

**AGENDA
CASCADE CHARTER TOWNSHIP
REGULAR BOARD MEETING**

Wednesday, February 23, 2022

7:00 P.M.

Wisner Center

2870 Jacksmith Drive SE, Grand Rapids 49546

Public may access the meeting via video conference software Zoom

<https://us02web.zoom.us/j/88555348340>

Meeting ID: 885 5534 8340

By Phone: 1 312 626 6799

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
None

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

- a. Receive and File Minutes
 1. Township Board – 02/09/22
- b. Receive and File Reports
 - 1.
- c. Receive and File Education Requests
 1. Jim Walker – EMS Instructors Conference – Traverse City, MI – March 3-6, 2022
 2. Vince Milito – MIAM Spring Conference – Claire, MI – May 11-12, 2022
- d. Receive and File Communication
 - 1.

Article 7. Financial Actions
None

- Article 8. Unfinished Business**
None
- Article 9. New Business**
- 011-2022 Consider Oak Wilt Management Bids**
- 012-2022 Consider Burton Street Pedestrian Bridge Project**
- 013-2022 Consider Resolution to Publish Notice of Intent to Issue Municipal Securities for Fire Station #1 Project**
- Article 10. Discussion**
None
- Article 11. Public Comments – Any comments...whether it is on the agenda or not. (limit comments to 3 minutes)**
- Article 12 Closed Session**
- Pursuant to MCL 15.268 (h) - To consider material exempt from discussion or disclosure by state or federal statute.*
- Pursuant to MCL 15.268 (a) – To consider the dismissal, suspension, or disciplining of, or to hear complaints or charges brought against, or to consider a periodic personnel evaluation of, a public officer, employee, staff member, or individual agent, if the named individual requests a closed hearing. Manager Swayze has requested his annual evaluation be done in closed session.*
- Article 13. Manager Comments**
- Article 14. Board Member Comments**
- Article 15. Adjournment**

**MINUTES OF THE
CASCADE CHARTER TOWNSHIP
REGULAR BOARD MEETING**

Wednesday, February 9, 2022

Wisner Center

2870 Jacksmith Dr SE

Grand Rapids, MI 49546

AND

Virtual Zoom Meeting

7:00 P.M.

HYBRID FORMAT

- Article 1.** Supervisor Lesperance called the meeting to order.
Present: Supervisor Lesperance, Clerk Slater, Treasurer Peirce, Trustees Koessel, McDonald, Shipley and Noordhoek
Absent: None
Also Present: Township Manager Swayze, Interim Human Resources Director Murawski, Interim Planning Director Hilbrands, Hunter Zuk and Mary Ann Sabo-Sabo PR, Deputy Clerk Brott, and those listed in the Supplement
- Article 2.** Supervisor Lesperance led the Pledge of Allegiance.
- Article 3.** **Approval of Agenda**
Motion by Trustee Shipley, seconded by Trustee McDonald to approve the agenda.
Motion carried unanimously.
- Article 4.** **Presentations**
Supervisor Lesperance offered a statement apologizing for the confusion re Fire Station 1 process at the 1/26/22 Board Meeting. Supervisor mentioned that more public notices and meetings will occur in the future.
- Article 5.** **Public Comments-Anything on the Agenda not scheduled for a public hearing. (limit comments to 3 minutes)**
1. Chuck Whitley-5030 Sequoia-Appreciates Supervisor's remarks. Conversations and disagreements between the Board members have spilled over to the community. People think it is okay to attend meetings and attack Board members and others. How to work together and honor OMA is difficult without disagreements at times, but we must. Mentioned finding government resources for things like solar panels for the new fire station.
 2. Craig Meurlin via Zoom-The four (4) job descriptions are ambiguous and make no one accountable. The Township Manager evaluation also gives no accountability. This is how the Township got into the Round Hill mess.
 3. Scott Rissi-7238 Cascade Rd-Re Manager Swayze's review, a lack of responsiveness is sometimes due to lack of staff. Out of the four (4) Township Managers he has worked with, Manager Swayze is the best. He does so much good background work that no one sees. He needs an administrative assistant, but this should not inhibit access to the Manager.

Township Board Minutes

February 9, 2022

- 1 -

- Article 6. Approval of Consent Agenda**
- a. Receive and File Minutes
 - 1. Township Board – 01/26/22
 - b. Receive and File Reports
 - 1. Treasurer’s Report – December 2021
 - 2. Cascade Inspection Services Report – January 2022
 - 3. Planning Department Annual Report – 2021
 - 4. Inspection Services Annual Report - 2021
 - c. Receive and File Education Requests
 - 1. Paul Westhouse – 2022 IAEI Spring Meeting – Mt. Pleasant, MI – March 3-4, 2022
 - 2. Todd Pell – Fire Inspector I Class – Brighton, MI – March 21-April 19, 2022
 - d. Receive and File Communication
 - None
- Motion by Trustee Shipley, seconded by Trustee McDonald to approve the Consent Agenda. Motion carried unanimously.

- Article 7. Financial Actions**
- a. Consider Approval of December 2021 Financial Statements (Pre-Audit)
- Motion by Trustee Koessel, seconded by Treasurer Peirce to approve. Motion carried unanimously.

- Article 8. Unfinished Business**
None

- Article 9. New Business**
- 008-2022 Consider Agreement for Invasive Plant Treatment with Kent Conservation Department**
Motion by Trustee McDonald, seconded by Trustee Shipley to approve. Motion carried unanimously.
- 009-2022 Consider Township Position Realignment and Addition**
Manager Swayze presented and answered questions. Interim Human Resources Director Murawski and Interim Planning Director Hilbrands answered questions.
Considerable Discussion.
Motion by Trustee Koessel, seconded by Trustee McDonald to approve. Motion carried unanimously.
- 010-2022 Township Manager Annual Performance Evaluation**
Considerable Discussion. Interim Human Resources Director Murawski answered questions. No action necessary.

- Article 10. Discussion**
None

- Article 11. Public Comments – Any comments...whether it is on the Agenda or not. (limit comments to 3 minutes)**
- 1. Chuck Whitley-Hopes that those hired in the new positions continue to communicate and collaborate with residents/neighborhood associations.

2. Keely Shay via Zoom-Asked about the Forensic Audit results. Supervisor Lesperance advised that they are not yet available from the auditors. Concerned with the lack of transparency, specifically the misappropriations of COVID-19 funds. Has not yet been shown that the \$45k spent for voting equipment was appropriate.
3. Craig Meurlin via Zoom-Questioned the balance of the CARES Act funds. He has also repeatedly asked for funds spent on projects in Cascade to be published on the website but has not seen it. The Director of Public Works position description does not show a need for experience in budgeting.
4. Scott Rissi-He is familiar with having no internet and had to pay for Comcast to install at his home. Cautions the Board not to miss someone-try to find out who else doesn't have service or they're going to be quite irritated.
5. Keely Shay via Zoom-Re Resident Rissi's comments about internet access, she was referring to those who had school-related needs during the beginning of the pandemic and requested COVID-19 funds be used for that purpose.

Article 12. Manager Comments

1. The PFAS Community Meeting was a great success last week. Residents asked the experts good questions.
2. Project web pages for PFAS and Fire Station 1 are on the Township website.

Article 13. Board Member Comments

1. Trustee Shipley-Thanked everyone for coming and invited those in attendance to bring their neighbors.
2. Supervisor Lesperance-Thanked Sabo PR for all of the great things they are doing in the background. The website has good information for residents.

Article 14. Adjournment

Motion by Trustee Shipley, seconded by Trustee McDonald to adjourn. Motion carried unanimously.
Meeting adjourned at 8:17 pm.

Krissi Brott
Deputy Clerk

Approved by:

Grace Lesperance, Supervisor

Susan B. Slater, Clerk



**Cascade Charter Township
Seminar/Conference Attendance Request Form**

This form must be filled out if the employee is requesting Township payment or reimbursement for the employee's attendance to a seminar or conference.

Conditions:

1. Cascade Charter Township will reimburse employees for approved registration for work related seminars and conferences. Individual seminars and conferences must be related to the employee's current job duties or a foreseeable-future position in the organization in order to be eligible for educational assistance.
2. Some seminars/conferences that an employee may attend may be unrelated to their particular job or government in general, and are therefore not covered by this assistance policy.
3. Any request that requires an overnight stay or expenditure over \$200 requires Township Board approval before the seminar/conference is attended.
4. Under extenuating circumstances, the Township Manager may approve an overnight stay or expenditure over \$200 for a conference or seminar prior to Township Board approval. The request must be made before attendance to a seminar/conference. The Township Board will be informed of request at their next scheduled meeting.

This form must be completed by the employee and approved by the Township Manager and/or Township Board before the seminar/conference is attended.

Name: Jim Walker

Application Date: 2-11-22

Location of Seminar/Conference Traverse City

Name of Proposed Seminar/Conference: EMS Instructors Conference - Hosted

by S MEMSIC (Society of EMS Instructor & Coordinator)

Description of Seminar/Conference: (may also be attached) See attached

Agenda.

How will the Seminar/Conference benefit the employee and the township? _____

Maintain EMS agency & EMS instructor licensure.

Cost of the Seminar/Conference: (Registration) \$ \$345

(Lodging) \$ \$329.00 (Travel) \$ \$170.52

Account #: _____

Your Signature: Jim Walker

Approvals:

Department Head: [Signature] Date: 2.14.22

Township Manager: [Signature] Date: 2.18.22

Clerk's Signature: _____ Date: _____

(Showing Township Board approval)

Original to personnel file

1 copy to applicant

1 copy to Accounting

SMEMSIC86

B Breakout Session **G** General Session **M** Meals & Breaks **T** Meeting **P** Pre-Con Session

MARCH 3 • THURSDAY

13:00 – 17:00	P	Effective Interactions with the Special Needs Population <i>Speakers: Stephanie Zoltowski, PsyD</i>	Mackinac
13:00 – 17:00	P	First On The Scene (FOTS): Instructor Development <i>Speakers: Rick Holland</i>	Michigan A
17:00 – 19:00	T	Board of Directors Meeting	Peninsula A

MARCH 4 • FRIDAY

07:00 – 16:00	M	Registration • Hot Breakfast Provided	Registration Area
07:45 – 08:00	G	Opening Ceremony • Presidential Welcome	Michigan Ballroom
08:00 – 09:30	G	EMS Education • Where is it, and where is it going? <i>Speakers: Jon Krohmer, MD</i>	Michigan Ballroom
09:30 – 10:00	M	Break with Vendors • M&E	Exhibitor Area
10:00 – 11:30	G	Michigan EMS Annual Update <i>Speakers: Terrie Godde</i>	Michigan Ballroom
11:30 – 13:00	M	Lunch with Vendors • M&E	Tower Ballroom
13:00 – 14:30	B	EMS's Impact on the Opioid Crisis in Michigan <i>Speakers: Anthony Pantaleo</i>	Michigan AB
13:00 – 14:30	B	Help! My Students Can't Learn - Resuscitating Student Success <i>Speakers: Clark Imus</i>	Mackinac
13:00 – 14:30	B	TBA	Michigan CD
13:00 – 14:30	B	Yellow Rose Campaign: Emotional Health & Wellness <i>Speakers: Greg Flynn</i>	Peninsula
14:30 – 15:00	M	Break with Vendors • M&E	Exhibitor Area
15:00 – 16:00	T	Region 1 & UP Meeting	Michigan
15:00 – 16:00	T	Region 2 Meeting	Peninsula
15:00 – 16:00	T	Region 3 Meeting	Mackinac
16:15 – 17:15	T	Membership Meeting • IC of the Year Award	Michigan Ballroom
17:15 – 18:30	M	Evening Reception with Vendors	Exhibitor Area

MARCH 5 • SATURDAY

07:30 – 16:30	M	Registration • Hot Breakfast Provided	Registration Area
08:00 – 09:30	G	TBA <i>Speakers: Chris McEachin</i>	Michigan Ballroom
09:30 – 10:00	M	Break with Vendors • M&E	Exhibitor Area

10:00 – 10:30	G	Q&A with Terrie Godde <i>Speakers: Terrie Godde</i>	Michigan Ballroom
10:45 – 11:45	G	Creating and Using Effective Lesson Plans <i>Speakers: Allison Bilitti</i>	Michigan Ballroom
11:45 – 13:00	M	Lunch with Vendors • M&E	Tower Ballroom
13:00 – 14:30	B	Active Assailant Attacks on EMS Providers <i>Speakers: Scott Martzke</i>	Michigan CD
13:00 – 14:30	B	Membership Benefits <i>Speakers: Anthony Cerroni</i>	Mackinac
13:00 – 14:30	B	TBA <i>Speakers: Chris McEachin</i>	Michigan AB
13:00 – 14:30	B	TBA	Peninsula
14:30 – 15:00	M	Break with Vendors • M&E	Exhibitor Area
15:00 – 16:30	B	Active Assailant Attacks on EMS Providers <i>Speakers: Scott Martzke</i>	Michigan CD
15:00 – 16:30	B	EMS's Impact on the Opioid Crisis in Michigan <i>Speakers: Anthony Pantaleo</i>	Mackinac
15:00 – 16:30	B	Help! My Students Can't Learn - Resuscitating Student Success <i>Speakers: Clark Imus</i>	Peninsula
15:00 – 16:30	B	Traffic Incident Management for the EMS Instructor <i>Speakers: Ron Tennant</i>	Michigan AB

MARCH 6 • SUNDAY

07:00 – 10:30	B	MFFTC Instructor Orientation <i>Speakers: Mark Fankhauser</i>	TBA
07:00 – 10:30	M	Registration • Continental Breakfast	Registration Area
07:30 – 08:45	B	Membership Benefits <i>Speakers: Anthony Cerroni</i>	TBA
09:00 – 10:30	B	Traffic Incident Management for the EMS Instructor <i>Speakers: Ron Tennant</i>	TBA
10:30 – 11:00	G	Closing Statements • Wrap Up	Michigan



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3. Any request that requires an overnight stay or expenditure over \$1,000 requires Township Board approval before the seminar/conference is attended.
4. Under extenuating circumstances, the Township Manager may approve an overnight stay or expenditure over \$1,000 for a conference or seminar prior to Township Board approval. The request must be made before attendance to a seminar/conference. The Township Board will be informed of request at their next scheduled meeting.

This form must be completed by the employee and approved by the Township Manager and/or Township Board before the seminar/conference is attended.

Name: Vince Milito Application Date: 2-16-22

Conference/Seminar Date: MAY 11-13

Location of Seminar/Conference: Clare, MI

Name of Proposed Seminar/Conference: MIAMI

Description of Seminar/Conference: (may also be attached)

(over)

How will the Seminar/Conference benefit the employee and the township? (REQUIREMENTS)

HELP MAINTAIN CONTINUING

EDUCATION HOURS TRAINING.

ACT 407 of 2016 REQUIREMENTS

Cost of the Seminar/Conference: (Registration) \$ 275.00

Lodging \$ ~~100~~ \$100 Travel \$ 90 mi

Account #: 249-371-724-000

Your Signature: [Signature]

Approvals:

Department Head: [Signature] Date: 2.16.22

Township Manager: _____ Date: _____

Clerk's Signature: _____ Date: _____

(Showing Township Board approval)

Original to personnel file

1 copy to applicant

1 copy to Accounting

MIAM SPRING CONFERENCE

MAY 11-13, 2022

Doherty Hotel, 602 N. McEwan, Clare, MI

14 Credits – 4 Plan Review, 1 Admin, 3 Technical, 6 Specialty

Download and send in the registration form below



2022 MIAM Spring Conference Registration
Download File

Tentative Agenda

Wednesday 05/11/22

- 1:00 PM – 4:00 PM Reviewing and Inspecting Geothermal Systems – Joe Hardin – (3 Credits) 1S, 2PR (MI)
5:00 PM – 7:00 PM President's Reception (Snacks and Beverages)

Thursday 05/12/22

- 8:00 AM – 4:00 PM MBC and MMC Fire Sprinkler Requirements - Jeff Hugo, NFSA (7 Credits) 1A,1C,2PR,3T (MI,BI)
Noon Light Lunch (Everyone welcome)
5:00 PM – 6:00 PM Bingo / Pizza
7:00 PM - ??? Champagne Reception (Joe Hardin on guitar and maybe Andy Harrison)

Friday 10/29/21

- 8:00 AM – 3:00 PM TBD Specialty and Technical Classes (6 Credits)
11:30 AM – 12:30 PM Lunch & Awards



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 23, 2022
To: Supervisor Lesperance & Cascade Township Board
From: Benjamin Swayze, Township Manager
Ginny Wanty, Parks Committee Chair
Jim McDonald, Building & Grounds Supervisor
Subject: Bids for Oak Wilt Management Activities in Burton Park

FACTS:

In 2021 a potential Oak Wilt infected tree was discovered in Burton Park. Oak Wilt is a fungus that takes over the sapwood of the red oak tree and prevents water from getting to the leaves. The disease causes leaves to wilt, browning starts at the margins of leaves and leaves will fall in the summer months. This invasive fungus that can kill a fully grown red oak tree in just a few weeks. Below is a brief timeline of the Oak Wilt issue in Burton Park:

- **2020** – 1 Red Oak died rapidly in western area of park
- **September 2021** – Additional red oak observed with oak wilt symptoms adjacent to 2020 tree; and Additional 3-trunk red oak observed with symptoms in East-Central area of park.
- **Late October** – West MI Tree collected samples from 3-trunk red oak in East Central area of park designated as Site #2; submitted to MSU Diagnostic Lab.
- **November 2021** -Julie Stachecki collected bore samples from two red oaks in western area - Site #1 – submitted to MSU Diagnostic Lab; and Oak Wilt Management strategies discussed with Jim MacDonald while in field
- **November 2021** - Lab Results = All three red oaks tested **Positive** for Oak Wilt

At Burton Park, the main goal is to prevent oak wilt from spreading to other red oak trees in the park and in neighborhoods. An Oak Wilt Management plan has been created by a state-certified Oak Wilt Consultant, Julie Stachecki. (Julie is ISA Certified Arborist MI-0650, Tree Risk Assessment Qualified; MI Oak Wilt Qualified and was recommended by the DNR State Parks Forest Health Specialist.) The Management Plan includes trenching because red oak trees co-mingle their roots. A root-graft disruption between infected and non-symptomatic red oaks – 5’ deep trench line to break up their roots (specialized equipment following a mathematical formula to determine trench boundaries.)

One of the Management Plan’s goals is to try and remove as few as trees as possible, especially those that are not red oaks in the infected zone. But non-symptomatic red oaks in the infected zone will be removed. To accomplish this, an RFP was issued for the removal of the red oak trees in the infection area. While the RFP originally called for the trees to be removed prior to March 1st, there was not capacity in the industry to accomplish the work in that timeframe. After consulting with our Oak Wilt consultant, the RFP was reissued with a timeframe after November 1, 2022. The work cannot occur between March 15 and October 31 as that is the time period when the fungus can be actively spread to other red oak trees.

Attached for your review is:

- Matrix of Oak Wilt Management RFP Bid Amounts
- Oak Wilt Management Bids
- Oak Wilt Management Presentation from Consultant

ANALYSIS & CONCLUSIONS:

A working group consisting of Parks Committee members Ginny Wanty and Joe Engel, Buildings and Grounds Supervisor Jim MacDonald, Consultant Julie Stachecki and Township Manager Ben Swayze met in February to review the proposed bids. The group was concerned about the wide range of bids (\$34k - \$165k) and if the contractors fully understood the scope of services. In particular, the evaluation group was concerned with the target trees being removed in a way that would limit damage to the existing area and non-target trees.

After careful consideration, the evaluation group is recommending the Township Board accept the bid from Woodland Tree Service. While not the lowest bid (\$60,340 vs. \$33,635) the group felt that Woodland was better positioned and better understood the need to protect the surrounding environment, including non-targeted trees, when completing the work. The company came highly recommended from the Township Oak Wilt consultant.

If approved by the Township Board the work will occur after November 1, 2022. The Township has negotiated an access agreement with a private homeowner to allow easier access to the Oak Wilt infection site. The project will be managed by Buildings and Grounds Supervisor Jim MacDonald with assistance from the Township Oak Wilt consultant.

FINANCIAL CONSIDERATIONS:

The proposed work was not included in the FY 2022 prepared budget, and as such a budget amendment will need to be prepared. Funding for the Oak Wilt Management project can come from the Township Open Space Fund. The fund currently has a fund balance of approximately \$800,000.

RECOMMENDED ACTION:

To approve the proposal from Woodland Tree Services for Oak Wilt Management activities in Burton Park.

Cascade Township - Burton Park Oak Wilt Related Work 2022

	A	B	C	D	E
	2022 Cascade Twp Bid				
1	Summary				
		Site #1 Tree Removal-Nov 2022 - Jan 31, 2023 TOTAL	Site #2 Tree Removal-By March 1, 2022 TOTAL	Total for Site #1 & #2	Notes
2	Contractor				
3	Parshall Tree Care Experts	\$148,820	\$16,820	\$165,640	Will do Site #2 IF awarded Site #1 as well
4	TreeWorks	\$95,000	\$23,500	\$118,500	
5	West MI Tree	\$25,300	\$8,335	\$33,635	
6	Woodland Tree Service	\$60,340	Will include in Site #1 Bid price (1/28/22)	\$60,340	Can he include Site #2 tree removal into Bid? References. Lucas Called 1-27-22 post Zoom call
7					
8	Dewitt				
9	Bowman Excavating				
10	Cascade Twp				
11					
12					
13					
14					
15					
16					



Woodland Tree Services

PO Box 439
Rockford, MI 49341

Proposal #954

Created: 01/20/2022

From: Woodland

Proposal For

Cascade Charter Township

Cascade Charter Township
6805 Burton St SE
Grand Rapids, MI 49546

Location

6805 Burton St SE
Grand Rapids, MI 49546

Customer Contact

mobile: 616-318-8785
jmacdonald@cascadetwp.com

Cascade Township, Burton Park

Terms

30 days

ITEM DESCRIPTION

QUANTITY

UNIT PRICE

AMOUNT

1) Tree Removal

1

\$ 59,640.00

\$ 59,640.00

Site #1:

Removal of listed and tagged Oak trees in quarantine areas B1 and E to ground level. Haul and treat all wood 15" and larger to separate quarantine area.

Leave wood chips from 14" diameter and smaller non-symptomatic trees in specified area for distribution along trails by grounds maintenance.

Leave wood chips from 14" diameter and smaller symptomatic trees in a separate pile and allow a season of microbial activity and composting to help break down pathogen. Cut all stumps flush to grade.

*Special care in take down and removal of trees will be given to avoid damage to alternate species in forest.

2) Stump Treatment- Herbicide

1

\$ 700.00

\$ 700.00

Treat newly cut stumps of all Oak trees within Five (5) minutes of being cut with a 30/70 solution of triclopyr ester and basal oil to cover all systemic tissue areas.

3) Additional Removal per DBH

1

\$ 0.00

\$ 0.00

4"-9" DBH will be an additional \$175 per tree.

10"-14" DBH will be an additional \$250 per tree.

15"-20" DBH will be an additional \$450 per tree.

>21" DBH will be an additional \$750 per tree.

*Pricing is contingent on removals being located in quarantine area and must be specified prior to October 2022.

4) Tree Removal

1

\$ 0.00

\$ 0.00

Site #2 Removal of three Stem Oak tree to ground level. Haul all wood, brush and debris. Cut stumps flush to grade.

Client Notes

Access to site #1 will be through fence area at top of homeowners driveway- 2099 Cascade Farms Dr. SE.



Driveway and entry point will be protected from damage with matting and a focus on minimal imposition to the homeowner and residence will be taken.

All material removed from site will be considered as potentially infected and treated as such. Containment precautions and management strategies include burying and/or burning of debris. Transported material will be managed and treated at a location in Montcalm county.

All work will be completed in accordance with these plans unless subsequent changes are agreed upon in writing. Balances not paid by the due date are subject to late fees. Payment by credit/debit card has an additional 3% fee. EFT transactions incur a 1% fee, capped at \$10.00.

TOTAL	\$ 60,340.00
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Signature

x

Date:

Please sign here to accept the terms and conditions

Sales Reps

Woodland
woodland@4yourtree.com

Photos

1) Tree Removal

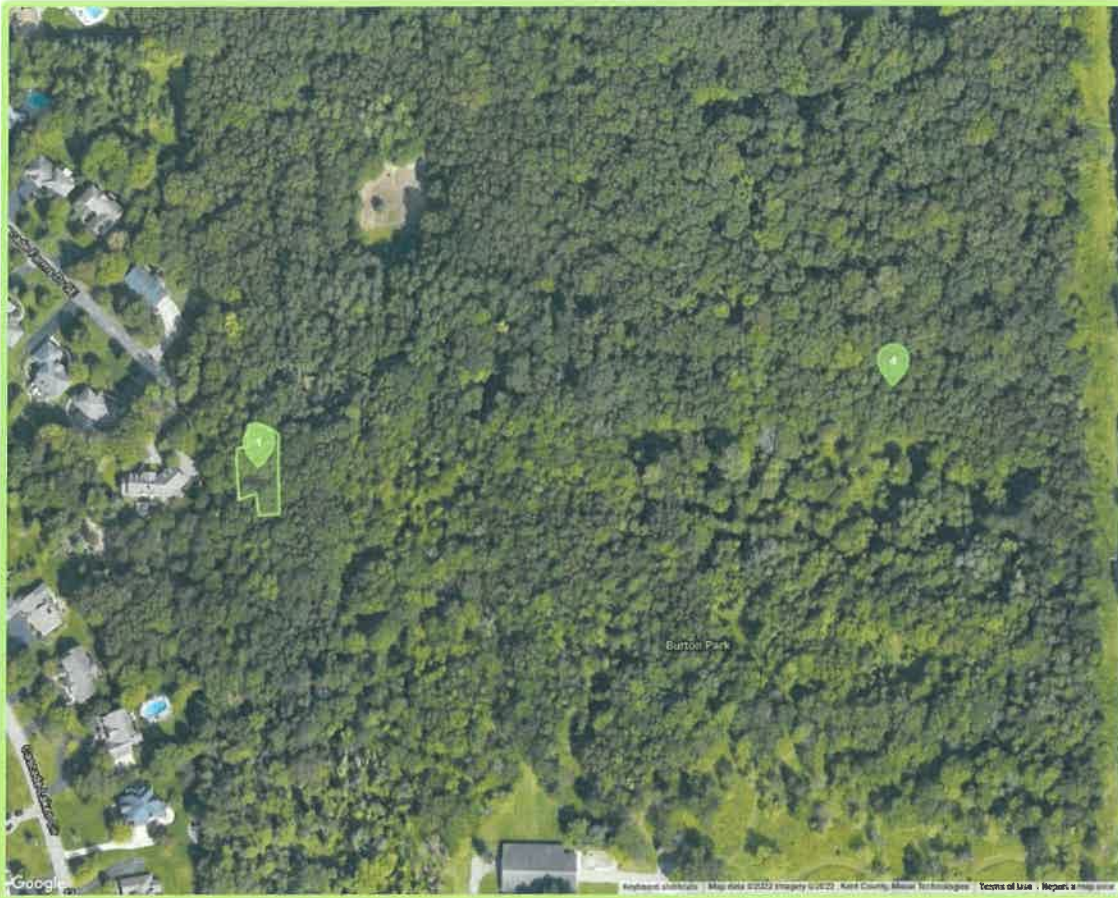




4) Tree Removal



4) Tree Removal





ID	DESCRIPTION	COLOR
1	Approximate location of area E and B1 denoted on Site Map RFP for Cascade Township, Burton Park.	
4	Three Stem Oak (Suspected Overland Oak Wilt infection)	

TERMS AND CONDITIONS

It is agreed by and between Woodland Tree Services, Inc. and the authorizing party (client and/or client's agent) that the following provisions are made as part of this contract:

Insurance by Contractor: Woodland Tree Services, Inc. warrants that it is insured for liability resulting from injury to person(s) or property and that all employees are covered by Worker's Compensation as required by law. Certificate of Coverage is available upon request or can be verified directly with The Dan Charles Agency (616) 532-0100. Occasionally Woodland Tree Services, Inc. utilizes subcontractors to assist crews and/or operate equipment. All subcontractors have Certificates of Insurance on file, are licensed as applicable, and complete an Independent Contractor Agreement ensuring they are held to the same professional standards as Woodland employees.

Scheduling/ Cancellation: The client's proposal provides a timeframe for estimated completion. Each job is unique and client will be scheduled according to location, the scope of work to be performed, the size/skill level of the crew, and equipment required to complete the job safely and efficiently. **Woodland Tree Services, Inc. will arrive unannounced unless previous arrangements are made. Client will receive a courtesy email or phone call 1-2 business days prior to arrival, unless client specified no prior notification is needed.** From time to time, last minute openings become available in the schedule and if client is flexible about scheduling and notification, the job may be completed earlier than estimated. Unless noted on the estimate, client is not required to be on site while work is being performed. If client requests to be on site or needs more than 1-2 days prior notification, please make office staff aware when submitting the contract. *Please understand that requests for specific scheduling considerations may cause client to be placed on the schedule beyond the estimated timeframe.*

Woodland Tree Services, Inc. will attempt to honor scheduling requests from client, but due to the nature of tree work, specific appointment times beyond date "windows" cannot be made. Woodland Tree Services, Inc. reserves the right to reschedule confirmed dates with little or no notice. Schedules are contingent upon weather, accidents, equipment malfunction, storm emergencies and other delays beyond our control. Woodland Tree Services, Inc. shall not be liable for damages to the client due to unforeseen delays or cancellation.

Stump Grinding: Grinding of stumps typically occurs within **2-3 weeks** of removal. This allows time for underground utilities to be marked through the Miss Dig system which will be requested by Woodland Tree Services, Inc. Sometimes weather, frozen, or saturated ground can delay marking of utilities and stump grinding. Client will not be responsible for payment for this service until it is complete.

Dormant Season Work: Some species of trees, primarily oak & American elm trees, cannot be trimmed or removed during the growing season due to the risk of introducing or spreading disease. In our service area, the dormant season is typically late October through the end of March, but depends on temperature, not the calendar date. Dormant work can be contracted at any time, but will not be performed until consistent low temperatures are observed. Contracted dormant job orders are waitlisted until Fall and may be scheduled any time between late October and early March. Scheduling will depend on the date of initial approval, location, scope of work, equipment needs, and potential hazards.

Cancellation: Woodland Tree Services, Inc. requests that the client provide at least 24 hours advance notice for cancellation. If a crew is dispatched to the job site for work that has been contracted and cancelled without proper notice, the client will be assessed a \$200 mobilization fee for incurred expenses.

Workmanship/Performance: The tree care professionals at Woodland Tree Services, Inc. are either certified or working under the direct supervision of arborists certified by the International Society of Arboriculture. All work will be performed professionally, with the appropriate tools and equipment for proper job completion. All equipment and work performed will be in full compliance with the most current revision of the American National Standards Institute (ANSI Z133.1) Standard for tree care operations. (Copies can be obtained for a fee by contacting the International Society of Arboriculture or the Tree Care Industry Association.) This includes the practice of not using spurs on live trees or topping trees.

Safety: Woodland Tree Services, Inc. warrants that all arboricultural operations comply with OSHA requirements and the latest version of the ANSI Z133.2 industry safety standards. The customer agrees to not enter, or allow children, pets or livestock to enter the work area during arboricultural operations unless authorized by the crew leader onsite.

Debris Removal: All debris from tree trimming and tree removal operations shall be cleaned up unless stated otherwise on the proposal. All lawn areas shall be raked, streets and sidewalks shall be swept, and all brush, branches, and logs shall be removed from the site unless specified on proposal.

Stump Removal/Underground Utilities: Unless specified in the proposal, stump removal is not included in the price quoted for a tree removal. Grindings from stump removal are not removed unless specified on the proposal. Surface and subsurface roots beyond the stump are not removed unless specified on the proposal. Grinding of stumps typically does not occur the same day as tree removal(s). In order to comply with excavation requirements of Public Act 174, Woodland Tree Services, Inc. utilizes the Miss Dig/811 system to have underground utilities marked. Woodland Tree Services, Inc. is not responsible for damages to underground sprinklers, drain lines, invisible fences or underground cables unless the system(s) are adequately and accurately mapped by the customer and a copy is presented before or at the time the work is performed.

Additional Work/Changes to Work Order After Crew is Dispatched: Any additional work requested beyond the scope of the original proposal *may* be completed by the crew on site with a signed Work Order Amendment. Additional work will be billed at time and material costs. The Crew Leader on site reserves the right to refuse additional work outside the scope of the original proposal for any reason, including but not limited to time constraints, safety concerns, or lack of manpower or equipment.

Reducing the scope of work/cancelling items contracted on the proposal will require a signed Work Order Amendment and may cause customer to incur the costs of estimated labor/equipment that were dispatched unnecessarily.

Ownership: The authorizing party warrants that all trees listed are located on the customer's property and if not, that the authorizing party has received full permission from the owner to allow Woodland Tree Services, Inc. to perform the specified work. Should any tree be mistakenly identified as to ownership, the client agrees to indemnify Woodland Tree Services, Inc. for any damages or costs incurred from the result thereof.

Insurance/Indemnity: Woodland Tree Services, Inc. is insured for liability resulting from injury to persons or property, and all its employees are covered by Worker's Compensation Insurance. The parties herein agree that in no instance may the client seek damages in excess of Woodland Tree Services, Inc. policy liability. Further, once work is completed by Woodland Tree Services, Inc. under this contract, client agrees to indemnify and hold harmless Woodland Tree Services, Inc. and its agents for any injury, loss or expense associated with work performed or in any way related to services performed with this contract.

Completion of Contract: Woodland Tree Services, Inc. agrees to do its best to meet any agreed upon performance dates, but shall not be liable in damages or otherwise for delays due to inclement weather, labor or any other cause beyond its control; nor shall the client be relieved of completion for delays.

Terms of Payment: You will receive an invoice within approximately (10) business days of completion of work. Payment is due upon receipt unless prior arrangements have been made and added as an amendment to this contract. Balances more than 30 days past due will incur a late fee of 5% or \$50, whichever is greater, each month until the balance is paid in full.

Types of Payment: Woodland Tree Services, Inc. accepts cash, personal checks, cashier's checks, money orders, Visa, MasterCard, and American Express. **Transactions using a credit/debit card will incur a 3% convenience fee.** Electronic Funds Transfers (EFT) transactions will incur a 1% fee, not to exceed \$10.00.

Returned Check Fee: There will be a \$35.00 fee charged for all checks returned to our office for in-sufficient funds.



WEST MICHIGAN TREE SERVICES

Proposal #49823

Created: 01/26/2022

From: Chris Lautenbach

Proposal For

Cascade Charter Township

2865 Thornhills SE
Grand Rapids, MI 49546

Location

6805 Burton St SE
Grand Rapids, MI 49546

Customer Contact

main: 616-318-8785
accounting@cascaadetwp.com, jmacdonald@cascaadetwp.com

Terms: Net 30

ITEM DESCRIPTION

AMOUNT

1) Tree Removal SITE 1 PROJECT

\$22,000.00

Remove the 65 Oaks at Site 1. Haul all away, and cut the stumps off as low as possible.
(number of trees and quote can change if needed)

We will try and haul in a chipper to chip all the smaller material and blow the chips into a large pile. The Township can then haul those chips to the adjacent paths.

We will work with the Township on how much chip debris to leave before the job starts.
All the wood will be hauled away.

The Oak Wilt wood will be hauled away to be processed by Tub Grinding. That process will shred the wood and bark into small enough pieces that Oak Wilt will not be viable.

NOTES:

We will do our best to avoid smaller non-oak species growing within the work zone. We will remove dead trees and Elms to try and save trees such as Cherry, White Oak and Maple.

We will do our best to cut the stumps off as low as possible. We will not cut where soil is up against the trunks and will disallow chainsaw use.

If stump grinding is required or requested, we can provide that service at an additional cost.

ACCESS:

We will aim to work with dry ground to minimize ruts.

It is unlikely that we will have the option to work with frozen ground. Snow would be an issue for access here too. This really needs to be completed when the ground is as dry as possible.

You should also expect that it will be very noticeable that we were here. We will do our best.



West Michigan Tree Services
PO Box 151455
Grand Rapids, MI 49515-1455

(616) 364-4558
info@westmichigantreeservices.com
www.WestMichiganTreeServices.com

2) Special Services - Pr / Rem **\$810.00**
 Apply Herbicide to the stumps immediately after the flush cut.

3) Tree Removal **\$2,490.00**
 SITE ACCESS:

(This likely will have been completed for the site 2 project and may not be required here for site 1.)

We have to gain adequate access (approx. 15-20 feet wide) to the site where the trees will be removed.

We will use the main walking paths where we can.

We also need to use the access off the end of Cascade Farms.

We propose the removal of the larger Cottonwood at the end of Cascade Farms. Removal of this tree should allow for the smaller neighboring trees to remain.

If that tree is to remain, then others will likely need to be removed instead.

We will also need to establish an access drive (15-20 feet wide) from the fence through Site 1 to connect the main trail and Cascade Farms.

Basically all of this material will be hauled off site.

There is an off camber hill at the end of Cascade Farms and before the fence. This access point with the hill will mean that the site conditions will need to be snow free, ice free, and fairly dry.

We can pad the area to minimize damage, but with the multitude of trips anticipated, you need to plan on site reclamation after we finish up.

The township will remove, and replace at the conclusion of the job, the fence sections as required.

All work will be completed in accordance with these plans unless subsequent changes are agreed upon in writing. Please pay upon receipt of invoice. Net 30 days, 1.5% thereafter. Any collection fees will be added to the balance.

Signature

TOTAL	\$25,300.00
--------------	--------------------

x

Please sign here to accept the terms and conditions

Assigned To



Chris Lautenbach

ISA #: MI-3769A

Office: (616)364-4558



RISK / BENEFIT INFORMATION FOR PESTICIDE APPLICATIONS

This Risk / Benefit Information is being provided to you as a requirement of Regulation 637 by the Michigan Department of Agriculture.

NOTICE: Please ask your applicator about special precautions you may need to make (yard, house, pool) prior to application, and other precautionary measures specific to the material applied.

Definition of a Pesticide

A Pesticide is any substance or mixture of substances intended to control pest infestations. The word "pesticide" is an umbrella term for products which control a wide range of pests. Pests commonly found include weeds, insects, diseases, mites, and rodents. Pesticides designed to control these pests are called herbicides, insecticides, fungicides, miticides, and rodenticides. Another group of pesticides called plant growth regulators are used to manage the growth of plants in the landscape.

State and federal laws require that pesticides must be applied according to label directions. Labels direct users as to how, where and at what rate the material must be applied. Upon request, your applicator will supply you with a label of material applied.

How Pesticides Work

Products intended for use on your property are applied as a liquid, dust, aerosol, granule, or bait and are generally active for a few minutes to a few months. Some compounds control pests on contact by damaging the physical structure of the pest. Other compounds become active only after they are absorbed or ingested, by interfering with physical development or preventing the pest from reproducing. The label on the pesticide contains specific information on how to control targeted pests. All pesticides must be applied in accordance with label directions.

Pesticides may be effective against a large class of organisms or specific to particular organisms. This means that many times, applicators can choose an effective pesticide or pest control strategy which will minimize any potential impact to humans and pets.

Why Pesticides are Used

Pesticides are a tool people use to protect crops, homes, animals, structures, or their landscape plants from pest damage. Examples are the protection of buildings from termites, turf from weed and insect damage, and indoor environments from invasions by insects and rodents. They also are used to control mosquito populations, disease vectors for public health concerns, protect food crops, and for weed control in lakes and ponds.

General Toxicity Information

Toxicity is a general term used to indicate the adverse effects produced by a pesticide. Understanding the potential health risks from pesticides requires a knowledge of the exposure and the toxicity of the compound.

Exposure: Pesticides can enter the body by *ingestion, inhalation, or absorption through the skin*. Exposure occurs most frequently by absorption through the skin. One of the most effective ways to reduce risk is to reduce any potential exposure by restricting access to the treatment area.

There are two broad classifications of pesticides – general use and restricted use. These are EPA designations used to determine who may purchase and use the many kinds of pesticides available. General use pesticides are usually considered to have a lower toxicity or risk than restricted use pesticides, and have fewer restrictions regarding who may purchase or use the

products. For example, all of the pesticide products that homeowners may purchase are general use pesticides. The majority of the materials that are routinely used on your property/yard are also general use pesticides.

Restricted use pesticides can be purchased and used only by state certified and trained professionals. Only in specific instances will these kinds of products be used on your property. Please refer to the section of your invoice that shows which products were used at the time of application. (If you have any questions as to the type or toxicity of the products used on your property, please contact the manufacturer indicated on the pesticide label or your service technician.)

Common Sense Precautionary Measures and Site Preparation

It is important to discuss site preparation and precautionary measures with the service technician. Additionally,

- DO NOT enter the treatment area until the time period stated/posted by the applicator has elapsed.
- The product applied may have a specific reentry or preharvest interval during which you may NOT enter the area or harvest the crop.
- For outdoor applications – put away children's toys and any clothing drying on the line, remove pets, cover or discard water for pets and in birdbaths, close windows, and make certain that applicators understand what areas, such as children's play areas, should not be treated.
- Additional precautionary measures may need to be taken to limit exposure for sensitive individuals such as: infants, small children, pregnant women, and senior citizens; persons on prescription medications; and persons with respiratory (asthma) or other medical conditions.

Environmental Fate of Pesticides

Exposure to light, heat and other agents in the environment cause pesticides to deteriorate. The amount of time which it takes to break down the pesticide depends on the temperature, humidity, light, moisture conditions and other factors encountered in the environment. As a result, degradation times are highly variable depending on the compound and the environment in which it is applied. Generally, your applicator will select those pesticides that are the most effective and least persistent. Any areas on your property that may be of specific concern should be brought to the attention of the applicator.

If you observe an unusual reaction following a pesticide application, immediately wash with soap and water and consult a physician. It is important to provide the doctor with any information you may have concerning the pesticide used. Additional emergency information about the pesticide may be obtained by contacting the Poison Control Center at 800-822-2727 (616 area code), or 313-745-5711 (313, 517, or 806 area codes), or the National Pesticide Telecommunications Network at 800-858-7378.

TERMS: Net 30 days. A 1-1/2% monthly finance charge will be added to account balances over 30 days.





WEST MICHIGAN TREE SERVICES

Proposal #49821

Created: 01/26/2022

From: Chris Lautenbach

Proposal For

Cascade Charter Township

2865 Thornhills SE
Grand Rapids, MI 49546

Location

6805 Burton St SE
Grand Rapids, MI 49546

Customer Contact

main: 616-318-8785
accounting@cascaadetwp.com, jmacdonald@cascaadetwp.com

Terms: Net 30

ITEM DESCRIPTION

AMOUNT

1) Tree Removal

\$5,670.00

Remove the 3 stem Oak at Site 2. Haul all away, and cut the stumps off as low as possible.

This quote assumes we will haul in a chipper to chip all the smaller material and blow the chips into a large pile. The Township can then haul those chips to the adjacent paths.

We will work with the Township on how much chip debris to leave before the job starts.

We will cut the stump as low as we can. If we need to grind the stump to make it low enough, that would be an added cost.

Larger wood will be hauled away to a place that will Tub Grind the material into small pieces where Oak Wilt will not be viable.

NOTES:

There are a couple of Oaks that are basically under the outer crown of these large stems. We will plan to remove a couple of these Oaks as well. This quote includes the price to remove these extra trees.

(I don't see any way to efficiently remove these large Oak stems without damaging at least a couple of neighboring Oaks. These additional Oaks are primarily located on the opposite side of the walking path.)

ACCESS:

We have to gain adequate access to the site where the trees will be removed.

We will use the main walking paths where we can, we will cut across the "meadow" east of the North/South path.

We need to use the access off the end of Cascade Farms.

We propose the removal of the larger Cottonwood at the end of Cascade Farms. (see the SITE ACCESS line item.)

We will also need to establish an access drive through Site 1 to connect the main trail and Cascade Farms. The hill on the main path poses a significant challenge with with snow.

MARCH 1 END DATE:

My inclination here is to not submit a quote to you at all for the Site 2 project, given the completion deadline.

I know you really want 3 numbers to help you decide the best option for you, so I'm going to submit this quote.

With the ground conditions we currently have we CAN NOT do the work.

With the hills that need to be navigated, we do not have equipment that can safely haul out the trees (or bring in a chipper). We must have fairly dry bare ground to do this work. I do not anticipate adequate ground conditions before March 1st.



West Michigan Tree Services
PO Box 151455
Grand Rapids, MI 49515-1455

(616) 364-4558
info@westmichigantreeservices.com
www.WestMichiganTreeServices.com

My option here is that we would do our best to remove the trees as soon as the ground conditions are appropriate, but that could be mid to late March potentially.

I really don't have a good answer here. If someone has the option to navigate that hill, take that option!

2) Special Services - Pr / Rem **\$175.00**
Apply Herbicide to the stump immediately after the flush cut.

3) Tree Removal **\$2,490.00**
SITE ACCESS:

We have to gain adequate access (approx. 15-20 feet wide) to the site where the trees will be removed. We will use the main walking paths where we can. We will need to drive across the meadow east of the main north and south path. We also need to use the access off the end of Cascade Farms.

We propose the removal of the larger Cottonwood at the end of Cascade Farms. Removal of this tree should allow for the smaller neighboring trees to remain. If that tree is to remain, then others will likely need to be removed instead. There really is not access without removing trees.

We will also need to establish an access drive (15-20 feet wide) from the fence through Site 1 to connect the main trail and Cascade Farms. Basically all of this material will be hauled off site.

There is an off camber hill at the end of Cascade Farms and before the fence. This access point with the hill will mean that the site conditions will need to be snow free, ice free, and fairly dry. We can pad the area to minimize damage, but with the multitude of trips anticipated, you need to plan on site reclamation after we finish up.

The township will remove, and replace at the conclusion of the job, the fence sections as required.

All work will be completed in accordance with these plans unless subsequent changes are agreed upon in writing. Please pay upon receipt of invoice. Net 30 days, 1.5% thereafter. Any collection fees will be added to the balance.

Signature

TOTAL	\$8,335.00
--------------	-------------------

x

Please sign here to accept the terms and conditions

Assigned To



Chris Lautenbach

ISA #: MI-3769A

Office: (616)364-4558





WEST MICHIGAN
TREE SERVICES

Proposal #49821

Created: 01/26/2022

From: Chris Lautenbach



Local First
proud member



West Michigan Tree Services
PO Box 151455
Grand Rapids, MI 49515-1455

(616) 364-4558
info@westmichigantreeservices.com
www.WestMichiganTreeServices.com

Page 3 of 3



WESTMIC-18

BNIXON

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)
3/24/2021

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER License # 0019304-1 Hub International Midwest East 1591 Galbraith Ave SE Grand Rapids, MI 49546	CONTACT NAME:	
	PHONE (A/C, No, Ext): (616) 233-4111	FAX (A/C, No): (616) 233-4110
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED West Michigan Tree Services PO Box 151455 Grand Rapids, MI 49515-1455	INSURER A : Amerisure Mutual Insurance Company	23396
	INSURER B : Amerisure Partners Insurance Company	11050
	INSURER C : Accident Fund Insurance Company of America	10166
	INSURER D :	
	INSURER E :	
	INSURER F :	

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR			CPP20355591702	3/5/2021	3/5/2022	EACH OCCURRENCE	\$ 1,000,000
							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
							MED EXP (Any one person)	\$ 10,000
							PERSONAL & ADV INJURY	\$ 1,000,000
							GENERAL AGGREGATE	\$ 2,000,000
							PRODUCTS - COMP/OP AGG	\$ 2,000,000
								\$
								\$
B	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY			CA20355581805	3/5/2021	3/5/2022	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
							BODILY INJURY (Per person)	\$
							BODILY INJURY (Per accident)	\$
							PROPERTY DAMAGE (Per accident)	\$
								\$
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE			CU20355601702	3/5/2021	3/5/2022	EACH OCCURRENCE	\$ 7,000,000
							AGGREGATE	\$ 7,000,000
								\$
								\$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory In NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A	WCV8000545	1/17/2021	1/17/2022	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER	
							E.L. EACH ACCIDENT	\$ 1,000,000
							E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
							E.L. DISEASE - POLICY LIMIT	\$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

CERTIFICATE HOLDER

CANCELLATION

For Informational Purposes

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

RISK / BENEFIT INFORMATION FOR PESTICIDE APPLICATIONS

This Risk / Benefit Information is being provided to you as a requirement of Regulation 637 by the Michigan Department of Agriculture.

NOTICE: Please ask your applicator about special precautions you may need to make (yard, house, pool) prior to application, and other precautionary measures specific to the material applied.

Definition of a Pesticide

A Pesticide is any substance or mixture of substances intended to control pest infestations. The word "pesticide" is an umbrella term for products which control a wide range of pests. Pests commonly found include weeds, insects, diseases, mites, and rodents. Pesticides designed to control these pests are called herbicides, insecticides, fungicides, miticides, and rodenticides. Another group of pesticides called plant growth regulators are used to manage the growth of plants in the landscape.

State and federal laws require that pesticides must be applied according to label directions. Labels direct users as to how, where and at what rate the material must be applied. Upon request, your applicator will supply you with a label of material applied.

How Pesticides Work

Products intended for use on your property are applied as a liquid, dust, aerosol, granule, or bait and are generally active for a few minutes to a few months. Some compounds control pests on contact by damaging the physical structure of the pest. Other compounds become active only after they are absorbed or ingested, by interfering with physical development or preventing the pest from reproducing. The label on the pesticide contains specific information on how to control targeted pests. All pesticides must be applied in accordance with label directions.

Pesticides may be effective against a large class of organisms or specific to particular organisms. This means that many times, applicators can choose an effective pesticide or pest control strategy which will minimize any potential impact to humans and pets.

Why Pesticides are Used

Pesticides are a tool people use to protect crops, homes, animals, structures, or their landscape plants from pest damage. Examples are the protection of buildings from termites, turf from weed and insect damage, and indoor environments from invasions by insects and rodents. They also are used to control mosquito populations, disease vectors for public health concerns, protect food crops, and for weed control in lakes and ponds.

General Toxicity Information

Toxicity is a general term used to indicate the adverse effects produced by a pesticide. Understanding the potential health risks from pesticides requires a knowledge of the exposure and the toxicity of the compound.

Exposure: Pesticides can enter the body by *ingestion, inhalation, or absorption through the skin*. Exposure occurs most frequently by absorption through the skin. One of the most effective ways to reduce risk is to reduce any potential exposure by restricting access to the treatment area.

There are two broad classifications of pesticides – general use and restricted use. These are EPA designations used to determine who may purchase and use the many kinds of pesticides available. General use pesticides are usually considered to have a lower toxicity or risk than restricted use pesticides, and have fewer restrictions regarding who may purchase or use the

products. For example, all of the pesticide products that homeowners may purchase are general use pesticides. The majority of the materials that are routinely used on your property/yard are also general use pesticides.

Restricted use pesticides can be purchased and used only by state certified and trained professionals. Only in specific instances will these kinds of products be used on your property. Please refer to the section of your invoice that shows which products were used at the time of application. (If you have any questions as to the type or toxicity of the products used on your property, please contact the manufacturer indicated on the pesticide label or your service technician.)

Common Sense Precautionary Measures and Site Preparation

It is important to discuss site preparation and precautionary measures with the service technician. Additionally,

- DO NOT enter the treatment area until the time period stated/posted by the applicator has elapsed.
- The product applied may have a specific reentry or preharvest interval during which you may NOT enter the area or harvest the crop.
- For outdoor applications – put away children's toys and any clothing drying on the line, remove pets, cover or discard water for pets and in birdbaths, close windows, and make certain that applicators understand what areas, such as children's play areas, should not be treated.
- Additional precautionary measures may need to be taken to limit exposure for sensitive individuals such as: infants, small children, pregnant women, and senior citizens; persons on prescription medications; and persons with respiratory (asthma) or other medical conditions.

Environmental Fate of Pesticides

Exposure to light, heat and other agents in the environment cause pesticides to deteriorate. The amount of time which it takes to break down the pesticide depends on the temperature, humidity, light, moisture conditions and other factors encountered in the environment. As a result, degradation times are highly variable depending on the compound and the environment in which it is applied. Generally, your applicator will select those pesticides that are the most effective and least persistent. Any areas on your property that may be of specific concern should be brought to the attention of the applicator.

If you observe an unusual reaction following a pesticide application, immediately wash with soap and water and consult a physician. It is important to provide the doctor with any information you may have concerning the pesticide used. Additional emergency information about the pesticide may be obtained by contacting the Poison Control Center at 800-632-2727 (816 area code), or 313-745-5711 (313, 517, or 906 area codes), or the National Pesticide Telecommunications Network at 800-858-7378.

TERMS: Net 30 days. A 1-1/2% monthly finance charge will be added to account balances over 30 days.



PROPOSAL



parshalltreecare.com | 877-250-2060 | info@parshalltreecare.com
241 Finney Ave SW, Suite 2, Grand Rapids, MI 49503

Job Name

Monday, January 24, 2022

Cascade Township 2022-23 Revised Jan_25_2022_202

Cascade Township
Jim MacDonald
5920 Tahoe Ln SE
Grand Rapids, MI 49546

Urban Forest Arborist: James Retzlaff
Phone: 616-260-1031
Email: james.retzlaff@parshalltreecare.com
Worksite: 6805 Burton St SE
Grand Rapids, MI 49546

Please Check the Box next to any Section(s) you would like performed.

(1) Tree Removal

#	Item	Description	Qty	Cost
4	Trees	Tree Removal Parshall Tree Care Experts will transport the below-listed infected material to a site that has wood-burning capabilities. An Isa Certified Arborist will inspect randomly 3 to 5 times weekly to ensure the progress of the wood to be completely burned prior to March 1st. This service is included in the total pricing above.	0	

Subtotal: \$0.00

Tax: \$0.00

(1) Tree Removal Total: \$0.00

(1) Tree Removal and/or Pruning

#	Item	Description	Qty	Cost
1	Tree	Winter/Dormant - Tree Service Site 2	0	\$16,820.00

Please note pricing reflects a few factors. Parshall Tree Care Experts (PTCE) takes "no other trees will be damaged very seriously". This includes the process of moving material and accessing the sites. Jim MacDonald (Cascade Charter Township) and James Retzlaff (PTCE) have discussed entrance and egress to the site. A few trees less than 3 inches in diameter are in harm's way both at site 1 as well as site 2. Terrains are steep to approach from the South and East sides of the park. Due to these factors, PTCE requires awarding both RFP's for site 1 and site 2 or will decline the work if only awarded one of the RFP's. PTCE will also use only low-impact tracked equipment to access the site and move material. Please see the equipment information sheets

PARSHALL | TREE CARE EXPERTS

REVOLUTIONIZING URBAN FOREST MANAGEMENT

PROPOSAL



parshalltreecare.com | 877-250-2060 | info@parshalltreecare.com

241 Finney Ave SW, Suite 2, Grand Rapids, MI 49503

attached. PTCE will also use an approved approach per Jim MacDonald (Cascade Charter Township) to access site 2 through site one. Per the RFP the Bid is due by Jan 25, 2022. Cascade Charter Township agrees to keep ground from street to work sites see points of interest clear of trees and snow to create the frozen ground.

Parshall Tree Care Experts utilizing low impact equipment and or climbing will cut to a low stump and treat stump of the below-listed woody plant material. Due to oak wilt, this work must be completed during the dormant period typically November 1st to March 1st with all debris correctly disposed of no later than March 1st, 2022.

- #1201 Oak (Red) Located in woods, DBH:76, Height:100
 - This tree is tagged as #1201 - tri stem red oak 30"/23"/23"
 - Debris will be hauled and chipped if under 14 inches in diameter.
 - Material over 14 inches in diameter will be hauled off and burned.
 - No other trees will be damaged over 3 inches in diameter.
 - The tree will be rigged with ropes and the methods of the ANSI Z133 guidelines
 - The stump will be treated within 5 minutes of the last cut with a 30/70 solution of triclopyr ester formulation and basal oil to saturate the entire surface of the cut.
 - Parshall Tree Care Experts prides ourselves in ultra low impact removals no rutting shall remain following the completion of this project.
 - Chain of custody will be maintained and housed within PTCE. The material will be taken to a burn site and disposed of prior to March 1, 2022.
- Below is the list of points PTCE will use to access the site 1 and 2
- #3010 Point of Interest 3 to 4 fence panels will be removed here
- #3000 Point of Interest Top of hill located here north boundary of ow zone,
 - on path
- #3002 Point of Interest Bench located here
 - area, where clearing opens up forwarding path, is to the east of this site.
- #3003 Point of Interest Log fall area two to clear, deadfall has been cleared from this area. forwarding

PARSHALL | TREE CARE EXPERTS

REVOLUTIONIZING URBAN FOREST MANAGEMENT

PROPOSAL



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- path is to the east of this location.
- #3004 Point of Interest West side of site 2,
 - West boundary of site 2
- #3006 Point of Interest Man gate,
- #3008 Point of Interest Truck parking site,
- The following points will have some trees removed to provide clear forwarding paths and remove the chances of damaging off-target trees.
 - all areas of concern have been talked through with Jim.
 - Some of these areas are along trenching lines.
 - The goal of this is to provide wider pathways and remove the risk of damage to adjacent trees when moving material out to the street for processing.
 - #3001 Point of Interest Head east here to the bench for the access path to site 2
 - the site where the crew will head to the East towards the bench in the clearing.
 - some trees to the southeast of this site will be removed for forwarding material access needs.
 - #1029 Oak (Red) Located west of trail outside of removals, DBH:10.7, Height:80
 - Tree to be **preserved and left in the landscape.**
 - **Trees to the East of this will be removed to the walking path to provide a better forwarding path for the material from tree #1201**
 - #1030 Oak (Red) Located west of trail and out of removal zone, DBH:13.8, Height:90
 - Tree to be **preserved and left in the landscape.**
 - **Trees to the East of this will be removed to the walking path to provide a better forwarding path for the material from tree #1201**
 - #2011 Cherry Located southeast of yellow post on fence, DBH:11, Height:65
 - **The tree will be removed and adjacent non-oak species of trees will be removed to increase forwarding paths.**
 - #2001 Cottonwood Located in the turf of neighbors yard near the street, DBH:22, Height:85
Per Jim, this tree is being discussed to be removed with the adjacent property owner

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- for increased access. This tree will be removed as part of this RFP.
- Parshall Tree Care Experts requires written permission from the tree owner to remove this tree or any other trees on the property.

Subtotal: \$16,820.00

Tax: \$0.00

(1) Tree Removal and/or Pruning Total: \$16,820.00

Consulting

#	Item	Description	Qty	Cost
3	Trees	Urban Forest Inspection Parshall Tree Care Experts to have a licensed applicator apply herbicide treatment to the stump <u>within 5 minutes of the last cut</u> with a <u>30/70 solution of triclopyr ester formulation and basal oil to saturate the entire surface of the cut.</u> A blue dye will be added per RFP.	0	

This work is included in the above line items. This creates an additional service for our Plant Health Care applicator to be a check and balance to the work.

Subtotal: \$0.00

Tax: \$0.00

Consulting Total: \$0.00

Fall/Winter Tree Service

#	Item	Description	Qty	Cost
2	Tree	Winter/Dormant - Tree Service Site 1	0	\$148,820.00

This proposal supersedes all other documents.

Please note pricing reflects a few factors. Parshall Tree Care Experts (PTCE) takes "no other trees will be damaged very seriously". This includes the process of moving material and

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accessing the sites. Jim MacDonald (Cascade Charter Township) and James Retzlaff (PTCE) have discussed entrance and egress to the site. A few trees less than 3 inches in diameter are in harm's way both at site 1 as well as site 2. Terrains are steep to approach from the South and East sides of the park. Due to these factors, PTCE requires awarding both RFP's for site 1 and site 2 or will decline the work if only awarded one of the RFP's. PTCE will also use only low-impact tracked equipment to access the site and move material. Please see the equipment information sheets attached. PTCE will also use an approved approach per Jim MacDonald (Cascade Charter Township) to access the site from an adjacent neighborhood.

Cascade Charter Township agrees to keep ground from street to work sites see points of interest clear of trees and snow to create the frozen ground.

Access will be depending on available equipment at the time of the project. PTCE has sourced and secured a tracked chipper to cut down on excessive equipment trips between Site 1, and the Road. Heavy wood will be forwarded to the Road. Our plan to use the secured tracked chipper will allow us access from the road along turf on mats to site 1 without going on a driveway.

Parshall Tree Care Experts utilizing low impact equipment and or climbing will cut to a low stump and treat stump of the below-listed woody plant material. Due to oak wilt, this work must be completed during the dormant period typically November 1st to March 1st with all debris correctly disposed of no later than March 1st. Parshall Tree Care Experts will schedule this work to be completed between November 1st, 2022, and January 31, 2023.

- Chips will be left on site and spread at a depth of approximately 3" to 5" inches in depth.
- No other trees will be damaged over 3 inches in diameter.
- The tree will be rigged with ropes and the methods of the ANSI Z133 guidelines
-

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- The stump will be treated within 5 minutes of the last cut with a 30/70 solution of triclopyr ester formulation and basal oil to saturate the entire surface of the cut.

Parshall Tree Care Experts prides ourselves in ultra low impact removals no rutting shall remain following the completion of this project.

- Chain of custody will be maintained and housed within PTCE. The material will be taken to a grinding facility that can grind the material prior to March 1st.

Below is the list of points PTCE will use to access the site 1 and 2

- #3010 Point of Interest 3 to 4 fence panels will be removed here
- #3000 Point of Interest Top of hill located here north boundary of ow zone,
 - on path
- #3002 Point of Interest Bench located here
 - area, where clearing opens up forwarding path, is to the east of this site.
- #3003 Point of Interest Log fall area two to clear,
 - deadfall has been cleared from this area. forwarding path is to the east of this location.
- #3004 Point of Interest West side of site 2,
 - West boundary of site 2
- #3006 Point of Interest Man gate,
- #3008 Point of Interest Truck parking site,

Below is the list of trees to be removed per the Late Fall Season 2022 Tree Removals and stump treatments - Burton Park, Oak Wilt Site #1. Due by January 25, 2022.

- #3 Point of Interest Epicenter of site 1,
- #1034 Oak (Red) , DBH:18,
- #1035 Oak (Red) , DBH:15
- #1036 Oak (Red) , DBH:21
- #1037 Oak (Red) , DBH:7
- #1038 Oak (Red) , DBH:8
- #1040 Oak (Red) , DBH:11
- #1041 Oak (Red) , DBH:12.5
- #1042 Oak (Red) , DBH:9.7
- #1043 Oak (Red) , DBH:9.7
- #1044 Oak (Red) , DBH:8,
- #1045 Oak (Red) , DBH:12
- #1046 Oak (Red) , DBH:11
- #1047 Oak (Red) , DBH:10

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- #1048 Oak (Red) , DBH:6
- #1049 Oak (Red) , DBH:12
- #1050 Oak (Red) , DBH:11
- #1051 Oak (Red) , DBH:15
- #1084 Oak (Red) , DBH:15
- #1087 Oak (Red) , DBH:19
- #1088 Oak (Red) , DBH:9
- #1089 Oak (Red) , DBH:11
- #1090 Oak (Red) , DBH:11
- #1092 Oak (Red) , DBH:18
- #1093 Oak (Red) , DBH:5.2
- #1094 Oak (Red) , DBH:6
- #1095 Oak (Red) , DBH:5
- #1096 Oak (Red) , DBH:11.6
- #1097 Oak (Red) , DBH:14.7
- #1098 Oak (Red) , DBH:15
- #1099 Oak (Red) , DBH:12
- #1100 Oak (Red) , DBH:6
- #1101 Oak (Red) , DBH:12
- #1102 Oak (Red) , DBH:11
- #1103 Oak (Red) , DBH:9
- #1104 Oak (Red) , DBH:16.7
- #1105 Oak (Red) , DBH:12
- #1106 Oak (Red) , DBH:10.7
- #1107 Oak (Red) , DBH:13
- #1108 Oak (Red) , DBH:10.6
- #1109 Oak (Red) , DBH:7.8
- #1110 Oak (Red) , DBH:22
- #1111 Oak (Red) , DBH:13.8
- #1112 Oak (Red) , DBH:12
- #1113 Oak (Red) , DBH:14
- #1114 Oak (Red) , DBH:15.5
- #1115 Oak (Red) , DBH:4
- #1116 Oak (Red) , DBH:10
- #1117 Oak (Red) , DBH:10
- #1118 Oak (Red) , DBH:14.4
- #1119 Oak (Red) , DBH:13
- #1120 Oak (Red) , DBH:12
- #1121 Oak (Red) , DBH:20
- #1122 Oak (Red) , DBH:6.5
- #1123 Oak (Red) , DBH:25
- #1124 Oak (Red) , DBH:9
- #1125 Oak (Red) , DBH:8
- #1126 Oak (Red) BARBED WIRE, DBH:46
 - must be removed as one of the last three trees from this site

PARSHALL | TREE CARE EXPERTS

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- #1127 Oak (Red) BARBED WIRE, DBH:30
- must be removed as one of the last three trees from this site
- #1129 Oak (Red) CAUTION, DBH:9
 - must be removed as one of the last three trees from this site
- #1130 Oak (Red) , DBH:18,
- #1131 Oak (Red) , DBH:10
- #1132 Oak (Red) , DBH:12
- #1133 Oak (Red) , DBH:10.6
- #1134 Oak (Red) , DBH:23
- #1167 Oak (Red) , DBH:13.5
- #1168 Oak (Red) , DBH:22
- #1169 Oak (Red) , DBH:9.5
- Small Red Oak Trees less than 4 inches in diameter in areas coded as E and B1 will be cut to a low stump.

Additional Tree Pricing **Trees added to removal chart by October 2022**

4-9" will be an additional \$60.00 per tree.

10 - 14" will be an additional \$75 per tree

15 - 20" will be an additional \$200 per tree

>21" will be an additional \$400 per tree

Subtotal: \$148,820.00

Tax: \$0.00

Fall/Winter Tree Service Total: \$148,820.00

Signature

Date

RISK/BENEFIT INFORMATION FOR PESTICIDE APPLICATIONS

COMPANY NAME:

NOTICE: Please ask your applicator about special preparations you may need to make (yard, house, pool, etc.) prior to application, and other precautionary measures specific to the pesticide products applied.

Definition of a Pesticide

A pesticide is any substance or mixture of substances intended to control pests. The word "pesticide" is an umbrella term for many different types of products that control a wide range of pests. Pests commonly found include weeds, insects, diseases, mites, and rodents. Pesticides designed to control these pests are called herbicides, insecticides, fungicides, miticides, and rodenticides. Another group of pesticides called plant growth regulators is used to manage the growth of plants in the landscape.

State and federal laws require that pesticides must be applied according to label directions. Labels direct users as to how, where, and at what rate the material must be applied. Upon request, your applicator will supply you with a copy of the label(s) for the product(s) applied.

How Pesticides Work

Products intended for use on your property are applied as a liquid, dust, aerosol, granule, or bait and are generally active for a few minutes to a few months. Some compounds control pests on contact by damaging the physical structure of the pest. Other compounds become active only after they are absorbed or ingested, by interfering with physical development or the reproduction ability of the pest. The pesticide product label contains specific information on how to control targeted pests. All pesticides must be applied in accordance with label directions.

Pesticides may be effective against a large class of organisms or they may be specific to a particular organism. This means that many times, applicators can choose an effective pesticide or pest control strategy that will minimize potential impacts to humans, pets and other non-target organisms.

Why Pesticides are Used

Pesticides are a tool people use to protect crops, homes, animals, structures, or their landscape plants from pest damage. Examples are the protection of buildings from termites, lawns from weed and insect damage, and indoor environments from invasions by insects and rodents. They are also used to control mosquito populations, control disease vectors for public health concerns, protect food crops, and for weed control in lakes and ponds.

General Toxicity Information

Toxicity is a general term used to indicate the adverse effects produced by a pesticide. Understanding the potential health risks from pesticides requires knowledge of the exposure and the toxicity of the compound.

Exposure: Pesticides can enter the body by *ingestion, inhalation, or absorption through the skin.* Exposure occurs most frequently by absorption to the skin. One of the most effective ways to reduce risk is to reduce any potential exposure by restricting access to the treatment area.

There are two broad classifications of pesticides – *general use* and *restricted use*. These are United States Environmental Protection Agency (EPA) designations used to determine who may purchase and use the many kinds of pesticides available. General use pesticides are usually considered to have a lower toxicity or risk than restricted use pesticides, and have fewer restrictions regarding who may

purchase or use the products. For example, all of the pesticide products that homeowners may purchase are general use pesticides. The majority of the products that are routinely used on your property and yard are also general use pesticides.

Restricted use pesticides can only be purchased and used by applicators that are certified by the State of Michigan, many of who receive additional professional training. Only in specific instances would these kinds of products be used on your property. Please refer to the section of your customer paperwork or invoice that shows which products were used at the time of application. (If you have any questions as to the type or toxicity of the products used on your property, please contact the manufacturer indicated on the pesticide label, or contact the applicator).

Common Sense Precautionary Measures and Site Preparation

It is important to discuss site preparation and precautionary measures with your applicator.

Additionally,

- DO NOT enter the treatment area until the time period provided by/posted by the applicator has elapsed.
- The product applied may have a specific re-entry or pre-harvest interval during which you may NOT enter the area or harvest the crop.
- For indoor applications – put away all food items, children's toys, and clothing. Cover fish tanks, remove pets, and perform any additional tasks as outlined for the specific application by your applicator.
- For outdoor applications – put away children's toys and any clothing that may be outside drying, remove pets, discard water for pets and water in birdbaths, close windows, move or place your vehicles in the garage, and make certain that applicators understand what areas, such as children's play areas and home gardens, should NOT be treated.
- Additional precautionary measures may need to be taken to limit exposure for sensitive individuals such as: infants, small children, pregnant women, and senior citizens; persons on prescription medications; and persons with medical conditions such as respiratory conditions or immune system concerns.

Environmental Fate of Pesticides

Exposure to light, heat and other agents in the environment cause pesticides to deteriorate. The amount of time that it takes to break down the pesticide depends on the temperature, humidity, light, moisture conditions, and other environmental factors. As a result, degradation times are highly variable depending on the compound and the environment in which it was applied. Generally, your applicator will select those pesticides that are the most effective and the least persistent. Any areas on your property that may be of specific concern should be to the attention of the applicator.

If you encounter an unusual reaction following a pesticide application, immediately wash with soap and water and consult with a physician. It is important to provide the doctor with any information you may have concerning the pesticides used. Refer to the section of your customer paperwork or invoice that shows which products were used at the time of application.

Additional emergency information about the pesticide may be obtained by contacting the National Poison Control Center at 1-800-222-1222, or the National Pesticide Information Center at 1-800-858-7378 or www.npic.orst.edu.

Terms and Conditions

It is agreed by and between Parshall Tree Care Experts, also known as "PTCE" and the authorizing party (customer and/or customer's agent) that the following provisions are made as part of this contract:

Insurance by Contractor: PTCE warrants that it is insured for liability resulting from injury to person(s) or property and that all employees are covered by Workers' Compensation as required by law. Certificates of coverage are available upon request.

Cancellation Fee: PTCE kindly requests that the authorizing party provide at least 24 hours advance notice of any full or partial work cancellation. If a crew has been dispatched to the job site, the customer will be assessed a mobilization fee of \$150.00 for incurred expenses.

Completion of Contract: PTCE agrees to do its best to meet any agreed upon performance dates, but shall not be liable in damages or otherwise for delays because of inclement weather, labor, or any other cause beyond its control; nor shall the customer be relieved of completion for delays.

Tree Ownership: The authorizing party warrants that all trees listed are located on the customer's property, and, if not, that the authorizing party has received full permission from the owner to allow PTCE to perform the specified work. Should any tree be mistakenly identified as to ownership, the customer agrees to indemnify PTCE for any damages or costs incurred from the result thereof.

Safety: PTCE warrants that all arboricultural operations will follow the latest version of the ANSI Z133.1 industry safety standards. The authorizing party agrees to not enter the work area during arboricultural operations unless authorized by the crew leader on-site.

Stump Removal: Unless specified in the proposal, stump removal is not included in the price quoted. Grindings from stump removal are not hauled unless specified in this proposal. Surface and subsurface roots beyond the stump are not removed unless specified in this proposal. PTCE will contact Miss Digg prior to any grinding operations.

Concealed Contingencies: Any additional work or equipment required to complete the work, caused by the authorizing party's failure to make known or caused by previously unknown foreign material in the trunk, the branches, underground, or any other condition not apparent in estimating the work specified, shall be paid for by the customer on a time and material basis. PTCE is not responsible for damages to underground sprinklers, drain lines, invisible fences or underground cables unless the system(s) are adequately and accurately mapped by the authorizing party and a copy is presented before or at the time the work is performed.

Lawn Repair: PTCE will attempt to minimize all disturbances to the customer's lawn. Lawn repairs are not included in the contract price, unless noted otherwise on this proposal.

Pesticide Documentation: Required pesticide information will be provided to you electronically by email within 48 hours after the time of application.

Permits: Any permitting required to perform the outlined job description will be the sole responsibility of the homeowner/property owner to obtain from the necessary authorities. Any violation or fine incurred because the needed permit/s were not obtained will be the sole responsibility of the homeowner/property owner and Parshall Tree Care Experts will be free from any and all liability or fines associated with it.

Terms of Payment: The customer agrees to pay the account in full upon completion of work.

Returned Check Fee: There will be a \$50.00 fee charged for all checks returned to our office for non-sufficient funds.

Request for Proposal
Late Fall Season 2022 Tree Removals & Stump
Treatments – Burton Park, Oak Wilt Site #1
Cascade Charter Township



Quote for Removal of Red Oaks at Site #1, proper handling of wood, and stump treatments according to above specifications:

\$ 95,000⁰⁰

***Trees added to the removal chart by October 2022, with a DBH of:**

4 - 9" will be an additional \$ 900 /tree

10 - 14" will be an additional \$ 1,400 /tree

15 - 20" will be an additional \$ 2,600 /tree

>21" will be an additional \$ 3,200 /tree

Oak Wilt infected wood material removed from site will be handled as stated below:

Designated trucks will be assigned to transport material to our shop. With our excavator on our existing log yard, we shall create a containment pit and burn infected material. Once burned, pit will be buried.

OTHER Comments: We are highly capable and experienced with the execution and management of these types of sensitive projects.

CONTRACTOR/COMPANY NAME: Treeworks, Inc.

Representative: Jason R. Porter, President

ADDRESS: 11011 Fitzgerald St Nunica MI 49448

PHONE NUMBER(S): 616-837-1100 / Luke Porter (wb) 999-2632

E-mail: OFFICE@treeworksmi.com

SIGNATURE: Jason R. Porter

DATE: 20 Jan 2022

Bids Due by Tuesday, January 25, 2022.
Bids Awarded on or before March 1, 2022.

Submit Proof of Insurance with bid to:
Cascade Charter Township
Attention: Jim MacDonald
5920 Tahoe Drive SE
Grand Rapids, MI 49546-7123



**Request for Proposal
Tree Removal & Stump Treatment – Burton Park
Site #2 Oak Wilt Site
Cascade Charter Township**

Quote for Removal of Red Oak #1201, proper handling of wood, and stump treatment according to specifications:

\$ 23,500⁰⁰

CONTRACTOR/COMPANY NAME: Treeworks, Inc.
SALESPERSON: Luke Porter / Jason R. Porter
ADDRESS: 1101 Fitzgerald St. Nunica MI 49448
PHONE NUMBER(S): (616) 899-2632 / (616) 837-1100
E-mail: office@treeworksmi.com

SIGNATURE: Jason R. Porter **DATE:** 20 Jan 2022

Bids Due by Thursday January 6, 2021. Bids awarded Monday January 10th, 2022

Submit Proof of Insurance with bid to:

Cascade Charter Township
Attention: Jim MacDonald
5920 Tahoe Drive SE
Grand Rapids, MI 49546-7123

***Treeworks Inc.
Coopersville, MI***

Is accredited by the Tree Care Industry Association for:



- Adherence to ethical business practices
- Compliance with Industry Standards for safety and performance; and,
- Provision of quality service.

***Treeworks Inc. has maintained Accredited status in good standing since
9/14/2018.***

This annual Accreditation certificate is valid thru 9/14/2021 .

September 17, 2018

Date

A handwritten signature in black ink, appearing to read "Robert Rouse".

Robert Rouse, Chief Program Officer

Oak Wilt Management 2021 & Beyond

Cascade Township - Burton Park

6805 Burton St. SE, Grand Rapids, MI 49546

Prepared by:

Site Specific, Inc./Julie Stachecki

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

810-599-0343 stacheck1@me.com





Cascade Twp: Burton Park Oak Wilt Timeline



- **2020** – 1 Red Oak died rapidly in western area of park
- **September 2021** – Additional Red oak observed with oak wilt symptoms adjacent to 2020 tree; and Additional 3-trunk Red oak observed with symptoms in East-central park area.
- **Late October 2021** – West MI Tree collected canopy samples from 3-trunk Red oak in East-central park designated as Site #2; MSU Diagnostic Lab.
- **November 2021** – Site Specific, Inc collected two red oak trunk samples at Site #1 – submitted to MSU Diagnostic Lab; and OW management strategies discussed with Jim MacDonald
- **November 2021** - Lab Results = All three Red oaks tested **Positive** for Oak Wilt
- **Late November 2021**- Two additional red oaks sampled – Lab results **Negative** for oak wilt.



Burton Park Oak Wilt Timeline

continued

Documenting the Distance of Non-Symptomatic Red Oak Barriers from Oak Wilt Infected Trees

Diameter of Red Oak Trees	65% Barrier Line		85% Barrier Line	
	Soil Type		Soil Type	
Combined DBH	Loamy Soil	Sandy Soil	Loamy Soil	Sandy Soil
16	16	18	20	26
17	19	23	24	31
18	22	27	28	35
19	25	31	33	41
20	28	35	37	46
21	31	39	41	51
22	34	43	45	56
23	37	47	49	61
24	40	50	53	66
25	43	54	57	71
26	46	58	61	77
27	49	62	65	82
28	52	66	69	87
29	55	70	73	93
30	58	74	77	97
31	61	78	81	103
32	64	82	85	107
33	67	86	89	112
34	70	90	93	117
35	73	94	97	123
36	76	98	101	128
37	79	102	105	133
38	82	106	109	138

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- **November 2021** – Field work commenced gathering data to establish Oak Wilt Management Plan – Two full days with assistance - OW Qualified Specialist day one, and generous support of Township staff both days
- **Field work:**
 - ❖ Captured sizes (DBH) of Red oaks in affected zones
 - ❖ Determined distances of non-symptomatic red oaks to oak wilt–infected trees
 - ❖ Based on sandy soil type and above info, determined & marked primary & secondary trench line locations at Site #1 (Bruhn Model) and Site #2
 - ❖ Tagging for treatment accuracy and future referencing (172 at Site #1, 13 trees at Site #2)
 - ❖ Recommend remaining trees and actual trench lines be GPS'd for future electronic geo-referencing
- **December 2021-** Oak Wilt Management Plan and Bid specs developed for Sites #1 and #2

Burton Park Oak Wilt Management



Aspects of Burton Park Oak Wilt Management Plan:

- **Primary goal:** contain oak wilt infection, avoid continued tree loss due to root graft transmission.
- **Secondary goal:** retain non-symptomatic oak trees, assuming reasonable level of risk, while minimizing consumption of resources if break-throughs occur.
 1. **Root graft disruption** – Trenching, Most effective treatment
 - Use '**greatest confidence levels**' to establish trench line placement – Burton Park Site #1 & 2 strategies are different.
 - Outer perimeter, primary line identified first; provides highest level of confidence that fungus will not exceed past
 - Area sub-divided (A-F) retaining oaks and monitoring for symptoms within smaller subsections.
 2. **Removal of infected trees**, and red oaks within contaminated root zone Sections B1 and E; Ideally *after* trenching.
 3. **Use of herbicides** as additional, low-cost treatment.
 4. **Monitor area:** New symptomatic trees within a Sub-section requires removing all red oaks within that Section.

Burton Park Oak Wilt Management

■ Oak Wilt Management Site #1 strategies:

1. Root-graft disruption between infected and non-symptomatic red oaks – 5' deep trench line.

- Outer trench line approx. 130-150' to oak wilt-killed trees – Beyond Bruhn Model Chart
- Outer line location 'buffer' in case trenching occurs Fall 2022
- DitchWitch RT125 with vibratory plow blade – Ideal equipment
- Mini-excavator – Displaces a lot of soil, push back in trench



Burton Park Oak Wilt Management

■ Oak Wilt Management Site #1 strategies *continued:*

1. Root-graft disruption
2. Infected and Non-symptomatic tree Removal in oak wilt root zones

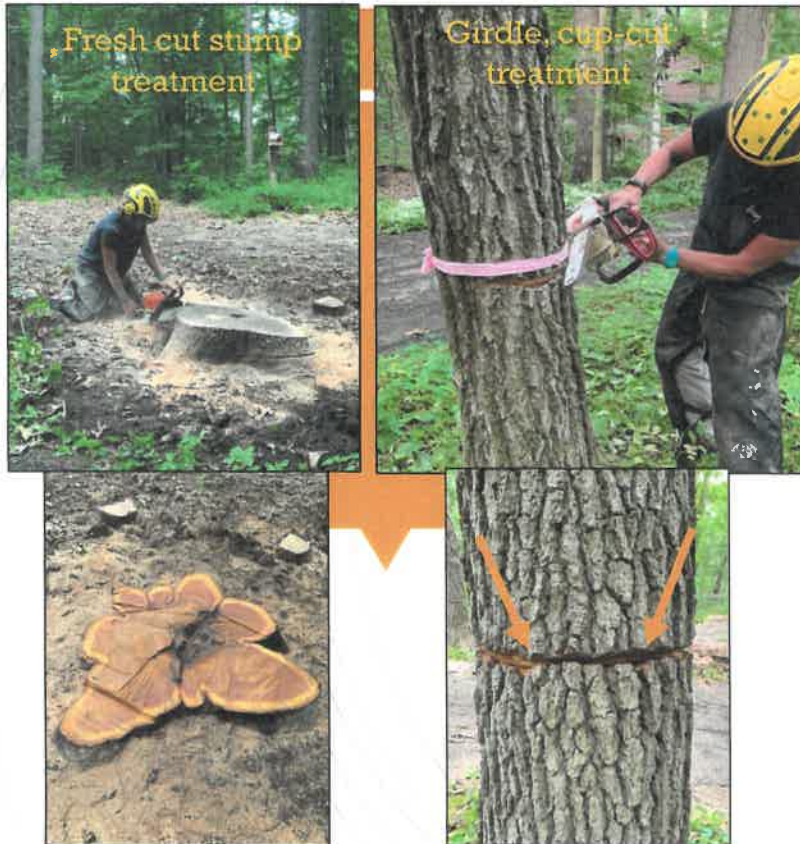
- Section B1 (17 oaks)
- Section E (50 oaks, OW epicenter)
- 67 Red oaks total; Average 11.5" DBH
- Two large oak wilt-killed trees = 30" & 46" DBH, increases distance of root grafted trees, thus increases treatment area
- Fate of wood debris – Chip, bury, burn. May be left on site



Note: 172 Red oak trees were tagged;
67 removals = 39%

■ **Oak Wilt Management strategies Site #1 *Continued:***

1. Root-graft disruption
2. Infected and Non-symptomatic tree Removal - Sections B1 & E
3. **Herbicide use in conjunction with trench lines and tree removal.**



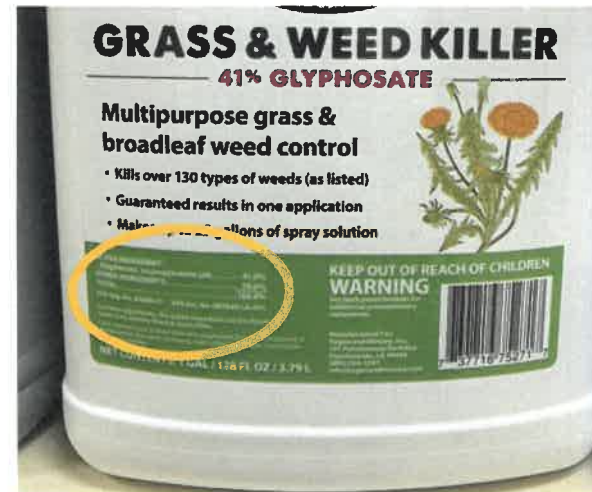
- **Objective:** shut-down (kill) 'pathway' used by fungus to progress to, infect more oaks
- Herbicide use alone least consistent treatment
- Low-cost measure for killing roots, aiding containment of fungal movement
- Treat fresh cuts immediately (5 minutes)
- **Stump treatment** recommended v. cup-cut girdle method for Burton park
 - One mobilization – Treat at time of tree removal
 - Public space – safety of standing girdled trees
- **Active ingredients:**
 - 41% glyphosate*, OR triclopyr ester, such as Garlon 4.
 - *Winter temperatures influence active ingredient choice
 - Follow label directions.

Glyphosate 41%

- Single active ingredient
- Labeled for stump treatment

Triclopyr/Oil

- Ester formulation & Oil carrier
- Less prone to freeze, use when temperatures <40 F



Product Examples



Site #1: Multi-year Oak wilt infection
Initiated 2020

Trench line Locations

Primary line = **Yellow**

Sections A – F = **Blue**

Section Information - # of Red oaks

A – 4

B1 – **17**

B2 – 6

C – 7

D – 10

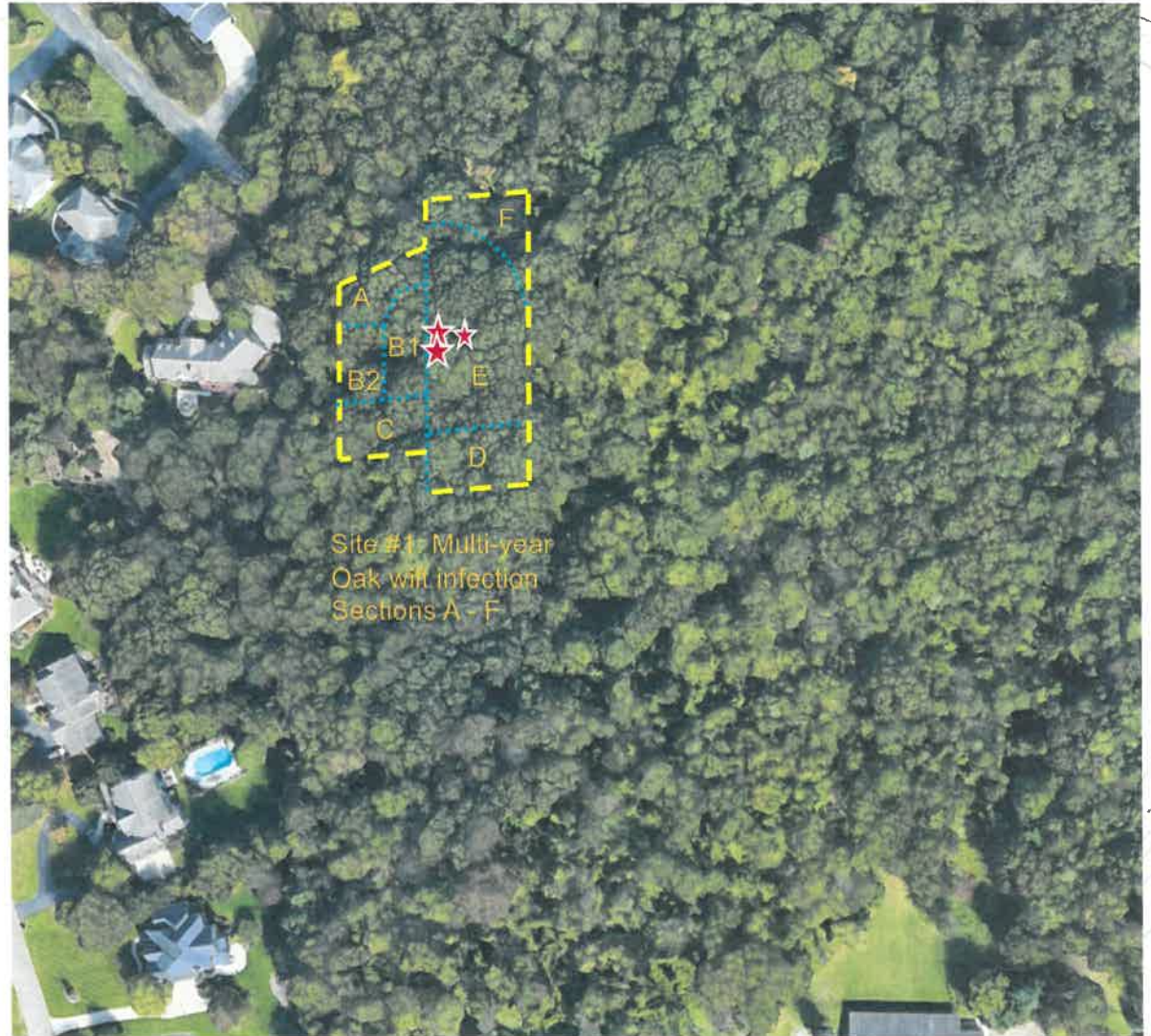
E – **50, Epicenter**

F – 16

Removing 67 of 110 Inside Yellow Perimeter
Retaining 43 in Sub-sections; Ave 14.25”

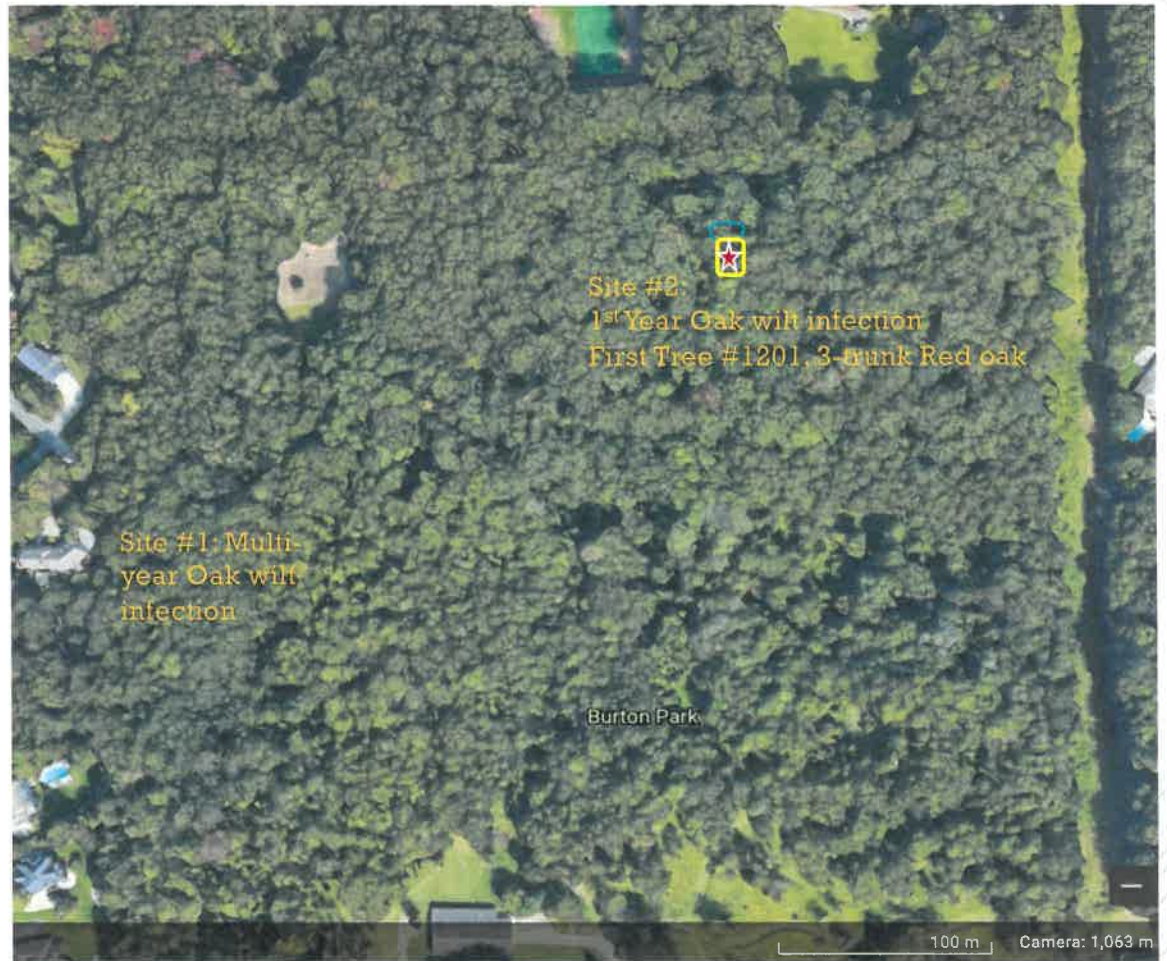
Tree Removal + Herbicide simultaneously
January - March 1, 2022

 **Oak Wilt-infected trees**



Site #2: First Year, First Tree Oak Wilt Infection; 2021

- ★ Red Oak #1201, 3-Trunk 30"/23"/23"
- Oak wilt containment plan:
 1. Tree removal and stump treatment
 - Root plate excavation not feasible
 - Tricolopyr ester/basal oil
 - Only 1 tree removal #1201
 2. Trench line added confidence
 - Primary line = Yellow
 - Additional Loop = Blue
 - In-house staff/equipment





- **Oak Wilt Management Strategy Site #1 and Site #2**

- 4. **MONITOR**

- Respond promptly
- Document all observation activity (tag #'s)
- 6 years; On-going
- Drones (UAV's)

Oak Wilt Management – Moving Forward

- 1. Trench, Remove, Treat**
- 2. Continue monitoring;** If oak wilt occurs inside trench-line, remove all red oaks within that section (A-F). Treat stumps.
- 3. Educate** neighbors, park visitors and friends:
MichiganOakWilt.org
- 4. Add data points** to MDNR interactive Oak Wilt Viewer
(Site Specific/Julie)

Michigan  **OakWilt.org**[™]

Cascade Charter Township Contacts

- **Ben Swayze – Township Supervisor**
- **Ginny Wanty – Chairperson Parks Committee**
virginiawanty@gmail.com # 616-481-4220
- **Jim MacDonald – Grounds Supervisor**
JMacDonald@cascadetwp.com #616-318-8785
- **Joe Engel – Vice Chair Parks Committee**

Thank you,

Julie Stachecki

ISA Certified Arborist MI-650; TRAQ;
MI Oak Wilt Qualified

810-599-0343



Know Your Oak Wilt Prevention ABCs

AVOID PRUNING FROM APRIL 15 – JULY 15
November through March is the safest time to prune oaks

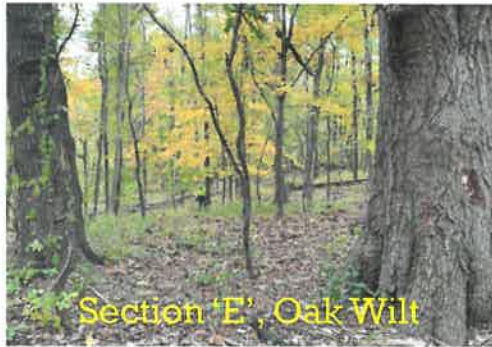
BURN LOCAL FIREWOOD
Moving wood spreads disease



COAT WOUNDS IN WARM WEATHER
Latex paint or pruning sealer are good choices

For more information visit: MichiganOakWilt.org

Miscellaneous Photos of Burton Park Site #1 and Staff



Burton Park Site #2, 3-trunk Red Oak #1201 is Oak wilt infected, identified by red arrow



Site Specific, Inc. Julie Stachecki

ISA Certified Arborist MI-650; TRAQ; MI Oak
Wilt Qualified
810-599-0343



Professional Responsibility

Subject to any limitations established by the Client (Cascade Charter Township) as to the degree of care and amount of time to be incurred and any other limitations contained in this Agreement, Contractor (Site Specific, Inc.) shall perform the services consistent with that level of care and skill ordinarily exercised by other professional consultants under similar circumstances at the time the services are performed. Client hereby acknowledges that whenever a project involves biological and meteorological systems, there are certain unpredictable factors involved which may adversely affect the results of the services, even though the services are performed with such skill and care. Contractors are not liable for damage, delays, or injury as a result of such occurrences. Contractor carries liability insurance to protect the business from claims for damages. Further, reference to products should not be taken as an endorsement. Follow all label directions and confirm applicator is trained and certified.



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 23, 2022
To: Supervisor Lesperance & Cascade Township Board
From: Benjamin Swayze, Township Manager
Subject: Burton Street Pedestrian Bridge Project

FACTS:

In 2018 the Township and Kent County Road Commission (KCRC) partnered to pursue grant funding for the Burton Street pathway extension and bridge over I-96. Concurrently, at the recommendation of the Citizens Pathway Ad-Hoc Committee, the Township placed a millage question on the ballot to extend (at a reduced rate) the pathway millage for 10-years. The millage was to be utilized for 5 different pathway extension projects in the Township (including the Burton Street pedestrian bridge) and provide for ongoing maintenance of the system. At the time of the grant application and millage proposal, the estimate for the project was between \$1.9 and \$2.1 million dollars. The TAP grant was awarded at \$1.29 million dollars with Township pathway funds contributing the rest.

In mid-2021 the project cost had increased to \$3.0 - \$3.2 million dollars. Reasons for the escalated project costs included:

- Poor soil conditions requiring additional piles (steel beams) for the projects in addition to the need for “pre-loading” the project site to combat settlement
- Need for additional retaining wall length and height on the west side of the project due to private property owner unwillingness to provide temporary grading easements on the property.
- Unanticipated accelerated construction and material costs due to inflation and supply chain management issues

Due to the escalated costs, in mid-2021 the Township Board voted to stop the project due to the cost escalations. Recently, MDOT staff and KCRC staff have had further discussions about the costs of the project. The discussions have resulted in two opportunities for the project to move forward at the Township cost originally anticipated.

- The project could be combined with the Burton Street Bridge redecking project currently anticipated for 2023. This would help with significant traffic control costs, which would be absorbed by the MDOT project.
- MDOT TAP program would contribute additional grant funds so that the Township contribution to the construction project would not exceed the \$800,000 anticipated in the original grant application.

Included for your review:

- Memo prepared by Fishbeck outlining the cost escalation issues

- Project cost estimates prepared by Fishbeck if MDOT takes traffic control responsibilities and costs
- Original millage approval report and recommendation to the Township Board from the Citizens Pathway Ad-Hoc Committee.

ANALYSIS & CONCLUSIONS:

The potential partnership with MDOT has provided a unique opportunity to move this project forward at the originally anticipated cost to the Township. MDOT has recognized the regional impact of this connection and the benefit it provides to not only Cascade residents but the regional population as well. According to Wayne Harrell, Deputy Managing Director of Engineering with the Kent County Road Commission, the original \$1,300,000 TAP grant for the Burton Street bridge was already the largest ever awarded for the region he was aware of, so the additional grant funding on top of the MDOT project picking up traffic control costs would be a significant funding influx for the project.

MDOT has indicated that they are beginning the development of their bridge preservation project yet this month, and need an indication from Cascade/KCRC whether or not to include the pedestrian bridge project in the bidding plans. If the Township should choose to participate, the project would be bid this fall and constructed during 2023.

FINANCIAL CONSIDERATIONS:

The 10-year budget projection for the pathway fund includes the Township portion of funding for the project. If approved by the Township Board, the Township portion of the funding for the project would be included in the 2023 budget

RECOMMENDED ACTION:

Provide direction to Township staff and KCRC on the Burton Street pedestrian bridge project.

Memo

TO: Steve Peterson – Cascade Charter Township Planner

FROM: Michael L. Berrevoets, PE

DATE: June 11, 2021 **PROJECT NO.:** 181734

RE: Burton Street Pathway over I-96

Information regarding the estimated cost for the Burton Street pathway and bridge over I-96.

In 2018 the Township and Kent County Road Commission (KCRC) partnered to pursue grant funding for the Burton Street pathway extension and bridge over I-96. Fishbeck provided estimated costs for the pathway portion and the KCRC provided an estimated cost for a prefabricated bridge section, based on some of their past project costs. The original construction estimates were between 1.9 and 2.1 million dollars, with \$1.29 million in TAP grant funding and the remainder being the Township match. The current cost estimate, which was presented to the Township Infrastructure committee on May 5, 2021 is approximately \$3.1 million dollars.

As a project progresses and more information is gathered, the design is refined and construction cost estimates (Engineer's Opinion of Probable Cost) are updated to reflect the current expected construction scope.

In this case, there are some major items that have resulted in the estimated construction cost increase. Those items are as follows:

1. The largest contributor to the estimated cost increase is the very poor soils that are present at the bridge abutment locations. As part of the design process (after the original cost estimates were prepared for the grant), soil borings were taken at the abutment locations to determine type of soil and bearing capacity. Borings had to be drilled to approximately 150' to gather the information needed. The poor soils in this location will require additional piles (steel beams driven into the ground) and additional depth of those piles to achieve the bearing capacity to support the bridge abutments and bridge. In this case, there needs to be 32 piles driven approximately 110' in depth at each abutment location to support the bridge. This is more than could have been predicted would be needed in this location to support a pedestrian bridge.
2. The soils in this location are also susceptible to settlement. This requires that the abutment area on both sides of I-96 be "pre-loaded" with embankment before the bridge construction may begin. This involves bringing in soil (13,000 cubic yards) and placing it in the area of the abutments to increase the load on the underlying soil to cause settlement to occur before construction begins. This is not typically required but is necessary in this case to prevent settlement and potential damage to the bridge after construction is complete. This is another step and material handling effort for the contractor.
3. Another large anticipated increase in construction cost is due to the addition of a large retaining wall on the west side of the proposed pedestrian bridge at the Right-of-Way line, where the MDOT Right-of-Way borders 4870 Burton Street SE. Due to the minimum height requirements of a pedestrian bridge over the interstate (I-96), the pedestrian pathway was required to be over 20' higher than the existing ground as it met the west side of the pedestrian bridge. The property owner of 4870 Burton Street SE would not allow any grading to be performed on his property, which forced the construction of a large retaining wall to keep all construction

activity in the public Right-of-Way. This retaining wall ended up being nearly 200' long and 18' tall in some locations. We have attempted to identify and design the most cost-effective wall type for this location. The property owner refused to negotiate, and all attempts to obtain permission for grading on his property were unsuccessful. As with all our pathway design, the original design assumes property owner participation with easements if it is the best, most efficient design. If that is not possible alternatives must be developed that may have additional costs.

4. Finally, the original estimate was prepared over 3 years ago. While there is always some expectation that construction prices will increase over time, the price increases recently have been exceeding that expectation. There was also some disruption to the 2020 construction season with projects being delayed until later in 2020 or in 2021. Lastly, bid prices have been coming in higher as contractors are busy, can't find additional help, and price in supply chain disruptions. As of right now, it is impossible to know if this trend will continue or stabilize soon.

In summary, the proposed pathway is placed in its designed location to minimize the amount of fill required, and the pedestrian bridge was designed to meet all bridge design guidelines without being overly decorative in a way that would increase costs. The increase in the cost estimates over the life of the project was due to changes added to counter unforeseen circumstances, namely the increase in elements required for abutment design, the preloading embankment, the large retaining wall, and an overall increase in construction labor and materials. The estimates are prepared by identifying the project quantities and then utilizing recent average bid prices that MDOT is receiving on projects. The actual construction cost of the project can only be determined when bids are received on the project.

By email

Copy: Gregory P. Whittle, PE – Fishbeck

Engineer's Opinion of Costs

Project Number: 203653	Project Engineer: GPW
Estimate Number: 9: Final Final Estimate Minus Traffic Control	Date Created: 11/15/2021
Project Type: Miscellaneous	Date Edited: 11/15/2021
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	Clearing	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	2040055	Sidewalk, Rem	10.000	Syd	\$15.00	\$150.00
0012	0001 Road	2040080	Exploratory Investigation, Vertical	10.000	Ft	\$35.00	\$350.00
0013	0001 Road	2050010	Embankment, CIP	11,330.000	Cyd	\$16.00	\$181,280.00
0014	0001 Road	2050016	Excavation, Earth	1,840.000	Cyd	\$10.00	\$18,400.00
0015	0001 Road	2050041	Subgrade Undercutting, Type II	100.000	Cyd	\$15.00	\$1,500.00
0016	0001 Road	2057001	_ Ditching, Modified	230.000	Ft	\$25.00	\$5,750.00
0017	0001 Road	2060002	Backfill, Structure, CIP	740.000	Cyd	\$23.00	\$17,020.00
0018	0001 Road	2060004	Backfill, Select	1,870.000	Cyd	\$22.00	\$41,140.00
0019	0001 Road	2080012	Erosion Control, Check Dam, Stone	21.000	Ft	\$22.00	\$462.00
0020	0001 Road	2080020	Erosion Control, Inlet Protection, Fabric Drop	11.000	Ea	\$140.00	\$1,540.00
0021	0001 Road	2080026	Erosion Control, Maintenance, Sediment Removal	200.000	Cyd	\$25.00	\$5,000.00
0022	0001 Road	2080034	Erosion Control, Sediment Trap	3.000	Ea	\$120.00	\$360.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0023	0001 Road	2080036	Erosion Control, Silt Fence	2,180.000	Ft	\$1.75	\$3,815.00
0024	0001 Road	2087001	_ Erosion Control, Sediment Log	930.000	Ft	\$10.00	\$9,300.00
0025	0001 Road	2090001	Project Cleanup	1.000	LSUM	\$6,000.00	\$6,000.00
0026	0001 Road	3010002	Subbase, CIP	12.000	Cyd	\$25.00	\$300.00
0027	0001 Road	3020016	Aggregate Base, 6 inch	1,950.000	Syd	\$10.00	\$19,500.00
0028	0001 Road	3020020	Aggregate Base, 8 inch	130.000	Syd	\$20.00	\$2,600.00
0029	0001 Road	4010012	Culv End Sect, 12 inch	5.000	Ea	\$600.00	\$3,000.00
0030	0001 Road	4010018	Culv End Sect, 18 inch	2.000	Ea	\$800.00	\$1,600.00
0031	0001 Road	4011109	Dr Marker Post	4.000	Ea	\$25.00	\$100.00
0032	0001 Road	4020033	Sewer, CI A, 12 inch, Tr Det B	121.000	Ft	\$75.00	\$9,075.00
0033	0001 Road	4020035	Sewer, CI A, 18 inch, Tr Det B	92.000	Ft	\$80.00	\$7,360.00
0034	0001 Road	4020153	Sewer, CI B, 12 inch, Tr Det A	55.000	Ft	\$75.00	\$4,125.00
0035	0001 Road	4020155	Sewer, CI B, 18 inch, Tr Det A	15.000	Ft	\$80.00	\$1,200.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0036	0001 Road	4020600	Sewer, CI E, 12 inch, Tr Det B	134.000	Ft	\$75.00	\$10,050.00
0037	0001 Road	4021204	Sewer Tap, 12 inch	2.000	Ea	\$550.00	\$1,100.00
0038	0001 Road	4021206	Sewer Tap, 18 inch	1.000	Ea	\$600.00	\$600.00
0039	0001 Road	4021260	Trench Undercut and Backfill	100.000	Cyd	\$30.00	\$3,000.00
0040	0001 Road	4021275	Video Taping Sewer and Culv Pipe	423.000	Ft	\$1.50	\$634.50
0041	0001 Road	4030010	Dr Structure Cover, Type B	2.000	Ea	\$600.00	\$1,200.00
0042	0001 Road	4030040	Dr Structure Cover, Type G	3.000	Ea	\$600.00	\$1,800.00
0043	0001 Road	4030050	Dr Structure Cover, Type K	5.000	Ea	\$700.00	\$3,500.00
0044	0001 Road	4030200	Dr Structure, 24 inch dia	1.000	Ea	\$1,200.00	\$1,200.00
0045	0001 Road	4030210	Dr Structure, 48 inch dia	7.000	Ea	\$2,500.00	\$17,500.00
0046	0001 Road	4030220	Dr Structure, 60 inch dia	2.000	Ea	\$3,000.00	\$6,000.00
0047	0001 Road	4030250	Dr Structure, Add Depth of 48 inch dia, 8 foot to 15 foot	6.000	Ft	\$120.00	\$720.00
0048	0001 Road	5010005	HMA Surface, Rem	163.000	Syd	\$6.00	\$978.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0049	0001 Road	5010025	Hand Patching	15.000	Ton	\$150.00	\$2,250.00
0050	0001 Road	5010061	HMA Approach	5.000	Ton	\$90.00	\$450.00
0051	0001 Road	7067010	_ Gravity Wall, Precast, Furn	530.000	Sft	\$26.00	\$13,780.00
0052	0001 Road	7067010	_ Gravity Wall, Precast, Install	530.000	Sft	\$14.00	\$7,420.00
0053	0001 Road	7067010	_ Mechanically Stabilized Earth Wall, Precast, Furn	2,150.000	Sft	\$31.00	\$66,650.00
0054	0001 Road	7067010	_ Mechanically Stabilized Earth Wall, Precast, Install	2,150.000	Sft	\$17.00	\$36,550.00
0055	0001 Road	8020038	Curb and Gutter, Conc, Det F4	295.000	Ft	\$30.00	\$8,850.00
0056	0001 Road	8027001	_ Curb and Gutter, Conc, Det F5, Modified	28.000	Ft	\$35.00	\$980.00
0057	0001 Road	8030010	Detectable Warning Surface	30.000	Ft	\$32.00	\$960.00
0058	0001 Road	8030030	Curb Ramp Opening, Conc	57.000	Ft	\$30.00	\$1,710.00
0059	0001 Road	8030036	Sidewalk Ramp, Conc, 6 inch	500.000	Sft	\$6.00	\$3,000.00
0060	0001 Road	8060020	Shared use Path, Conc	52.000	Syd	\$50.00	\$2,600.00
0061	0001 Road	8060040	Shared use Path, HMA	335.000	Ton	\$90.00	\$30,150.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0062	0001 Road	8067001	_ Pathway Grading	1,697.000	Ft	\$25.00	\$42,425.00
0063	0001 Road	8080002	Fence, Woven Wire with Steel Post	270.000	Ft	\$12.00	\$3,240.00
0064	0001 Road	8087001	_ Black Vinyl Coated Chain Link Fence, 48 inch	1,035.000	Ft	\$20.00	\$20,700.00
0065	0001 Road	8100371	Post, Steel, 3 lb	42.000	Ft	\$8.00	\$336.00
0066	0001 Road	8100402	Sign, Type III, Erect, Salv	1.000	Ea	\$50.00	\$50.00
0067	0001 Road	8100403	Sign, Type III, Rem	1.000	Ea	\$20.00	\$20.00
0068	0001 Road	8100404	Sign, Type IIIA	1.000	Sft	\$25.00	\$25.00
0069	0001 Road	8100405	Sign, Type IIIB	1.000	Sft	\$25.00	\$25.00
0070	0001 Road	8110063	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	2.000	Ea	\$130.00	\$260.00
0071	0001 Road	8110068	Pavt Mrkg, Ovly Cold Plastic, Only	1.000	Ea	\$130.00	\$130.00
0072	0001 Road	8110094	Pavt Mrkg, Polyurea, 6 inch, White	82.000	Ft	\$3.00	\$246.00
0073	0001 Road	8110110	Pavt Mrkg, Polyurea, 12 inch, Crosswalk	220.000	Ft	\$6.00	\$1,320.00
0074	0001 Road	8110114	Pavt Mrkg, Polyurea, 24 inch, Stop Bar	24.000	Ft	\$10.00	\$240.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0075	0001 Road	8110343	Rem Spec Mrkg	114.000	Sft	\$2.00	\$228.00
0076	0001 Road	8110350	Witness, Log, \$1,000.00	1,000.000	Dir	\$1.00	\$1,000.00
0077	0001 Road	8120012	Barricade, Type III, High Intensity, Double Sided, Lighted, Furn	4.000	Ea	\$90.00	\$360.00
0078	0001 Road	8120013	Barricade, Type III, High Intensity, Double Sided, Lighted, Oper	4.000	Ea	\$10.00	\$40.00
0079	0001 Road	8120022	Barricade, Type III, High Intensity, Lighted, Furn	4.000	Ea	\$90.00	\$360.00
0080	0001 Road	8120023	Barricade, Type III, High Intensity, Lighted, Oper	4.000	Ea	\$10.00	\$40.00
0081	0001 Road	8120035	Channelizing Device, 42 inch, Fluorescent, Furn	100.000	Ea	\$25.00	\$2,500.00
0082	0001 Road	8120036	Channelizing Device, 42 inch, Fluorescent, Oper	100.000	Ea	\$4.00	\$400.00
0083	0001 Road	8120140	Lighted Arrow, Type C, Furn	2.000	Ea	\$500.00	\$1,000.00
0084	0001 Road	8120141	Lighted Arrow, Type C, Oper	2.000	Ea	\$80.00	\$160.00
0085	0001 Road	8120142	Lighted Arrow, Type C, Standby	1.000	Ea	\$300.00	\$300.00
0086	0001 Road	8120160	Ltg for Night Work	1.000	LSUM	\$6,500.00	\$6,500.00
0087	0001 Road	8120170	Minor Traf Devices	0.500	LSUM	\$20,000.00	\$10,000.00
0088	0001 Road	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	181.000	Ft	\$0.65	\$117.65

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0089	0001 Road	8120211	Pavt Mrkg, Longit, Greater than 6 inch Width, Rem	26.000	Ft	\$2.00	\$52.00
0090	0001 Road	8120330	Sign, Portable, Changeable Message, Furn	2.000	Ea	\$3,000.00	\$6,000.00
0091	0001 Road	8120331	Sign, Portable, Changeable Message, Oper	2.000	Ea	\$300.00	\$600.00
0092	0001 Road	8120350	Sign, Type B, Temp, Prismatic, Furn	341.000	Sft	\$5.00	\$1,705.00
0093	0001 Road	8120351	Sign, Type B, Temp, Prismatic, Oper	341.000	Sft	\$1.50	\$511.50
0094	0001 Road	8130010	Riprap, Plain	170.000	Syd	\$75.00	\$12,750.00
0095	0001 Road	8160100	Slope Restoration, Type A	610.000	Syd	\$2.50	\$1,525.00
0096	0001 Road	8160101	Slope Restoration, Type B	5,440.000	Syd	\$3.00	\$16,320.00
0097	0001 Road	8160102	Slope Restoration, Type C	2,070.000	Syd	\$4.00	\$8,280.00
0098	0001 Road	8160103	Slope Restoration, Type D	340.000	Syd	\$5.00	\$1,700.00
0099	0001 Road	8190027	Conduit, DB, 1, 1 1/2 inch	15.000	Ft	\$15.00	\$225.00
0100	0001 Road	8190159	Conduit, Schedule 80 PVC, 3 inch	100.000	Ft	\$10.00	\$1,000.00
0101	0001 Road	8200100	Pedestal, Alum	1.000	Ea	\$800.00	\$800.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0102	0001 Road	8200105	Pedestal, Fdn	1.000	Ea	\$870.00	\$870.00
0103	0001 Road	8200180	TS, Pedestrian, Bracket Arm Mtd, Rem	1.000	Ea	\$105.00	\$105.00
0104	0001 Road	8200344	TS, Pedestrian, One Way Pedestal Mtd (LED)	1.000	Ea	\$1,030.00	\$1,030.00
0105	0001 Road	8200422	Wireless Vehicle Detection System	1.000	Ea	\$6,600.00	\$6,600.00
0106	0001 Road	8200425	Wireless Vehicle Sensor Node	6.000	Ea	\$930.00	\$5,580.00
0107	0001 Road	8230431	Gate Box, Adj, Case 1	1.000	Ea	\$500.00	\$500.00
0108	0001 Road	8230432	Gate Box, Adj, Case 2	1.000	Ea	\$300.00	\$300.00
0109	0002 Bridge	2030015	Sewer, Rem, Less than 24 inch	90.000	Ft	\$15.00	\$1,350.00
0110	0002 Bridge	2050012	Embankment, Structure, CIP	200.000	Cyd	\$20.00	\$4,000.00
0111	0002 Bridge	2057051	_ Dewatering System	1.000	LSUM	\$15,000.00	\$15,000.00
0112	0002 Bridge	2057051	_ Embankment, CIP, Special	1.000	LSUM	\$80,000.00	\$80,000.00
0113	0002 Bridge	2057051	_ Excavation, Earth, Special	1.000	LSUM	\$90,000.00	\$90,000.00
0114	0002 Bridge	2057051	_ Geotechnical Instrumentation Hardware (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00
0115	0002 Bridge	2057051	_ Geotechnical Instrumentation Installation (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0116	0002 Bridge	2057051	_ Geotechnical Instrumentation Monitoring (P01 of 41025)	1.000	LSUM	\$5,000.00	\$5,000.00
0117	0002 Bridge	2060002	Backfill, Structure, CIP	900.000	Cyd	\$23.00	\$20,700.00
0118	0002 Bridge	2060010	Excavation, Fdn	9,380.000	Cyd	\$14.00	\$131,320.00
0119	0002 Bridge	2067021	_ Fill, Lightweight, EPS Block	860.000	Cyd	\$100.00	\$86,000.00
0120	0002 Bridge	2080026	Erosion Control, Maintenance, Sediment Removal	10.000	Cyd	\$25.00	\$250.00
0121	0002 Bridge	2080036	Erosion Control, Silt Fence	900.000	Ft	\$1.75	\$1,575.00
0122	0002 Bridge	2080040	Erosion Control, Temp Plastic Sheet/ Geotextile Cover	2,590.000	Syd	\$5.00	\$12,950.00
0123	0002 Bridge	3020002	Aggregate Base, LM	630.000	Cyd	\$18.00	\$11,340.00
0124	0002 Bridge	4020305	Sewer, CI C, 18 inch, Tr Det A	90.000	Ft	\$65.00	\$5,850.00
0125	0002 Bridge	4040031	Underdrain, Fdn, 4 inch	490.000	Ft	\$6.00	\$2,940.00
0126	0002 Bridge	4040091	Underdrain Outlet, 4 inch	40.000	Ft	\$15.00	\$600.00
0127	0002 Bridge	4040111	Underdrain, Outlet Ending, 4 inch	4.000	Ea	\$180.00	\$720.00
0128	0002 Bridge	6027021	_ Conc Base Cse, Reinf, Modified	80.000	Cyd	\$250.00	\$20,000.00
0129	0002 Bridge	7050001	Prebore, Fdn Piling	275.000	Ft	\$44.50	\$12,237.50

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0130	0002 Bridge	7050002	Pile Driving Equipment, Furn (P01 of 41025)	1.000	LSUM	\$142,050.00	\$142,050.00
0131	0002 Bridge	7050034	Pile, Steel, Furn and Driven, 14 inch	9,470.000	Ft	\$26.00	\$246,220.00
0132	0002 Bridge	7050050	Pile, Steel, Splice	168.000	Ea	\$69.00	\$11,592.00
0133	0002 Bridge	7057050	_ Test Pile, Dynamic Analysis	6.000	Ea	\$1,000.00	\$6,000.00
0134	0002 Bridge	7057050	_ Test Pile, Furn Dynamic Analysis Equipment	3.000	Ea	\$1,000.00	\$3,000.00
0135	0002 Bridge	7060001	Bridge Ltg, Furn and Rem (P01 of 41025)	1.000	LSUM	\$500.00	\$500.00
0136	0002 Bridge	7060002	Bridge Ltg, Oper and Maintain	166.000	Cyd	\$2.00	\$332.00
0137	0002 Bridge	7060040	Elec Grounding System	1.000	Ea	\$1,610.00	\$1,610.00
0138	0002 Bridge	7060050	Expansion Joint Device	22.000	Ft	\$200.00	\$4,400.00
0139	0002 Bridge	7060051	Expansion Joint Device, Cover Plate	22.000	Ft	\$175.00	\$3,850.00
0140	0002 Bridge	7060060	False Decking	4,032.000	Sft	\$0.50	\$2,016.00
0141	0002 Bridge	7060092	Reinforcement, Steel, Epoxy Coated	86,116.000	Lb	\$1.00	\$86,116.00
0142	0002 Bridge	7060100	Substructure Conc	862.000	Cyd	\$522.86	\$450,705.32

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0143	0002 Bridge	7060110	Superstructure Conc	31.000	Cyd	\$214.20	\$6,640.20
0144	0002 Bridge	7060111	Superstructure Conc, Form, Finish, and Cure (P01 of 41025)	1.000	LSUM	\$13,020.00	\$13,020.00
0145	0002 Bridge	7060112	Superstructure Conc, Form, Finish, and Cure, Night Casting (P01 of 41025)	1.000	LSUM	\$69,720.00	\$69,720.00
0146	0002 Bridge	7060113	Superstructure Conc, Night Casting	166.000	Cyd	\$208.04	\$34,534.64
0147	0002 Bridge	7060209	Liner, PVC, 30 mil	380.000	Syd	\$10.00	\$3,800.00
0148	0002 Bridge	7067011	_ Simulated Stone Masonry	360.000	Syd	\$15.00	\$5,400.00
0149	0002 Bridge	7067011	_ Texturing Conc	360.000	Syd	\$15.00	\$5,400.00
0150	0002 Bridge	7070020	Bearing, Elastomeric, 3 inch	3,996.000	Sin	\$1.00	\$3,996.00
0151	0002 Bridge	7070053	Steel Diaphragm, Prest Conc Beam, Furn and Fab	2,450.000	Lb	\$4.00	\$9,800.00
0152	0002 Bridge	7070054	Steel Diaphragm, Prest Conc Beam, Erect	2,450.000	Lb	\$2.50	\$6,125.00
0153	0002 Bridge	7080125	Prest Conc Bulb-Tee Beam, Furn, 54 inch by 49 inch	849.000	Ft	\$250.00	\$212,250.00
0154	0002 Bridge	7080126	Prest Conc Bulb-Tee Beam, Erect, 54 inch by 49 inch	849.000	Ft	\$25.00	\$21,225.00
0155	0002 Bridge	7100001	Joint Waterproofing	380.000	Sft	\$6.00	\$2,280.00
0156	0002 Bridge	7100011	Conc Surface Coating	1,170.000	Syd	\$10.00	\$11,700.00

Line	Category	Pay Item	Description	Quantity	Units	Unit Price	Total
0157	0002 Bridge	7100030	Substructure Horizontal Surface Sealer	10.000	Syd	\$50.26	\$502.60
0158	0002 Bridge	8007051	_ Vibration Monitoring, Utility	1.000	LSUM	\$10,000.00	\$10,000.00
0159	0002 Bridge	8080110	Fence, Structure	6,080.000	Sft	\$12.00	\$72,960.00

Estimate Total: \$2,994,681.91



CASCADE CHARTER TOWNSHIP

2865 Thornhills SE Grand Rapids, Michigan 49546-7140

Date: July 25, 2018
To: Supervisor Beahan and Township Board Members
From: Ben Swayze, Township Manager
Subject: Resolution to put the Pathway Maintenance and Construction Millage Renewal on the November General Election Ballot

FACTS:

Currently Cascade Township levies 0.3985 mills (rolled back from 0.4000 mills) for the purpose of acquiring, constructing, installing and maintaining public pedestrian pathways. The millage was originally approved by the residents of Cascade in 1998 and has been levied for the past 20 years. 2017 was the last year of collection for the current millage. The millage was utilized to construct and maintain the Cascade pedestrian pathway system, which covers approximately 17 miles in the Township.

In 2017 a Cascade Citizen Pathway Committee was formed to determine the “next steps” for the Cascade Pathway system. The committee conducted a survey of the Cascade citizenry (approximately 668 responses) to gauge the interest in possible expansion of the system. In general, the survey found:

- A strong ratification (94% of respondents) that the Township community values the pathway system, and that it should be thoughtfully expanded (90% of residents)
- Safety and intra-community connections are very important considerations
- An affirmation of the Pathway Committee’s recommendations of prioritized pathway additions.

After receiving the committee report, the Infrastructure Committee and Personnel and Finance Committee were tasked with making a recommendation to the Township Board regarding expansion and maintenance of the pathway system as well as placing a millage renewal on the ballot. An analysis of their discussion and recommendations is in the next section.

Attached for your review are:

- Citizens Pathway Committee Report
- Proposed Resolution Authorizing Pathway Millage Renewal on the November 2018 ballot
- Projected 10-year Budget for Pathway Fund

ANALYSIS & CONCLUSIONS:

Earlier this year the Infrastructure Committee had the opportunity to review the recommendations from the Citizens Pathway Committee. After reviewing the survey results and recommendations, the Infrastructure Committee recommended that the Township Board consider

building the sections of pathway recommended by the committee, as well as develop a long-term solution for ongoing maintenance of the existing and future pathways. The committee also recommended exploring the constructability of the pathway recommended on Thornapple River Drive between Thornhills and Cascade Road. As part of the exploration process, the Township engineers did a preliminary design plan for this section of pathway. However, due to geographical constraints, the pathway would require significant cooperation from several homeowners on this section of proposed pathway. After meeting several times with those homeowners, we have determined that participation from them is unlikely, and that this section of pathway should not be included in those proposed to be built should the millage pass. Instead, staff is recommending the construction of an alternate pathway that would stretch from Burger to Thornhills on Thornapple River Drive.

The Personnel and Finance Committee was tasked with review the potential funding options for construction and maintenance of the pathways as recommended by the Infrastructure Committee. The committee reviewed several different options including:

- Use of existing revenues and fund balance.
- Pathway Millage Renewal
 - 10 years
 - 20 years

It was determined early in the process that the use of existing funds was not a viable option, and the balance remaining in the Pathway funds would not cover the pathways recommended to be constructed. Additionally, utilizing those funds would deplete the monies needed for ongoing maintenance for the system should a millage renewal not be pursued or approved.

The Personnel and Finance Committee then reviewed possible millage scenarios utilizing a 10 year and 20 year budgeting forecast model. Expenditures included in the budget forecast were:

- Debt service on bonds for the construction of the pathways.
- Staff (1 Buildings and Grounds FTE) for the maintenance of the pathways
- Long term maintenance/reconstruction expenditures (\$100,000 in year 1, 3% annual increase)

After considering several models, the committee has recommended a 10-year millage at 0.3500 mills. This represents a 0.0500 mill reduction over what was authorized by the Cascade residents in 1998 and a 0.0485 reduction over the pathway millage that was levied in 2017. The budget forecast model that was utilized by the Personnel and Finance Committee to make their recommendation is attached for your review. Should it be ultimately approved by the residents of Cascade, the millage would raise approximately \$535,500 in the first year of the millage (2018). For a Cascade homeowner with a house valued at \$300,000, the millage would cost \$52.50 in the first year.

FINANCIAL CONSIDERATIONS:

At the end of FY2018 – the last year for collection of the current millage – the Pathways fund is estimated to have a fund balance of \$1,620,954. This was done by design to ensure there are monies available for the long-term maintenance of the pathway system should the millage not be renewed.

Should the millage be renewed by the residents of Cascade, the millage was sized to once again ensure long-term maintenance monies are available should the millage not be renewed in the future. If approved, the millage will generate approximately \$535,500 in the first year of collection.

RECOMMENDED ACTION:

To approve the Resolution to Submit a Renewal for a Public Pathways Construction and Maintenance Ballot Proposal to the Electors at the November 2018 General Election.

**CASCADE CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN**

RESOLUTION ___ of 2018

**RESOLUTION TO SUBMIT A RENEWAL FOR A PUBLIC PATHWAYS
CONSTRUCTION AND MAINTENANCE BALLOT PROPOSAL TO THE ELECTORS
AT THE NOVEMBER 2018 GENERAL ELECTION**

Minutes of a regular meeting of the Township Board of Cascade charter Township, County of Kent, State of Michigan, held at the Wisner Center in said Township on July 25, 2018 at 7:00 o'clock p.m., Eastern Daylight Time

PRESENT: Members _____

ABSENT: Members _____

The following preamble and resolution were offered by Board Member _____ and supported by Board Member _____.

WHEREAS, Section 27 of the Charter Township Act, Act 90 of the Public Acts of Michigan of 1976, as amended, authorizes the electors of a charter township, such as Cascade Charter Township, to increase the real and personal property tax levy in said township to up to 10 mills for a period of not to exceed 20 years at one time; and

WHEREAS, after study and analysis by a committee of the Township Board of the present and future public pathway construction and maintenance needs of Township residents and the resources available to provide those needs, the committee has recommended that a ballot proposal for continued funding of the construction and maintenance needs of the Cascade Public Pathways System be submitted to the electors of the Township at the November 2018 election; and

WHEREAS, the Township Board accepts the recommendation to submit the ballot proposal to the electors subject to the provisions of this resolution.

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. That the Township Clerk is directed to request the Kent County Election Commission to place the hereinafter set forth a public pathways construction and maintenance ballot proposal on the November 6, 2018 general election.

2. That the following ballot proposal shall be submitted to the electors:

Shall the previously voted increase in the constitutional tax rate limitation of general ad valorem taxes within Township of Cascade of 0.4000 mills, reduced to 0.3985 mills (39.85 cents per \$1,000 of taxable value) by required millage rollbacks, be renewed at 0.3500 mills for a period of ten (10) years, 2018 through 2027, inclusive, for the purpose of continuation of funding of the Construction and Maintenance of the Cascade Township Public Pathway System.

This millage renewal would raise an estimated \$535,500 in the first year of the levy. To the extent required by law, a small portion of the tax levy revenues (approximately \$19,997 in the first year) will be captured and disbursed to the Township's Downtown Development Authority for its use.

3. That all resolutions or parts of resolutions in conflict herewith shall be and the same are hereby rescinded to the extent of any such conflict.

YEAS: Board members _____

NAYS: Board members _____

ABSTAIN: Board members _____

ABSENT: Board members _____

(Certification on Next Page)

RESOLUTION DECLARED ADOPTED

Susan B. Slater, Township Clerk

I HEREBY CERTIFY that the foregoing is a true and complete copy of a resolution adopted by the Township Board of Cascade Charter Township, County of Kent, Michigan, at a regular meeting held on July 25, 2018, and that said meeting was conducted and public notice of said meeting was given pursuant to and in full compliance with the Open Meetings Act, being Act 267, Public Acts of Michigan, 1976, and that the minutes of said meeting were kept and will be or have been made available as required by said Act.

Dated: _____

Susan B. Slater, Township Clerk

MEMORANDUM

To: Cascade Charter Township Board
From: Daniel Waugh, Citizen Pathway Committee spokesperson
Subject: Pathway Recommendations
Meeting Date: November 1, 2017

The Citizen Pathway Committee was formed with township resident volunteers in April of this year. The committee was challenged with providing an informed recommendation to the Township Board regarding interest, if any, in expanding the Township pathway system.

The Committee has developed recommendations for your consideration. In order to provide these recommendations, the committee first developed a mission statement and a framework of guiding principles for that mission statement that would guide our thinking.

The Committee, rather quickly, developed a point of view that additional trails were desired by the Township populace. The focus then turned to gathering data and studying Township maps as well as surrounding community's pathway maps. Plans and timelines for surrounding community pathway projects were factored into Committee thinking when discussing possible pathway additions. A candidate list was developed and a local engineering firm FTC&H, was engaged for feasibility and conceptual cost estimates for each segment.

Other fiscal factors, DDA funding and Road Commission contribution were also considered. The list was finalized and included in an online survey (attached).

The survey, developed by the Committee and advertised on social media, experienced an exceptionally high level of participation from Township residents. Key takeaways from the survey were:

- A strong ratification (94% of respondents) that the Township community values the pathway system, and that it should be thoughtfully expanded (90% of respondents).
- Safety and intra-Township community connections are very important considerations (these attributes were key guiding principles for the Committee's mission statement).
- An affirmation of the Pathway Committee's recommendations of prioritized pathway additions.

Following the survey, an open house was held at the Wisner Center. It was well attended by the community. Committee members were there to answer questions. In general, the open house feedback provided further validation of the survey results.

The following table shows the proposed pathways as they appeared in the survey questions; followed by our recommendations on whether these new pathways should be considered by the Township board.

Potential Arguments for/against	Survey Rank	Comments/Recommendations
<p>1. Cascade Road 36th Street to Whitneyville</p> <p>\$585,650 estimate</p>	High	<ul style="list-style-type: none"> • High desire score in survey • Provides connections to several neighborhoods • Improves safety • appears to be feasible to construct • <i>Recommend to construct</i>
<p>2. Cascade Road Watermark Dr to Hall (South/West side of road)</p> <p>\$614,575 estimate</p>	High	<ul style="list-style-type: none"> • Provides connection to Watermark neighborhood as well as businesses between Hall and Watermark. • Improves safety • Appears to be feasible to construct • Duplicate path • <i>Recommend to construct</i>
<p>3. Patterson Ave 28th Street to Broadmoor</p> <p>\$2,124,525 estimate</p>	Low	<ul style="list-style-type: none"> • Lowest desire scores in survey • Low desire for connections to south • Low desire for connections to business area • <i>Recommend that it NOT be constructed</i>
<p>4. 28th Street Buttrick Ave to Snow Ave</p> <p>\$1,820,975 estimate</p>	Low	<ul style="list-style-type: none"> • Low desire scores in survey • No planned pathway connections in Lowell • Low density area • <i>Recommend that it NOT be constructed</i>
<p>5. Cascade Road Whitneyville Ave to Snow Ave</p> <p>\$2,101,450 estimate</p>	Low	<ul style="list-style-type: none"> • Low desire scores in survey • No planned pathway connections in Lowell • Low density area • <i>Recommend that it NOT be constructed</i>
<p>6. Cascade Road Burton to 28th st (South/West side of road)</p> <p>\$280,000 estimate less partnering with DDA</p>	High	<ul style="list-style-type: none"> • High desire score in survey • Partner with DDA • Improves connection to Caravelle village without crossing Cascade Rd • Improves safety in area • <i>Recommend to construct</i>

Potential Segment with Cost Estimate	Survey Rank	Committee Comments and Recommendation
<p>7. Thornapple River Dr From Cascade Rd to Thornhills</p> <p>\$2,836,113 estimate</p>	High	<ul style="list-style-type: none"> • Highest desire score in survey • Improves safety in the area • Provides indirect connection from village area to multiple subdivision south off Burger Dr. • Expensive • May require alternative design to fit in or may not be viable • Consideration will need to be given in design to maintain safety with any alternative design • Recommend to construct
<p>8. Burton Street Spaulding to Patterson</p> <p>\$2,132,000 estimate, less Road Commission funding (tbd)</p>	High	<ul style="list-style-type: none"> • Med-High desire score in survey • Kent County Road Commission has agreed to apply for significant grant funding to assist in funding. • Provides connection between pathway system in Cascade and sidewalk system in City of Kentwood. • Provide connection through I-96 • Recommend to Construct
<p>9. Thornapple River Dr Burger to Thornhills</p> <p>\$300,000 estimate</p>	High	<ul style="list-style-type: none"> • High desire score in survey • Provides limited connection to multiple subdivisions off Burger • No connection to village area • Recommend to construct if #7 is not viable.

To summarize, the Committee recommends moving forward with five of the nine segments listed; with number 9 as an alternative to number 7, in the event that number 7 is not viable due to constraints of the terrain.

The above recommendations best reflect the Committee's and by extension, the Township community's priority point of view. Based on feedback from the write-in portion of the survey the Committee also suggests that the Township Board may consider providing connections to Pine Ridge and Thornapple Elementary schools as well as an expanded sidewalk on Hall Street from Forest Hills High School to Ballybunion. While these two additions are secondary in priority to the Table of recommendations, the committee felt that these would assist in meeting the safety and connection goals of the mission

statement. However, the Committee has not pursued conceptual cost estimates on these write-in requests and is not suggesting that the Board must include these in the go-forward plan. Rather, we view this as at the discretion of the Board.

The Committee also recommends that any funding for new pathways be adequate to not only construct the new pathways, but to also provide adequate labor and equipment to maintain any additional pathways without sacrificing the quality and user experience of the existing pathway system.

Looking to the future and the potential for population swings, the Committee recommends a review in 3-5 years of the Northeast and South areas of the Township that are currently less densely populated, and are less served by the pathway system today.

In closing, the Citizen Pathway Committee feels that this Pathway Recommendation has strong support from the community to enhance safety and well-being; and to improve pedestrian connections within our township. We would like to thank Steve Peterson for his guidance and support; and for the Township Boards consideration and support of this opportunity for our Cascade community.

Attachments

Mission Statement

Public survey results

FTC&H Conceptual Costs

2017

Citizen pathway committee

Mission statement

The Citizen pathway committee will provide a recommendation to the Township Board regarding the interest, if any, in constructing more pathways in the Township.

The Committee has determined that the following issues will provide the framework for that recommendation.

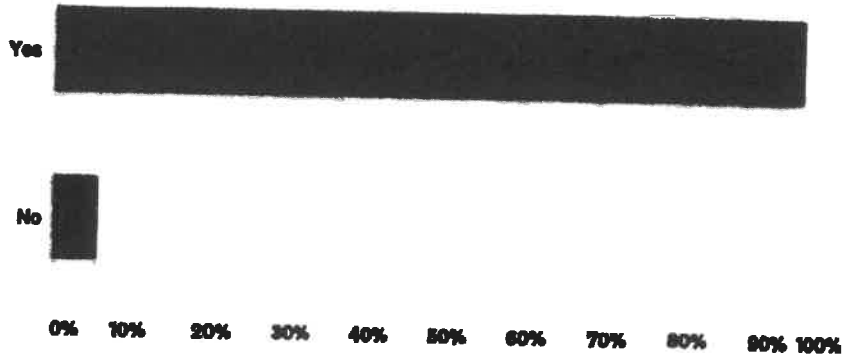
- **Providing a healthy lifestyle in the Township.**
- **Increase the safety of non-motorized mode of transportation.**
- **Provide links to other trails uses such as parks, neighboring trail systems, schools, commercial areas, etc.**
- **Following the recommendations of other Township Planning Documents such as the Master plan, the Parks plan and the DDA plan.**
- **Providing pedestrian connections to connect cascade neighborhoods.**
- **Feasibility to construct any new pathways**
- **Ability to maintain any new/existing pathways**

Citizen Pathway Committee members:

Cheryl Timyan Tom Grias, Joel Goldberg, Kris Taylor, Kathy Taylor, Denise Mazur, Tom Richardson, Daniel Waugh

Q1 Do you believe more pathways benefit the community?

Answered: 663 Skipped: 5



ANSWER CHOICES

Yes

No

TOTAL

RESPONSES

94.27%

5.73%

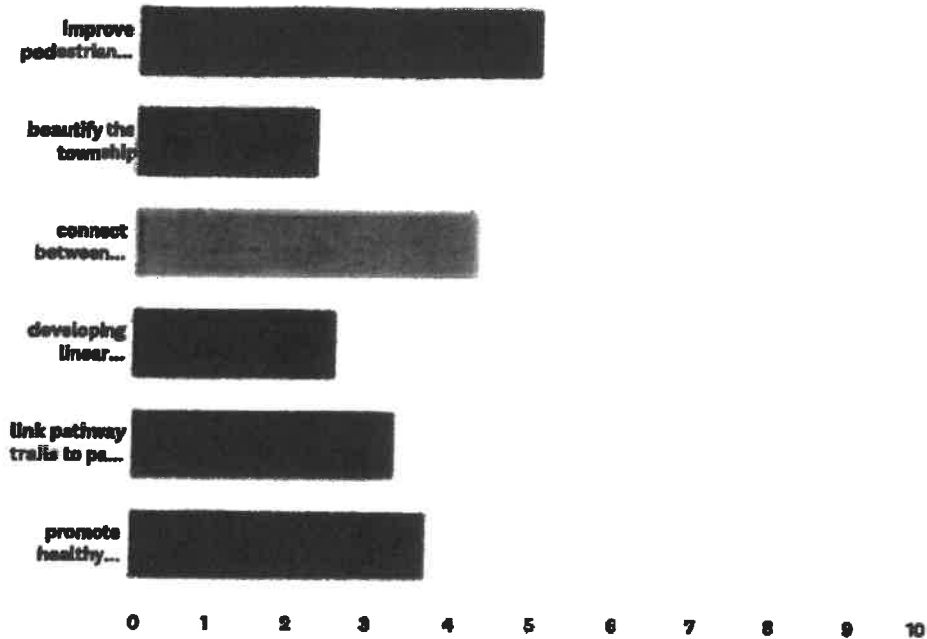
625

38

663

Q2 Which is the highest priority regarding the pathway trails? Please rank in order of your priority (with 1 being the highest priority and 6 the lowest).

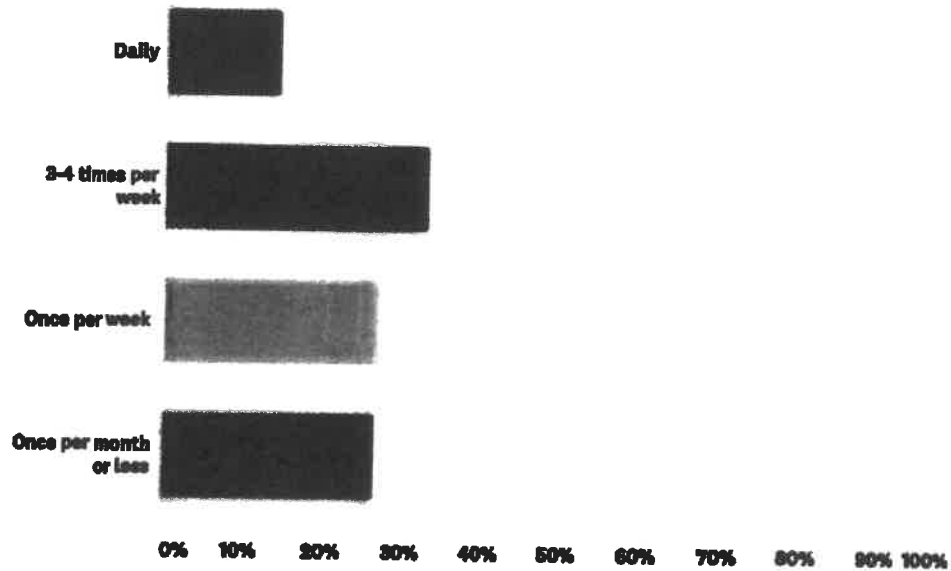
Answered: 659 Skipped: 9



	1	2	3	4	5	6	TOTAL	SCORE
improve pedestrian safety	58.40% 365	14.24% 89	11.52% 72	6.72% 42	6.06% 38	3.04% 19	625	5.03
beautify the township	1.52% 9	5.07% 30	12.16% 72	19.93% 118	26.18% 155	35.14% 208	582	2.30
connect between schools, trails and shops	18.08% 110	34.87% 212	21.88% 133	14.14% 86	8.06% 49	2.96% 18	608	4.32
developing linear recreational parks	3.78% 23	8.06% 49	13.62% 84	18.26% 111	27.63% 168	28.45% 173	608	2.57
link pathway trails to paths of other communities	8.90% 55	15.37% 85	22.33% 138	21.04% 130	17.48% 108	14.89% 82	618	3.33
promote healthy lifestyle	13.97% 89	23.38% 149	19.94% 127	18.52% 118	12.40% 79	11.77% 75	637	3.73

Q3 How often do you use the trail system?

Answered: 661 Skipped: 7



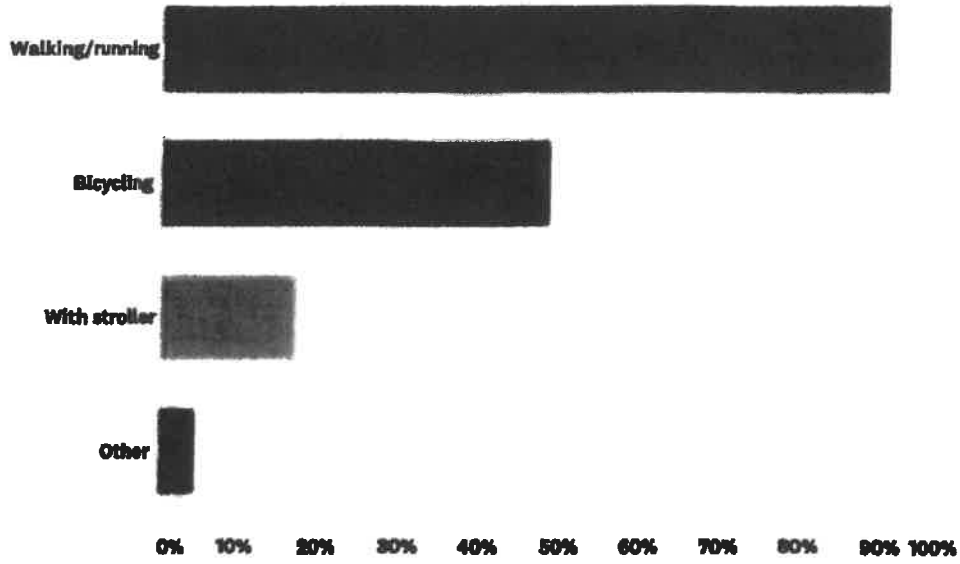
ANSWER CHOICES

RESPONSES

Daily	14.07%	83
3-4 times per week	32.83%	217
Once per week	26.78%	177
Once per month or less	26.32%	174
TOTAL		661

Q4 How do you use the trail system? (check all that apply)

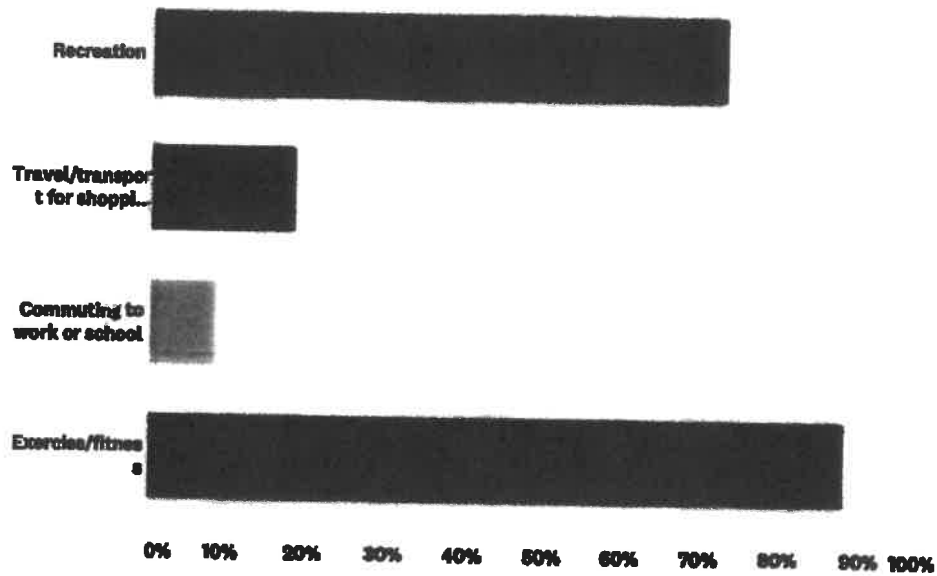
Answered: 660 Skipped: 8



ANSWER CHOICES	RESPONSES	
Walking/running	90.81%	598
Bicycling	48.33%	319
With stroller	17.12%	113
Other	4.70%	31
Total Respondents: 660		

Q5 For what do you use the trail system? (check all that apply)

Answered: 655 Skipped: 13



ANSWER CHOICES

Recreation

Travel/transport for shopping, errands

Commuting to work or school

Exercise/fitness

Total Respondents: 655

RESPONSES

72.87%

18.47%

8.55%

87.94%

476

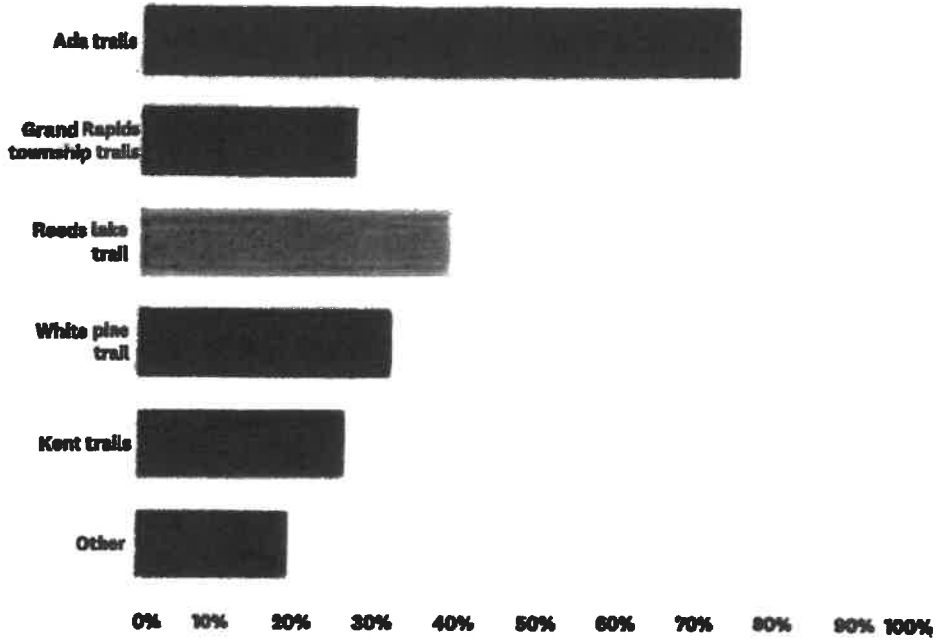
121

56

576

Q6 What other local trails do you use?

Answered: 620 Skipped: 48



ANSWER CHOICES

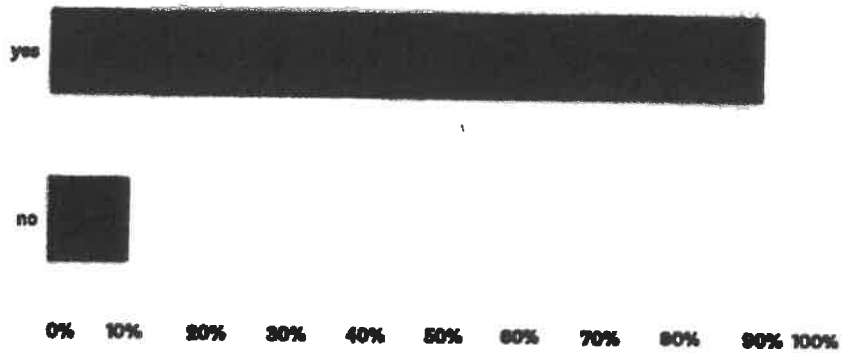
RESPONSES

Ada trails	74.65%	463
Grand Rapids township trails	27.10%	168
Reeds lake trail	38.87%	241
White pine trail	31.77%	197
Kent trails	28.45%	164
Other	19.35%	120

Total Respondents: 620

Q7 Should additional pathways be added to the current system?

Answered: 657 Skipped: 11



ANSWER CHOICES

yes

no

TOTAL

RESPONSES

89.65%

10.35%

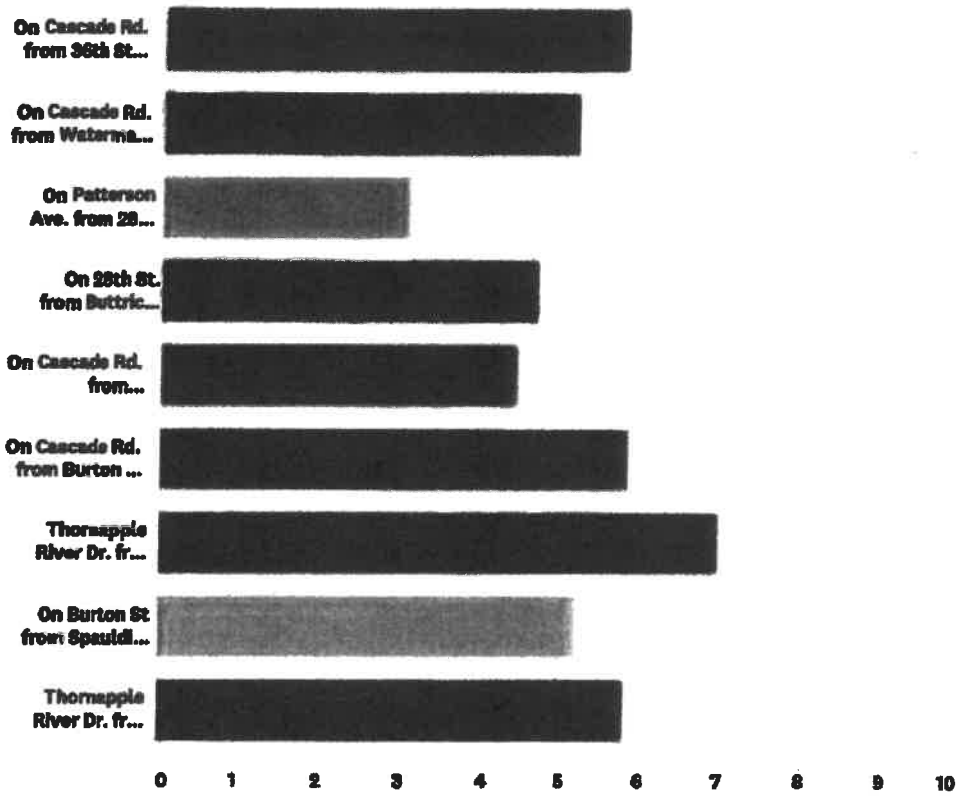
600

88

657

Q8 The Pathways Committee identified the following potential new pathway trails. Please rank them in order of your priority (with 1 being the highest priority and 9 the lowest).

Answered: 638 Skipped: 32



	1	2	3	4	5	6	7	8	9	TOTAL	SCORE
On Cascade Rd. from 38th St to Whitneyville Rd.	28.16% 145	6.60% 34	10.68% 55	11.26% 58	7.77% 40	10.10% 52	9.32% 48	6.60% 34	9.51% 49	515	5.78
On Cascade Rd. from Watermark to Hall	11.59% 59	9.63% 49	12.38% 63	11.59% 59	15.13% 77	8.43% 48	12.38% 63	10.81% 55	7.07% 36	509	5.17
On Patterson Ave. from 28th St to Broadmoor	0.84% 4	3.14% 15	4.81% 23	5.65% 27	8.58% 41	12.76% 81	15.69% 75	16.11% 77	32.43% 155	478	3.06
On 28th St. from Buttrick Ave. to Snow Ave.	15.29% 78	4.90% 25	6.67% 34	8.63% 44	10.00% 51	14.31% 73	12.94% 66	18.04% 82	9.22% 47	510	4.67
On Cascade Rd. from Whitneyville Ave. To Snow Ave.	2.82% 14	11.90% 59	10.28% 51	8.87% 44	11.90% 59	12.90% 64	15.32% 78	12.30% 61	13.71% 68	496	4.41

Cascade Township citizen pathway committee

SurveyMonkey

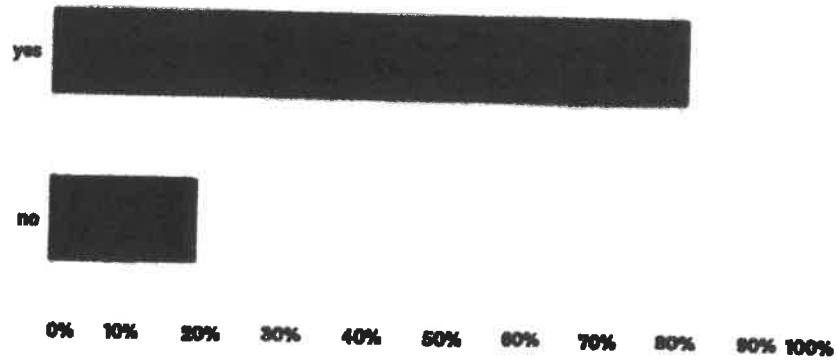
On Cascade Rd. from Burton to 28th St.	11.73% 81	15.77% 82	18.65% 97	13.65% 71	10.98% 57	10.18% 53	9.23% 48	6.35% 33	3.46% 18	520	5.84
Thornapple River Dr. from Cascade Rd. to Thornhills	30.28% 172	19.89% 113	16.02% 91	12.15% 69	8.27% 47	4.58% 26	4.93% 28	2.99% 17	0.88% 5	568	6.98
On Burton St from Spaulding to Patterson	11.56% 60	10.79% 56	12.72% 68	13.10% 68	11.75% 61	11.18% 58	7.71% 40	13.10% 68	8.08% 42	519	5.19
Thornapple River Dr. from Burger to Thornhills	5.79% 32	28.21% 156	12.84% 71	14.29% 79	11.03% 61	8.86% 49	5.42% 30	5.24% 29	8.32% 46	553	5.79

Q9 Is there an additional location where you would like to see a pathway built?

Answered: 372 Skipped: 296

Q10 As mentioned above the current pathway millage expires in 2018. Should the Township seek a new millage to pay for new pathway trails?

Answered: 648 Skipped: 20



ANSWER CHOICES

yes

no

TOTAL

RESPONSES

80.71%

19.29%

523

125

648

Q9 Is there an additional location where you would like to see a pathway built?

Answered: 372 Skipped: 286

#	RESPONSES	DATE
1	No	10/17/2017 9:19 AM
2	No	10/17/2017 6:27 AM
3	No	10/16/2017 10:34 PM
4	No	10/16/2017 10:15 PM
5	No	10/16/2017 7:24 PM
6	Whitneyville Road (from Cascade to 52nd Street - natural beauty Road)	10/16/2017 5:45 PM
7	None	10/16/2017 1:05 PM
8	No	10/16/2017 12:19 PM
9	Pettis	10/16/2017 10:04 AM
10	No	10/16/2017 8:52 AM
11	No	10/16/2017 8:49 AM
12	No	10/16/2017 6:31 AM
13	Complete the path along the river behind Ada Moorings	10/15/2017 10:43 PM
14	No	10/15/2017 10:28 PM
15	Forest Hills rd at the overpass	10/15/2017 7:11 PM
16	On cascade Rd. West side.	10/15/2017 6:06 PM
17	No	10/15/2017 5:56 PM
18	No	10/15/2017 4:30 PM
19	No	10/15/2017 3:45 PM
20	On Whitneyville. From Cascade to 48th st	10/15/2017 9:16 AM
21	Along whitneyville to 48th st	10/14/2017 6:27 PM
22	Forest hill across 96	10/14/2017 2:30 PM
23	Snow between 28th and Grand River	10/14/2017 12:30 PM
24	No. Stop spending money that isn't yours. It's ridiculous how you feel the NEED to spend tax payers dollars. Here's a thought, reduce taxes and leave our community alone.	10/14/2017 12:12 PM
25	Ada Dr to thornapple river Dr	10/14/2017 9:31 AM
26	No	10/14/2017 9:27 AM
27	From thornapple to 36th street. Where thornhills and thornapple meet to the park	10/14/2017 8:51 AM
28	Pathway near covered bridge in Ada - unsafe to cross	10/14/2017 7:44 AM
29	On Cascade from Spaulding to Watermark on the SOUTH side of Cascade	10/14/2017 7:17 AM
30	Connect fully to pathways in Ada via Fulton	10/13/2017 9:40 PM
31	No	10/13/2017 7:45 PM
32	Thornapple/Thornhills to 36th	10/13/2017 7:02 PM
33	Buttrick from Whitneyville to 36th Street	10/13/2017 5:09 PM

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34	No	10/13/2017 3:52 PM
35	Alta Dale from Ada Drive to Central Woodlands	10/13/2017 2:53 PM
36	On Thomapple River Drive between Nik Kik and Thornhills.	10/13/2017 2:04 PM
37	N/a	10/13/2017 1:24 PM
38	not at this time	10/13/2017 9:31 AM
39	Further north on honey creek, north of Knapp.	10/13/2017 7:38 AM
40	no	10/13/2017 2:40 AM
41	Kraft, 36th to Burton;	10/13/2017 12:39 AM
42	Anywhere south of 48 th street	10/12/2017 8:50 PM
43	Maintain existing trails in premium condition.	10/12/2017 8:43 PM
44	Thornapple /butrick to covered bridge	10/12/2017 7:05 PM
45	36th street to Quiggle	10/12/2017 2:27 PM
46	Snow Ave from Grand River to Cascade	10/12/2017 11:05 AM
47	Grand river drive	10/12/2017 8:15 AM
48	no	10/12/2017 12:21 AM
49	Grand river to cascade on snow	10/11/2017 11:37 PM
50	Need pathway on Cascade Road from 36th Street to Whitneyville	10/11/2017 9:19 PM
51	A way to connect Buttrick to Grand River via 28th for a safe loop!	10/11/2017 7:06 PM
52	28th between Snow & Buttrick is a huge safety issue with a trail	10/11/2017 8:43 PM
53	no	10/11/2017 6:24 PM
54	No	10/11/2017 8:22 PM
55	Mandate bicycle usage where trails are present	10/11/2017 5:06 PM
56	No. Some listed above are not needed. I would rather see a smaller mileage, more likely to pass.	10/11/2017 1:40 PM
57	28th Street to Cascade Township Park	10/11/2017 12:07 PM
58	No	10/11/2017 11:18 AM
59	No	10/11/2017 10:23 AM
60	no	10/11/2017 10:06 AM
61	No	10/11/2017 9:15 AM
62	36th St from Patterson to Thornhills	10/11/2017 1:37 AM
63	Alta Dale Ave. between schools	10/10/2017 8:44 PM
64	Grand river dr.	10/10/2017 2:55 PM
65	Improve the safety for pedestrians & bikers at the Cascade-28th St. Intersection. Very dangerous as it is now!	10/10/2017 1:10 PM
66	On Buttrick between 36th and Cascade Rd. The road is hilly and cars go flying down the road barely missing pedestrians almost daily.	10/10/2017 10:45 AM
67	along burger dr	10/10/2017 9:26 AM
68	no	10/10/2017 7:58 AM
69	No	10/10/2017 7:47 AM
70	Along Spaulding between cascade and Fulton and along Alta dale	10/10/2017 7:42 AM
71	No	10/10/2017 7:30 AM
72	Into Ada - could have signage pointing folks to the bridge - but then should have path into Ada.	10/9/2017 11:06 PM

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73	Alta Dale from Central Woodlands to Ada Dr.	10/9/2017 6:41 PM
74	No	10/9/2017 6:14 PM
75	Buttrick from 36th to Cascade Rd.	10/9/2017 3:38 PM
76	No	10/9/2017 3:05 PM
77	Just want parks and schools connected	10/9/2017 2:49 PM
78	none	10/9/2017 1:35 PM
79	No	10/9/2017 1:25 PM
80	?	10/9/2017 1:15 PM
81	From Buttrick, down 28th street, north on Snow to Grand River. Connects to Pease park	10/9/2017 12:58 PM
82	On Buttrick from 36th to Whitneyville Road	10/9/2017 12:03 PM
83	yes, on Buttrick between 36th and Whitneyville; also on Whitneyville from Cascade Rd to 48th St; it does not make sense for many of the suggested new paths that already have sidewalks (3) or bikepaths on the other side of the street (6 & 2). Last month I was almost killed when my mountain bike wiped out on the dangerously soft shoulder on Burton on the SE side of the I-96 overpass. I'm an experienced mountain biker.	10/9/2017 11:45 AM
84	No	10/9/2017 9:52 AM
85	Buttrick and 48th to a trail	10/9/2017 9:51 AM
86	No	10/9/2017 8:06 AM
87	Nothing specific	10/9/2017 7:51 AM
88	Any places without sidewalks next to major roads	10/9/2017 7:00 AM
89	The more the better. But these recommendations are good.	10/8/2017 11:25 PM
90	No	10/8/2017 9:41 PM
91	No	10/8/2017 9:13 PM
92	No	10/8/2017 9:01 PM
93	Better connectivity to Kent wood and reeds lake	10/8/2017 8:38 PM
94	No	10/8/2017 11:20 AM
95	No	10/8/2017 8:19 AM
96	nope	10/8/2017 12:59 AM
97	No	10/7/2017 11:58 PM
98	from Cascade to 36th on Buttrick	10/7/2017 9:39 PM
99	No	10/7/2017 8:14 PM
100	No	10/7/2017 6:43 PM
101	No	10/7/2017 1:35 PM
102	no	10/7/2017 1:17 PM
103	No	10/7/2017 12:11 PM
104	No	10/7/2017 12:09 PM
105	From 52 and Whitneyville to cascade road	10/7/2017 11:55 AM
106	48th St SE, between Whitneyville and 36th	10/7/2017 11:37 AM
107	Just to stress the importance of a path along Thornapple River Drive between Thornhills and Cascade. People use this regularly and it is dangerous not to have one!	10/7/2017 8:10 AM
108	Better access to downtown Ada from the trail system (dangerous crossing at the ball fields to covered bridge and that neighborhood	10/7/2017 7:03 AM
109	Cascade road from old 28th street to whitneyville	10/6/2017 11:24 PM

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110	No	10/6/2017 11:02 PM
111	On cascade road over the bridge needs to be made safer for the pedestrians. There is not enough room between cars and pedestrians on that bridge	10/6/2017 10:44 PM
112	?	10/6/2017 10:29 PM
113	Thornapple River Drive from Cascade to Peace	10/6/2017 9:01 PM
114	No	10/6/2017 8:51 PM
115	No	10/6/2017 7:56 PM
116	I would love to see improved, safer pathways crossing over the highway on Burton and on Forest Hills	10/6/2017 6:22 PM
117	no	10/6/2017 4:53 PM
118	A better path on a section of Buttrick from Ada Park to Thornapple River Dr.	10/6/2017 3:03 PM
119	Carry the path on Laraway Lake all the way to Cascade Rd.	10/6/2017 1:50 PM
120	I would like to see NO MORE pathways.	10/6/2017 12:56 PM
121	none	10/6/2017 12:21 PM
122	Hall and Fox Hollow out to Ada Dr	10/6/2017 11:52 AM
123	No	10/6/2017 11:23 AM
124	Speulding from Fulton to cascade	10/6/2017 11:12 AM
125	Grand River from Peace Park to Ada Park	10/6/2017 11:06 AM
126	No Im tired of paying taxes on something that isnt even by me !!!!!!!!!	10/6/2017 10:36 AM
127	Please 28th between Buttrick and Snow	10/6/2017 10:32 AM
128	Grand River Avenue east of Buttrick	10/6/2017 9:28 AM
129	Cascade to buccanier	10/6/2017 8:48 AM
130	Cascade by the thornapple river	10/6/2017 8:47 AM
131	Grand River Rd., Ada Park to Peace Park. Bicycles, jogging & walking are abundant	10/6/2017 8:07 AM
132	Whitneyville from 52nd St. to Cascade Rd.	10/6/2017 7:51 AM
133	No	10/6/2017 7:10 AM
134	Yes, kraft between chatham woods and Burton. My girls will not allow me to cross Kraft by Meljer as traffic is awful even for cars. If you refuse a stop light, with traffic to MVP..all the hotels including a new one and an auto shop...at least give us a sidewalk on our side of Kraft. Also to 28th street on our side of Kraft from Chatam woods.	10/6/2017 12:24 AM
135	Along the Grand River.	10/5/2017 10:02 PM
136	Cascade springs!	10/5/2017 9:58 PM
137	No	10/5/2017 9:48 PM
138	Burton over the highway	10/5/2017 9:48 PM
139	36th beyond Buttrick	10/5/2017 9:26 PM
140	N/A	10/5/2017 9:10 PM
141	Nope	10/5/2017 9:07 PM
142	No	10/5/2017 8:46 PM
143	n/a	10/5/2017 8:29 PM
144	from Peace Park to new road off 28th Street before Snow.	10/5/2017 8:23 PM
145	No	10/5/2017 6:30 PM
146	No	10/5/2017 5:52 PM

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147	No	10/5/2017 4:55 PM
148	Ridgemon to Thornapple	10/5/2017 3:16 PM
149	Not off hand	10/5/2017 2:37 PM
150	Grand River Dr from Ada Park toward Lowell	10/5/2017 2:34 PM
151	You didnt ask the right questions...#2 none important..we use for dog walking only and occasional biking,and no space for comments were left!	10/5/2017 2:15 PM
152	No	10/5/2017 1:52 PM
153	No	10/5/2017 1:43 PM
154	no	10/5/2017 1:19 PM
155	Grand River between Buttrick and Bolt	10/5/2017 1:14 PM
156	Fix the mess on Spaulding from cascade road to burton. It's awful.	10/5/2017 12:45 PM
157	No	10/5/2017 12:36 PM
158	10 miles (even out and back) of relatively flat trail would be perfect.	10/5/2017 12:32 PM
159	Thornapple River Dr. from Brookhills to Cascade Park	10/5/2017 11:42 AM
160	No	10/5/2017 11:10 AM
161	Thornapple River Dr. from Cascade township park to burger	10/5/2017 9:29 AM
162	No	10/5/2017 8:29 AM
163	No	10/5/2017 7:56 AM
164	Connecting to Grand River Nature Area and Seldman Park.	10/5/2017 7:48 AM
165	No	10/5/2017 7:34 AM
166	Forest Hills Ave.	10/5/2017 7:21 AM
167	No	10/5/2017 7:18 AM
168	No	10/5/2017 7:16 AM
169	No	10/5/2017 7:04 AM
170	No	10/5/2017 6:20 AM
171	Na	10/5/2017 6:06 AM
172	no	10/5/2017 4:58 AM
173	Grand River Dr from Buttrick to Snow	10/5/2017 12:02 AM
174	No	10/4/2017 10:24 PM
175	No just 28th, Buttrick to Snow. Cars are rude and about run me and my neighbor over on our morning walks	10/4/2017 10:24 PM
176	No	10/4/2017 10:18 PM
177	Burger from Thornapple to cascade	10/4/2017 10:10 PM
178	No	10/4/2017 10:06 PM
179	no	10/4/2017 9:45 PM
180	No	10/4/2017 9:22 PM
181	Kraft , Burton-28th	10/4/2017 8:18 PM
182	No	10/4/2017 9:10 PM
183	No	10/4/2017 8:36 PM
184	No	10/4/2017 8:31 PM
185	Grand River	10/4/2017 8:00 PM

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186	Need a way to cross 96 that isn't 28th. To many businesses that people pull in and out to be safe to ride on	10/4/2017 7:40 PM
187	until a use by RESIDENTS is known, think we should wait	10/4/2017 7:40 PM
188	Cascade road from thimapple river to thorncrest	10/4/2017 7:39 PM
189	48th street to thornapple river drive to the CascAde Park	10/4/2017 7:35 PM
190	Buttrick between cascade and 36th	10/4/2017 6:00 PM
191	none	10/4/2017 5:46 PM
192	No	10/4/2017 5:43 PM
193	no	10/4/2017 5:40 PM
194	No	10/4/2017 6:37 PM
195	Hall St To Ada Drive Along Fox Hollow	10/4/2017 4:58 PM
196	Not at this time	10/4/2017 4:41 PM
197	bolt drive	10/4/2017 4:15 PM
198	Forest hill from cascade to burton	10/4/2017 3:56 PM
199	No	10/4/2017 3:44 PM
200	From Crahen, on Bradford to Frederick Meljer Gardens	10/4/2017 2:41 PM
201	On Burger from Thornapple River Driver to Goodwood	10/4/2017 2:23 PM
202	No	10/4/2017 2:14 PM
203	NA	10/4/2017 1:44 PM
204	Thornapple River Road from Thornhills to Cascade Park	10/4/2017 1:29 PM
205	No	10/4/2017 1:14 PM
206	From Burger at Thornapple River drive to Tuscany.	10/4/2017 1:06 PM
207	Kraft	10/4/2017 1:00 PM
208	From Cascade Rd to Thornhills to Cascade Park	10/4/2017 12:43 PM
209	Thornapple River Drive/Thornhills is the most important one for my family.	10/4/2017 12:42 PM
210	Thornapple River near the entrance to the park	10/4/2017 12:05 PM
211	No	10/4/2017 11:40 AM
212	Forest Hill Ave. Fill in between Burton and Cascade Rd.	10/4/2017 11:37 AM
213	No. Lets improve roads first.	10/4/2017 11:26 AM
214	No	10/4/2017 11:25 AM
215	No	10/4/2017 11:17 AM
216	Only Thornapple because danger to people walking and riding	10/4/2017 11:16 AM
217	no, Cascade road (36th to Whitneyville) is very dangerous and needs a pathway. Our small children have almost been hit multiple times. These are heavy populated family neighborhoods that need access to the safe pathways at 36th and Cascade.	10/4/2017 11:03 AM
218	Kraft and 28th to Patterson and 28th	10/4/2017 10:52 AM
219	thornapple river drive between cascade and thornhills	10/4/2017 9:35 AM
220	I'm satisfied with the proposed additions	10/4/2017 9:30 AM
221	No	10/4/2017 9:29 AM
222	no	10/4/2017 8:47 AM
223	Only Thornapple River Drive is needed, no other area is dangerous. If a mileage is required it should only be a portion, 10% to 15%, of the last mileage.	10/4/2017 8:45 AM

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224	No	10/4/2017 8:43 AM
225	Connect 48th between Whitneyville & Thornhills to the Cascade Trail System!	10/4/2017 8:28 AM
226	Would like to see bike lanes marked on the roads	10/4/2017 8:20 AM
227	Please consider crushed stone vs all asphalt	10/4/2017 8:02 AM
228	Buttrick to 36th street	10/4/2017 7:57 AM
229	No	10/4/2017 7:54 AM
230	Cascade to Thornhills on Thomapple River Dr.	10/4/2017 7:51 AM
231	I know the path on Laraway Lake to Cascade is complete. However, the end near Cascade: Can we do something to move it UP or further in so that you are not really just walking on the shoulder of the road. NOT as safe as I would expect. This type of pathway anywhere in the system should be avoided. The money should be spent to secure the easements and right-of-way to complete.	10/4/2017 7:42 AM
232	no	10/4/2017 7:42 AM
233	Thornappe River to Cascade to 30th	10/4/2017 7:41 AM
234	N/A	10/4/2017 7:31 AM
235	no	10/4/2017 7:31 AM
236	On 36th St from Thomapple River Drive to Kraft and down Kraft to 28th St	10/4/2017 7:30 AM
237	No	10/4/2017 7:17 AM
238	no	10/4/2017 7:15 AM
239	No	10/4/2017 6:49 AM
240	On the south side of Laraway Lake Road coming up the hill from Cascade Road.	10/4/2017 6:38 AM
241	Buttrick Grand River to Thomapple River Drive	10/4/2017 6:31 AM
242	I would love to see sidewalks built in my neighborhood Hidden Hills	10/4/2017 5:27 AM
243	No	10/4/2017 4:34 AM
244	No	10/4/2017 2:20 AM
245	Hall Street to Fox Hollow to Ada Drive	10/4/2017 12:23 AM
246	Patterson to east along south side of airport	10/3/2017 11:58 PM
247	Whitneyville to 52	10/3/2017 11:19 PM
248	36th st to cherry lane	10/3/2017 10:41 PM
249	No	10/3/2017 10:37 PM
250	Burton from Spaulding to Patterson	10/3/2017 10:26 PM
251	Along Thomapple from Buttrick to Ada Drive	10/3/2017 10:16 PM
252	No	10/3/2017 10:08 PM
253	Better path along Laraway	10/3/2017 10:03 PM
254	no	10/3/2017 10:00 PM
255	no	10/3/2017 9:34 PM
256	Yes, the overpass on Forest Hills Ave., over I-96.	10/3/2017 9:22 PM
257	no	10/3/2017 8:51 PM
258	Ada. Along thornapple river drive or around fase street,	10/3/2017 8:45 PM
259	Forest Hills Ave	10/3/2017 8:41 PM
260	36th from Buttrick to Snow and along Grand River from Buttrick to Snow	10/3/2017 8:18 PM
261	Anywhere to improve safety	10/3/2017 8:09 PM
262	Leyton between cascade and Redford dr (pine ridge)	10/3/2017 7:59 PM

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263	Thornhills out Thornapple River Drive past the Airport or 44th to Whitneyville Road	10/3/2017 7:37 PM
264	Really a path from Spaulding to Patterson on Burton would be huge!	10/3/2017 7:35 PM
265	No	10/3/2017 7:31 PM
266	Burton/I-96 to access the YMCA, forest hills/I-96 for school children	10/3/2017 6:23 PM
267	On Burton over I96 and Forest Hill Ave over I96	10/3/2017 6:12 PM
268	My first choice would be connecting the constructed path on Thirnapple driver drive with cascade township park.	10/3/2017 5:40 PM
269	No	10/3/2017 5:30 PM
270	Buttrick to Fase St. to Thomapple.	10/3/2017 5:30 PM
271	No	10/3/2017 6:28 PM
272	No	10/3/2017 5:07 PM
273	Snow from 28th to Cascade	10/3/2017 5:06 PM
274	No	10/3/2017 4:52 PM
275	No	10/3/2017 4:45 PM
276	no	10/3/2017 4:20 PM
277	36th street extending past Buttrick	10/3/2017 4:16 PM
278	From Forest Hill Ave across to Crahen section w/ no path before railroad bridge	10/3/2017 4:08 PM
279	Ada drive, hall and spaulding	10/3/2017 3:53 PM
280	no	10/3/2017 3:37 PM
281	No	10/3/2017 3:31 PM
282	No	10/3/2017 3:25 PM
283	Additional cross walks and safe landings at 36th and Cascade Road	10/3/2017 3:23 PM
284	no	10/3/2017 3:16 PM
285	Bolt drive to. Buttrick	10/3/2017 3:13 PM
286	Anywhere near downtown Cascade	10/3/2017 3:01 PM
287	NO	10/3/2017 2:57 PM
288	no	10/3/2017 2:54 PM
289	Thornhills to Rac Park, snow from Grand River to 36th to Buttrick	10/3/2017 2:53 PM
290	No	10/3/2017 2:45 PM
291	Path from airport area to Cascade / Whitneyville (possibly on 36th St.). Paths on 28th street itself. Connect business to residential.	10/3/2017 2:44 PM
292	Grand River: Buttrick Rd. to Peace Park	10/3/2017 2:38 PM
293	no	10/3/2017 2:37 PM
294	Along Thomapple river drive from cascade to peace	10/3/2017 2:34 PM
295	Bicycles should be banned on roadways that have pathways such as Buttrick.	10/3/2017 2:28 PM
296	Connect the path on cascade from Wycliffe to the river. Widen path on bridge over river.	10/3/2017 2:19 PM
297	no	10/3/2017 2:16 PM
298	Cascade road - all the way from 28th to Whitneyville	10/3/2017 2:14 PM
299	Cascade Springs DR. to 30th	10/3/2017 2:09 PM
300	No	10/3/2017 2:02 PM
301	No.	10/3/2017 1:35 PM

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302	No	10/3/2017 1:27 PM
303	no	10/3/2017 1:24 PM
304	Buld in pedestrian walk way with railing with more safety crossing thornapple river on cascade rd near thornapple river drive.	10/3/2017 1:14 PM
305	No	10/3/2017 12:44 PM
306	Grand River Ave to Snow	10/3/2017 12:44 PM
307	No at this time	10/3/2017 12:41 PM
308	no	10/3/2017 12:13 PM
309	Anywhere along a road that's 45 mph+ that doesn't have at least a sidewalk and where there's lots of pedestrian/cyrcldng traffic	10/3/2017 11:20 AM
310	no	10/3/2017 10:55 AM
311	On Bridgewater from Thornapple River Dr. to Thornapple Elementary	10/3/2017 10:53 AM
312	no	10/3/2017 10:39 AM
313	NA	10/3/2017 10:29 AM
314	connection to the elementary schools	10/3/2017 9:57 AM
315	no	10/3/2017 9:48 AM
316	Not at this time	10/3/2017 8:56 AM
317	Along Cascade from Whitneyville to Snow	10/3/2017 8:22 AM
318	thornhills connecting 28th street to cascade twp park near 96	10/3/2017 7:52 AM
319	No, this is a great start	10/3/2017 7:04 AM
320	No	10/3/2017 6:38 AM
321	No	10/3/2017 6:16 AM
322	No. But cascade road from 38th to Whitneyville should be priority. Safety is a major concern.	10/3/2017 5:44 AM
323	No	10/3/2017 5:08 AM
324	No	10/2/2017 10:38 PM
325	No	10/2/2017 10:29 PM
326	Any extension off cascade	10/2/2017 10:26 PM
327	no	10/2/2017 10:22 PM
328	no.	10/2/2017 10:13 PM
329	No. Just Cascade from 36th to Whitneyville. And Thornapple from Cascade to thornhills. These are very dangerous roads that children travel daily!!!	10/2/2017 10:04 PM
330	Alta Dale	10/2/2017 9:42 PM
331	No	10/2/2017 9:30 PM
332	No	10/2/2017 9:20 PM
333	No	10/2/2017 9:16 PM
334	As far along cascade as you can go and back	10/2/2017 8:58 PM
335	Hall to Spaulding or Cascade at Spaulding to Ada Dr/Spaulding	10/2/2017 8:43 PM
336	Burton from Patterson to Spaulding	10/2/2017 7:37 PM
337	No	10/2/2017 6:56 PM
338	No	10/2/2017 6:53 PM
339	No	10/2/2017 6:53 PM

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340	Connect from the dam up cascade to the south so people who live south of the damn can get to the shops without walking in the street on cascade.	10/2/2017 6:41 PM
341	?	10/2/2017 6:14 PM
342	Nope	10/2/2017 5:57 PM
343	36th street between Thornapple and Kraft/Patterson	10/2/2017 4:59 PM
344	The Thornapple River Drive from Cascade to Thornhills would be a huge benefit to my family.	10/2/2017 4:53 PM
345	Snow to 28th to 36th, Snow to 36th to Buttrick	10/2/2017 4:28 PM
346	Whitneyville to Cascade. Many bikers pass through	10/2/2017 4:18 PM
347	No	10/2/2017 4:12 PM
348	Not that I know of. I currently live just past where the path ends by Cascade and 36th. With two little kids I would use it a lot more if I could safely access it.	10/2/2017 4:08 PM
349	no, re-eval as needed	10/2/2017 4:06 PM
350	no	10/2/2017 4:01 PM
351	No	10/2/2017 3:53 PM
352	No	10/2/2017 3:49 PM
353	no	10/2/2017 3:34 PM
354	The Forgotten Zone, aka, the portion of the township south of 96. This section IOS consistently forgotten/ignored by the township. My suggestions would be south on Thornapple and Whitneyville to 60th, and across 48th St, all very high traffic routes. Even though we pay for all of the paths, you didn't even consider putting one in our neighborhood.	10/2/2017 2:18 PM
355	No	10/2/2017 2:17 PM
356	No, the one from 36th to Ehtneyville is the most important to me as my children would regularly use it.	10/2/2017 1:51 PM
357	Desperately would love to have a connection for my son and I to safely cross the street (Cascade past 36th)	10/2/2017 1:46 PM
358	Laraway lake between cascade rd & tameron	10/2/2017 1:39 PM
359	No	10/2/2017 1:26 PM
360	I would rather pay for sidewalks along Hall Rd all the way up to Ada Dr. We live across from FHC High School and yet have to walk on the very fast Hall Rd with no sidewalks to get to the schools.	10/2/2017 1:18 PM
361	No	10/2/2017 1:13 PM
362	No	10/2/2017 12:59 PM
363	Yes connect the trail on Thornapple River Drive to Cascade Township Park.	10/2/2017 12:05 PM
364	Kraft (28th - 36th); 36th (Kraft - Patterson); Burton (36th - Cascade); Whitneyville (Cascade - 60th)	10/2/2017 12:05 PM
365	No	10/2/2017 11:59 AM
366	No	10/2/2017 11:54 AM
367	48th St. from Whitneyville to the airport	10/2/2017 11:30 AM
368	no	10/2/2017 11:19 AM
369	no	10/2/2017 11:03 AM
370	From the dead end of Beard Rd to Thornapple elementary	10/2/2017 10:34 AM
371	Leyton from Cascade Rd to Pine Ridge Elementary	10/2/2017 10:33 AM
372	No	10/2/2017 10:27 AM

Summary of written surveys from public open house. 16 surveys turned in. Not all questions answered.

1. Do you believe more pathways benefit the community?

Yes	14	93.3%
No	1	6.6%

2. Which is the highest priority regarding the pathway trails? Please rank in order of your priority (with 1 being the highest priority and 6 the lowest).

(a)	1.68	improve pedestrian safety
(b)	4	beautify the township
(c)	2.93	connect between schools, trails and shops
(d)	4.87	developing linear recreational parks
(e)	3.75	link pathway trails to paths of other communities
(f)	4	promote healthy lifestyle

3. How often do you use the trail system?

(a)	Daily	6
(b)	3-4 times per week	3
(c)	Once per week	4
(d)	Once per month or less	3

4. How do you use the trail system? (check all that apply)

(a)	Walking/running	13
(b)	Bicycling	9
(c)	With stroller	7
(d)	Other	2

5. For what do you use the trail system? (check all that apply)

(a)	Recreation	10
(b)	Travel/transport for shopping, errands	2
(c)	Commuting to work or school	4
(d)	Exercise/fitness	14

6. What other local trails do you use?

(a)	Ada trails	9
(b)	Grand Rapids township trails	5
(c)	Reeds lake trail	7
(d)	White pine trail	4
(e)	Kent trails	3
(f)	Other	3

7. Should additional pathways be added to the current system?

Yes - 14

No - 1

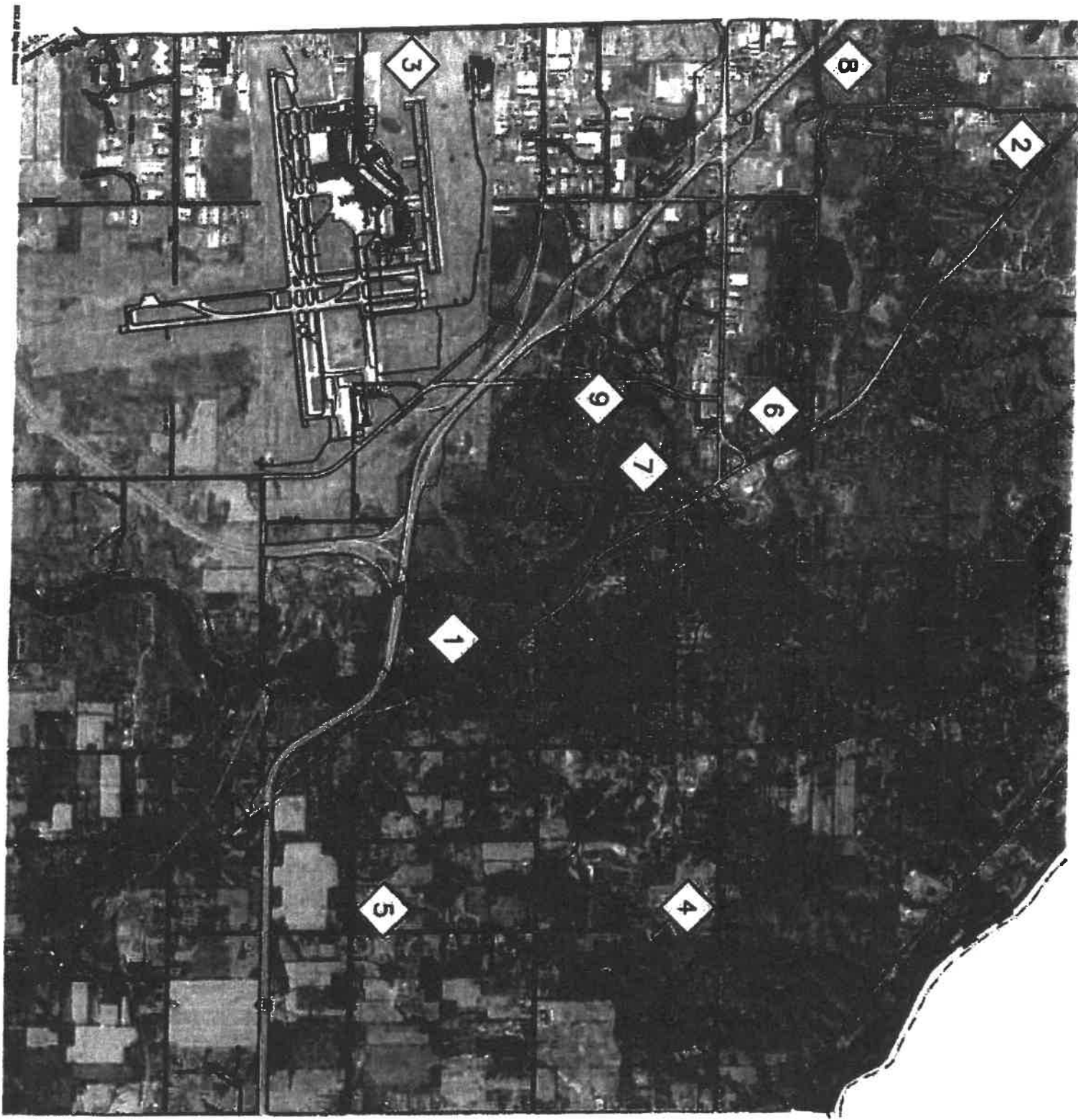
8. The Pathways Committee identified the following potential new pathway trails. Please rank them in order of your priority (with 1 being the highest priority and 9 the lowest). (Not scored the same as survey monkey. The lower the score the higher the priority)

- (a) 4.35 ___ On Cascade Rd. from 36th St to Whitneyville Rd.
- (b) 5.46 ___ On Cascade Rd. from Watermark to Hall
- (c) 6.26 ___ On Patterson Ave. from 28th St to Broadmoor
- (d) 4.86 ___ On 28th St. from Butterick Ave. to Snow Ave.
- (e) 5.86 ___ On Cascade Rd. from Whitneyville Ave. To Snow Ave.
- (f) 4.06 ___ On Cascade Rd. from Burton to 28th St.
- (g) 3.35 ___ Thornapple River Dr. extension from Cascade Rd. to Thornhills
- (h) 5.66 ___ On Burton St from Spaulding to Patterson
- (i) 5.07 ___ Thornapple River Dr. from Burger to Thornhills

9. Is there an additional location where you would like to see a pathway built?

10. As mentioned above the current pathway millage expires in 2018. Should the Township seek a new millage to pay for new pathway trails?

Yes - 11	78.5%
No- 3	21.4%



Opinion of Probable Project Cost

Fishbeck, Thompson, Carr & Huber, Inc.

1515 Arboretum Drive S.E., Grand Rapids, MI 49546

Telephone: (616) 575-3824 FAX: (616) 464-3993

CASCADE TOWNSHIP - PATHWAY CONCEPTUAL ESTIMATES (08/01/17)

Location #1 - Cascade Road (36th St to Whineyville Ave)

Total Length 4500 ft

- West side of road assumed to be best location

Item	Length	Price	Unit	Item Cost
Base Pathway	4500	\$75	LF	\$337,500
Large Tree Clearing	1500	\$10	LF	\$15,000
Storm Sewer (replace ditch)	400	\$50	LF	\$20,000
Retaining Wall (< 6 ft)	200	\$390	LF	\$78,000
Construction Cost				\$450,500
Engineering and Contingency (30%)				\$135,150
Conceptual Project Cost Estimate				\$585,650

Location #2 - Cascade Road (Watermark Dr to Hall St)

Total Length 3550 ft

- Southwest side of road assumed

Item	Length	Price	Unit	Item Cost
Base Pathway	3550	\$75	LF	\$266,250
Heavy Grading (cut/fill)	500	\$20	LF	\$10,000
Large Tree Clearing	500	\$10	LF	\$5,000
Storm Sewer (replace ditch)	50	\$50	LF	\$2,500
Retaining Wall (< 6 ft)	300	\$390	LF	\$117,000
Retaining Wall (> 6 ft)	100	\$720	LF	\$72,000
Construction Cost				\$472,750
Engineering and Contingency (30%)				\$141,825
Conceptual Project Cost Estimate				\$614,575

Location #3 - Patterson Avenue (28th St to Broadmoor Ave)

Total Length 19430 ft

- East side pathway since west side is Kentwood

Item	Length	Price	Unit	Item Cost
Base Pathway	19430	\$75	LF	\$1,457,250
Large Tree Clearing	1000	\$10	LF	\$10,000
Storm Sewer (replace ditch)	1000	\$50	LF	\$50,000
Retaining Wall (< 6 ft)	300	\$390	LF	\$117,000
Construction Cost				\$1,634,250
Engineering and Contingency (30%)				\$490,275
Conceptual Project Cost Estimate				\$2,124,525

Location #4 - Whitneyville Avenue (Cascade Road to Township Limits)

Total Length 13700 ft

- West side of road

Item	Length	Price	Unit	Item Cost
Base Pathway	13700	\$75	LF	\$1,027,500
Storm Sewer (replace ditch)	3000	\$50	LF	\$150,000
Retaining Wall (< 6 ft)	900	\$390	LF	\$351,000
Retaining Wall (> 6 ft)	300	\$720	LF	\$216,000
Pedestrian Bridge over I-96	1	\$1,500,000	EA	\$1,500,000
Short Boardwalk (< 6 ft)	500	\$350	LF	\$175,000
Construction Cost				\$3,419,500
Engineering and Contingency (30%)				\$1,025,850
Conceptual Project Cost Estimate				\$4,445,350

Location #5 - 28th Street (Buttrick Avenue to Township Limits)

Total Length 10650 ft

- assumed South side of road

Item	Length	Price	Unit	Item Cost
Base Pathway	10650	\$75	LF	\$798,750
Heavy Grading (cut/fill)	2000	\$20	LF	\$40,000
Large Tree Clearing	2000	\$10	LF	\$20,000
Retaining Wall (< 6 ft)	300	\$390	LF	\$117,000
Short Boardwalk (< 6 ft)	500	\$350	LF	\$175,000
Tall Boardwalk (> 6 ft)	500	\$500	LF	\$250,000
Construction Cost				\$1,400,750
Engineering and Contingency (30%)				\$420,225
Conceptual Project Cost Estimate				\$1,820,975

Location #6 - Cascade Road (Whitneyville Avenue to Township Limits)

Total Length 12400 ft

- assumed South side of road

Item	Length	Price	Unit	Item Cost
Base Pathway	12400	\$75	LF	\$930,000
Large Tree Clearing	8000	\$10	LF	\$80,000
Storm Sewer (replace ditch)	650	\$50	LF	\$32,500
Retaining Wall (> 6 ft)	700	\$720	LF	\$504,000
Short Boardwalk (< 6 ft)	200	\$350	LF	\$70,000
Construction Cost				\$1,616,500
Engineering and Contingency (30%)				\$484,950
Conceptual Project Cost Estimate				\$2,101,450

Location #7 - Cascade Road (Burton Street to 28th Street)

Total Length 2200 ft

- assumed South West side of road

Item	Length	Price	Unit	Item Cost
Base Pathway	2200	\$75	LF	\$165,000
Large Tree Clearing	200	\$10	LF	\$2,000
Storm Sewer (replace ditch)	200	\$50	LF	\$10,000
Retaining Wall (< 6 ft)	100	\$390	LF	\$39,000
Construction Cost				\$216,000
Engineering and Contingency (30%)				\$64,800
Conceptual Project Cost Estimate				\$280,800

Location #8 - Thornapple River Drive (Cascade Road to Thornhills Avenue)

Total Length 4355 ft

- NW side of road probably best, less utility poles

Item	Length	Price	Unit	Item Cost
Base Pathway	4355	\$75	LF	\$326,625
Heavy Grading (cut/fill)	3000	\$20	LF	\$60,000
Large Tree Clearing	3000	\$10	LF	\$30,000
Storm Sewer (replace ditch)	2000	\$50	LF	\$100,000
Retaining Wall (< 6 ft)	1500	\$390	LF	\$585,000
Retaining Wall (> 6 ft)	1500	\$720	LF	\$1,080,000
Construction Cost				\$2,181,625
Engineering and Contingency (30%)				\$654,488
Conceptual Project Cost Estimate				\$2,836,113

Location #9 - Burton Street (Patterson Avenue to Spaulding Avenue)

Total Length 1800 ft

Item	Length	Price	Unit	Item Cost
Base Pathway	1800	\$75	LF	\$135,000
Large Tree Clearing	500	\$10	LF	\$5,000
Pedestrian Bridge over I-96	1	\$1,500,000	EA	\$1,500,000
Construction Cost				\$1,640,000
Engineering and Contingency (30%)				\$492,000
Conceptual Project Cost Estimate				\$2,132,000

Location #10 - Thornapple River Drive (Thornhills Avenue to Burger Drive)

Total Length

500 ft

- South side

Item	Length	Price	Unit	Item Cost
Base Pathway	500	\$75	LF	\$37,500
Heavy Grading (cut/fill)	150	\$20	LF	\$3,000
Large Tree Clearing	180	\$10	LF	\$1,800
Utility Pole Relocation	2	\$5,000	EA	\$10,000
Retaining Wall (< 6 ft)	200	\$390	LF	\$78,000
Construction Cost				\$130,300
Engineering and Contingency (30%)				\$39,090
Conceptual Project Cost Estimate				\$169,390

CASCADE CHARTER TOWNSHIP PATHWAYS FUND

10-YEAR FORECAST (2019 - 2028)

03/01/2018

2018 Millage = 0.3985 (1.49B TV)
2019 Millage = 0.3500 (1.53B TV)

GL NUMBER	DESCRIPTION	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	NOTES
REVENUES														
216-000-401-402	TAX LEVY	531,250	535,500	546,210	557,134	568,277	579,642	591,235	603,060	615,121	627,424	639,972		0 Assumes 2% Annual Increase
216-000-401-410	PERSONAL PROPERTY TAX	39,150												0 Combined w/Real Property
216-000-401-412	DELINQUENT TAX LEVY	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000		0 Flat
216-000-401-437	ABATEMENT TAXES-LEVY	4,250	4,335	4,422	4,510	4,600	4,692	4,786	4,882	4,980	5,079	5,181		0 Assumes 2% Annual Increase
216-000-401-445	PENALTIES & INTEREST ON TAX	100	100	100	100	100	100	100	100	100	100	100		0 Flat
216-000-401-441	COMMUNITY STABLIZATION SHARE	14,545	14,836	15,133	15,435	15,744	16,059	16,380	16,708	17,042	17,383	17,730		0 Assumes 2% Annual Increase
216-000-665-000	INTEREST REVENUE	18,600	12,157	13,210	13,953	14,749	15,582	16,474	17,430	18,432	19,485	20,593	21,779	0.75% Return on Fund Balance
TOTAL REVENUES		610,895	569,928	582,075	594,133	606,470	619,076	631,976	645,179	658,675	672,471	686,576	21,779	
EXPENDITURES														
216-758-706-000	Employee (Salary & Benefits)	0	58,000	59,450	60,936	62,460	64,021	65,622	67,262	68,944	70,667	72,434	74,245	Assumes 2.5% Annual Increase
216-758-728-000	OPERATING SUPPLIES	8,000	8,160	8,323	8,490	8,659	8,833	9,009	9,189	9,373	9,561	9,752	9,947	Assumes 2% Annual Increase
216-758-821-100	ENGINEERING	30,000	15,000	15,450	15,914	16,391	16,883	17,389	17,911	18,448	19,002	19,572	20,159	Assumes 3% Annual Increase
216-758-931-000	MAINT & REPAIR	70,000	100,000	103,000	106,090	109,273	112,551	115,927	119,405	122,987	126,677	130,477	134,392	Assumes 3% Annual Increase
216-758-950-000	PROPERTY TAX REFUNDS	200	200	200	200	200	200	200	200	200	200	200	200	Flat Amount
216-990-992-XXX	BOND PRINCIPAL		182,500	205,000	212,500	222,500	230,000	237,500	247,500	257,500	267,500	275,000	287,500	Per Amoritization Schedule
216-990-996-XXX	BOND INTEREST		65,625	91,593	83,906	75,937	67,594	58,968	50,062	40,781	31,125	21,093	10,781	Per Amoritization Schedule
TOTAL Expenditures		108,200	429,485	483,016	488,036	495,420	500,081	504,615	511,530	518,234	524,732	528,528	537,223	
NET OF REVENUES/APPROPRIATIONS		502,695	140,443	99,059	106,097	111,051	118,995	127,360	133,649	140,441	147,739	158,049	(515,445)	
BEGINNING FUND BALANCE		1,118,259	1,620,954	1,761,397	1,860,456	1,966,553	2,077,604	2,196,598	2,323,959	2,457,608	2,598,049	2,745,788	2,903,837	
ENDING FUND BALANCE		1,620,954	1,761,397	1,860,456	1,966,553	2,077,604	2,196,598	2,323,959	2,457,608	2,598,049	2,745,788	2,903,837	2,388,392	
FUND BAL. AS % BDGT		1498.11%	410.12%	385.17%	402.95%	419.36%	439.25%	460.54%	480.44%	501.33%	523.27%	549.42%	444.58%	



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE, Grand Rapids, Michigan 49546

Date: February 23, 2022
To: Supervisor Lesperance and Township Board Members
From: Ben Swayze, Township Manager
Subject: Resolution to Publish Notice of Intent to Issue Municipal Securities and to Approve Certain Reimbursements

FACTS:

At the January 26, 2022 Township Board meeting, the Fire Department Design Team, Williams Architects and Triangle Construction presented the schematic design and initial estimated budget for the Fire Station #1 project. At the meeting the Township Board authorized the design development phase of the project, which will bring us to construction documents and a final budgetary estimate. It is anticipated that the Township Board will make a decision regarding moving forward with the project, in the form of letting bid documents, in May 2022.

It is anticipated that the Township Board will want to consider bonding for a portion of the cost of the project. As part of the bonding process, the Township Board must authorize, by resolution, the publication of a notice of intent to issue the bonds. The notice of intent *does not* obligate the Township Board to ultimately issue the bonds. Nor does it obligate the Township Board to bond for the entire amount noted in the resolution. The resolution has been drafted with the full initial budgetary amount included to allow the Township Board the greatest amount of latitude when deciding what the final bond amount and term should be. If approved by the Township Board, the notice will be published in the Grand Rapids Press in accordance with the relevant statutes and, upon publication, will begin the 45-day public right of referendum period.

Attached for your review are:

- Proposed Resolution Authorizing the Publication of a Notice of Intent to Municipal Securities
- Proposed Notice to be published in the Grand Rapids Press
- January 26 presentation on Fire Station #1 Project

ANALYSIS & CONCLUSIONS:

If the Township Board wishes to consider bond financing for any or all of the referenced projects, the Notice of Intent must be published as outlined in Public Act 34 of 2001. However, the publication does not obligate the Township to issue the bonds. The Township Board will have an opportunity to review the financial analysis for the project once a financial advisor is procured. In addition, once bids are received the Township Board will have an opportunity to reject bids if certain performance thresholds are not met.

The publication of the notice will begin the 45-day referendum period. During this period, if the Township receives a petition, signed by not less than 10% of the registered electors of the Township, requesting a referendum on the issuance of the bonds, then the bonds can only be

issued upon the approval of a bonding question on the next Township general or special election. If no such petition is received, then the Township Board may issue the bonds by simple majority vote upon the expiration of the referendum period.

If the Township Board does choose to issue the bonds and accept bids, it is anticipated the transactions will take place in Summer 2022. This will allow the Township 3 year to complete the projects that were bonded for.

FINANCIAL CONSIDERATIONS:

Publication for the Notice of Intent will cost the Township about \$500. Further financial analysis on the bond issuance will be provided later in the process. Issuing the Notice of Intent does not obligate the Township to any further costs.

RECOMMENDED ACTION:

To approve the resolution to publish notice of intent to issue municipal securities and to approve certain reimbursements.

**BOARD OF TRUSTEES
CASCADE CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN**

Resolution No.: 2022 - _____

**RESOLUTION TO PUBLISH NOTICE OF INTENT TO ISSUE MUNICIPAL
SECURITIES AND TO APPROVE CERTAIN REIMBURSEMENTS**

At a meeting of the Township Board (the “**Township Board**”) of Cascade Charter Township, Kent County, Michigan (the “**Township**”), held at the Kent District Library, Wisner Center, 2870 Jacksmith Avenue SE, Grand Rapids, Michigan 49546, on the 9th day of February, 2022, at 7:00 p.m.

PRESENT: _____

ABSENT: _____

The following resolution was offered by Trustee _____ and supported by Trustee _____:

WHEREAS, the Township Board deems it to be in the best interest of the Township to design, purchase, acquire, construct, remodel, renovate and equip a new fire station, including, but not limited to any and all work necessary and incidental to those improvements and to pay the costs of issuing municipal securities (the “**Improvements**”) for the benefit of the Township and to finance the Improvements by the issuance of municipal securities that pledge the Township's limited tax, full faith and credit, general obligation, pursuant to Section 517 of Act 34 of the Public Acts of Michigan of 2001, as amended (“Act 34”); and

WHEREAS, the Township may proceed with the Improvements prior to the issuance of the municipal securities; and

WHEREAS, the Township may incur substantial capital expenditures for the Improvements prior to the issuance of the municipal securities and desires to be reimbursed for such expenditures from the proceeds of the municipal securities; and

WHEREAS, pursuant to Section 517 of Act 34, it is necessary to publish a Notice of Intent to Issue Municipal Securities for the Improvements.

NOW, THEREFORE, BE IT HEREBY RESOLVED AS FOLLOWS:

1. The Township Board hereby determines to design, purchase, acquire, construct, remodel, renovate and equip the Improvements and to pay for the cost through the issuance of one or more series of municipal securities, which pledge the Township's limited tax, full faith and credit, general obligation, pursuant to Section 517 of Act 34, in an amount not to exceed \$9,800,000, which includes costs of issuance (the "**Municipal Securities**").

2. A Notice of Intent to Issue Municipal Securities will be published in accordance with Section 517 of Act 34, and the Township Clerk is authorized and directed to publish the Notice of Intent to Issue Municipal Securities in *The Grand Rapids Press*, a newspaper of general circulation in the Township, determined to be the newspaper reaching the largest number of persons to whom such Notice is directed, which Notice shall be substantially in the form as set forth on the attached Exhibit A with such changes as are approved by the Township Supervisor, and shall be at least one-quarter (1/4) page in size in the newspaper.

3. The Township may proceed to design, purchase, acquire, construct, remodel, renovate and equip the Improvements using available general or other funds of the Township.

4. At such time as the Township issues the Municipal Securities for the long-term financing of the Improvements, the Township shall be reimbursed for its expenditures for the Improvements out of the proceeds of the Municipal Securities.

5. This resolution and the expression of intent to seek reimbursement from future proceeds of the Municipal Securities is intended to satisfy the requirements of Section 150 of the Internal Revenue Code of 1986, as amended.

6. The Township makes the following declaration of official intent complying with the reimbursement rules of U.S. Treasury Regulation §1.150-2 pursuant to the Internal Revenue Code of 1986, as amended:

a) The Township reasonably expects to reimburse itself for the expenditures described in clause (b) below from proceeds of the Municipal Securities.

b) The expenditures described in this clause (b) are for paying the costs of the Improvements which were paid or will be paid within sixty (60) days prior to the date of adoption of this resolution, from available general or other funds of the Township.

c) The Municipal Securities will be issued no later than 18 months after the later of (i) the date on which the first expenditure to be reimbursed is paid, or (ii) the date on which the Improvements are placed in service or abandoned, but in no event more than three (3) years after the original expenditure is paid. A reimbursement allocation will be made by an allocation in writing that evidences the Township's use of the proceeds of the Municipal Securities issued for the Improvements to reimburse the Township for capital expenditures made pursuant to this resolution.

d) The expenditures described in clause (b) above are “capital expenditures” as defined in Treas. Reg. §1.150-1, namely any costs of a type which are properly chargeable to a capital account (or would be so chargeable with a proper election or with the application of the definition of “placed in service” under Treas. Reg. §1.150-2(c))

under general federal income tax principles (as determined at the time the expenditures are paid).

e) No proceeds of the Municipal Securities paid to the Township in reimbursement pursuant to this resolution will be used in a manner described in Treas. Reg. §1.150-2(h) with respect to abusive uses of proceeds, including without limitation using funds corresponding to the proceeds of the Municipal Securities in a manner that results in the creation of replacement proceeds (within the meaning of Treas. Reg. §1.148-1) within one year of the reimbursement allocation described in clause (c) above.

7. The firm of Foster Swift Collins & Smith, P.C. is hereby employed as bond counsel to the Township to prepare the documents for the issuance of the Municipal Securities for the financing of the Improvements.

8. All resolutions and parts of resolutions insofar as they conflict with the provisions of this resolution are hereby rescinded.

YEAS: _____

NAYS: _____

ABSENT: _____

RESOLUTION DECLARED ADOPTED.

Dated: February 9, 2022

Susan Slater, Clerk
Cascade Charter Township

CERTIFICATION

I, Susan Slater, the duly qualified and acting Township Clerk of Cascade Charter Township, Kent County, Michigan, do hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Board of Trustees of Cascade Charter Township, at its meeting held on February 9, 2022, the original of which is on file in my office and that public notice of said meeting was given pursuant to and in compliance with Act 267 of the Public Acts of Michigan of 1976, as amended.

Susan Slater, Clerk
Cascade Charter Township

EXHIBIT A

[NOTE TO PUBLISHER – PUBLICATION MUST BE 1/4 PAGE SIZE]

**NOTICE OF INTENT TO ISSUE MUNICIPAL SECURITIES
TO THE ELECTORS OF CASCADE CHARTER TOWNSHIP**

PLEASE TAKE NOTICE that the Board of Cascade Charter Township, Kent County, Michigan (the “Township”) intends to issue municipal securities in one or more series, in an amount not to exceed \$9,800,000 (the “Municipal Securities”).

The Municipal Securities shall be issued for the purpose of defraying the cost to design, purchase, acquire, construct, remodel, renovate and equip a new fire station, including all work necessary and incidental to those improvements and to pay the costs of issuing the Municipal Securities.

The Municipal Securities of this issue shall mature within the maximum terms permitted by law with interest on the unpaid balance at a rate not to exceed the maximum rate permitted by law. The Municipal Securities shall be issued pursuant to Act 34 of the Public Acts of Michigan of 2001, as amended (“Act 34”).

SOURCE OF PAYMENT

The principal of and interest on the Municipal Securities will be limited tax full faith and credit general obligations of the Township, payable from any available funds of the Township. Pursuant to this pledge of its limited tax, general obligation, full faith and credit, the Township will be obligated to levy such ad valorem taxes upon all taxable property in the Township as shall be necessary to make the payments of principal and interest on the Municipal Securities, which taxes, however, will be limited by applicable constitutional, statutory and charter limitations on the taxing power of the Township.

RIGHT OF REFERENDUM

The Municipal Securities will be issued without a vote of the electors approving such Municipal Securities unless, within 45 days from the date of publication of this Notice of Intent, a petition, signed by not less than 10% of the registered electors residing within the limits of the Township, shall have been filed with the Township Clerk, or other recording officer of the Township, requesting a referendum upon the question of the issuance of the Municipal Securities. If such a petition is filed, the Municipal Securities shall not be issued until approved by the vote of a majority of the electors of the Township qualified to vote and voting thereon at a general or special election.

This Notice is published pursuant to the requirements of Section 517 of Act 34.

Susan Slater, Clerk
Cascade Charter Township

87192:00001:6099286-1



CASCADE TOWNSHIP FIRE DEPARTMENT

Dedicated to Serving You

January 20, 2022
Township Board Staff Report
Fire Station 1 Design Approval

Members of the Board,

The Fire Department Design Team, Williams Architects, and Triangle Construction have completed the schematic design process for new fire station 1, as well as anticipated estimates for the bidding process expected this coming summer of 2022. At the last Public Safety Advisory Committee meeting in December, a request was made for an exterior design alternative to consider before going forward with the design/development process. Both designs are attached in the packet, as well as budget estimates for each. Please note, that both designs feature the exact same interior layout and site footprint.

We are requesting that the board choose and approve one of the two designs presented. When a decision is made by the board, Williams and Triangle can get started on the design/development phase of the project which is anticipated to conclude mid-summer. Following design/development, is the bidding/procurement phase. This process should take about 4 weeks, and concludes with formal bids for the Township Board to consider around the September timeframe.

The Fire Department Design Team, Williams Architects, and Triangle Construction will all be present at the January 26th Township Board meeting to present information and answer any questions. Thank you for your time and consideration.

Respectfully,

Adam T. Magers
Fire Chief, Cascade Township



FRONT PERSPECTIVE

CASCADE CHARTER TOWNSHIP FIRE STATION - MONDAY NOVEMBER 29TH 2021



EAST (FRONT) PERSPECTIVE

CASCADE CHARTER TOWNSHIP FIRE STATION - MONDAY NOVEMBER 29TH 2021



NORTH PERSPECTIVE

CASCADE CHARTER TOWNSHIP FIRE STATION - MONDAY NOVEMBER 29TH 2021



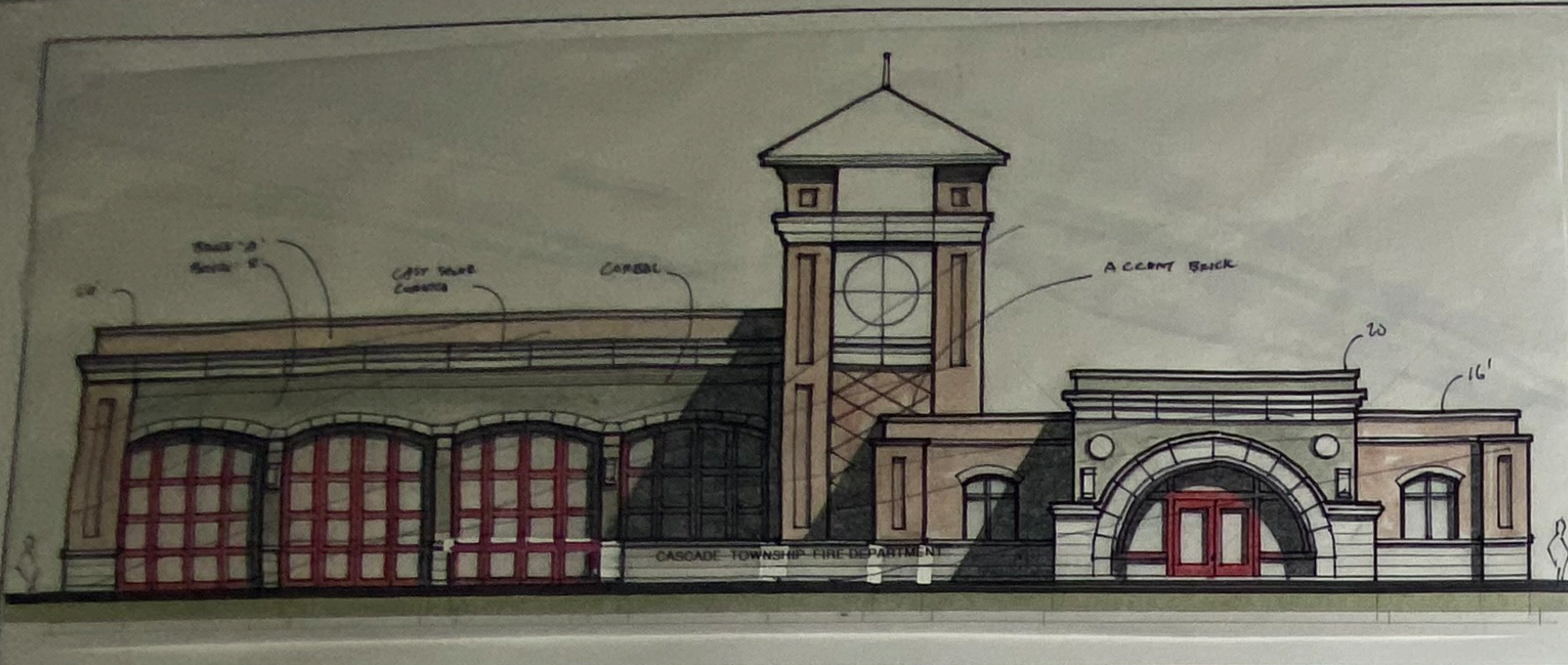
WEST PERSPECTIVE

CASCADE CHARTER TOWNSHIP FIRE STATION - MONDAY NOVEMBER 29TH 2021



NORTH ELEVATION

CASCADE CHARTER TOWNSHIP FIRE STATION - MONDAY NOVEMBER 29TH 2021



EAST ELEVATION

SCALE: 1/8" = 1'-0"

12

WEST ELEVATION



SCALE: 1/8" = 1'-0"

1



SOUTH ELEVATION

SCALE: 1/8" = 1'-0"

4



NORTH ELEVATION

5

FIRE STATION NO. 1
 CASCADE CHARTER TOWNSHIP
 CASCADE CHARTER AVENUE S.E.
 2865 THORNHILLS AVENUE S.E.
 GRAND RAPIDS, MICHIGAN 49546

WA No. 2021.033
 Date 8 DEC 2021
 Drawn: All
 Checked: RL

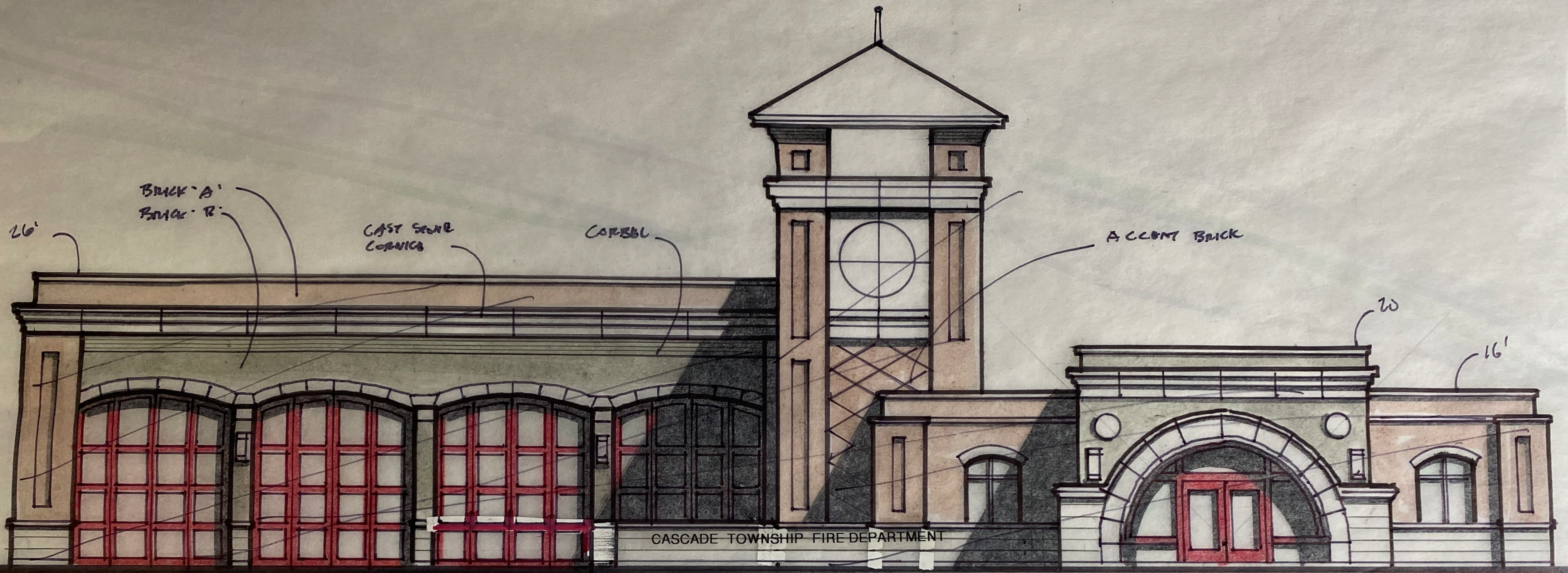
NO.	DATE	REVISIONS	DESCRIPTION

WILLIAMS
ARCHITECTS
 ARCHITECTURE | PLANNING | INTERIORS | INTERIORS
 1000 First Boulevard, Suite 1000, Grand Rapids, MI 49503
 Phone: 616.221.1212 Fax: 616.221.1213



EXTERIOR
 ELEVATIONS

A4.1



EAST ELEVATION

SCALE: 1/8" = 1'-0"

ACCENT BRICK



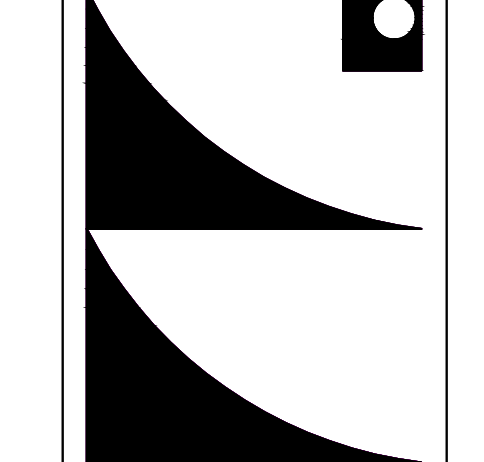
2 WEST ELEVATION

SCALE: 1/8" = 1'-0"

ACCENT RIDGE



REVISIONS	DATE	DESCRIPTION



NOT FOR CONSTRUCTION

BENCHMARKS

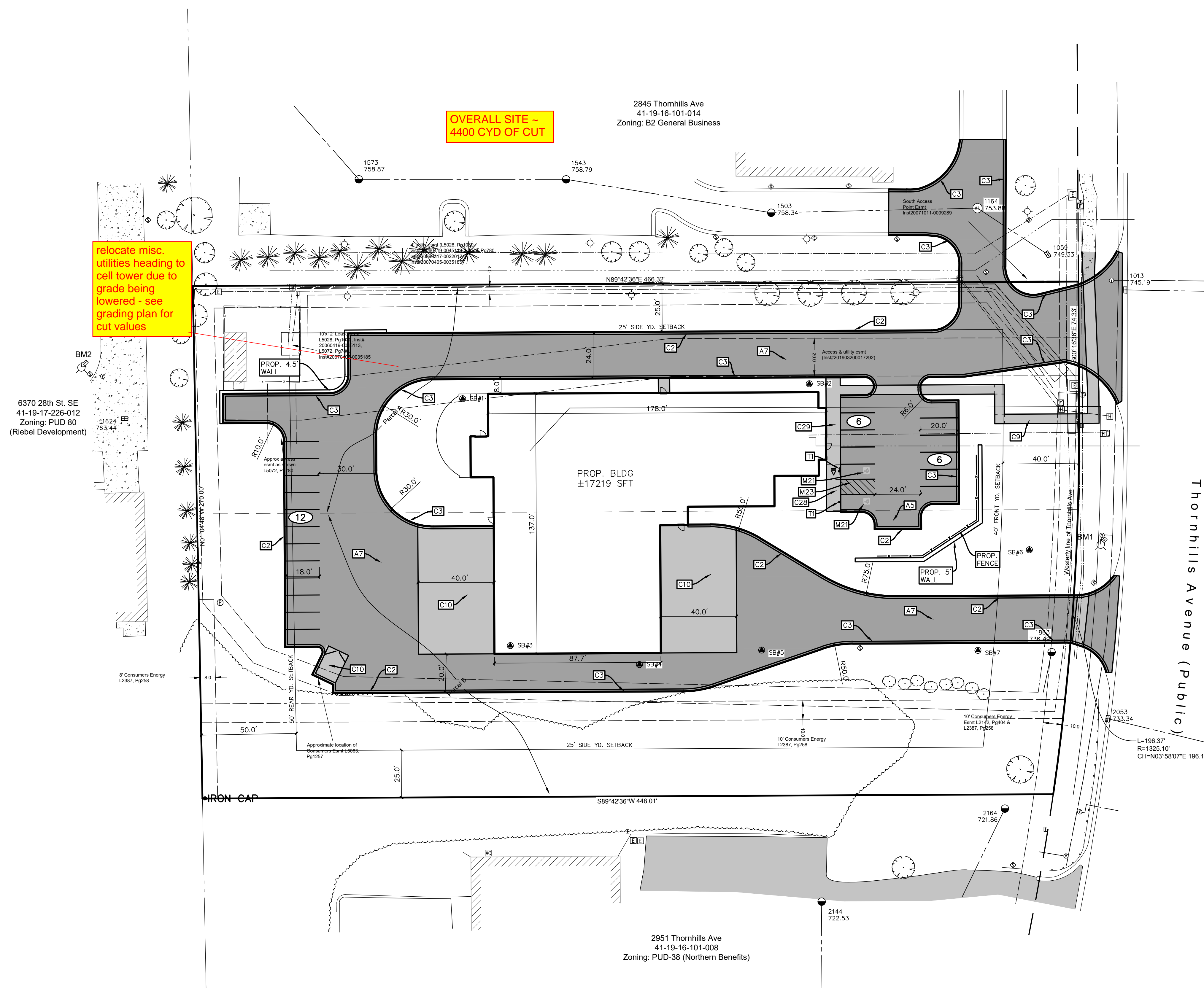
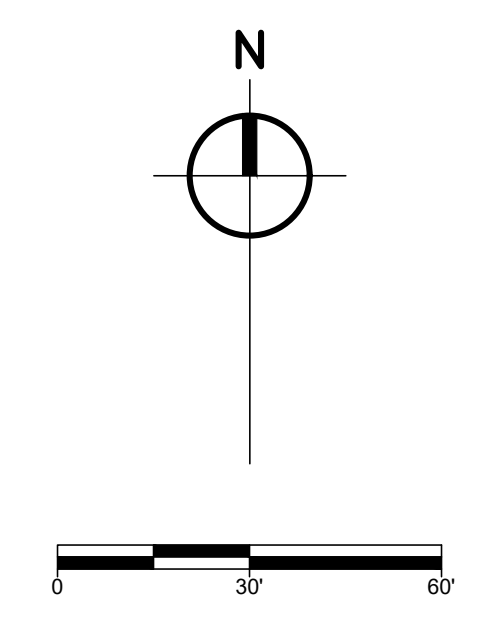
BM#1 ELEVATION 741.05
UPPER NORTHWEST FLANGE BOLT ON HYDRANT UNDER "E" IN T.W. LOCATED ABOUT 100 FEET EAST OF SOUTHWEST BUILDING CORNER OF EXISTING CASCADE FIRE STATION

BM#2 ELEVATION 766.00
UPPER NORTHEAST FLANGE BOLT ON HYDRANT UNDER "M" IN "MAKE IN USA" LOCATED ABOUT 75 FEET WEST OF THE SOUTHWEST CORNER OF CELL TOWER BUILDING

PROJECT DATUM INFORMATION

COORDINATE SYSTEM : STATE PLANE GRID
ZONE : MICHIGAN SOUTH 2113
ELLIPSOID : GRS 80
HORIZONTAL DATUM : NAD 83 (2011)
VERTICAL DATUM : NAVD 88
GEOID : GEOID 18
UNITS : INTERNATIONAL FEET

PROJECT COMBINED SCALE FACTOR (PCSF) = 0.999906980593
GROUND DISTANCE = GRID DISTANCE/PCSF



SITE LEGEND LAYOUT

CONCRETE CURB & GUTTER	
CONCRETE STRAIGHT CURB	
SIGN	
BARRIER FREE RAMP	
PARKING AREA STRIPING ISLAND	
STANDARD DUTY CONCRETE PAVEMENT	
STANDARD DUTY BITUMINOUS PAVEMENT	
HEAVY DUTY BITUMINOUS PAVEMENT	
GRAVEL PAVEMENT	
LANDSCAPE MAINTENANCE STRIP	
H.D. CONCRETE PAVEMENT	
TRAFFIC FLOW	
PARKING STALL COUNT	
TRANSITION FROM NORMAL TO REVERSE SLOPE GUTTER SECTION (5' TRANSITION LENGTH)	
LIGHT POLE (REFER TO AE PLANS)	

SITE LAYOUT NOTES

- SEE ELECTRICAL PLANS FOR LOCATION AND DETAILS ON SITE LIGHTING AND TRANSFORMER.
- REFER TO SPECIFICATIONS FOR BITUMINOUS PAVEMENT MIX REQUIREMENTS.
- REFER TO ARCHITECTURAL DRAWINGS FOR CONCRETE STOOP CONNECTION DETAILS AND DUMPSTER ENCLOSURE DETAILS.
- REFER TO SPECIFICATIONS FOR PAVEMENT EXPANSION AND CONTROL JOINTS.
- REFER TO MECHANICAL DRAWINGS FOR LOCATION AND DETAILS OF EQUIPMENT PADS.
- ALL BUILDING WORKING POINTS AND REFERENCE POINTS ARE GIVEN AT THE OUTSIDE CORNER OF BUILDING.
- COORDINATE WITH IRRIGATION AND ELECTRICAL CONTRACTOR FOR SIZE AND PLACEMENT OF ALL SLEEVES PRIOR TO PAVING, CONCRETE AND RESTORATION WORK.
- STANDARD PAVEMENT MARKINGS SHALL BE YELLOW. BARRIER FREE PAVEMENT MARKINGS SHALL BE BLUE.

SITE DATA

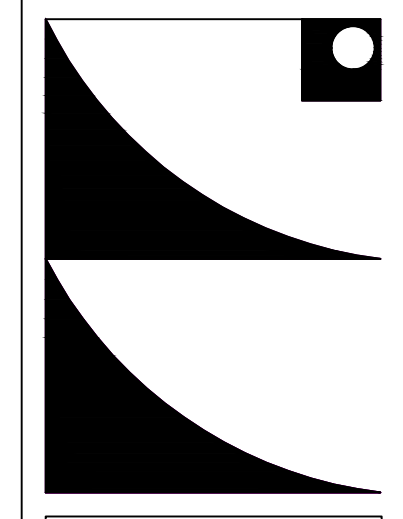
ADDRESS	= 2865 THORNHILLS AVE SE
	GRAND RAPIDS, MI 49546
ZONING	= B2, GENERAL BUSINESS
PARCEL NUMBER	= 41-19-16-101-015
SITE AREA	= 2.34 ACRES
1-STORY BUILDING (S.F.)	= 17219
PROPOSED BLDG. USE	= FIRE STATION

SITE LAYOUT KEY

A7	HEAVY DUTY BITUMINOUS PAVEMENT	SEE DETAIL A7
C2	ROLLED CONCRETE CURB & GUTTER	SEE DETAIL C2
C3	TYPE 1 CONCRETE CURB & GUTTER	SEE DETAIL C3
C4	TYPE 2 CONCRETE CURB & GUTTER	SEE DETAIL C4
C9	STANDARD DUTY CONCRETE WALKWAY/PAVEMENT	SEE DETAIL C9
C10	HEAVY DUTY CONCRETE WALKWAY/PAVEMENT	SEE DETAIL C10
C28	CONCRETE FLUSH TURNED DOWN WALK	SEE DETAIL C28
C29	CONCRETE TURNED DOWN WALK	SEE DETAIL C29
M21	MISCELLANEOUS BARRIER FREE SYMBOL	SEE DETAIL M21
M23	BARRIER-FREE PARKING SPACE LAYOUT - VAN	SEE DETAIL M23
T1	BARRIER FREE PARKING SIGN	SEE DETAIL T1

CIVIL ENGINEER:
PREIN & NEWHOF
3355 EVERGREEN DR. NE
GRAND RAPIDS, MI 49525
PHONE: (616) 364-8491
info@preinnewhof.com

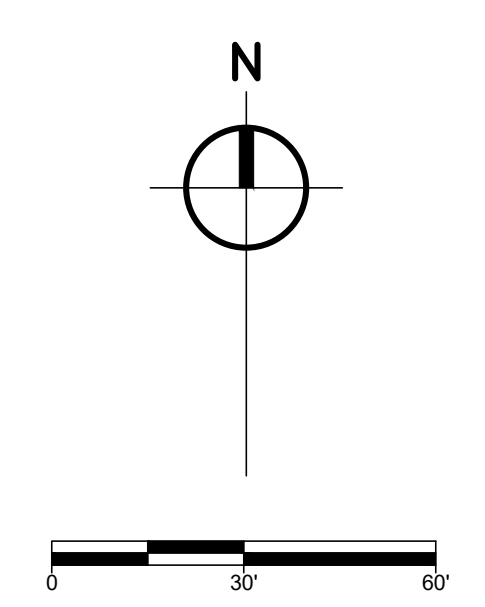
REVISIONS	DATE	DESCRIPTION



NOT FOR CONSTRUCTION

BENCHMARKS	
BM#1	ELEVATION 741.05 UPPER NORTHWEST FLANGE BOLT ON HYDRANT UNDER "E" IN "E.W." LOCATED ABOUT 100 FEET EAST OF SOUTHEAST BUILDING CORNER OF EXISTING CASCADE FIRE STATION
BM#2	ELEVATION 766.00 UPPER NORTHEAST FLANGE BOLT ON HYDRANT UNDER "M" IN "M.S.E. IN USA" LOCATED ABOUT 75 FEET WEST OF THE SOUTHWEST CORNER OF CELL TOWER BUILDING

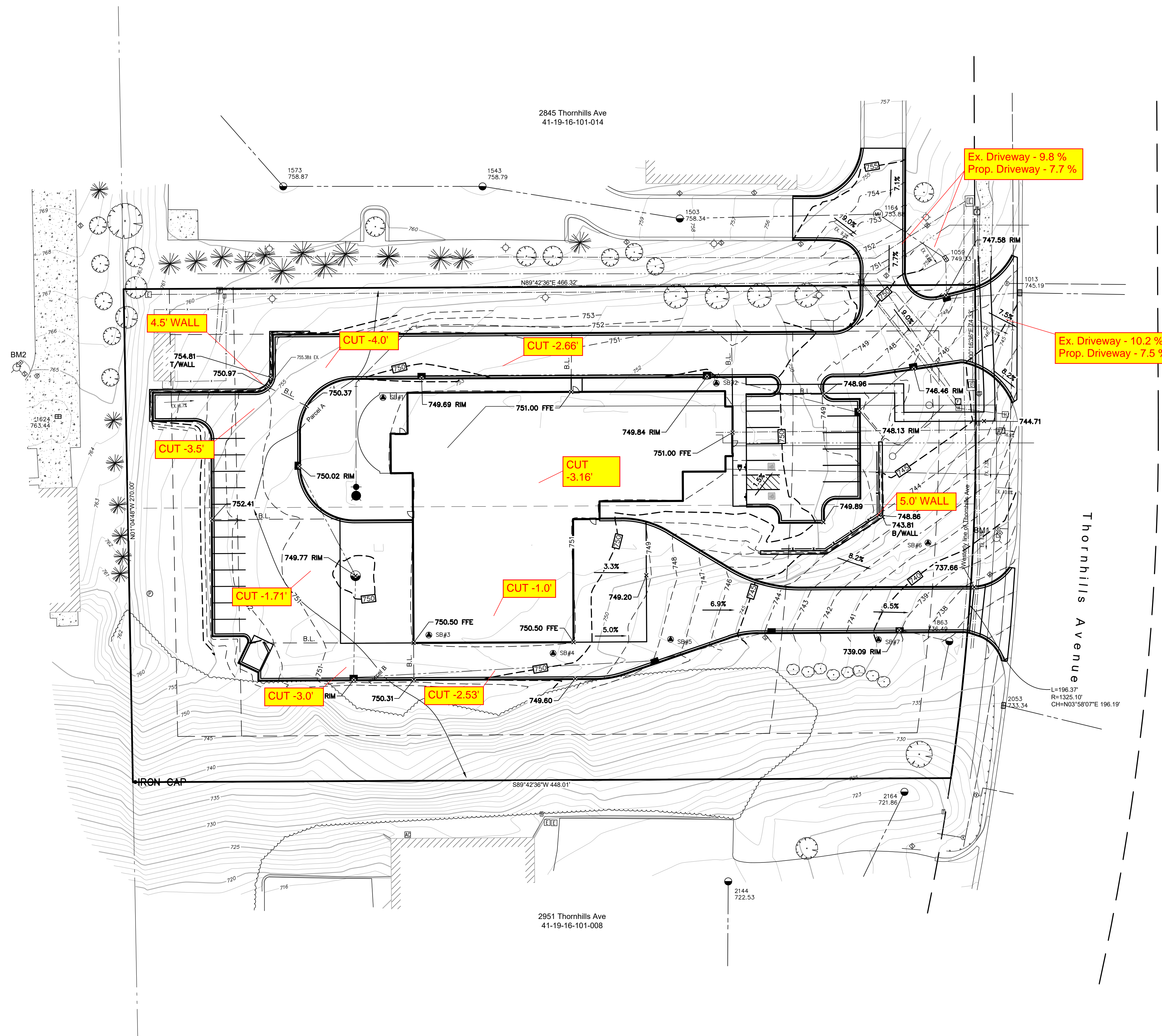
PROJECT DATUM INFORMATION	
COORDINATE SYSTEM :	STATE PLANE GRID
ZONE :	MICHIGAN SOUTH 2113
ELLIPSOID :	GPS 80
HORIZONTAL DATUM :	NAD 83 (2011)
VERTICAL DATUM :	NAVD 88
GEOD :	GEOD 18
UNITS :	INTERNATIONAL FEET
PROJECT COMBINED SCALE FACTOR (PCSF) :	0.999906980593
GROUND DISTANCE =	GRID DISTANCE/PCSF



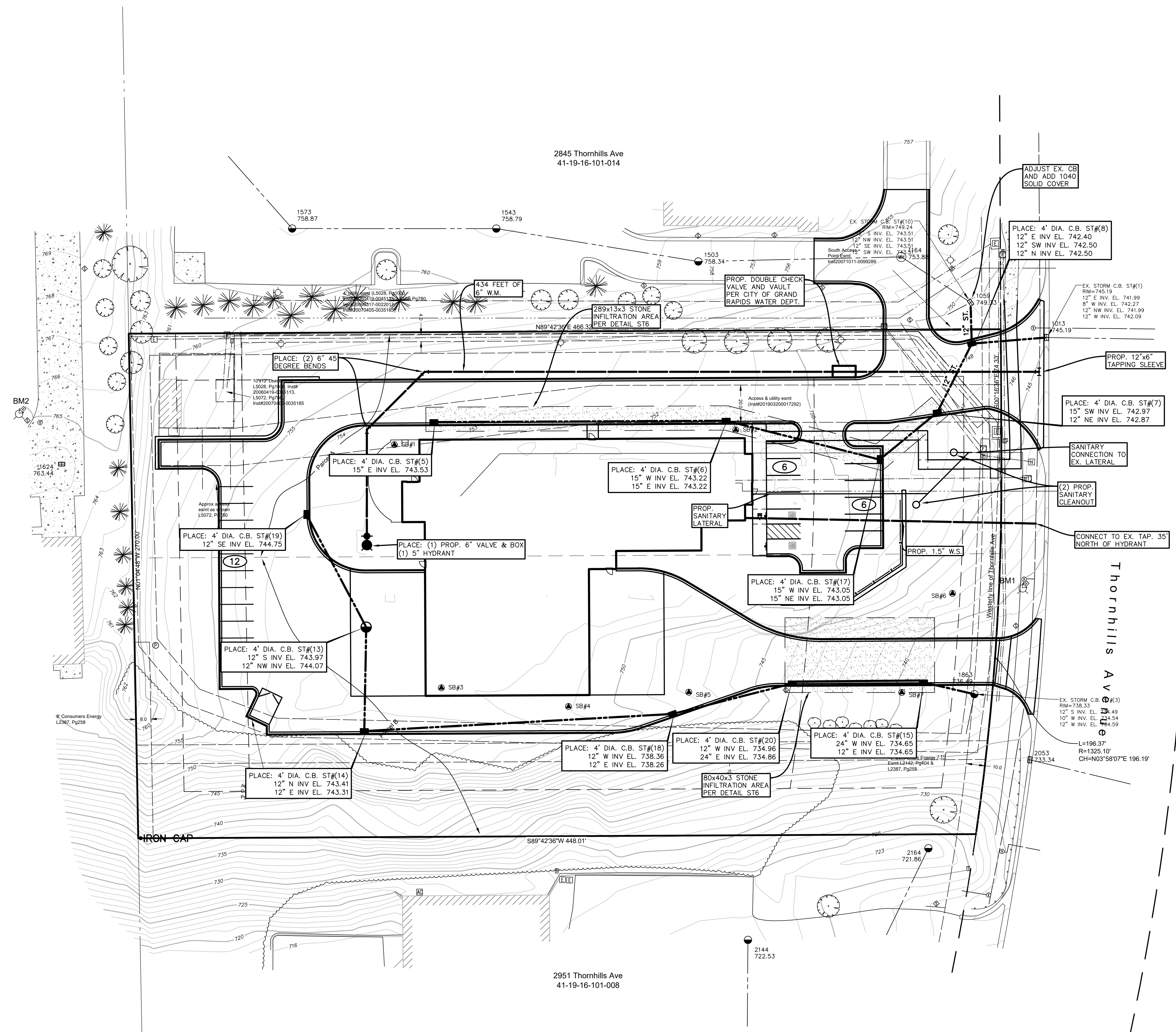
GRADING LEGEND	
SPOT ELEVATION	780.20
FLOW DIRECTION WITH GRADE	2.0%
SLOPE LABEL	5:1
CATCH BASIN (EX. PROP.)	[Symbol]
CULVERT END SECTION W/ RIPRAP	[Symbol]
HYDRANT & VALVE (EX. PROP.)	[Symbol]
MANHOLE (EX. PROP.)	[Symbol]
CLEANOUT	[Symbol]
SWALE/DITCH	[Symbol]
GRADE BREAK	[Symbol]
PROP. CONTOUR LINE	780
EX. CONTOUR LINE	780
GRADING LIMIT	[Symbol]
SILT FENCE	[Symbol]

GRADING NOTES	
ASPH	= BITUMINOUS PAVT.
CONC	= TOP OF CONC.
FL	= FLOW LINE
FC	= FLUSH CURB
G	= GROUND SPOT
INV	= PIPE/END SECTION INVERT
RM	= UTILITY STRUCTURE
SW	= SIDEWALK
TC	= TOP OF CURB
TW	= TOP OF WALL

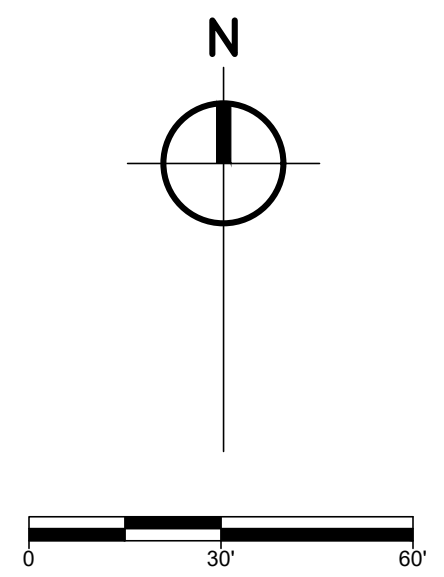
- REFER TO SPECIFICATIONS FOR ADDITIONAL ABBREVIATIONS FOR CIVIL/SITE AMENITIES.
- SIDEWALK CROSS-SLOPES HAVE BEEN DESIGNED AT 1.5% AND MUST NOT EXCEED 1.8%.



NOT FOR CONSTRUCTION



811 UTILITY LOCATIONS ARE DERIVED FROM ACTUAL MEASUREMENTS OF AVAILABLE RECORDS. THEY SHOULD NOT BE INTERPRETED TO BE EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA. Know what's below. Call before you dig.



UTILITY LEGEND

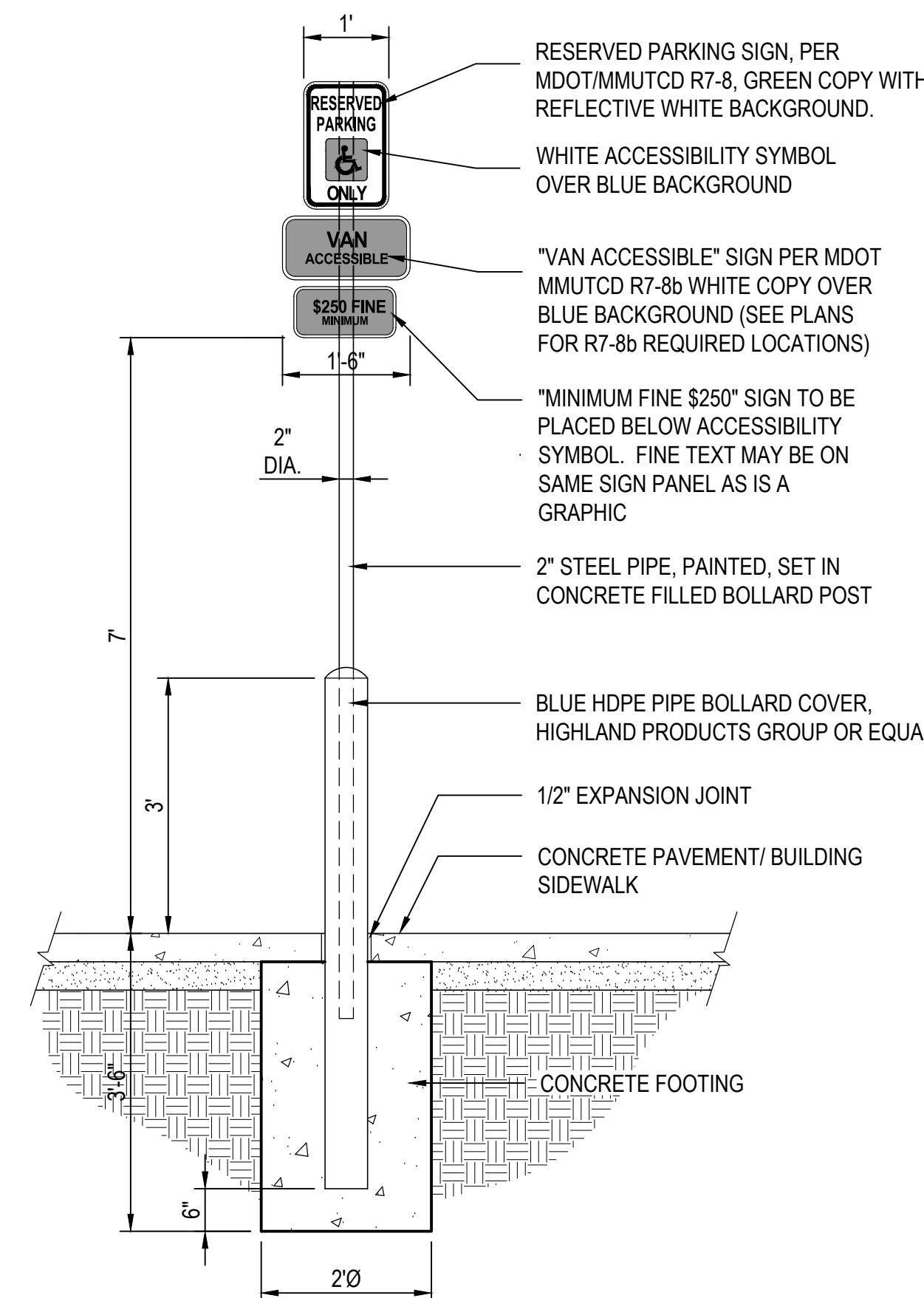
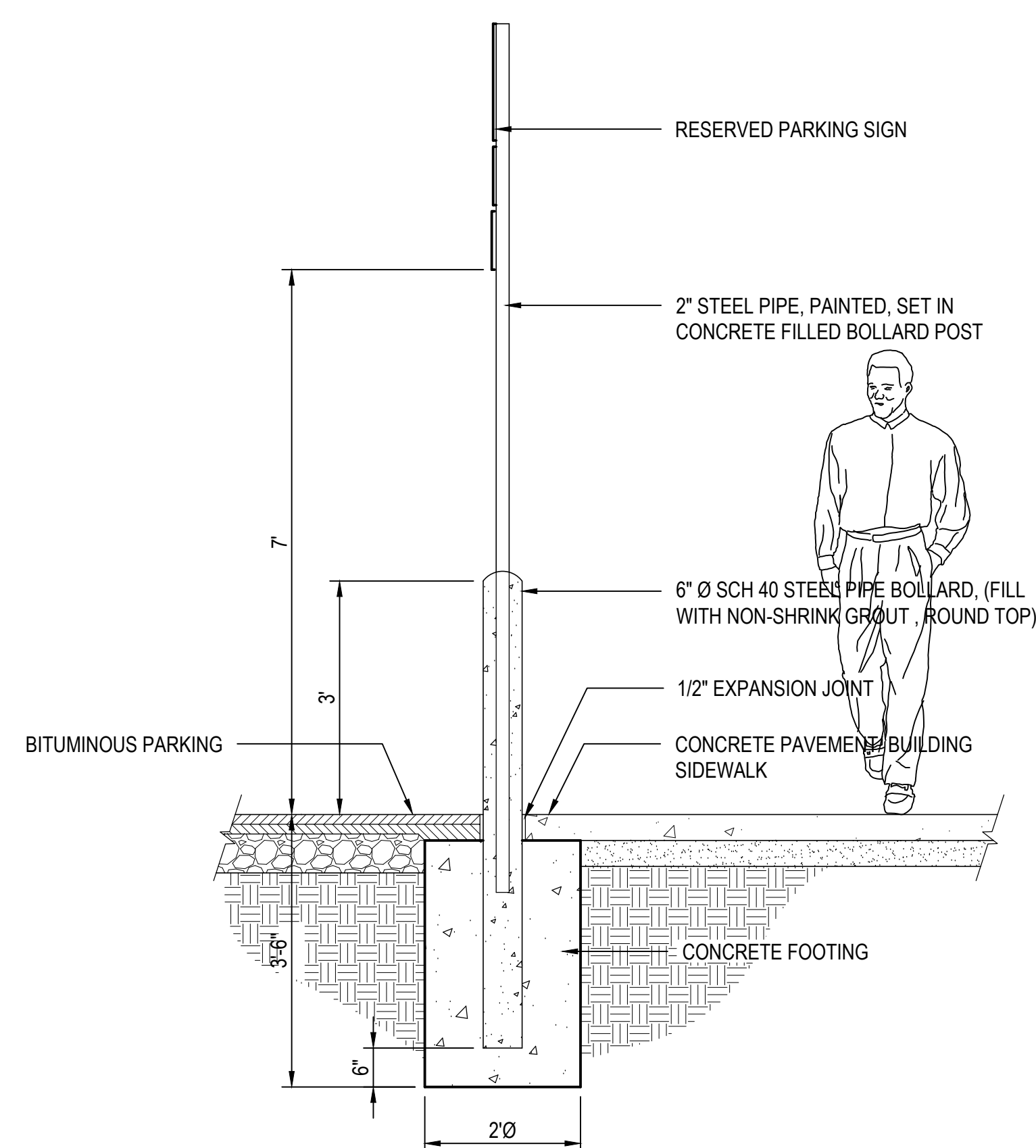
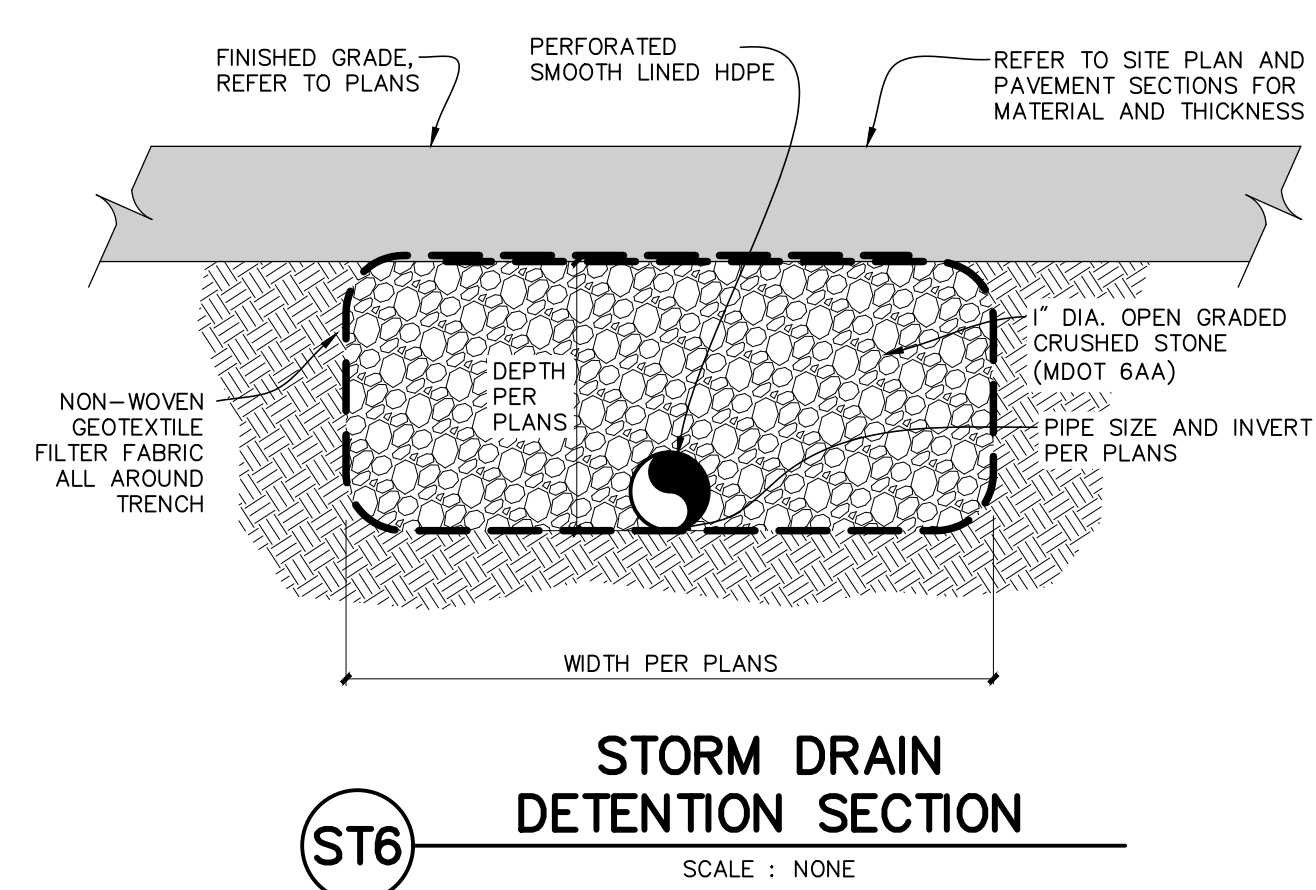
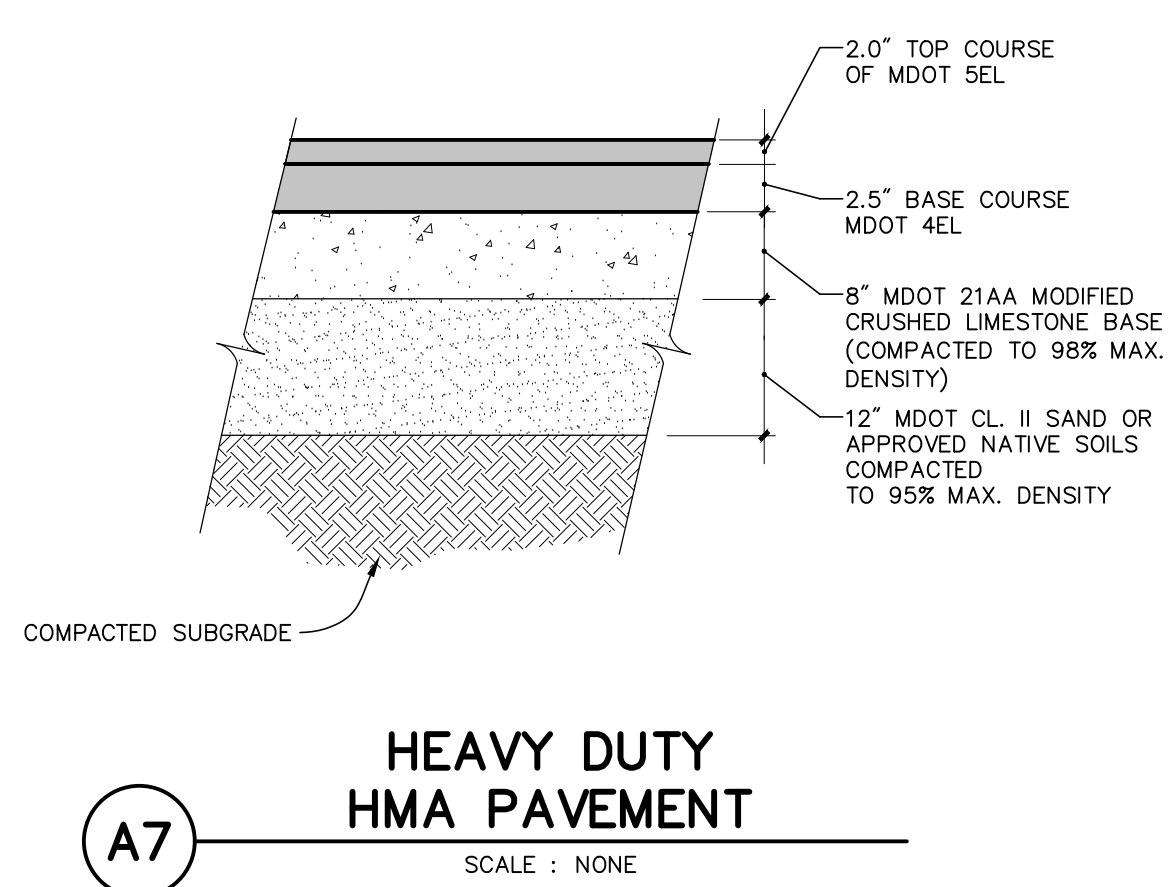
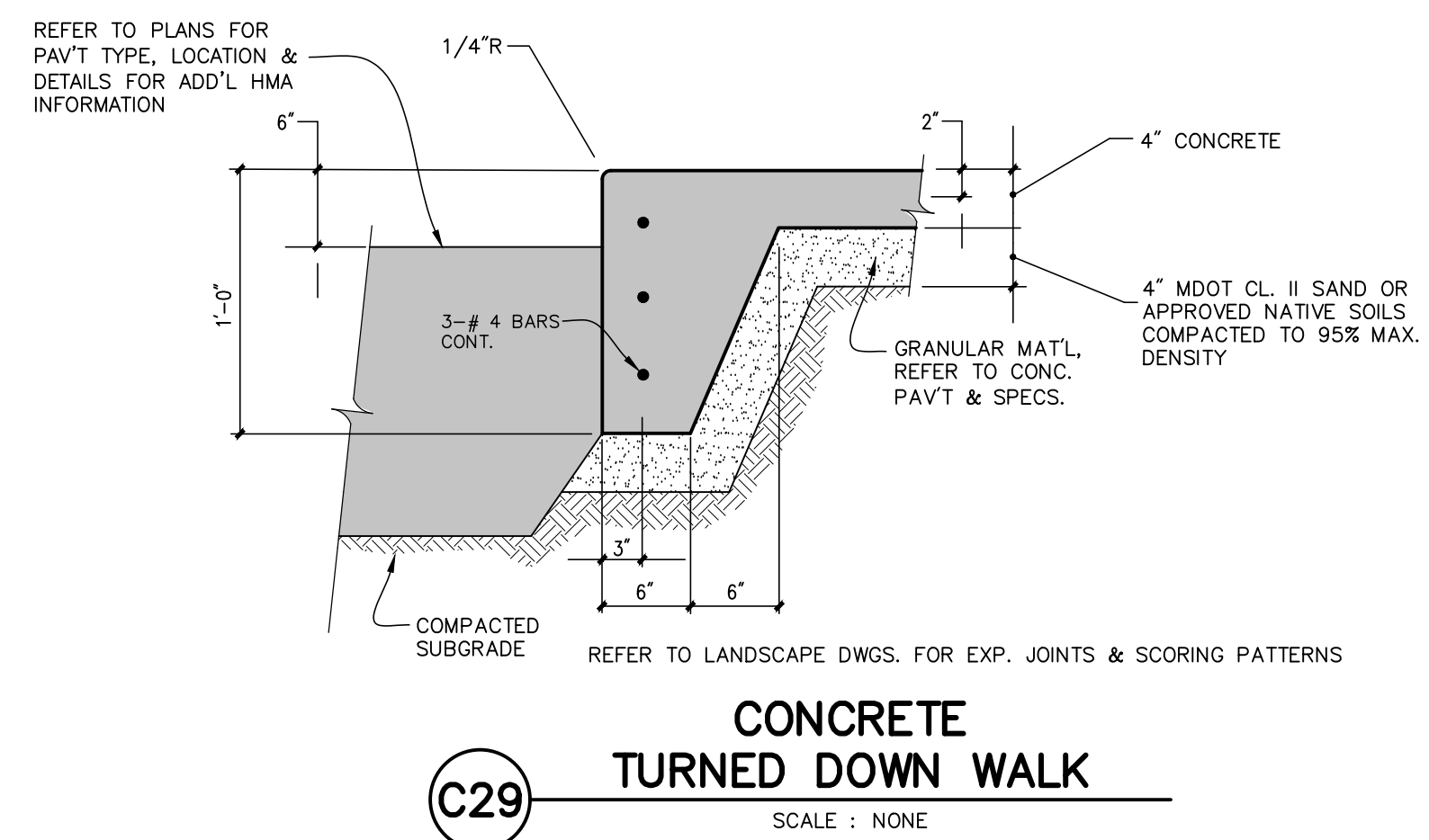
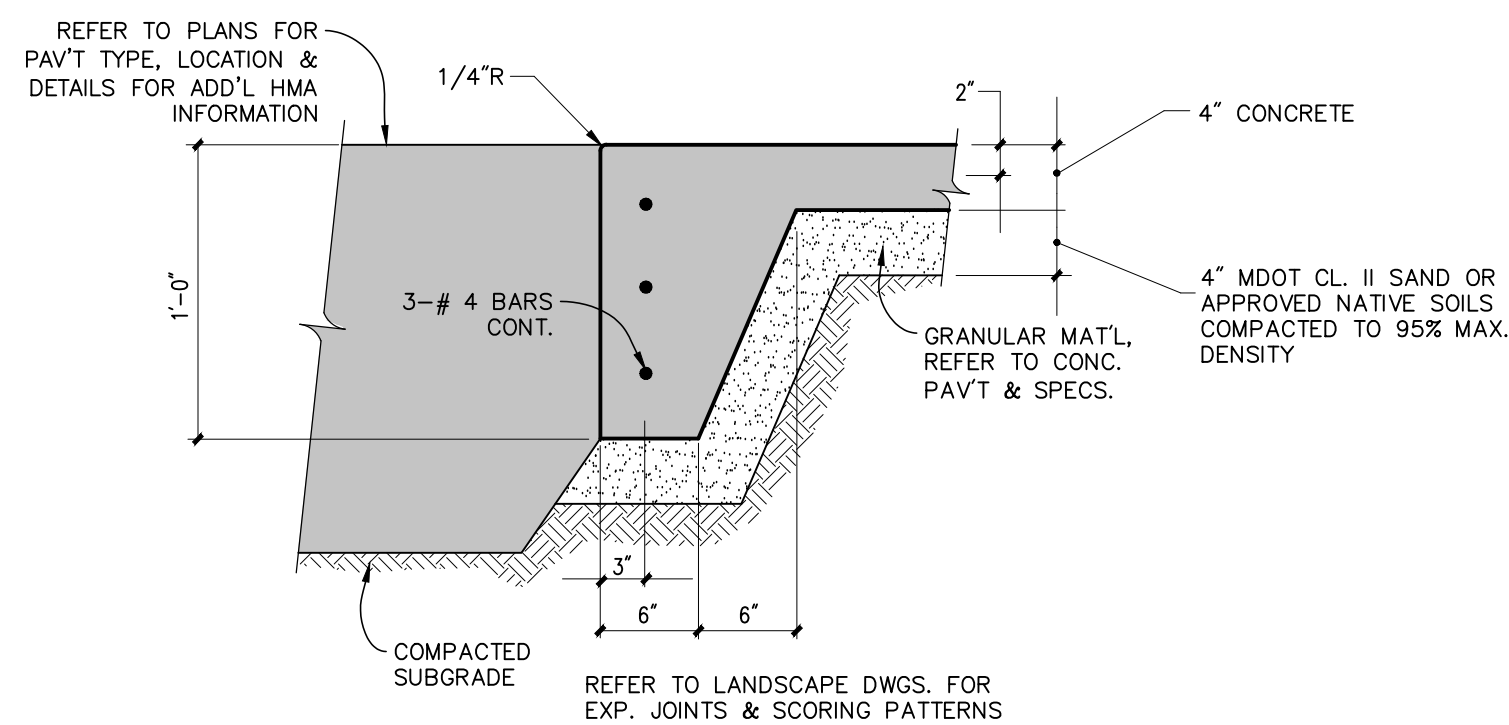
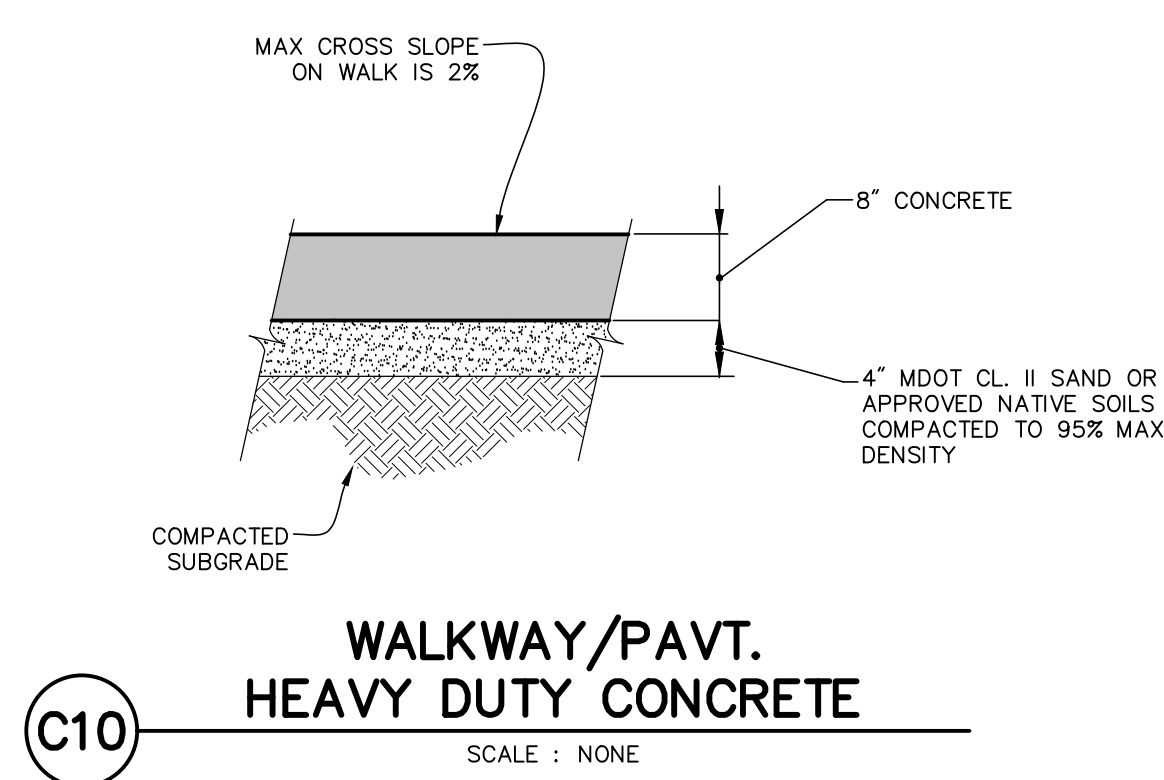
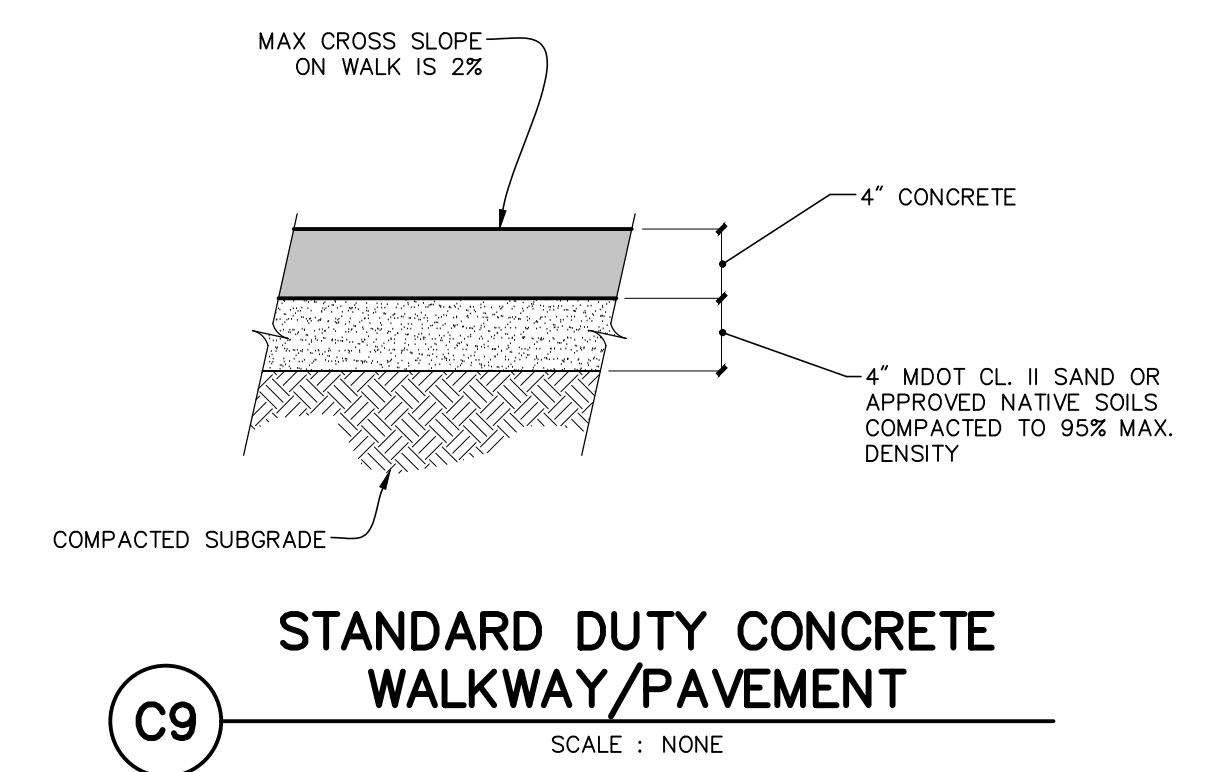
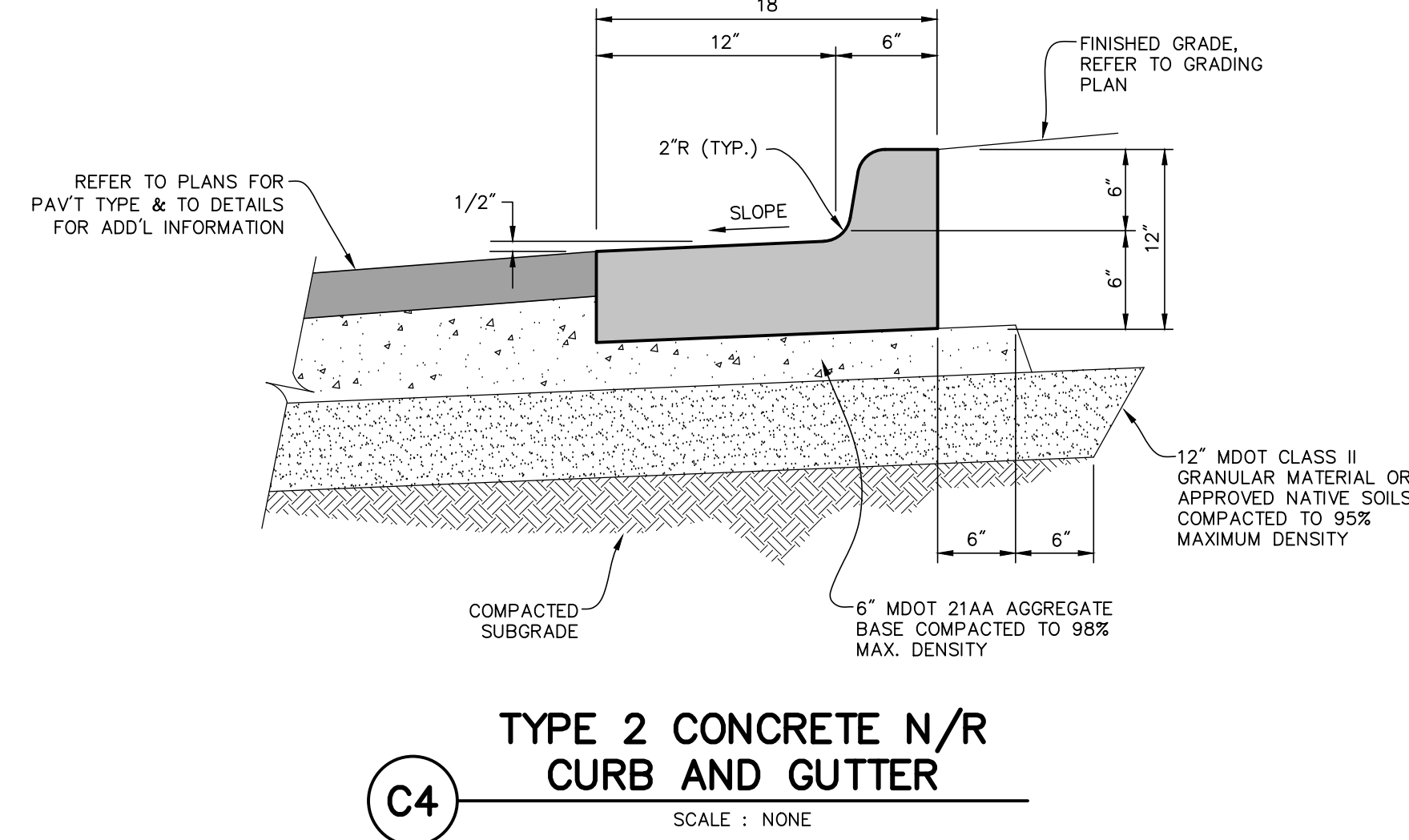
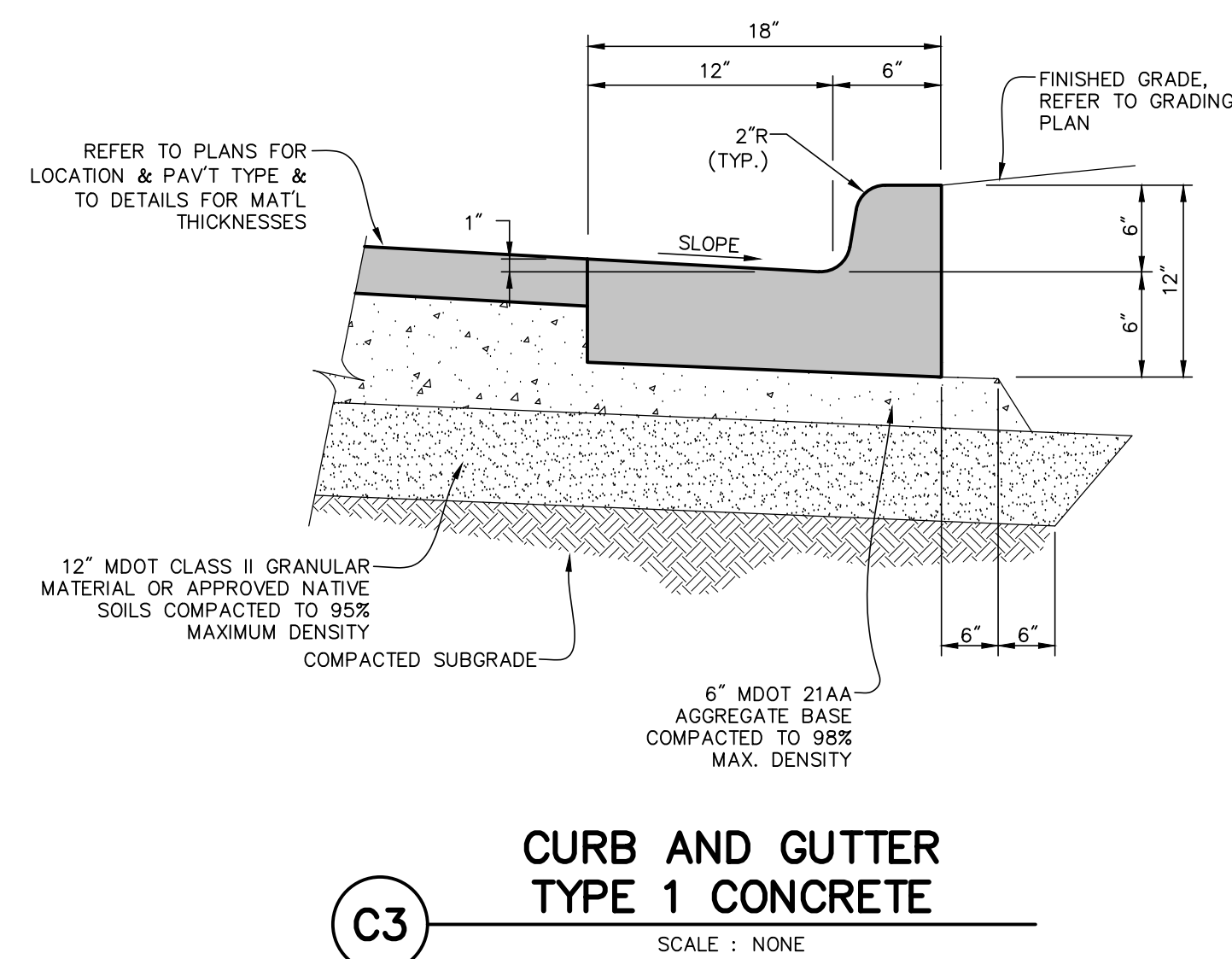
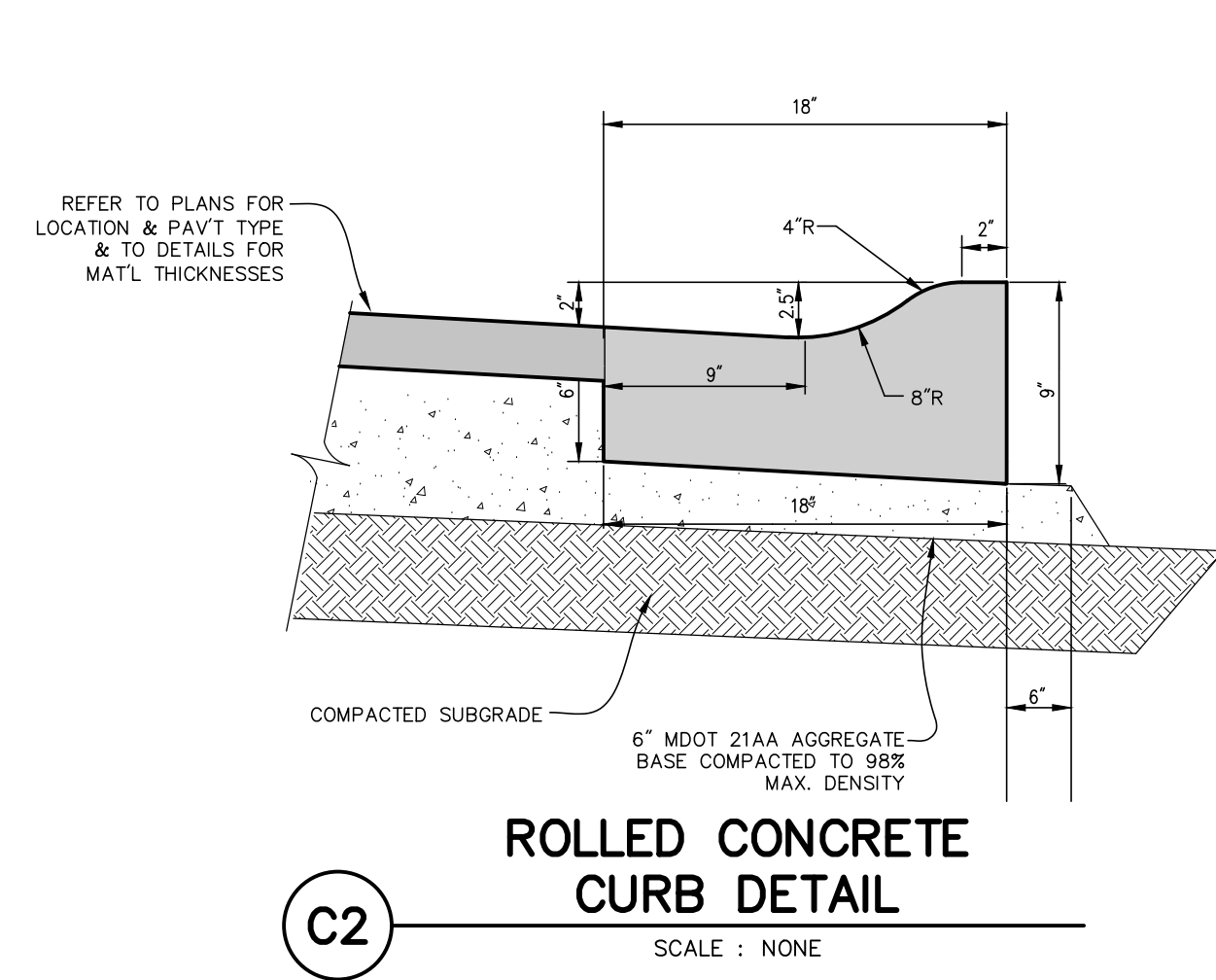
EX. MANHOLE	⊙
EX. CATCH BASIN	⊖
EX. CLEANOUT	⊕
EX. VALVE (WATER)	⊖
EX. HYDRANT	⊖
PROP. MANHOLE	⊙
PROP. CATCH BASIN	⊖
PROP. CLEANOUT	⊕
PROP. VALVE (WATER)	⊖
PROP. HYDRANT	⊖
PROP. LIGHT POLE (SEE ARCH. PLAN FOR MORE DETAIL)	⊕
EX. GAS SERVICE	---
EX. WATERMAIN	---
EX. SANITARY SEWER	---
EX. STORM SEWER	---
PROP. WATER MAIN	---
PROP. RESTRAINED JOINT WATER MAIN	---
PROP. SANITARY SEWER	---
PROP. STORM SEWER	---

- STORM SEWER NOTES**
- O.C. = OUTLET CONTROL STRUCTURE
 FES = FLARED END SECTION
 C.O. = CLEAN OUT
 CB = CATCH BASIN
 MH = MANHOLE
 YD = YARD DRAIN (2.0' DIA.)
- ALL TEXT & FEATURES SHOWN SCREENED ARE EXISTING. ALL STRUCTURES SHALL BE LOCATED IN RELATION TO THE PROPOSED IMPROVEMENTS.
 - UTILITIES SHOWN WERE EITHER FIELD LOCATED, OR TAKEN FROM EXISTING RECORD/DESIGN DRAWINGS & ARE SHOWN ACCORDINGLY; THE CONTRACTOR SHALL EXERCISE CAUTION & FIELD VERIFY REQUIRED LOCATIONS PRIOR TO EXCAVATION & CONSTRUCTION.
 - THE DRAINAGE STRUCTURES AND THE STORM WATER SYSTEM UNDER MUNICIPALITY JURISDICTION SHALL BE MUNICIPALITY TESTED MATERIAL.
 - ALL STORM SEWER SHALL BE ADS HP PIPE, UNLESS OTHERWISE SPECIFIED ON THE PLANS.
 - ALL ROOF DRAIN CONNECTIONS SHALL BE CONNECTED TO THE STORM SEWER WITH FABRICATED ADS HP REDUCING TEES.
 - CONTRACTOR TO COORDINATE INVERT ELEVATIONS AND PIPE SIZE OF ROOF DRAINS WITH PLUMBING PLAN. ROOF DRAINS MUST BE CONNECTED TO THE STORM SEWER WITH FABRICATED ADS HP REDUCING TEES, OR TIED INTO MANHOLES. WHERE NO INVERT ELEVATIONS ARE GIVEN ON THE PLANS, CONTRACTOR MUST CONNECT TO MANHOLES AND PROVIDE AT LEAST 2 FT OF COVER OVER PIPE IN GREEN SPACE, AND AT LEAST 3 FT OF COVER UNDER PAVEMENT. CONTRACTOR MUST INSTALL PIPE(S) WITH SLOPE IN ACCORDANCE WITH GASCASCADIA TOWNSHIP STANDARDS.

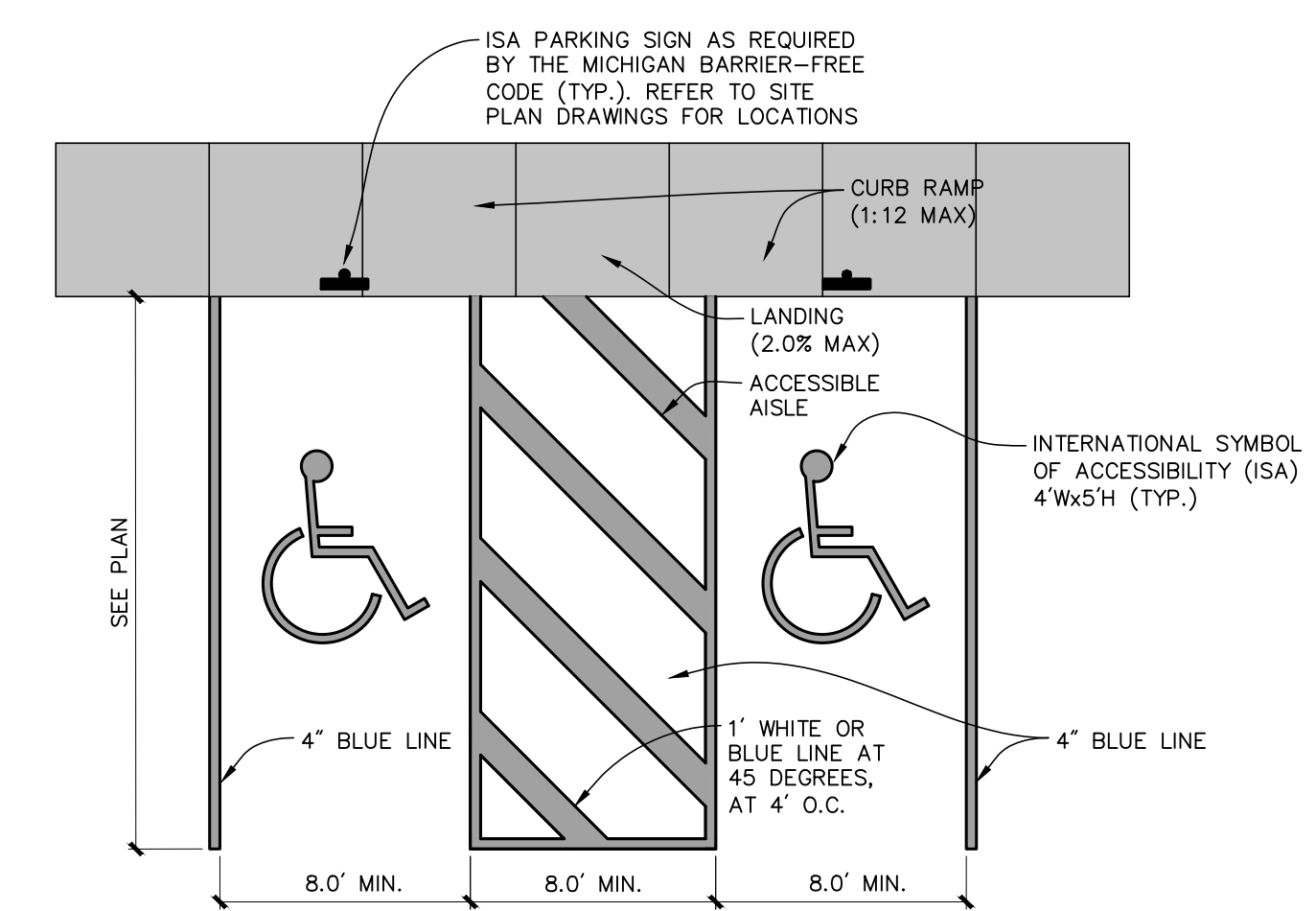
WA No. 2021.053	WA No.
Date 6/DEC/2021	Date
Drawn Author	Drawn
Checked Checker	Checked

REVISIONS	DESCRIPTION

NOT FOR CONSTRUCTION

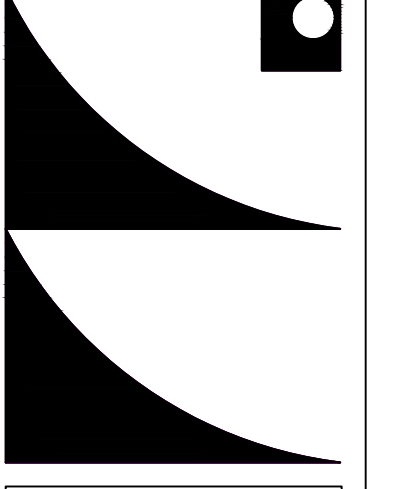


NOTE
BARRIER-FREE PARKING SPACES SHALL BE LOCATED TO THE NEAREST ACCESSIBLE ENTRANCE ON AN ACCESSIBLE ROUTE, ONE (1) IN EVERY EIGHT (8) ACCESSIBLE SPACES, BUT NO LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 8'-0" WIDE MINIMUM AND SHALL BE DESIGNATED "VAN ACCESSIBLE"



WA No.	2021.053
Date	6/DEC/2021
Drawn	Author
Checked	Checker

REVISIONS	DESCRIPTION
DATE	





Project Budget Summary - Comparison
January 10, 2022

		Project Area	18,200sf		
			1/10/2022	12/8/2021	
WORK CATEGORIES			SD Budget w/ Revised Elevations	SD Budget w/ Updates	Delta
024	Demolition		\$92,049	\$92,049	\$0
033	Concrete		\$490,180	\$484,010	\$6,170
034	Precast Concrete		\$23,924	\$23,924	\$0
042	Masonry		\$1,290,888	\$815,496	\$475,392
051	Steel Framing & Miscellaneous Metals		\$509,540	\$514,081	-\$4,541
061	Carpentry & General Trades		\$498,443	\$507,780	-\$9,337
075	Membrane Roofing		\$315,505	\$104,618	\$210,887
076	Asphalt Shingles and Gutters		\$10,599	\$163,488	-\$152,889
079	Joint Sealants		\$9,555	\$9,555	\$0
083	Specialty Doors		\$365,463	\$365,463	\$0
088	Glass, Glazing & Aluminum		\$79,485	\$72,004	\$7,481
092	Metal Trusses, Drywall & Acoustics		\$574,146	\$630,787	-\$56,641
093	Hard Tile		\$84,993	\$84,993	\$0
096	Carpet & Resilient Flooring		\$47,130	\$47,130	\$0
096	Epoxy Flooring		\$85,507	\$85,507	\$0
099	Painting		\$83,036	\$78,142	\$4,894
113	Appliances		\$17,850	\$17,850	\$0
122	Window Treatments		\$4,240	\$3,421	\$819
210	Fire Suppression		\$65,205	\$65,205	\$0
220	Plumbing		\$383,542	\$383,542	\$0
230	Mechanical		\$598,208	\$598,208	\$0
235	Test & Balance		\$2,867	\$2,867	\$0
260	Electrical		\$616,005	\$616,005	\$0
270	AV and Communications		\$47,250	\$47,250	\$0
280	Security and Fire Alarm		\$67,568	\$67,568	\$0
310	Earthwork & Site Utilities		\$753,413	\$752,539	\$874
321	Asphalt Paving		\$88,237	\$88,237	\$0
323	Fencing & Gates		\$19,698	\$19,698	\$0
329	Landscaping & Irrigation		<u>\$151,920</u>	<u>\$151,920</u>	<u>\$0</u>
	Trade Cost Total		\$7,376,446	\$6,893,337	\$483,109
	Design Contingency	5.0%	\$368,822	\$344,667	\$24,155
	Construction Contingency	5.0%	<u>\$368,822</u>	<u>\$344,667</u>	<u>\$24,155</u>
	Trade Cost + Contingencies Total		\$8,114,091	\$7,582,671	\$531,420
TRIANGLE FEES					
	General Liability Insurance		\$60,856	\$56,870	\$3,986
	Preconstruction		\$24,000	\$24,000	\$0
	Project Personnel		\$279,500	\$279,500	\$0
	Construction Support		\$158,300	\$158,300	\$0
	Overhead & Profit		<u>\$215,919</u>	<u>\$202,534</u>	<u>\$13,385</u>
	General Conditions Total		\$738,574	\$721,204	\$17,371
BONDS					
	Payment & Performance Bond		\$54,390	\$51,371	\$3,018
	Bonds Total		\$54,390	\$51,371	\$3,018



PERMITS

Building Permit - No Permit Fee		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
	Permits Total	\$0	\$0	\$0

OTHER FEES & PROFESSIONAL SERVICES

AE Fees, Reimbursables, and Additional Services		<u>\$727,942</u>	<u>\$689,350</u>	<u>\$38,593</u>
	Other Fees & Professional Services Total	\$727,942	\$689,350	\$38,593

OWNER ALLOWANCES

Turnout Gear Washer and Dryer - Universal Laundry Quote		\$27,267	\$27,267	\$0
Turnout Gear Lockers and Conference Table - GearGrid Quote		\$11,700	\$11,700	\$0
Recliners - Firestationfurniture.com Quote		\$5,500	\$5,500	\$0
Beds and Chests - Norix Quote		\$8,000	\$8,000	\$0
Dining Room Table and Fire Chief Conference Table - By Owner		\$0	\$0	\$0
Turnout Gear Locker Installation - Allowance		\$2,000	\$2,000	\$0
Hazardous Material (Tile) Abatement - Allowance		\$2,000	\$2,000	\$0
Williams Furniture Budget - Allowance		\$82,400	\$82,400	\$0
Exterior Grill - Allowance		\$1,000	\$1,000	\$0
IT/Network Equipment - Allowance		\$15,000	\$15,000	\$0
Exercise Equipment - Allowance		\$0	\$0	\$0
Outdoor Patio Furniture - Allowance		\$5,000	\$5,000	\$0
Emergency Alert System - US Digital Design Allowance		\$50,000	\$50,000	\$0
Flammable Cabinet - Allowance		\$2,500	\$2,500	\$0
Builder's Risk Insurance - Owner to Supply		<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
	Owner Allowances Total	\$212,367	\$212,367	\$0

TRIANGLE TOTAL ESTIMATE		\$9,847,364	\$9,256,962	\$590,402
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Cascade Charter Township– 2865 Thornhills Dr. SE

Site Civil Narrative

REVISIONS: 2021-11-29 BY JOHN VERPLANK

Site Demolition:

The existing building, parking lot, and drive isles will all be demolished to make room for the new fire station.

Site Utilities:

The old Township sewer plans shows that an existing 6-inch sanitary sewer lateral feeds the existing fire station from Thornhills Ave. We are proposing to cut this existing sanitary lateral at the right-of-way and install a new lateral from the existing line to the new building.

The existing building has a domestic water line but it does not have fire protection. The new building will have a fire suppression system and the City of Grand Rapids requires a separate 6-inch diameter water line feeding the fire suppression system. The City of Grand Rapids requires a double check valve assembly. Due to the distance of the building from the ROW, the double check valve assembly will need to be located in an underground vault near the ROW. We are proposing running a new domestic water line from the main using the existing 1.5" tap.

The site is subject to the Lower Grand River Organization of Watersheds (LGROW) storm water management regulations. Cascade Charter Township adopted these new regulations in 2021. The soil borings show that the soils have a high infiltration capability, and the majority of the proposed storm water pipe will be perforated and will include a widened 1-inch diameter crushed stone backfill wrapped in a geotextile fabric. Our preliminary model of the site indicates that 11,154 cubic feet of storm water detention is required.

Site Grading/Topography:

The site has a significant slope down towards Thornhills Avenue and the west side of the site will need a few feet of cut to direct storm water away from the building. Our preliminary grading plan indicates that approximately 4400 cubic feet of soil will need to be removed from the site. A retaining wall approximately 4.5 feet in height is needed at the northwest side of the site near the existing cell phone tower. Another retaining wall that is approximately 5-feet tall will be needed on the east side of the proposed east parking lot. This wall will also have a fence above it.

Site Access:

The driveway locations are not proposed to be modified as they 'grandfathered'. However, the northerly driveway geometry is proposed to be modified to make a perpendicular intersection with the site to the north. We are also proposing to lower the

driveway approximately 1-foot to decrease the approach slope from its current condition. The lowering of this driveway will require relocation of a phone line and a conduit. This drive alteration is subject to approval from the northerly neighbor and new drive easements.

Landscaping:

Site is zoned B-2 with adjacent property to north zoned B-2 and the west and south PUD.

Buffer yard requirements:

- B-2 adjacent B-2 requires 25' wide green belt with 3 canopy trees, 6 understory trees and 9 shrubs for every 100-feet of frontage.
- B-2 adjacent arterial roadway requires 20' wide green belt with 2 canopy trees, 4 understory trees and 6 shrubs for every 100' of frontage.

Internal landscape requirements for parking – front yards:

- Planting areas 180 square feet minimum and 20' minimum wide
- Curbed parking and planting areas
- 1 canopy tree or 2 evergreen trees for every 180 square feet of planting
- 15 square feet of planting for every parking space (for parking areas with less than 50 spaces)



Cascade Twp - Fire Station No. 1 DESIGN SCHEDULE

