

AGENDA
Cascade Charter Township Parks Committee
Tuesday, February 21, 2023
8:00 am
5920 Tahoe Dr

- ARTICLE 1. Call the meeting to order
Record the attendance**
- ARTICLE 2. Approve the current Agenda**
- ARTICLE 3. Approve the minutes of the January 21, 2023 Regular Meeting**
- ARTICLE 4. Acknowledge visitors and those wishing to speak to non-agenda items.
(Comments are limited to three minutes per speaker.)**
- ARTICLE 5. Developing a Millage Campaign
Update from the Millage Subcommittee and next steps**
- ARTICLE 6. Parks Director Job Search
Update on search process and discussion on interview process**
- ARTICLE 7. Cascade Recreation Park Master Plan Process
Discussion on process and next steps**
- ARTICLE 8. Potential Projects for State Funding Request
Review and prioritization of projects for State funding request to
Representative Skaggs**
- ARTICLE 9. Updates from Township Manager
General update and information from staff.**
- ARTICLE 10. Updates and Announcements from Chair
Update from Ginny regarding visit to Pathways Committee May Oak Wilt
Programs; Newsletter and e-news articles; Outdoor gathering space**
- ARTICLE 11. Old Business**
- ARTICLE 12. Any Other Business**
- ARTICLE 13. Adjournment**

Meeting format

1. **Staff Presentation** *Staff report and recommendation*
2. **Project presentation-** *Applicant presentation and explanation of project*
 - a. **PUBLIC HEARINGS**
 - i. *Open Public Hearing. Comments are limited to five minutes per speaker; exception may be granted by the chair for representative speakers and applicants*
 - ii. *Close public hearing*
3. **Committee discussion –** *May ask for clarification from applicant, staff or public*
4. **Committee decision - Options**
 - a. *Table the decision*
 - b. *Deny*
 - c. *Approve*
 - d. *Approve with conditions*
 - e. *Recommendation to Township Board*

Minutes
Cascade Charter Township
Parks Committee Special Meeting
Tuesday, January 17, 2022
7:30 A.M.
5920 Tahoe Dr SE

- ARTICLE 1.** Chair Wanty called the meeting to order at 8:02 A.M.
Members Present: Chair Ginny Wanty, Joe Engel, Mike Reese, Eileen Boekestein, Supervisor Grace Lesperance, and Matt Douglas
Members Absent: Windy Korstange (excused)
Others Present: Planning Director Brian Hilbrands, Township Manager Ben Swayze, and those listed on the sign-in sheet.
- ARTICLE 2.** **Welcome to New Parks Committee Member Matt Douglas.**
- ARTICLE 3.** **Approve the Current Agenda**
Motion was made by Supervisor Lesperance to approve the current agenda. Supported by Member Douglas. Motion carried 6 to 0.
- ARTICLE 4.** **Approve the minutes of the November 15, 2022 Regular Meeting, December 6, 2022 Special Meeting, and December 27, 2022 Subcommittee Meeting**
Member Engel recommended the correction of the spelling of Member Reese’s name in article two, and in article nine, clarify that Member Engel was referencing a new master plan that is specifically for Rec Park. Motion was made by Supervisor Lesperance to approve the November 15, 2022 meeting minutes with the aforementioned changes. Supported by Member Engel. Motion carried 6 to 0.
Motion was made by Member Engel to approve the December 6, 2022 meeting minutes as written. Supported by Member Boekestein. Motion carried 6 to 0.
Motion was made by Member Engel to approve the December 27, 2022 meeting minutes as written. Supported by Supervisor Lesperance. Motion carried 6 to 0.
- ARTICLE 5.** **Acknowledge visitors and those wishing to speak to non-agenda items**
John Giddens, neighbor to the Wycliffe property, attended to keep up-to-date on the property’s development.
- ARTICLE 6.** **Developing a Millage Campaign**
Sabo PR attended to present on the millage campaign they had completed in Kentwood and made suggestions on how Cascade can run a successful parks millage campaign. They believe nine months is an ideal timeframe to promote a millage campaign. Key messaging tactics were highlighted including consistent messaging, driving traffic to a millage website, and creating FAQ’s. Additionally, continuing to update the website so residents know what the millage is being used for will enhance transparency.

There was discussion on a non-township based yes-vote campaign that elected officials can advocate for but township funds can not be used for.

Suggested tools were infographics as they are extremely helpful to simplify complex information, creation of a 'Friends of Cascade Parks' group like the library's 'Friends of Kent District Library' group, and advertisement through typical channels. This type of advertisement will include paid ads, advertisement on the Township's social media and newsletters, and press releases.

Member Engel asked if it would be better to promote the millage as funding a parks director or would it be better to hire the parks director first and use them to promote the millage. Snow-Buckner said that residents typically prefer to fund projects rather than staff. The campaign should be focused on projects and acquisitions or recreation, but it will need to match what the residents have expressed as a priority.

TM Swayze said that the next step would be choosing which voting cycles the parks, fire department, and library millages will take place during. Next, a subcommittee will look into the millage parameters including amount requested, number of years, timeline, and what the millage will be used for. The subcommittee will be Members Reese, Douglas, and Supervisor Lesperance. They will make a recommendation to the full Parks Committee at the February Parks Committee meeting.

ARTICLE 7. Parks Director Job Description

Member Engel recommended moving some items around on the position description as well as rewording the 'essential functions' in number ten.

Motion was made by Member Engel to approve the Parks Director position description, with the aforementioned amendments, to the Township Board. Supported by Member Douglas. Motion carried 6 to 0.

TM Swayze recommended the committee decide who they want involved in the interviews for the Parks Director at the next meeting.

ARTICLE 8. Election of Officers

Motion was made by Supervisor Lesperance to re-elect Chair Wanty as Parks Committee Chair and Member Engel as Vice Chair and Secretary. Supported by Member Douglas. Motion carried 6 to 0.

Member Engel requested a list of committee members with their dates of appointment and expiration of terms be provided at the next meeting.

ARTICLE 9. Updates from Township Manager

TM Swayze explained that Dr. Keys has taken all of the cameras down from Burton Park and, when the students returned from winter break, they would begin compiling and analyzing the data. Once the results have been analyzed, Dr. Keys will present at a Township Board meeting.

TM Swayze and Supervisor Lesperance met with the newly elected Representative Skaggs to discuss Cascade's priorities.

Chair Wanty talked about Sparks Grants and asked Member Reese to present about potential plans at a future meeting. Grants due early in 2023 aren't solid options because the committee needs to decide what they are including in the millage first. The Spark Grants will still have two additional rounds but they are currently focused on disadvantaged communities and Cascade doesn't fit into that category.

Cascade was awarded a tree grant from Consumers Energy. The trees will be planted between the soccer field and expressway at Rec Park; planting must be completed by the end of September. Part of the funding the township requested will go to ReLeaf Michigan to help the township decide which type of trees to get, set up barriers to deer browsing, and determine their exact placement.

Member Boekestein left the meeting at 9:31 A.M.

There have been two recent smash-and-grab incidents at Rec Park so the township has purchased two more cameras to post at the park. This type of crime has been prevalent in surrounding communities recently. B&G Supervisor MacDonald is creating signs to hang at the parks that alert residents to the cameras. In the future, the township may create a security plan for all of the township parks.

Manager Swayze and Supervisor Lesperance are looking into getting nametags for the Parks Committee members and will bring information to a future meeting.

The Garlic Mustard dumpster will be permanently moved to Fire Station 2 because the new Fire Station 1 building won't have a proper space for it.

ARTICLE 10. Updates and Announcements from Chair

Oak wilt at Burton Park has been dealt with and the work was done extremely well.

Members Engel and Boekestein are working on an article for the Spring newsletter.

ARTICLE 11. Old Business

Member Reese handed out copies of the Parks plan and included the information about Wycliff Park that was not included in the packet sent to the DNR.

Planning Director Hilbrands mentioned a parcel of land that had been put up for sale. A resident left him a voicemail suggesting this plot of land be purchased to create a park.

ARTICLE 12. Any Other Business

There wasn't any other business to discuss.

ARTICLE 13. Adjournment

Motion was made by Member Douglas to adjourn the meeting. Supported by Member Reese. Motion carried 5 to 0. The meeting adjourned at 10:02 A.M.

Respectfully submitted,
Joe Engel, Secretary

DRAFT

Cascade Township Parks Millage

Why the need?

Cascade Township is home to many beautiful natural resources and recreational opportunities. The Township currently has 7 parks that have a growing list of deferred maintenance and necessary improvements to provide residents with a quality parks system. Current funding is not sufficient to keep pace with the demand for parks and recreation in Cascade Township.

Public Support

The recent Township Strategic Plan and Five Year Parks Master Plan included public input surveys with extensive public feedback. Results showed.....

How much will the millage cost residents and how much will it generate?

1 mil? What does that equate to annually and total for the millage period? Length of millage? Adjustable (decreasing) or fixed rate?

1 mil = \$100 for every \$100,000 in taxable value.

Show taxable value vs real estate value

If approved, how will the millage funds be invested?

- Maintenance of Parks
- Cascade Recreation Park improvements and additions
- Accessibility and amenity improvements at all parks
- Acquisition of new parks and open spaces
- New sports fields complex
- Control of invasive species
- Improving water quality of the Thornapple River
- Parks programs

Additional information

Prioritization and phasing during millage period

Map with park locations and proposed improvements

Providing local match for state and federal grants

Parks Millage Information

2022 Cascade Township Taxable Value = \$ 1,887,213,081

2022 Cascade Township DDA Capture = \$ 95,646,845

2022 Cascade Township Ave. Home Value = \$ 400,000

<u>Millage Rate</u>	<u>2023 Tax Collection</u>		<u>DDA Capture</u>		<u>Park Rev. Available</u>		<u>Average Cost / Home</u>
0.2500	\$	471,803.27	\$	23,911.71	\$	447,891.56	\$ 50.00
0.5000	\$	943,606.54	\$	47,823.42	\$	895,783.12	\$ 100.00
0.7500	\$	1,415,409.81	\$	71,735.13	\$	1,343,674.68	\$ 150.00
0.8931	\$	1,685,420.00	\$	85,419.66	\$	1,600,000.34	\$ 178.61
1.0000	\$	1,887,213.08	\$	95,646.85	\$	1,791,566.24	\$ 200.00

Kent County Area Parks Millage Rates:

Ada Township	0.6377 mill
East Grand Rapids	0.56 mill (Currently Levy 0.4388)
Grand Rapids	1.25 mill
Kentwood	1 mill

Potential Election Dates:

- August 8, 2023
- November 7, 2023
- February 27, 2024 (Presidential Primary)
- May 7, 2024
- August 6, 2024 (State/Local Primary)
- November 5, 2024 (Presidential General)

Other Cascade Township Millage Rates:

General Fund	0.9588 mill
Fire Department	1.2894 mill
Police Services	0.4614 mill
Open Space	0.2269 mill
Pathways	0.3468 mill
Library	0.1479 mill

*1. Grand River Parkway Land Acquisition Project

To provide access to scenic natural spaces while promoting the protection of natural and recreational areas along the River. Partner with nearby and likeminded interests, land owners, and public entities to complete trail connections. Preserve existing natural beauty and stabilize existing wetlands and waterways being overloaded by development.

*2. Thornapple River Watershed Preservation & Protection

To fund measures to improve bank erosion, sediment loading, and unstable conditions throughout tributaries to the Thornapple River that threaten private property. Previous efforts have identified critical subwatersheds experiencing changing hydrology and channel migration due to a number of causes and require funding for means such as replacing culverts with currently insufficient capacity.

*3. Urban/Suburban Recreational Pathway Interlink Project

To strategically expand pedestrian pathways to adjacent municipalities, industrial and commercial zones, and rural residential areas beyond the existing system to provide connectivity and promote commuting, wellness, and mobility safety. Efforts concentrated in improving ease of access to community amenities for all residents and collaborating with road owner agencies to encourage mixed-use facilities.

4. Strategic Green Space Acquisition & Preservation

To search out, purchase, and protect land for the purpose of providing scenic natural spaces and maintaining high quality habitat for wildlife. Protect existing natural character of neighborhoods, surrounding communities, and areas in the Township for future generations to explore and enjoy.

5. Safety & Mobility Enhancement Project

To rehabilitate failing pedestrian facilities, modernize out-of-code walkways to current Americans with Disabilities Act standards, improve roadway interfacing facilities (including crosswalks, high-visibility signage, etc.), and updating and installing trail adjacent services such as wayfinding signs.

6. Revitalization of Village Centre Project – Mixed Use

To improve and modernize aging public infrastructure for the purpose of reinvigorating the local shopping and entertainment district. Promote multimodal transportation to and within the Township for access equality. Provide new community amenities, namely a public gathering space for hosting community events.

Engineer's Opinion of Costs

Project Number: 203653	Project Engineer: LAPS
Estimate Number: 8: Final Final Estimate - All Items Included	Date Created: 5/12/2021
Project Type: Miscellaneous	Date Edited: 5/13/2021
Location: Cascade Township	Fed/State #:
	Fed Item:
Description: Burton Street from Patterson to Highridge 10' wide HMA pathway with associated drainage features, pedestrian ramps, and pedestrian bridge.	Control Section: TA 41000

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0001	0001 Road	1500001	Mobilization, Max \$290,000	1.000	LSUM	\$290,000.00	\$290,000.00
0002	0001 Road	2010001	Cleaning	2.000	Acre	\$1,000.00	\$2,000.00
0003	0001 Road	2020002	Tree, Rem, 19 inch to 36 inch	3.000	Ea	\$800.00	\$2,400.00
0004	0001 Road	2020003	Tree, Rem, 37 inch or Larger	1.000	Ea	\$1,200.00	\$1,200.00
0005	0001 Road	2020004	Tree, Rem, 6 inch to 18 inch	56.000	Ea	\$200.00	\$11,200.00
0006	0001 Road	2030005	Culv, End, Rem, Less than 24 inch	3.000	Ea	\$300.00	\$900.00
0007	0001 Road	2030011	Dr Structure, Rem	1.000	Ea	\$800.00	\$800.00
0008	0001 Road	2030015	Sewer, Rem, Less than 24 inch	87.000	Ft	\$15.00	\$1,305.00
0009	0001 Road	2040020	Curb and Gutter, Rem	112.000	Ft	\$8.00	\$896.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0010	0001 Road	2040025	Fence, Rem	456.000	Ft	\$3.00	\$1,368.00
0011	0001 Road	2040035	Guardrail, Rem	248.000	Ft	\$3.00	\$744.00
0012	0001 Road	2040055	Sidewalk, Rem	10.000	Syd	\$15.00	\$150.00
0013	0001 Road	2040080	Exploratory Investigation, Vertical	10.000	Ft	\$35.00	\$350.00
0014	0001 Road	2050010	Embankment, CIP	11,440.000	Cyd	\$16.00	\$183,040.00
0015	0001 Road	2050016	Excavation, Earth	2,080.000	Cyd	\$10.00	\$20,800.00
0016	0001 Road	2050041	Subgrade Undercutting, Type II	100.000	Cyd	\$15.00	\$1,500.00
0017	0001 Road	2057001	_ Ditching, Modified	230.000	Ft	\$25.00	\$5,750.00
0018	0001 Road	2060002	Backfill, Structure, CIP	740.000	Cyd	\$23.00	\$17,020.00
0019	0001 Road	2060004	Backfill, Select	1,870.000	Cyd	\$22.00	\$41,140.00
0020	0001 Road	2080012	Erosion Control, Check Dam, Stone	21.000	Ft	\$22.00	\$462.00
0021	0001 Road	2080020	Erosion Control, Inlet Protection, Fabric Drop	11.000	Ea	\$140.00	\$1,540.00
0022	0001 Road	2080026	Erosion Control, Maintenance, Sediment Removal	200.000	Cyd	\$25.00	\$5,000.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0023	0001 Road	2080034	Erosion Control, Sediment Trap	3,000	Ea	\$120.00	\$360.00
0024	0001 Road	2080036	Erosion Control, Silt Fence	2,730,000	Ft	\$1.75	\$4,777.50
0025	0001 Road	2087001	_ Erosion Control, Sediment Log	930,000	Ft	\$10.00	\$9,300.00
0026	0001 Road	2090001	Project Cleanup	1,000	LSUM	\$6,000.00	\$6,000.00
0027	0001 Road	3010002	Subbase, CIP	12,000	Cyd	\$25.00	\$300.00
0028	0001 Road	3020016	Aggregate Base, 6 inch	2,866,000	Syd	\$10.00	\$28,660.00
0029	0001 Road	3020020	Aggregate Base, 8 inch	130,000	Syd	\$20.00	\$2,600.00
0030	0001 Road	3070128	Shoulder, C II, 6 inch	310,000	Syd	\$12.00	\$3,720.00
0031	0001 Road	4010012	Culv End Sect, 12 inch	5,000	Ea	\$600.00	\$3,000.00
0032	0001 Road	4010018	Culv End Sect, 18 inch	2,000	Ea	\$800.00	\$1,600.00
0033	0001 Road	4011109	Dr Marker Post	6,000	Ea	\$25.00	\$150.00
0034	0001 Road	4020033	Sewer, C/A, 12 inch, Tr Det B	121,000	Ft	\$75.00	\$9,075.00
0035	0001 Road	4020035	Sewer, C/A, 18 inch, Tr Det B	92,000	Ft	\$80.00	\$7,360.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0036	0001 Road	4020153	Sewer, CI B, 12 inch, Tr Det A	55.000	Ft	\$75.00	\$4,125.00
0037	0001 Road	4020155	Sewer, CI B, 18 inch, Tr Det A	15.000	Ft	\$80.00	\$1,200.00
0038	0001 Road	4020600	Sewer, CI E, 12 inch, Tr Det B	134.000	Ft	\$75.00	\$10,050.00
0039	0001 Road	4021204	Sewer Tap, 12 inch	2.000	Ea	\$550.00	\$1,100.00
0040	0001 Road	4021206	Sewer Tap, 18 inch	1.000	Ea	\$600.00	\$600.00
0041	0001 Road	4021260	Trench Undercut and Backfill	100.000	Cyd	\$30.00	\$3,000.00
0042	0001 Road	4021275	Video Taping Sewer and Culv Pipe	423.000	Ft	\$1.50	\$634.50
0043	0001 Road	4030010	Dr Structure Cover, Type B	2.000	Ea	\$600.00	\$1,200.00
0044	0001 Road	4030040	Dr Structure Cover, Type G	3.000	Ea	\$600.00	\$1,800.00
0045	0001 Road	4030050	Dr Structure Cover, Type K	5.000	Ea	\$700.00	\$3,500.00
0046	0001 Road	4030200	Dr Structure, 24 inch dia	1.000	Ea	\$1,200.00	\$1,200.00
0047	0001 Road	4030210	Dr Structure, 48 inch dia	7.000	Ea	\$2,500.00	\$17,500.00
0048	0001 Road	4030220	Dr Structure, 60 inch dia	2.000	Ea	\$3,000.00	\$6,000.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0049	0001 Road	4030250	Dr Structure, Add Depth of 48 inch dia, 8 foot to 15 foot	6.000	Ft	\$120.00	\$720.00
0050	0001 Road	4040091	Underdrain Outlet, 4 inch	20.000	Ft	\$15.00	\$300.00
0051	0001 Road	4040111	Underdrain, Outlet Ending, 4 inch	2.000	Ea	\$180.00	\$360.00
0052	0001 Road	5010005	HMA Surface, Rem	843.000	Syd	\$6.00	\$5,058.00
0053	0001 Road	5010025	Hand Patching	15.000	Ton	\$150.00	\$2,250.00
0054	0001 Road	5010050	HMA, 4E1	206.000	Ton	\$69.00	\$14,214.00
0055	0001 Road	5010061	HMA Approach	5.000	Ton	\$90.00	\$450.00
0056	0001 Road	6037001	Filling Shld Corrugations with Hot-Poured Rubber	1,090.000	Ft	\$0.50	\$545.00
0057	0001 Road	7067010	_ Gravity Wall, Precast, Furn	530.000	Sft	\$26.00	\$13,780.00
0058	0001 Road	7067010	_ Gravity Wall, Precast, Install	530.000	Sft	\$14.00	\$7,420.00
0059	0001 Road	7067010	_ Mechanically Stabilized Earth Wall, Precast, Furn	2,150.000	Sft	\$31.00	\$66,650.00
0060	0001 Road	7067010	_ Mechanically Stabilized Earth Wall, Precast, Install	2,150.000	Sft	\$17.00	\$36,550.00
0061	0001 Road	8020038	Curb and Gutter, Conc, Det F4	295.000	Ft	\$30.00	\$8,850.00
0062	0001 Road	8027001	_ Curb and Gutter, Conc, Det F5, Modified	28.000	Ft	\$35.00	\$980.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0063	0001 Road	8030010	Detectable Warning Surface	30.000	Ft	\$32.00	\$960.00
0064	0001 Road	8030030	Curb Ramp Opening, Conc	57.000	Ft	\$30.00	\$1,710.00
0065	0001 Road	8030036	Sidewalk Ramp, Conc, 6 inch	500.000	Sft	\$6.00	\$3,000.00
0066	0001 Road	8060020	Shared use Path, Conc	52.000	Syd	\$50.00	\$2,600.00
0067	0001 Road	8060040	Shared use Path, HMA	335.000	Ton	\$90.00	\$30,150.00
0068	0001 Road	8067001	_ Pathway Grading	1,697.000	Ft	\$25.00	\$42,425.00
0069	0001 Road	8070002	Guardrail, Type T	113.000	Ft	\$35.00	\$3,955.00
0070	0001 Road	8070004	Guardrail, Type MGS-8	438.000	Ft	\$25.00	\$10,950.00
0071	0001 Road	8070044	Guardrail Approach Terminal, Type 2M	1.000	Ea	\$3,000.00	\$3,000.00
0072	0001 Road	8070051	Guardrail Departing Terminal, Type T	1.000	Ea	\$1,000.00	\$1,000.00
0073	0001 Road	8070052	Guardrail Departing Terminal, Type MGS	1.000	Ea	\$900.00	\$900.00
0074	0001 Road	8070075	Guardrail, Salv	75.000	Ft	\$2.00	\$150.00
0075	0001 Road	8070080	Guardrail Reflector	12.000	Ea	\$8.00	\$96.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0076	0001 Road	8070201	Cable Barrier, High Tension, Salv	1,300.000	Ft	\$3.00	\$3,900.00
0077	0001 Road	8070202	Cable Barrier, High Tension, Reconst	1,300.000	Ft	\$5.50	\$7,150.00
0078	0001 Road	8080002	Fence, Woven Wire with Steel Post	270.000	Ft	\$12.00	\$3,240.00
0079	0001 Road	8080007	Fence, Protective	50.000	Ft	\$6.00	\$300.00
0080	0001 Road	8087001	_ Black Vinyl Coated Chain Link Fence, 48 inch	1,035.000	Ft	\$20.00	\$20,700.00
0081	0001 Road	8100133	Delineator Reflector, Green	3.000	Ea	\$8.00	\$24.00
0082	0001 Road	8100361	Post, Rigid, Delineator	3.000	Ea	\$20.00	\$60.00
0083	0001 Road	8100371	Post, Steel, 3 lb	42.000	Ft	\$8.00	\$336.00
0084	0001 Road	8100402	Sign, Type III, Erect, Salv	1.000	Ea	\$50.00	\$50.00
0085	0001 Road	8100403	Sign, Type III, Rem	1.000	Ea	\$20.00	\$20.00
0086	0001 Road	8100404	Sign, Type IIIA	1.000	Sft	\$25.00	\$25.00
0087	0001 Road	8100405	Sign, Type IIIB	1.000	Sft	\$25.00	\$25.00
0088	0001 Road	8110063	Pavt Mrlkg, Ovly Cold Plastic, Lt Turn Arrow Sym	2.000	Ea	\$130.00	\$260.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0089	0001 Road	8110068	Pavt Mrkg, Ovly Cold Plastic, Only	1.000	Ea	\$130.00	\$130.00
0090	0001 Road	8110094	Pavt Mrkg, Polyurea, 6 inch, White	82.000	Ft	\$3.00	\$246.00
0091	0001 Road	8110110	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	220.000	Ft	\$6.00	\$1,320.00
0092	0001 Road	8110114	Pavt Mrkg, Polyurea, 24 inch, Stop Bar	24.000	Ft	\$10.00	\$240.00
0093	0001 Road	8110343	Rem Spec Mrkg	114.000	Sft	\$2.00	\$228.00
0094	0001 Road	8110350	Witness, Log, \$1,000.00	1,000.000	Dir	\$1.00	\$1,000.00
0095	0001 Road	8110501	Pavt Mrkg, Wet Retrlec Polyurea, 6 inch, White	3,750.000	Ft	\$1.00	\$3,750.00
0096	0001 Road	8110505	Pavt Mrkg, Wet Retrlec Polyurea, 6 inch, Yellow	3,000.000	Ft	\$1.00	\$3,000.00
0097	0001 Road	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	4.000	Ea	\$90.00	\$360.00
0098	0001 Road	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	4.000	Ea	\$10.00	\$40.00
0099	0001 Road	8120022	Barricade, Type III, High Intensity, Lighted, Furn	4.000	Ea	\$90.00	\$360.00
0100	0001 Road	8120023	Barricade, Type III, High Intensity, Lighted, Oper	4.000	Ea	\$10.00	\$40.00
0101	0001 Road	8120035	Channelizing Device, 42 inch, Fluorescent, Furn	100.000	Ea	\$25.00	\$2,500.00
0102	0001 Road	8120036	Channelizing Device, 42 inch, Fluorescent, Oper	100.000	Ea	\$4.00	\$400.00
0103	0001 Road	8120040	Conc Barrier Ending, Temp, Detail 2, Adj	2.000	Ea	\$300.00	\$600.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0104	0001 Road	8120041	Conc Barrier Ending, Temp, Detail 2, Furn	2.000	Ea	\$2,100.00	\$4,200.00
0105	0001 Road	8120042	Conc Barrier Ending, Temp, Detail 2, Oper	2.000	Ea	\$200.00	\$400.00
0106	0001 Road	8120070	Conc Barrier Reflector Replacement	10.000	Ea	\$12.00	\$120.00
0107	0001 Road	8120080	Conc Barrier, Temp, Adj	935.000	Ft	\$4.00	\$3,740.00
0108	0001 Road	8120081	Conc Barrier, Temp, Furn	1,700.000	Ft	\$14.00	\$23,800.00
0109	0001 Road	8120082	Conc Barrier, Temp, Oper	1,700.000	Ft	\$4.00	\$6,800.00
0110	0001 Road	8120110	High Intensity Light, Type B, Furn	4.000	Ea	\$110.00	\$440.00
0111	0001 Road	8120111	High Intensity Light, Type B, Oper	4.000	Ea	\$5.00	\$20.00
0112	0001 Road	8120140	Lighted Arrow, Type C, Furn	6.000	Ea	\$500.00	\$3,000.00
0113	0001 Road	8120141	Lighted Arrow, Type C, Oper	6.000	Ea	\$80.00	\$480.00
0114	0001 Road	8120142	Lighted Arrow, Type C, Standby	1.000	Ea	\$300.00	\$300.00
0115	0001 Road	8120160	Ltg for Night Work	1.000	LSUM	\$6,500.00	\$6,500.00
0116	0001 Road	8120170	Minor Traf Devices	1.000	LSUM	\$20,000.00	\$20,000.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0117	0001 Road	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	5,381.000	Ft	\$0.65	\$3,497.65
0118	0001 Road	8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	26.000	Ft	\$2.00	\$52.00
0119	0001 Road	8120252	Plastic Drum, Fluorescent, Furn	105.000	Ea	\$19.75	\$2,073.75
0120	0001 Road	8120253	Plastic Drum, Fluorescent, Oper	105.000	Ea	\$2.10	\$220.50
0121	0001 Road	8120310	Sign Cover	10.000	Ea	\$24.00	\$240.00
0122	0001 Road	8120330	Sign, Portable, Changeable Message, Furn	2.000	Ea	\$3,000.00	\$6,000.00
0123	0001 Road	8120331	Sign, Portable, Changeable Message, Oper	2.000	Ea	\$300.00	\$600.00
0124	0001 Road	8120332	Sign, Portable, Changeable Message, NTCIP-Compliant, Furn	10.000	Ea	\$2,950.00	\$29,500.00
0125	0001 Road	8120333	Sign, Portable, Changeable Message, NTCIP-Compliant, Oper	10.000	Ea	\$325.00	\$3,250.00
0126	0001 Road	8120350	Sign, Type B, Temp, Prismatic, Furn	1,591.000	Sft	\$5.00	\$7,955.00
0127	0001 Road	8120351	Sign, Type B, Temp, Prismatic, Oper	1,591.000	Sft	\$1.50	\$2,386.50
0128	0001 Road	8122000	Pavt Mrkg, Wet Reflective, Type R, Tape, 6 inch, White, Temp	7,300.000	Ft	\$2.64	\$19,272.00
0129	0001 Road	8122002	Pavt Mrkg, Wet Reflective, Type R, Tape, 6 inch, Yellow, Temp	5,100.000	Ft	\$2.54	\$12,954.00
0130	0001 Road	8130010	Riprap, Plain	170.000	Syd	\$75.00	\$12,750.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0131	0001 Road	8160100	Slope Restoration, Type A	1,160.000	Syd	\$2.50	\$2,900.00
0132	0001 Road	8160101	Slope Restoration, Type B	5,440.000	Syd	\$3.00	\$16,320.00
0133	0001 Road	8160102	Slope Restoration, Type C	2,070.000	Syd	\$4.00	\$8,280.00
0134	0001 Road	8160103	Slope Restoration, Type D	340.000	Syd	\$5.00	\$1,700.00
0135	0001 Road	8190027	Conduit, DB, 1, 1 1/2 inch	15.000	Ft	\$15.00	\$225.00
0136	0001 Road	8190159	Conduit, Schedule 80 PVC, 3 inch	100.000	Ft	\$10.00	\$1,000.00
0137	0001 Road	8200100	Pedestal, Alum	1.000	Ea	\$800.00	\$800.00
0138	0001 Road	8200105	Pedestal, Fdn	1.000	Ea	\$870.00	\$870.00
0139	0001 Road	8200180	TS, Pedestrian, Bracket Arm Mtd, Rem	1.000	Ea	\$105.00	\$105.00
0140	0001 Road	8200344	TS, Pedestrian, One Way Pedestal Mtd (LED)	1.000	Ea	\$1,030.00	\$1,030.00
0141	0001 Road	8200422	Wireless Vehicle Detection System	1.000	Ea	\$6,600.00	\$6,600.00
0142	0001 Road	8200425	Wireless Vehicle Sensor Node	6.000	Ea	\$930.00	\$5,580.00
0143	0001 Road	8220001	Shoulder Corrugations, Ground or Cut, HMA	2,195.000	Ft	\$0.50	\$1,097.50

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0144	0001 Road	8230431	Gate Box, Adj, Case 1	1.000	Ea	\$500.00	\$500.00
0145	0001 Road	8230432	Gate Box, Adj, Case 2	1.000	Ea	\$300.00	\$300.00
0146	0002 Bridge	2030015	Sewer, Rem, Less than 24 Inch	90.000	Ft	\$15.00	\$1,350.00
0147	0002 Bridge	2050012	Embankment, Structure, CIP	200.000	Cyd	\$20.00	\$4,000.00
0148	0002 Bridge	2057051	_ Dewatering System	1.000	LSUM	\$15,000.00	\$15,000.00
0149	0002 Bridge	2057051	_ Embankment, CIP, Special	1.000	LSUM	\$80,000.00	\$80,000.00
0150	0002 Bridge	2057051	_ Excavation, Earth, Special	1.000	LSUM	\$90,000.00	\$90,000.00
0151	0002 Bridge	2057051	_ Geotechnical Instrumentation Hardware (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00
0152	0002 Bridge	2057051	_ Geotechnical Instrumentation Installation (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00
0153	0002 Bridge	2057051	_ Geotechnical Instrumentation Monitoring (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00
0154	0002 Bridge	2060002	Backfill, Structure, CIP	900.000	Cyd	\$23.00	\$20,700.00
0155	0002 Bridge	2060010	Excavation, Fdn	9,380.000	Cyd	\$14.00	\$131,320.00
0156	0002 Bridge	2067021	_ Fill, Lightweight, EPS Block	860.000	Cyd	\$100.00	\$86,000.00
0157	0002 Bridge	2080026	Erosion Control, Maintenance, Sediment Removal	10.000	Cyd	\$25.00	\$250.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0158	0002 Bridge	2080036	Erosion Control, Silt Fence	900.000	Ft	\$11.75	\$1,575.00
0159	0002 Bridge	2080040	Erosion Control, Temp Plastic Sheet/ Geotextile Cover	2,590.000	Syd	\$5.00	\$12,950.00
0160	0002 Bridge	3020002	Aggregate Base, LM	630.000	Cyd	\$18.00	\$11,340.00
0161	0002 Bridge	4020305	Sewer, Cl C, 18 inch, Tr Det A	90.000	Ft	\$65.00	\$5,850.00
0162	0002 Bridge	4040031	Underdrain, Fdn, 4 inch	490.000	Ft	\$6.00	\$2,940.00
0163	0002 Bridge	4040091	Underdrain Outlet, 4 inch	40.000	Ft	\$15.00	\$600.00
0164	0002 Bridge	4040111	Underdrain, Outlet Ending, 4 inch	4.000	Ea	\$180.00	\$720.00
0165	0002 Bridge	6027021	_ Conc Base Cse, Reinf, Modified	80.000	Cyd	\$250.00	\$20,000.00
0166	0002 Bridge	7050001	Prebore, Fdn Piling	275.000	Ft	\$44.50	\$12,237.50
0167	0002 Bridge	7050002	Pile Driving Equipment, Furn (P01 of 41025)	1.000	LSUM	\$142,050.00	\$142,050.00
0168	0002 Bridge	7050034	Pile, Steel, Furn and Driven, 14 inch	9,470.000	Ft	\$26.00	\$246,220.00
0169	0002 Bridge	7050050	Pile, Steel, Splice	168.000	Ea	\$69.00	\$11,592.00
0170	0002 Bridge	7057050	_ Test Pile, Dynamic Analysis	6.000	Ea	\$1,000.00	\$6,000.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0171	0002 Bridge	7057050	_ Test Pile, Furn Dynamic Analysis Equipment	3.000	Ea	\$1,000.00	\$3,000.00
0172	0002 Bridge	7060001	Bridge Ltg, Furn and Rem (P01 of 41025)	1.000	LSUM	\$500.00	\$500.00
0173	0002 Bridge	7060002	Bridge Ltg, Oper and Maintain	166.000	Cyd	\$2.00	\$332.00
0174	0002 Bridge	7060040	Elec Grounding System	1.000	Ea	\$1,610.00	\$1,610.00
0175	0002 Bridge	7060050	Expansion Joint Device	22.000	Ft	\$200.00	\$4,400.00
0176	0002 Bridge	7060051	Expansion Joint Device, Cover Plate	22.000	Ft	\$175.00	\$3,850.00
0177	0002 Bridge	7060060	False Decking	4,032.000	Sft	\$0.50	\$2,016.00
0178	0002 Bridge	7060092	Reinforcement, Steel, Epoxy Coated	86,116.000	Lb	\$1.00	\$86,116.00
0179	0002 Bridge	7060100	Substructure Conc	862.000	Cyd	\$522.86	\$450,705.32
0180	0002 Bridge	7060110	Superstructure Conc	31.000	Cyd	\$214.20	\$6,640.20
0181	0002 Bridge	7060111	Superstructure Conc, Form, Finish, and Cure (P01 of 41025)	1.000	LSUM	\$13,020.00	\$13,020.00
0182	0002 Bridge	7060112	Superstructure Conc, Form, Finish, and Cure, Night Casting (P01 of 41025)	1.000	LSUM	\$69,720.00	\$69,720.00
0183	0002 Bridge	7060113	Superstructure Conc, Night Casting	166.000	Cyd	\$208.04	\$34,534.64
0184	0002 Bridge	7060209	Liner, PVC, 30 mil	380.000	Syd	\$10.00	\$3,800.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0185	0002 Bridge	7067011	_ Simulated Stone Masonry	360.000	Syd	\$15.00	\$5,400.00
0186	0002 Bridge	7067011	_ Texturing Conc	360.000	Syd	\$15.00	\$5,400.00
0187	0002 Bridge	7070020	Bearing, Elastomeric, 3 inch	3,996.000	Sin	\$1.00	\$3,996.00
0188	0002 Bridge	7070053	Steel Diaphragm, Prest Conc Beam, Furn and Fab	2,450.000	Lb	\$4.00	\$9,800.00
0189	0002 Bridge	7070054	Steel Diaphragm, Prest Conc Beam, Erect	2,450.000	Lb	\$2.50	\$6,125.00
0190	0002 Bridge	7080125	Prest Conc Bulb-Tee Beam, Furn, 54 inch by 49 inch	849.000	Ft	\$250.00	\$212,250.00
0191	0002 Bridge	7080126	Prest Conc Bulb-Tee Beam, Erect, 54 inch by 49 inch	849.000	Ft	\$25.00	\$21,225.00
0192	0002 Bridge	7100001	Joint Waterproofing	380.000	Sft	\$6.00	\$2,280.00
0193	0002 Bridge	7100011	Conc Surface Coating	1,170.000	Syd	\$10.00	\$11,700.00
0194	0002 Bridge	7100030	Substructure Horizontal Surface Sealer	10.000	Syd	\$50.26	\$502.60
0195	0002 Bridge	8007051	_ Vibration Monitoring, Utility	1.000	LSUM	\$10,000.00	\$10,000.00
0196	0002 Bridge	8080110	Fence, Structure	6,080.000	Sft	\$12.00	\$72,960.00

Estimate Total: \$3,205,140.16

Cascade Charter Township Snow Cemetery Oak Wilt Project Update December 2022 - January 2023

The immediate Oak Wilt related activities at Snow Cemetery are complete. Although no additional oak wilt is expected from this infection, monitoring the site is prudent to affirm no further outbreaks occur. Trench lines are the primary treatment for containing oak wilt at this site. The line has been combined with tree removals and herbicide treatments to fresh-cut stumps as further containment efforts. Based on this rigorous plan and superb execution we have a high level of confidence that no further oak wilt will result from this initial pocket.



In December, **Gaurdian Tree Experts** installed the trench line using a Vermeer tractor and vibratory plow blade to a depth of 5'. The **primary trench line** initiated on the Snow cemetery's gravel drive, photo left. Note barely visible surface disruption.



The trench line progressed west into the woods and exited at 319' onto Vandenburg's site, photos above & right. The trench line paralleled the driveway, photo left, resulting in a **630'** total line.



A 132' secondary line was installed north of Vandeburg's driveway as added protection against oak wilt movement through root systems. Photo right.

The Township is appreciative of Mr. Vandeburg's cooperation and permission to install the trench line on a portion of his property where it would be most effective. Turfgrass repairs and a repair to the irrigation line may be required this spring which Jim MacDonald is fully prepared to follow-up on.

In January, the necessary tree removals and herbicide treatments to fresh-cut stumps were completed by Woodland Tree Service at Snow Cemetery. A crane was employed to remove some of the large oaks on site, photo lower right.

The Township is appreciative of Mr. Westerhuis's cooperation and permission to remove one red oak from his property for added assurance of oak wilt containment.

All contractors involved with this project executed their portion of the work professionally and according to bid specifications. We are very satisfied. Thank you to Jim Macdonald and his crew for their contributions to this project before, during and after the contractors' work, especially Jim.

After your review, let me know if you have questions, 810-599-0343.

Thank you,

Julie Stachecki

ISA Certified Arborist MI-0650;
Tree Risk Assessment Qualified;
MI Oak Wilt Qualified Specialist



Cascade Charter Township Burton Park Oak Wilt Project Update 2022 - 2023

The Oak Wilt infection at Burton Park is complex due to a number of site characteristics, years of infection, size of infected trees, density of red oaks in vicinity of infection, two separate infections, goals for preserving as many trees as possible, and keeping the public space safe for visitors. At this time all primary oak wilt containment strategies have been executed and the resulting site conditions have exceeded expectations. The level and care that each contractor performed their roles and responsibilities was superb, including Supervisor Jim MacDonald and the entire Cascade Township Building and Grounds staff. The communication and leadership from the Parks Committee was invaluable and guided this process forward which involved collaborating with park neighbors and park users.

The oak wilt containment **trench lines for Site #1** within Burton Park were installed **February 2022** by Bowman Excavating (Howell, MI) with assistance from Cascade Building and Grounds department. The infection area and all red oaks within root graft distance were completely enclosed with a 5'-deep outer perimeter line, and then further subdivided creating 7 subsections A, B1, B2, C - F. The Cascade Township Building and Grounds staff installed the **trench lines at Site #2** in Burton Park in February 2022.

In December 2022, with surgical precision, Woodland Tree Services (Rockford, MI) removed all red oaks at Site #1 in Sections B1 and E, and the single, 3-trunk, oak wilt-infected red oak tree at Site #2.



Note the logs moving into the chipper in center photo on previous page. Also note the planked ground in far right photo that protected ground conditions, and the massive piles of wood chips generated by this large removal operation. The Cascade Township Building and Grounds staff spread these wood chips throughout the trail system in the park utilizing this natural material on site saving money and allowing it to recycle back into the environment naturally.



Each fresh-cut stump was promptly treated with 1 of 2 herbicides. Records of application have been provided. The stumps marked with yellow paint received glyphosate, blue paint marks represent triclopyr + basal oil applications. Environmental conditions impacted which herbicide was applied.



Note in the center and far right photos above the small, non-red oak trees adjacent to the removed tree stumps. Removing the target trees without harming the non-oak trees was done with intention, skill and care.



At Site #1 the remaining red oaks (43) are isolated into small groupings within the Sections A, C, D and F. It is imperative to monitor the trees within these subsections for any break-through oak wilt. If any trees become oak wilt infected within a subsection ALL red oaks in that subsection must be removed to manage the oak wilt. Pay particular attention to Section B2, closest to the originally infected trees.

We appreciate the cooperation of the adjacent property owner on Cascade Farms drive for allowing access to the work zone across their property. During my site visit I saw no evidence of any site disruption from the tree removal work. Note the woodchips used for protecting the soil on the ingress/egress route from the site to the staging area on Cascade Farms drive in photo at right.



To reiterate, the work performed by the Cascade Building and Grounds staff, Parks Committee members, and contractors exceeded expectations, particularly by Woodland Tree Services. Our proposal stated that collateral damage was to be kept at a minimum. An example of the extraordinary care taken during this project was when one of their arborists rescued a 12" evergreen that was in harm's way and transplanted it to a safe area. Further, all non-oak species were worked around cautiously with virtually no casualties. There were no soil disturbances or ruts left behind, thus preserving the ground-level flora. For this expert demonstration of arboricultural skill and respect for the natural site, we are most grateful.



After your review, let me know if you have questions, 810-599-0343.

Thank you,

Julie Stachecki

ISA Certified Arborist MI-0650;
Tree Risk Assessment Qualified;
MI Oak Wilt Qualified Specialist

