checked="" type="checkbox"/> Site Plan Review * | <input type="checkbox"/> Sign Variance |
| <input type="checkbox"/> Special Use Permit | <input type="checkbox"/> Subdivision Plat Review * |
| <input type="checkbox"/> Zoning Variance | <input type="checkbox"/> Other: _____ * |

*** Requires an initial submission of 5 copies of the completed site plan**

BRIEFLY DESCRIBE YOUR REQUEST:**

Site plan approval for a proposed dental office.

(**Use Attachments if Necessary)

-SEE OTHER SIDE-

LEGAL DESCRIPTION OF PROPERTY:**

See Plans

(**Use Attachments if Necessary)

PERMANENT PARCEL (TAX) NUMBER: 41-19 08-351-033

ADDRESS OF PROPERTY: 5749 28th Street SE

PRESENT USE OF THE PROPERTY: Vacant

NAME(S) & ADDRESS(ES) OF ALL OTHER PERSONS, CORPORATIONS, OR FIRMS HAVING A LEGAL OR EQUITABLE INTEREST IN THE PROPERTY:

Name(s)

Address(es)

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SIGNATURES

I (we) the undersigned certify that the information contained on this application form and the required documents attached hereto are to the best of my (our) knowledge true and accurate. I (we) also agree to reimburse the Cascade Charter Township for all costs, including consultant costs, to review this request in a timely manner. I (we) understand that these costs may also include administrative reviews which may occur after the Township has taken action on my (our) request.

I (we) the undersigned also acknowledge that the proposed project does not violate any known property restrictions (i.e. plat restrictions, deed restrictions, covenants, etc.)

Elizabeth Robinson

Jeff Brinks

Owner – Print or Type Name
(*If different from Applicant)

Applicant – Print or Type Name

*  3-16-20

 03/17/20

Owner's Signature & Date
(*If different from Applicant)

Applicant's Signature & Date

PLEASE ATTACH ALL REQUIRED DOCUMENTS NOTED IN THE PROCESS REVIEW SHEET – THANK YOU



5749 28th St, SE

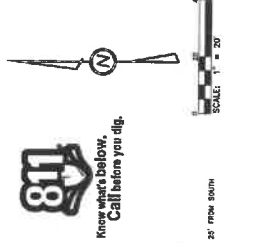
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04/11/20	ISSUED FOR TOWNSHIP REVIEW
04/11/20	ISSUED FOR TOWNSHIP REVIEW
04/11/20	ISSUED FOR TOWNSHIP REVIEW
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04/11/20	ISSUED FOR TOWNSHIP REVIEW
04/11/20	ISSUED FOR TOWNSHIP REVIEW

NOT FOR CONSTRUCTION

Robinson Dental
 PROPOSED SITE IMPROVEMENTS FOR:
 Cadeau Charter Township
 Kent County, Michigan
 6500 Channing Drive SE
 Grand Rapids, MI 49508
 Phone: 616.954.1222

VENTURE
 ENGINEERING, PLLC
 8515 Regent Dr SW
 Grand Rapids, MI 49508
 Phone: 616.954.1222
 ventureeng.com

PROJECT NO.	19145
DRAWN BY	JAC
CHECKED BY	JMB
DATE	03/02/2020
SHEET NO.	C1

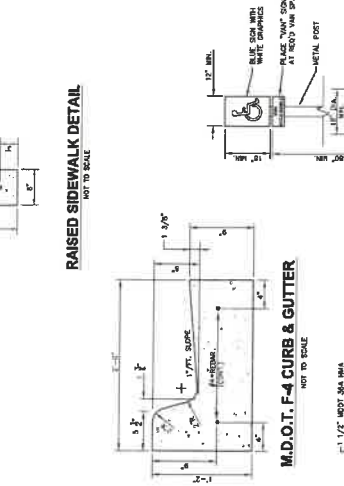


REVISIONS

NO.	DATE	DESCRIPTION
1	03/02/20	ISSUED FOR TOWNSHIP REVIEW
2	03/02/20	ISSUED FOR TOWNSHIP REVIEW
3	03/02/20	ISSUED FOR TOWNSHIP REVIEW
4	03/02/20	ISSUED FOR TOWNSHIP REVIEW
5	03/02/20	ISSUED FOR TOWNSHIP REVIEW
6	03/02/20	ISSUED FOR TOWNSHIP REVIEW
7	03/02/20	ISSUED FOR TOWNSHIP REVIEW
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14	03/02/20	ISSUED FOR TOWNSHIP REVIEW
15	03/02/20	ISSUED FOR TOWNSHIP REVIEW
16	03/02/20	ISSUED FOR TOWNSHIP REVIEW
17	03/02/20	ISSUED FOR TOWNSHIP REVIEW
18	03/02/20	ISSUED FOR TOWNSHIP REVIEW
19	03/02/20	ISSUED FOR TOWNSHIP REVIEW
20	03/02/20	ISSUED FOR TOWNSHIP REVIEW

SITE NOTES

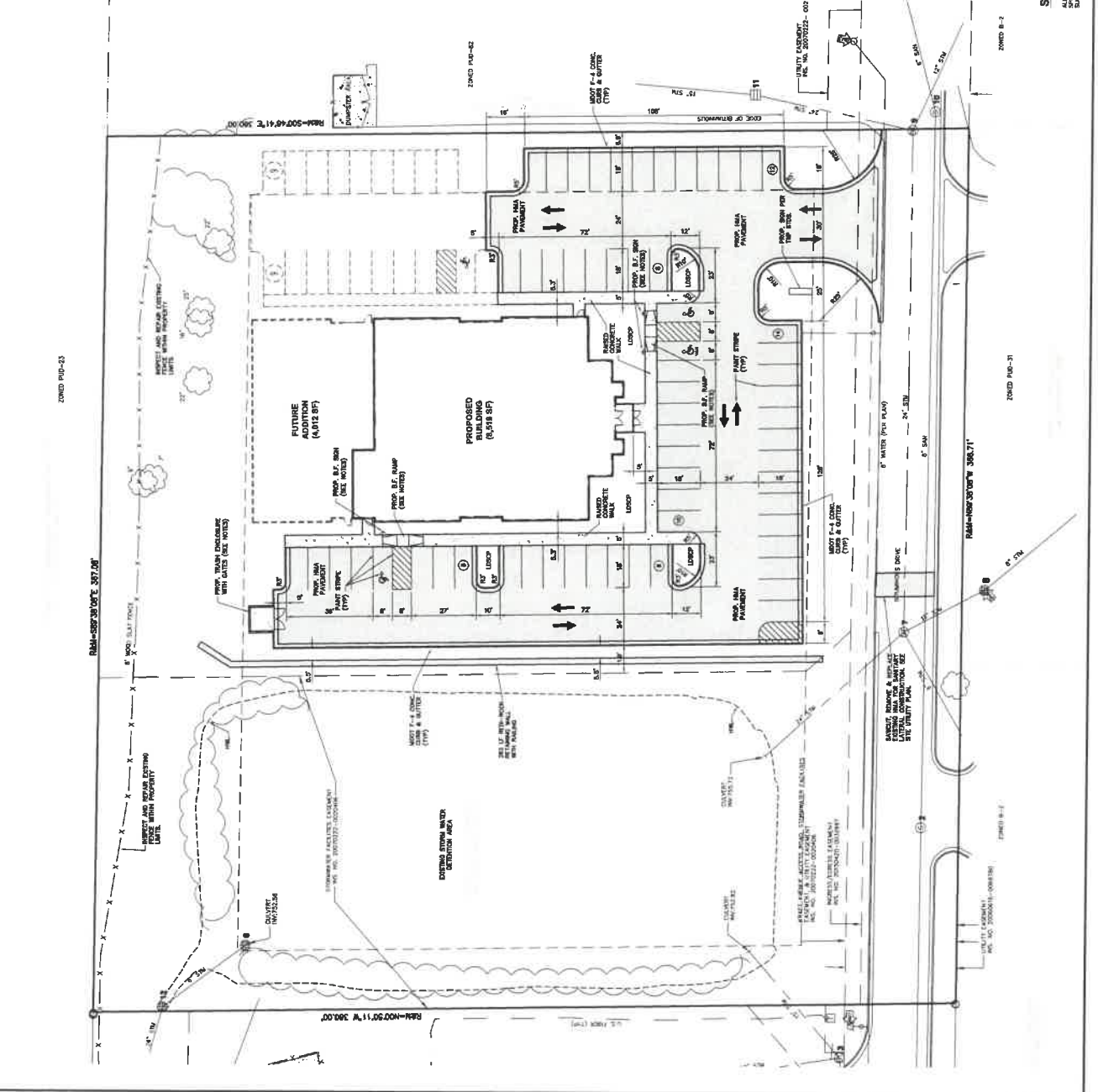
- SITE AREA: 12,000 SF (3.53 ACRES) (INCL. ROAD BACKSTOP)
- CURRENT ZONING: PD-42
- SETBACKS REQUIRED: 40' FROM N. PROPERTY LINE, 20' SIDE, 30' FROM SOUTH PROPERTY LINE
- LOADING REQUIREMENTS:
 - 4' SPACES PER LOAD OF 3000 LB
 - 4' x 4' x 4' - 34 SPACES REQUIRED
- NO SPACES PROVIDED INCLUDING 3 B.O.
- ALL UTILITIES SHOWN ARE FROM RECORDS AND FIELD SURVEY. THE LOCATION OF ALL UTILITIES TO BE CONSTRUCTED TO MATCH THE ACCURATE LOCATION OF ALL UNDERGROUND UTILITIES.
- OWNER SHALL PROVIDE ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS.
- ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A CLEAN AND DRY AREA. ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A CLEAN AND DRY AREA. ALL CONSTRUCTION MATERIALS SHALL BE STORED IN A CLEAN AND DRY AREA.
- THE PROPOSED DEVELOPMENT WILL INCLUDE EXISTING AVAILABLE INFRASTRUCTURE INCLUDING UTILITIES, WATER MAINS, SEWER MAINS, AND STORM WATER MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION AND DEPTH OF ALL UTILITIES AND CONDUCTING NECESSARY FIELD SURVEYS.
- ALL SHALL COMPLY WITH LOCAL ORDINANCES, STATE AND FEDERAL REQUIREMENTS.
- TRAFFIC SIGNALS SHALL HAVE 4' HIGH SPALL WALLS AND GRATES. IT SHALL BE CONSTRUCTED OF MATERIALS THAT ARE SIMILAR TO THE PROPOSED SIGNAL.
- ALL SIGNALS SHALL COMPLY WITH THE APPROPRIATE UTILITY PROVIDER'S REQUIREMENTS.
- ALL UTILITIES SHALL BE PROTECTED AND DEPTH SHALL BE 6'-0" TO BOTTOM OF SIGNAL. IT SHALL BE 6'-0" TO BOTTOM OF SIGNAL. IT SHALL BE 6'-0" TO BOTTOM OF SIGNAL.
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RAISED SIDEWALK DETAIL
 NOT TO SCALE

STANDARD PAVEMENT SECTION
 NOT TO SCALE

ALL MATERIAL REQUIREMENTS REFER TO LOCAL TOWNSHIP SPECIFICATIONS AND CONSTRUCTION 2012 (EXCEPT WHERE SHOWN OTHERWISE).



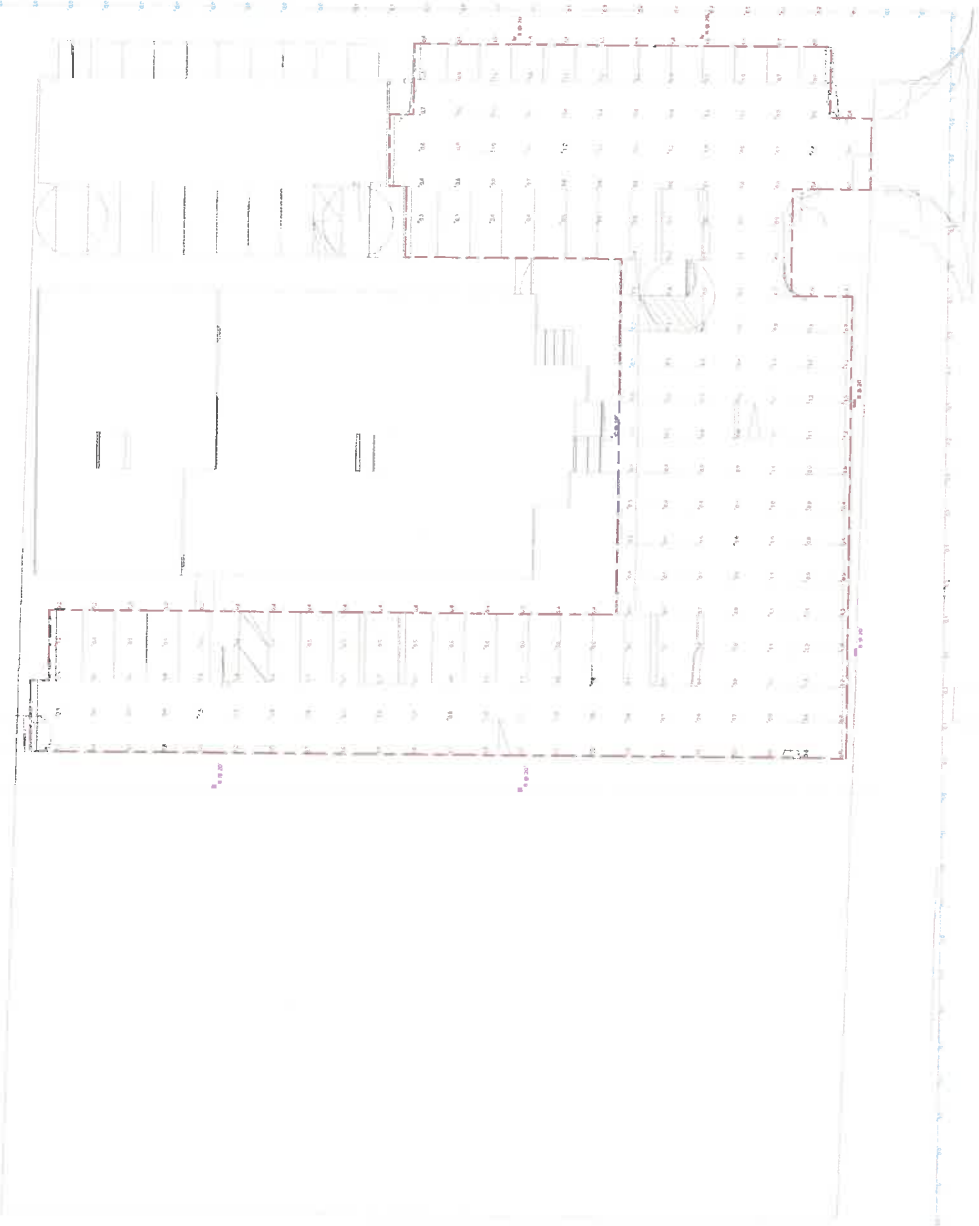
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16	03/02/20	ISSUED FOR TOWNSHIP REVIEW
17	03/02/20	ISSUED FOR TOWNSHIP REVIEW
18	03/02/20	ISSUED FOR TOWNSHIP REVIEW
19	03/02/20	ISSUED FOR TOWNSHIP REVIEW
20	03/02/20	ISSUED FOR TOWNSHIP REVIEW



Item	Description	Quantity	Unit	Notes
1	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED
2	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED
3	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED

Item	Description	Quantity	Unit	Notes
4	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED
5	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED
6	48" LOW WALL MOUNT, 4000K, 100LM, LED	148	EA	100% RECESSED LUMINA LED



D-Series Size 0 LED Area Luminaire

Specifications

- Beam Angle: 60°
- Length: 48"
- Width: 6"
- Height: 4"
- Weight: 1.5 lbs

Features

- The recessed profile D-Series is designed for unobstructed views on a field, appropriate for environments where the luminaire is used in a high-contrast environment. The D-Series luminaire utilizes the latest in LED technology for a high-efficiency, long-life luminaire. The outstanding performance results in luminaire with excellent uniformity, per foot pole spacing and excellent uniformity, per foot pole spacing.
- The D-Series luminaire is a high-efficiency, long-life luminaire with a typical average range of 50,000 hours.

EXAMPLE: 1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN

Item	Description	Quantity	Unit	Notes
1	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
2	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
3	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
4	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
5	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
6	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
7	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
8	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
9	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
10	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
11	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
12	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
13	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
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80	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
81	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
82	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
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88	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
89	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
90	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
91	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
92	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
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96	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
97	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
98	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	
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100	1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN	1	EA	

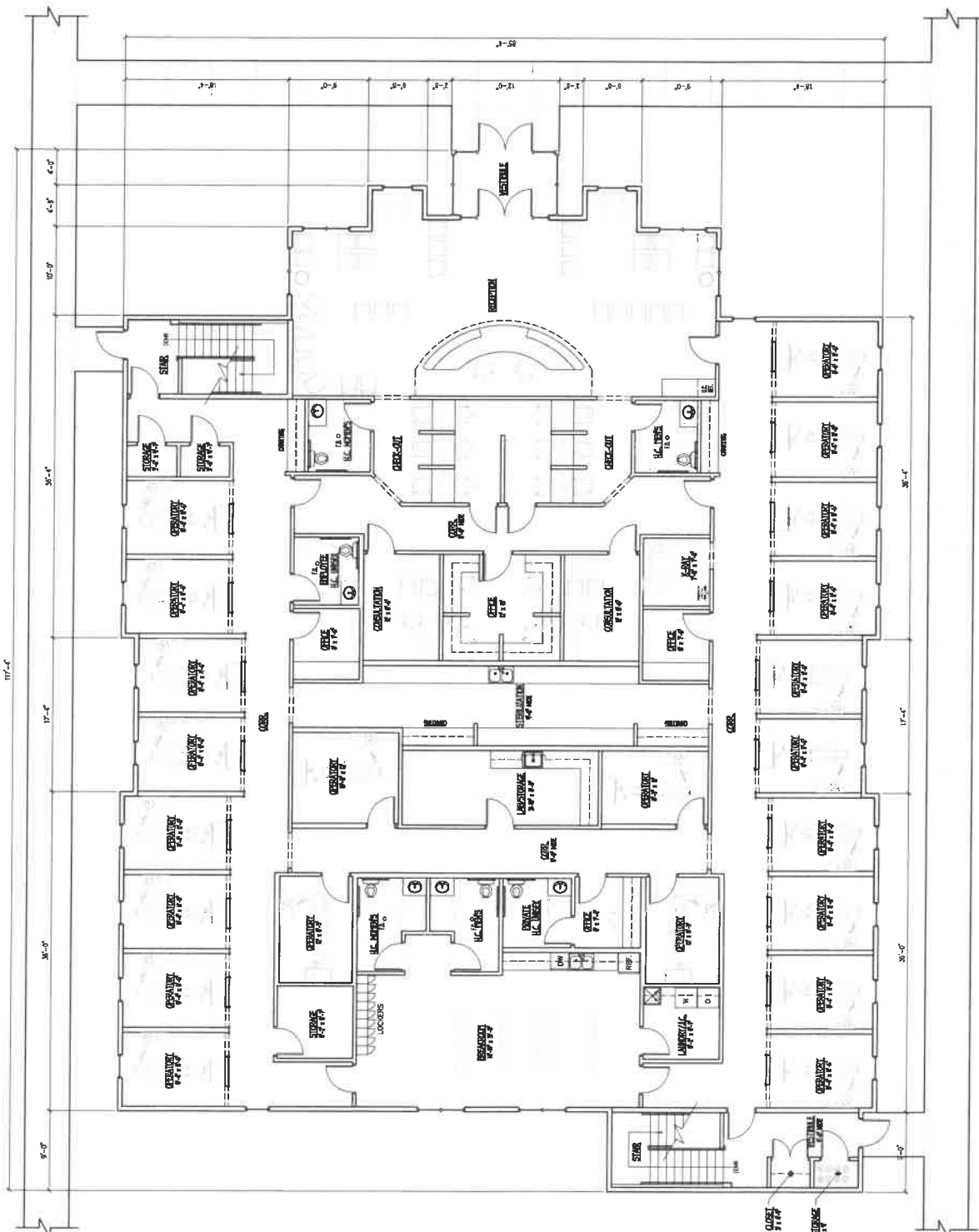
1500 LED 18" X 24" PANEL SPIN TUBULAR PANEL DOWN

Specifications

- Beam Angle: 60°
- Length: 18"
- Width: 24"
- Height: 1.5"
- Weight: 1.5 lbs

Features

- The 1500 LED 18" X 24" Panel Spin Tubular Panel Down is a high-efficiency, long-life luminaire with a typical average range of 50,000 hours.
- The 1500 LED 18" X 24" Panel Spin Tubular Panel Down is a high-efficiency, long-life luminaire with a typical average range of 50,000 hours.



**PRELIMINARY
NOT FOR CONSTRUCTION**

DATE	BY	REVISION
10-10-2019	ML	FOR REVIEW
02-06-2020	ML	FOR REVIEW
02-19-2020	ML	FOR REVIEW
07-27-2020	ML	FOR REVIEW
02-03-2022	ML	FOR REVIEW

PROPOSED BUILDING FOR:
Robinson BENTLEY
 5749 28TH STREET SE
 GRAND RAPIDS, MI 49546



DATE: OCT. 10, 2019 PROJECT No. 19-23
 SHEET No.

A-1

FLOOR PLAN
 SCALE: 3/16" = 1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION

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DATE	BY	REVISION
01-10-2001	JKR, MVL/EBH	SCHEMATIC DEVELOPMENT
02-06-2000	JKR, RLV/EBH	SCHEMATIC DEVELOPMENT
02-18-2000	JKR, REVISION	SCHEMATIC DEVELOPMENT
03-06-2000	JKR, REVISION	SCHEMATIC DEVELOPMENT

PROPOSED BUILDING FOR:

Robinson Bentley
ARCHITECTURAL
CONCEPTS, LLC

5740 28TH STREET SE
GRAND RAPIDS, MI 49546

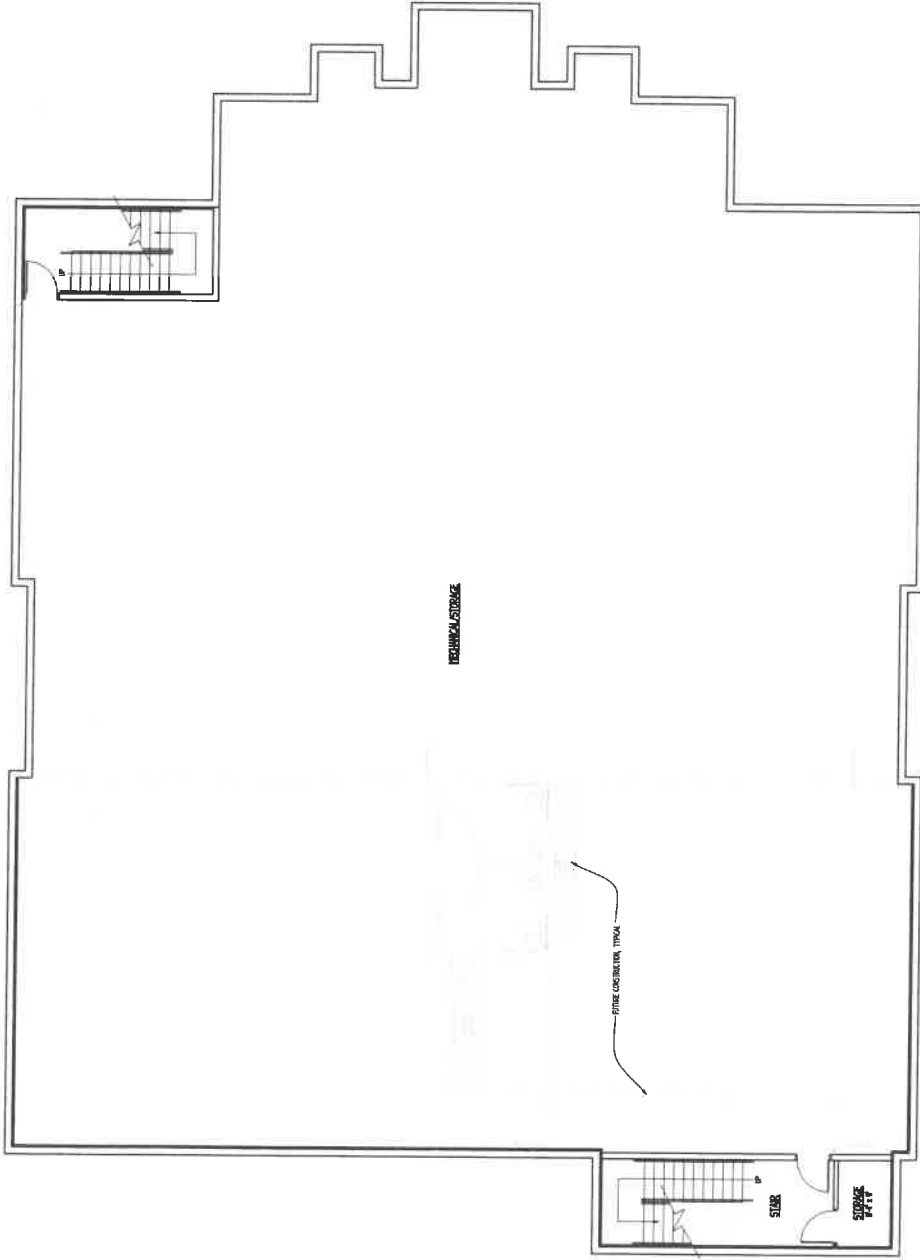


ARCHITECTURE
PLANNING
ENGINEERING

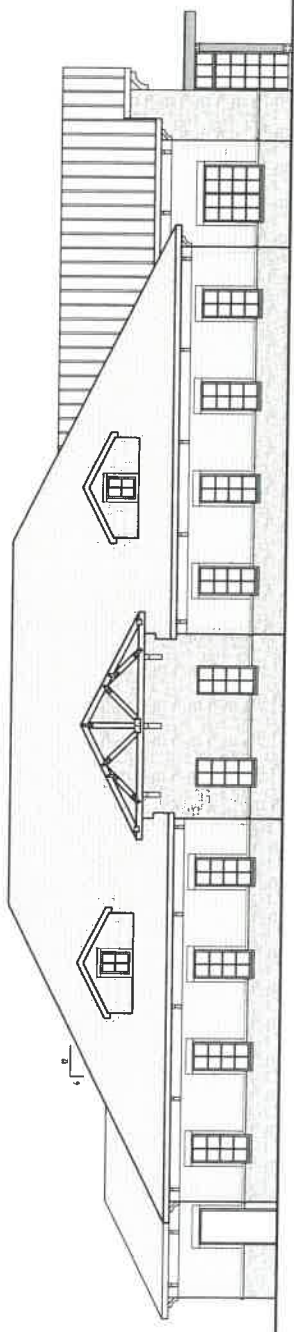
1000 EASTMAN DRIVE, SE
GRAND RAPIDS, MI 49503
TEL: 616-941-1122
WWW.RBACONCEPTS.COM

DATE: OCT. 10, 2001 PROJECT No. 10-29
SHEET No.

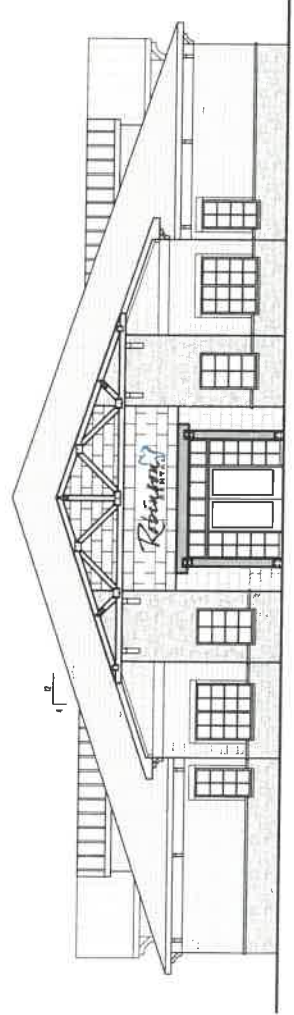
A-2



1. BASEMENT PLAN
SCALE 3/16" = 1'-0"



1 WEST ELEVATION
SCALE: 3/16" = 1'-0"



2 SOUTH ELEVATION
SCALE: 3/16" = 1'-0"

PRELIMINARY
NOT FOR CONSTRUCTION

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DATE	REVISION
07-12-2004	FOR REVIEW
07-27-2004	FOR REVIEW
03-09-2005	FOR REVIEW

PROPOSED BUILDING FOR:



5749 28TH STREET SE
GRAND RAPIDS, MI 49546



ARCHITECTURE
PLANNING
ENGINEERING
INTERIOR DESIGN
LANDSCAPE ARCHITECTURE
GENERAL CONTRACTOR

DATE: OCT. 10, 2004 PROJECT No. 14-29 SHEET No.

A-3

**PRELIMINARY
NOT FOR CONSTRUCTION**

THE DESIGN OF THIS PROJECT IS THE PROPERTY OF ROBINSON DENTAL. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF ROBINSON DENTAL.

DATE	REVISION
08-12-2019	FOR REVIEW
07-27-2019	FOR REVIEW
05-05-2019	FOR REVIEW

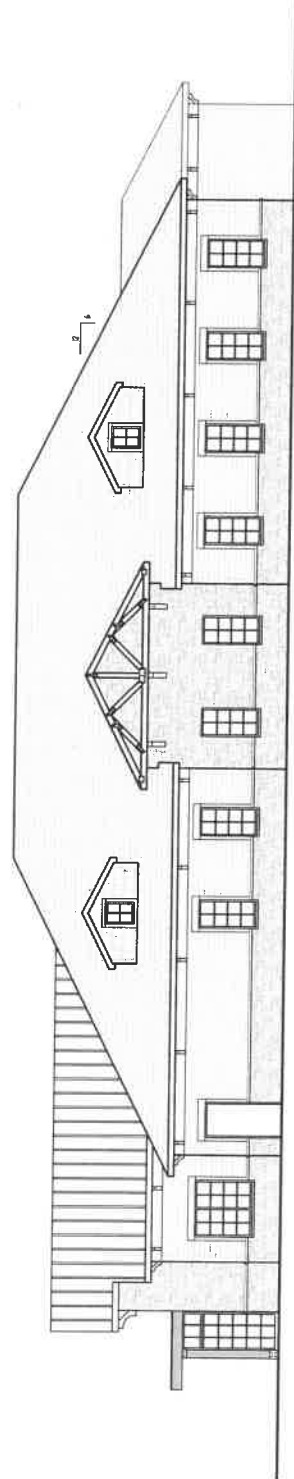
PROPOSED BUILDING FOR:

**Robinson
DENTAL**
5749 20TH STREET SE
GRAND RAPIDS, MI 49546

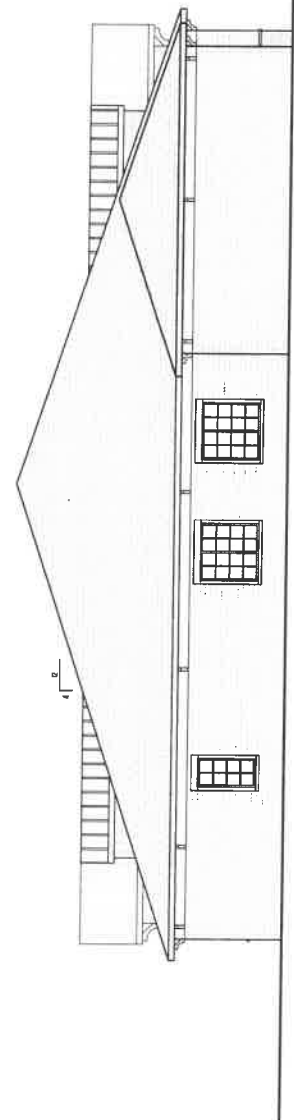


DATE: OCT. 10, 2019
PROJECT No. 19-29
SHEET No.

A-4



EAST ELEVATION
SCALE: 3/8" = 1'-0"



NORTH ELEVATION
SCALE: 3/8" = 1'-0"

May 19, 2020
Project No. 170168

Steve Peterson, AICP
Community Development Director
Cascade Charter Township
2865 Thornhills Avenue, SE
Grand Rapids, MI 49546

**Robinson Dental
Site Plan Review**

Dear Steve:

We have reviewed the site plan for Robinson Dental, prepared by Venture Engineering. The property's address is 5749 – 28th Street, however the site is located on a private drive off Kraft Avenue. The current site plan and the basis of this review are dated April 28, 2020. The proposed project is an 8,500 square-foot dental office building, parking lot, and associated site improvements. A 4,000-square-foot future building addition and parking lot is also proposed. The property is part of a Planned Unit Development, PUD-82. The site is in the Plaster Creek watershed, sub-drainage district Cascade West.

Stormwater and Drainage

Flood Control

The proposed project is a new development, so all improvements shall comply with the requirements of the Cascade Charter Township and Stormwater Ordinance (SWO). The site is located in Stormwater Management Zone B, which requires detention of the 25-year storm event. The SWO also requires the first 0.5 inch of stormwater runoff be detained and released over a 24-hour period.

The proposed development will discharge to an existing stormwater detention basin. The detention basin was constructed during the first phase of the PUD development and sized for the entire PUD, including the property at 5749 – 28th Street. Therefore, no additional onsite stormwater detention is required.

The PUD states the applicant shall submit a stormwater disposal plan showing all measures to be taken on the site. This plan shall be reviewed and approved by the Township Engineer prior to commencing any building on the site. The applicant provided stormwater calculations and design details for the onsite storm sewer system. The proposed stormwater management design is in accordance with the Township SWO.

Water Quality Control

The SWO requires the first 0.5 inch of stormwater runoff be detained and released over a 24-hour period. The existing detention basin was designed with an outlet control structure and low flow outlet to detain the first 0.5 inch of runoff from the site and release it over a 24-hour period. The proposed design is in accordance with the Township SWO.

Stormwater Runoff

The applicant provided stormwater calculations to size the onsite storm sewer system. All stormwater runoff from the site will be captured by the existing detention basin. Therefore, the site will not see an increase in rate of stormwater leaving the site.

Drainage Plan

The applicant has submitted plans, calculations, and additional documentation as required in SWO Section 2.03, Drainage Plan. Please refer to the attached checklist for items and comments on each item. Please note a Maintenance Agreement is required before construction begins. The Agreement should be submitted to the Township for review. The Agreement and plan should include at a minimum landscape maintenance of the detention basin, cleaning of catch basin sumps, sediment and debris removal from the detention basins and outlet structures.

Utilities

A new 6-inch sanitary sewer service and 2-inch water service are proposed for the property. City of Grand Rapids permits will be required for the water and sanitary sewer connections prior to construction taking place.

Soil Erosion and Sedimentation Control

Soil Erosion and Sedimentation Control (SESC) measures are provided on the plan drawings. The applicant has included silt fence along the limits of clearing and grading, mulch blanket on steep slopes, and silt sacks in catch basins. SESC falls under the review and approval of the Kent County Road Commission and a permit is required before construction can begin. If the disturbed area on the site exceeds five acres, a Notice of Coverage is required with EGLE. The SESC measures indicated on the drawings appear appropriate, given the expected work.

Summary

The proposed stormwater management design meets the Township SWO requirements for new developments. The applicant will need to apply for and obtain several permits prior to beginning construction (SESC, water and sanitary sewer from the City). We recommend approval of the site plan from an engineering standpoint.

If you have any questions or require additional information, please contact me at 616.464.3786 or ntorrey@fishbeck.com.

Sincerely,



Nathan R. Torrey, PE
Senior Civil Engineer

Attachment

By email

Copy Michael L. Berrevoets, PE – Fishbeck

Cascade Charter Township

Storm Water Ordinance, Ordinance 7 of 2002, as amended by Ordinance No. 2 of 2008, May 14, 2008

Reviewing Engineer Comments are Italicized

OK – Received and Acceptable

NA – Not Applicable

NR – Not Received, Needs Follow-up, See Comments

Robinson Dental

Drainage Plan Checklist

- OK (1) Location of the development site and water bodies that will receive stormwater runoff
Stormwater runoff from the site will discharge to an existing detention basin.
- OK (2) Existing and proposed topography of the development site, including the alignment and boundary of the natural drainage courses, with contours having a maximum interval of one foot (using USGS datum). The information shall be superimposed on the pertinent Kent County soil map
Existing and proposed contours have been provided. Soil map information is not required.
- OK (3) Development tributary area to each point of discharge from the development.
The applicant provided a tributary area for that portion draining to the detention basin.
- OK (4) Calculations for the final peak discharge rates
The applicant provided calculations for the new onsite storm sewer system.
- OK (5) Calculations for any facility or structure size and configuration
The applicant provided calculations for the new onsite storm sewer system.
- OK (6) Drawing showing all proposed storm water runoff facilities with existing and final grades
The applicant provided plans showing all proposed storm water runoff facilities.
- OK (7) The sizes and locations of upstream and downstream culverts serving the major drainage routes flowing into and out of the development site. Any significant off-site and on-site drainage outlet restrictions other than culverts should be noted on the drainage map
The site plan did not indicate offsite stormwater drainage into the property.
- OK (8) An implementation plan for construction and inspection of all storm water runoff facilities necessary to the overall drainage plan, including a schedule of the estimated dates of completing construction of the storm water runoff facilities shown on the plan and an identification of the proposed inspection procedures to ensure that the storm water runoff facilities are constructed in accordance with the approved drainage plan
A construction schedule was included on the plans.
- OK (9) Plan to ensure the effective control of construction site storm water runoff and sediment track-out onto roadways
The SESC measures shown on the plan appear appropriate given the expected work. SESC falls under the review and approval of the KCRC and a permit is needed before construction can begin.

- OK (10) Drawings, profiles, and specifications for the construction of the storm water runoff facilities reasonably necessary to ensure that storm water runoff will be drained, stored, or otherwise controlled in accordance with this ordinance
The applicant provided a plan and design details for construction of the proposed detention basin.
- NR (11) Maintenance agreement, in form and substance acceptable to the Township, for ensuring maintenance of any privately owned storm water runoff facilities. The maintenance agreement shall include the developer's written commitment to provide routine, emergency, and long-term maintenance of the facilities and, in the event that the facilities are not maintained in accordance with the approved drainage plan, the agreement shall authorize the Township to maintain any on-site storm water runoff facility as reasonably necessary, at the developer's expense
Maintenance agreement was not provided and is required.
- OK (12) Name of the engineering firm and the registered professional engineer that designed the drainage plan and that will inspect final construction of the storm water runoff facilities
- NA (13) All design information must be compatible for conversion to Grand Valley Regional Geographic Information System (REGIS)
This is a privately owned system and will not be uploaded to REGIS.
- OK (14) Other information necessary for the Township to verify that the drainage plan complies with the Township's design and performance standards for drains and storm water management systems

**Cascade Charter Township
Ordinance # ___ of 2020**

An Ordinance to amend the

KRAFT STREET PARTNERS PLANNED UNIT DEVELOPMENT PROJECT

as follows:

Cascade Charter Township Ordains:

Section 1

Section IV – Purpose. Subsection 2 is to be deleted.

Section 2

Section VI – Permitted Uses. Subsection C is amended to read as follows:

C. PHASE 2

The development of Phase 2 is approved as shown on the site plan dated 4/28/20 and signed by the Township. Any proposed expansion beyond the original approved site plan shall require review and approval of the Township Planning Commission.

Section 3

This Ordinance shall become effective 30 days after publication in the Grand Rapids Press, a newspaper of general circulation within Cascade Charter Township

The following Ordinance was offered by Board Member _____, Supported by Board Member _____. The roll call vote being as follows:

YEAS:

NAYS:

ABSENT:

Susan Slater
Cascade Charter Township Clerk

CERTIFICATION

I certify the forgoing to be a true copy of an Ordinance adopted at a regular meeting of the Cascade Charter Township Board on the ____ Day of _____, 2020.

Susan Slater
Cascade Charter Township Clerk