

**AGENDA
CASCADE CHARTER TOWNSHIP
REGULAR BOARD MEETING**

Wednesday, February 8, 2023

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/81664603678>

Meeting ID: 816 6460 3678

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

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 – 01/25/23
 2. Downtown Development Authority – 11/15/22
 3. Planning Commission – 11/4/22 & 12/5/22
- b. Receive and File Reports
 1. Treasurer’s Department Report – December 2022
 2. Downtown Development Authority – 2022 Annual Report
 3. Building Department Report – January 2023
 4. Snow Cemetery Oak Wilt Project Report
 5. Burton Park Oak Wilt Project Report
- c. Receive and File Education Requests
 1. Fire Chaplain Dieffenbach-1st Responder Mental Health & Wellness Conference-May 15-16, 2023-Elkart, IN
- d. Receive and File Communication
 1. GVMC Airport Access Study Postcard

Township Board Agenda

February 8, 2023

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- Article 7. Financial Actions**
a.
- Article 8. Unfinished Business**
- Article 9. New Business**
- 012-2023 a.) Public Hearing - Consider Ordinance for Floodplain Management**
- b.) Consider Ordinance for Floodplain Management (*Roll Call*)**
- 013-2023 Consider Contract for Spongy Moth Spray**
- 014-2023 Consider a Metro Act Permit Request from Uniti Fiber**
- 015-2023 Consider Budget and Funny Business Contract for Cascade Township July 4th Celebration**
- 016-2023 Consider Resolution for Road Closures for Cascade Township July 4th Celebration (*Roll Call*)**
- 017-2023 Consider Resolution to Amend the Zoning Ordinance to Revise the Major Street Plan (*Roll Call*)**
- 018-2023 Township Manager Annual Performance Evaluation**
- Article 10. Discussion**
1. Township Communication Services
- Article 11. Public Comments – Any comments...whether it is on the agenda or not. (Limit comments to 3 minutes)**
- Article 12. Manager Comments**
- Article 13. Board Member Comments**
- Article 14. Adjournment**

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

Wednesday, January 25, 2023

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 McDonald, Shipley and Noordhoek
Absent: Trustee Koessel (Excused)
Also Present: Township Manager Swayze, Regional Manager Brown-KDL Cascade, B&G Supervisor MacDonald, Hunter Zuk-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 McDonald, seconded by Trustee Shipley to approve the agenda items, but switch the order of Articles 4 and 5. Motion carried unanimously.
- Article 5. Public Comments-Anything on the Agenda not scheduled for a public hearing. (limit comments to 3 minutes)**
1. Tanis Hooker-7375 Thornapple Pines Dr-Re Hope Network Rides: Concerned that Hope Network funding discontinued. Really likes the service and has been using it three (3) times a week for a year. Manager Swayze responded.
 2. Ken Van Der Kolk-7200 Leyton-Requested an update on the eviction. The residents at 6480 Cascade Road ran a business, parked unlicensed vehicles on the property, and had junk in the yard. Wants the resident to receive a citation. Manager Swayze responded.
- Article 4. Presentations**
- a. **Supervisor Lesperance & Parks Committee Chair Wanty Presenting Certificates of Appreciation.**
 - b. **Parks Update from Parks Committee Chair Ginny Wanty**
- Article 6. Approval of Consent Agenda**
- a. Receive and File Minutes
 1. Township Board – 1/11/2023
 - b. Receive and File Reports
 1. Treasurer’s Annual Depositories and Investments Report
 2. Code Enforcement Report – May-December 2022
 - c. Receive and File Education Requests
 1. Todd Pell-MFIS Winter Conference-Mar. 21-23, 2023-Mount Pleasant, MI
 2. Doug Poolman-MFIS Winter Conference-Mar. 21-23, 2023-Mount Pleasant, MI
 - d. Receive and File Communication

1. KCDC Notice – Wenger & Nulty Drain
2. KCDC Notice – Fisk Drain
3. KCDC Notice – Anderson Drain
4. Letter from Representative Phil Skaggs

Motion by Trustee Shipley, seconded by Treasurer Peirce to approve the Consent Agenda. Motion carried unanimously.

Article 7. Financial Actions

None

Article 8. Unfinished Business

None

Article 9. New Business

005-2023 Consider the Creation of a Parks and Recreation Director Position

Motion by Trustee McDonald, seconded by Trustee Shipley to approve. Motion carried unanimously.

006-2023 Consider Invasive Species Treatment Agreement with Kent Conservation District

Motion by Trustee Shipley, seconded by Trustee McDonald to approve. Motion carried unanimously.

007-2023 Consider Purchase of Columbarium Units for 30th Street Cemetery

Motion by Trustee Shipley, seconded by Clerk Slater to approve. Motion carried unanimously.

008-2023 Consider KCRC Work Order for Pathway on Cascade Road between Kenrob and 36th Street

Motion by Trustee Shipley, seconded by Trustee McDonald to approve. Motion carried unanimously.

009-2023 Consider KCRC Work Order for Pedestrian Facility Improvements on Cascade Road Bridge

Motion by Trustee McDonald, seconded by Trustee Shipley to approve. Motion carried unanimously.

010-2023 Consider Contract with Native Edge for Outdoor Space Project at Library

Motion by Trustee McDonald, seconded by Trustee Shipley to approve. Motion carried unanimously.

011-2023 Consider Setting Public Hearing for an Update to the Township Floodplain Ordinance

Motion by Trustee McDonald, seconded by Trustee Shipley to set Public Hearing for February 8, 2023. Motion carried unanimously.

Article 10. Discussion

1. Specialized Transportation Services for Qualified Cascade Township Residents

- Per ride cost has risen to \$32.71, even with riders paying \$4.00/ride. Manager Swayze hopes that a solution will be made soon that is viable for this fiscal year and beyond. Rides only available to qualified riders (to work/school or medical appointments). Up to 12 riders this summer, eight (8) riders in October, and five (5) riders in December.

Motion by Trustee McDonald, seconded by Clerk Slater to approve funding to Hope Network through March 2023 for Cascade resident qualified riders. Motion carried unanimously.

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

1. Walter Bujak-6639 Thornapple River Drive-New Kent County Commissioner for Cascade residents who live west of Thornapple River. Introduced himself and gave a summary of the first Kent County Commission meeting of 2023. Advised committee memberships and that the GVMC Airport Study Phase 3 Survey can be found at gmvc.org.
2. Brian Holcomb-3415 Glenstone Ct-Requested an update on Egypt Creek Landscaping. Manager Swayze responded.
3. Jeff Hughes-7250 Red Bud Ln-Requested update on Deer Survey. Manager Swayze advised that the recorded video is being analyzed. A report will be released on the Township website.

Article 12. Manager Comments

1. The GVMC Open House is scheduled for 2/16/2023 from 4-6pm at the Wisner Center.

Article 13. Board Member Comments

1. Trustee Shipley-Thanked everyone in attendance.
2. Supervisor Lesperance-Urged residents to be involved in the GVMC survey.

Article 14. Adjournment

Motion by Trustee Shipley, seconded by Clerk Slater to adjourn. Motion carried unanimously.

Meeting adjourned at 8:45 pm.

Krissi Brott
Deputy Clerk

Approved by:

Grace Lesperance, Supervisor

Susan B. Slater, Clerk

Minutes
Cascade Charter Township
Downtown Development Authority
Monday, November 15, 2022
5:30 P.M.
2870 Jacksmith Ave SE

- ARTICLE 1.** Chair Puplava called the meeting to order at 5:31 P.M.
Members Present: Vogel, Kleyla, Stephan, Puplava, Lesperance, Siegle
Members Absent: Growney and Makkar
Others Present: DDA Director Sandra Korhorn and those listed on the sign-in sheet.
- ARTICLE 2. Approve the Current Agenda**
Motion was made by Member Stephan to approve the current agenda. Supported by Member Kleyla. Motion carried 5 to 0.
- ARTICLE 3. Approve the Minutes of the October 18, 2022 Meeting**
Motion was made by Supervisor Lesperance to approve the October 18, 2022 Meeting Minutes as written. Supported by Member Stephan. Motion carried 5 to 0.
- ARTICLE 4. Acknowledge visitors and those wishing to speak regarding any agenda or non-agenda items**
There weren't any visitors who wished to speak on non-agenda items.
Member Siegle arrived at 5:33 p.m.
- ARTICLE 5. Review and Discuss DDA Strategic Plan Architectural Designs**
Consultants from McKenna presented on different architectural designs that could be used in the new village area. Some of their ideas included service drives, roundabouts, on street parking, and filling sidewalk gaps.
There was much discussion on if roundabouts would slow traffic and if they were an option the DDA, Board, and Road Commission were willing to consider. McKenna will bring more statistics and information on roundabouts to a future meeting.
McKenna explained how they could regulate gables, building height, awnings, and lighting to create a positive hamlet-like feel. They will take aspects of current businesses as well as use facades to improve the look of buildings that don't fit their desired design. This will determine which regulations the DDA imposes on businesses in the village area. They want to create this village area in partnership with the businesses to increase business and economic development.
The DDA will need to meet with the Planning Commission to both align their visions of the village area and align the master plan with the strategic plan. This will be especially necessary in regards to mixed use development.

Member Vogel explained that he thinks the reason the village area in Ada has not been as successful as he believes Cascade has the potential to be is because they don't have the strong residential mixed development piece or staple assets.

Member Stephan expressed gratitude for McKenna and the work they have done with both the DDA as a whole and the Transportation Committee.

ARTICLE 6. Update on the Transportation Committee

Chair Pupilava explained that, at the last Transportation Committee meeting, McKenna brought data and statistics from similar municipalities and the committee asked them to dig into some of the options a bit further. Thus far they have found that there are more on demand services than they thought in places of similar size and composition to Cascade. This included services like the Rapid Connect but the services other municipalities receive from their bus line were comparable to Cascade's, except that, the other 11 comparable municipalities have their bus go either downtown or into an area with a large job center, without requiring a transfer. They will be looking deeper into funding, what services the township could get for a flat fee, and how other non-full millage-based municipalities fund their transit service.

Supervisor Lesperance requested that McKenna determine how the Rapid Connect bus system is working and how it is funded.

ARTICLE 7. Discuss and Consider Pedestrian Facilities Improvements on Cascade Rd. Bridge

Manager Swayze presented a plan for pedestrian safety on the Cascade Road bridge. Kent County Road Commission came up with a design where the bridge could be modified for pedestrian safety without the expense of making structural changes to the bridge itself. They proposed shaving down the lanes on each side, as the lanes on the bridge are oversized, and put in a protective barrier between the pedestrian area and the travel lane. Doing both sides would give them 8 ft on each side with a barrier or a full 10 ft pedestrian crossing on just one side. The Pathways Committee was only interested in completing one side at first because the other side wouldn't connect to any current or proposed pathways but the DDA would likely see it as an asset in and out of the DDA. The Road Commission estimated it would cost around \$250,000 per side, making it infeasible for the Pathways Committee to fund both sides.

At the previous meeting, the DDA requested more information about creating a truly separated bridge and Manager Swayze took that to the Road Commission with Township Engineer Thorne. The Road Commission said that the bridge is currently at its capacity so it is unable to cantilever paths off the side without making major structural changes to the bridge itself. Cantilevering the paths, making engineering or structures to the width of the bridge or pier, or creating a completely separate bridge that ran next to it would each cost approximately two million dollars per side.

Another question that came up at the previous meeting was if the DDA could legally make that investment and the answer was yes. There isn't a problem connecting the safe passage of pedestrians into and out of the DDA as an approved expenditure.

Manager Swayze believes the line in the TIF Plan that says, “pedestrian safety improvements or improved pedestrian crossings on Cascade Road” already shows that this bridge would be an approved expenditure. A few weeks ago, staff spoke with legal counsel who don’t think the project would be problematic to fund but suggested that the right way to validate it would be to amend the TIF Plan. He also reviewed the TIF Plan and determined that it needs to be updated because revenue has greatly surpassed the estimate from when the plan was created.

Member Kleyla asked about the Road Commission’s assertion that the bridge lanes are oversized because she has experienced vehicles going over the line when turning there. Manager Swayze explained that they are considered oversized from an engineering perspective and may not feel oversized from resident’s experiences. Member Vogel suggested only building the path on one side so that the traffic lanes could stay somewhat larger and he was unsure if it would be worth the cost to add a path to the side that leads into the neighborhood. Member Stephan suggested doing one side with the idea that they could complete the other side eventually. Member Puplava didn’t want to rule out the cantilever option, even after hearing the price. Supervisor Lesperance encouraged the DDA to contribute to the funding of this project as the residents rated it as a high priority on the strategic plan survey and the Parks Committee, Pathways Committee, and Township Board also view it as an important safety improvement.

Member Siegle recommended completing this project when school is out if the bridge will have to be closed down to one lane coming into Cascade, because traffic is less during that time. They discussed the other road construction happening in the township at the same time.

The DDA was in consensus that they will set aside money in their budget for the bridge and work on amending their TIF Plan. Manager Swayze recommended the DDA set aside \$250,000 for the project.

Motion was made by Chair Puplava for the DDA to cover half of the cost of the Engineering to start the Cascade Road Pedestrian Bridge project. Supported by Supervisor Lesperance. Motion carried 6 to 0.

The committee took a brief recess.

ARTICLE 8. Discuss and Consider 2023 DDA Budget

Manager Swayze presented the proposed 2023 DDA budget. Revenue is up as the increase in interest rates is providing a higher rate of return on their current fund balance as well as the increase in rent due to the township, on township property, because of inflation. Points to note included funding for the tax tribunals that largely comes from DDA funds because hotels and big box stores are generally seeking this type of refund, and funding for tactical urbanism. This brought about the idea to test narrowing the Cascade Road bridge with hay bales before completing the actual project.

The capital outlay plan does not currently include the pedestrian bridge but it does include replacement lighting for Centennial Park. Manager Swayze shared that the light poles in that area aren't very old and they would have liked the poles to last longer, but this time they will use the Township Engineer, Aric Thorne, and/or the new Engineering Consultant Company, Spaulding Dedecker. At the beginning of 2023 the DDA fund balance will likely hover around \$2.5 million.

Member Siegle asked about the DDA's current loan balance and when it would be paid off. Manager Swayze didn't know the exact balance at that time but said that this was the fourth year of a ten-year loan. The loan was for the Tuffy Muffler building. The debt service on it is around \$95,000 and the rent, keeping with inflation, is now around \$80,000, so the rent is almost covering the debt service.

Chair Puplava asked if the funding for the library project had been earmarked in any of these calculations and Manager Swayze said that it hadn't been yet. They don't want to include that in the budget until they know the cost since the library already had the first phase of the project funded. Manager Swayze will update the budget to include the cost of consulting on updating the TIF Plan. They have many projects and ideas in mind but aren't at the point of introducing costs and timelines. The Strategic Plan gave the boards and commissions a list of projects the public wants but most of the committees are in the same boat, with strategic goals but an incomplete plan of execution.

There was conversation on where Wisner Center AV and microphone funding comes from and Manager Swayze said they should be able to fund an upgrade to the microphone at the podium from within the Wisner Center/Library millage.

ARTICLE 9. Any Other Business

- a. The next meeting will be held December 20, 2022.
- b. Township Board Minutes: October 12 & 26, 2022
- c. Tree Lighting Ceremony – November 27, 2022, 5:00 p.m. at Westdale Park
- d. Member Vogel requested they invite a sheriff's deputy to come to a meeting to talk about if crime has been a problem in the DDA and if the DDA should fund additional manpower to maintain safety and property values. The members acknowledged that there are pockets of problems that they may want to apply more resources to. They don't always consider the other side of I-96 and that may be an area that could use additional resources.
- e. Member Vogel and his wife will be honored at the Cascade Community Foundation Gala on November 16th.
- f. There are new businesses moving in: The Graze Craze, a new high end nail salon, Holladay Photo, the Saucy Crab is turning into a Mexican restaurant, Scooters Coffee, and McDonalds and United Bank are performing interior renovations.

ARTICLE 10. Adjournment

Motion was made by Member Stephan to adjourn the meeting. Supported by Member Vogel. Motion carried 6 to 0. The meeting adjourned at 8:17 p.m.

Respectfully submitted,
Rene Growney, Secretary

Minutes
Cascade Charter Township
Planning Commission
Monday, November 14, 2022
7:00 P.M.
2870 Jacksmith Ave SE

- ARTICLE 1.** Chair Noordyke called the meeting to order at 7:00 P.M.
Members Present: Noordhoek, Rowland, Rissi, Moxley, Noordyke, Deering, Rapin, Korstange, Engel
Members Absent: None
Others Present: Planning Director Brian Hilbrands, Township Manager Ben Swayze, and those listed on the sign-in sheet.
- ARTICLE 2. Pledge of Allegiance**
- ARTICLE 3. Approve the current Agenda**
Motion was made by Member Engel to approve the current agenda. Supported by Member Deering. Motion carried 9 to 0.
- ARTICLE 4. Approve the Minutes from the October 17, 2022 Meeting**
Motion was made by Member Rissi to approve the October 17, 2022, Meeting Minutes as written. Supported by Member Engel.
- ARTICLE 5. Disclose any conflict of interest**
There were no conflicts of interest disclosed.
- ARTICLE 6. Acknowledge visitors and those wishing to speak**
There were no visitors that wished to speak.
- ARTICLE 7. Discussion of 2023-2028 Capital Improvement Plan**
Manager Swayze explained that the Capital Improvement Plan is developed annually and contains 6 years of capital improvements. There are two parts to CIPs: the first part entails a 2023 plan, inclusive of a budget, and the second part details a 2023-2028 plan. Discussing priorities and items to put in the document will give the commission and Township more direction on budget planning.

Chair Noordyke recommended establishing a line item for PFAS river clean-up in the Thornapple River. Manager Swayze said that the Park Committee has discussed funding annual river testing in their master plan, but developing a PFAS cleanup protocol is still being debated. He also added that water testing doesn't qualify as a capital improvement since it must have at least two years of useful life, be tangible, and cost more than \$10,000.

Member Rissi suggested including a major dam repair fund.

Member Noordhoek encouraged inclusion of parkland acquisition funds and proposed 1.5 million dollars for new land, funded over 3 years. Member Korstange stated that the Parks Committee discussed requesting that the Township Board set aside \$1 million for park acquisition. Manager Swayze said there are a few places in the budget for property acquisition with the first one being the open space fund, specifically earmarked for open space preservation. The second potential source of funding is the general fund.

Member Rowland mentioned that one of the most underserved demographics in the area is middle and high-school-aged individuals, so incorporating a skate park and more athletic fields should be high on the list.

Member Deering suggested that the lighting in the village needs updating, especially at the intersection of 28th St and Cascade Rd. Manager Swayze said that the Township can request lights whenever needed.

Member Korstange asked if there will be an overview of plans between the Township and Road Commission, and mentioned that the streets used to be swept by the Road Commission. Manager Swayze said the Road Commission provides an annual review of roads by utilizing a Paser Rating Map where roads are rated from 1-10 (10 being the best). Once the review is completed, Manager Swayze and the township engineer will have a discussion on which roads take precedence.

Since there are many plans within the township without specific time-frames or pricing, such as property acquisition or repaving pathways, Manager Swayze will put together an illustrative list in the capital improvement plan. This list will serve as a reminder once current projects are complete.

ARTICLE 8. Review of Proposed Amendments to Major Street Plan

Planning Director Hilbrands said the proposed changes were focused more on industrial areas, since that's where previous issues arose in relation to a trucking terminal. Kraft Ave is not fully located in the industrial area so, if the functional road classification were changed to a collector road, the setbacks for residential dwellings would increase from 35ft to 43ft. There would be two homes within the setbacks if the road changes to a collector road, making them legal non-conforming. Many of the special uses that require access to a collector road or arterial street (schools, parks, daycare, etc.) are residential uses. Preventing these types of uses where roads could not handle the increase in traffic was a perceived issue.

There was a trucking terminal approved on Kraft that dated back to 1991. It was suggested that, instead of changing the Major Street Plan, they could remove the requirement that a trucking terminal must be located on a collector or arterial road. Any special use, including situations like this one, would still need to be presented to the Planning Commission and the Township Board for approval.

Member Korstange asked if legal non-conforming houses would be grandfathered in if the street classification were to change. Planning Director Hilbrands confirmed they would be, but would need a variance if they were to make additions.

Member Korstange advocated changing the street to a collector road, since that would be the only way to allow a trucking terminal on that road.

ARTICLE 9. Update on GVMC Airport Access Study

Planning Director Hilbrands included slides in the packet that were presented at the 11/2/22 Board of Trustees meeting. Member Noordhoek updated the commission on the discussion at that meeting. GVMC presented a few possible ways to create an alternate access to the airport. Some ideas mentioned were an exit off of M-6 into the airport, an exit off of M-6 onto 48th St, from 60th St, and from 36th St. He said the Board perceived a lack of communication between them and the Grand Valley Metro Council, but the 36th St access point made the most sense to members.

Member Korstange asked if the GVMC gave any reasoning to oppose the 36th St access drive, since it seemed to be the most liked option between their council and the township. Planning Director Hilbrands said this would likely be their preferred access point. Manager Swayze explained that they provided alternative routes to showcase all prospective ways to create access.

Member Rowland believed there was a need for more community feedback via mailings and public hearings. Member Korstange agreed, recommending the Township's Economic Development Director research the impact these changes could have on the community and provide the Planning Commission with a report.

Member Rapin said that, between the airport and the township, the most preferred method of additional access seemed to be from 36th St, off of I-96, and wondered if they would also build an M-6 interchange at 48th St, or if they're only looking to complete one of the projects. Manager Swayze said they are looking for all of the technically viable options. He also mentioned that MDOT rarely builds interchanges anymore. Some of the options are more politically or financially viable than others, which will be a factor in the decision.

Member Noordhoek suggested diminishing industrial zoning from the master plan since residents want more open space. This could also eliminate the potential for an M-6 exit.

Member Rissi explained that, initially the AC Zoning District Subcommittee was formed to review zoning around the airport, but has since been tasked with investigating future land uses as well. Frequent changes in scope make it challenging for the sub-committee to provide recommendations in a timely manner.

After discussion, the Planning Commission requested that the subcommittee come up with three options to bring back to them: the first option was to leave the area as is (future land use industrial), the second being to only allow ARC uses, and the third being a blended option. Chair Noordyke proposed that, around December or January, the subcommittee give a preliminary report based on the information they've gathered so far, hold a public hearing, and then the subcommittee can make their official recommendation.

ARTICLE 10. Old Business

There will be an AC District Zoning Review Subcommittee meeting Wednesday, November 16.

ARTICLE 11. Any Other Business

Member Rissi mentioned that the Regis map is incorrect and he would like those errors fixed.

The Planning Commission meeting scheduled for November 21 has been canceled.

Member Deering requested a way to change their Cascade Township email passwords.

ARTICLE 12. Acknowledge visitors and those wishing to speak.

There was no one that wished to speak.

ARTICLE 13. Adjournment

Motion was made by Member Korstange to adjourn the meeting. Supported by Member Rissi. Motion carried 9 to 0. The meeting was adjourned at 8:53 P.M.

Respectfully submitted,

Diedre Deering, Secretary

Minutes
Cascade Charter Township
Planning Commission
Monday, December 5, 2022
7:00 P.M.
2870 Jacksmith Ave SE

ARTICLE 1. Chair Noordyke called the meeting to order at 7:10 P.M.
Members Present: Noordhoek, Rissi, Moxley, Noordyke, Deering, Korstange, Engel
Members Excused: Rapin
Members Absent: Rowland
Others Present: Planning Director Brian Hilbrands and those listed on the sign-in sheet.

ARTICLE 2. Pledge of Allegiance

ARTICLE 3. Approve the current Agenda

Motion was made by Member Engel to approve the current agenda. Supported by Member Deering. Motion carried 7 to 0.

ARTICLE 4. Approve the Minutes from the November 14, 2022 Meeting

Member Korstange requested that Article 7 include language stating that the Parks Committee requested the Township Board set aside \$1 million for park acquisition.

Member Korstange suggested that the last paragraph of Article 9, regarding the Airport Access Study, be changed to include the Planning Commission's request for the subcommittee to come up with three options to bring back to them: the first option was to leave the area as is (future land use industrial), the second being to only allow ARC uses, and the third being a blended option. Member Rissi agreed with Member Korstange.

Motion was made by Member Korstange to approve the November 14, 2022, Meeting Minutes with the two aforementioned changes. Supported by Member Rissi. Motion carried 7 to 0.

ARTICLE 5. Disclose any conflict of interest

There were no conflicts of interest disclosed.

ARTICLE 6. Acknowledge visitors and those wishing to speak

There were no visitors that wished to speak.

ARTICLE 7. Review of Proposed Amendments to Major Street Plan

Planning Director Hilbrands provided a table of their suggested changes to summarize which streets would be reclassified from local to collector roads. This was mainly concerning industrial areas where special uses allowing trucking terminals would be permitted. He used the Kent County truck route map as a guide. Member Rissi asked if

John J Oostema Blvd and Tim Dougherty Dr should be added to the map. Planning Director Hilbrands said that they could be added, but that they are not through-roads.

Member Rissi asked if, when Whitneyville was reconstructed, it was to an 'all-weather' standard because he believed it was a class A road during the winter for a while and then he thought that was rescinded when the bridge over the river was constructed. Planning Director Hilbrands stated that it is still shown on the KCRC map to be a truck route.

Member Noordhoek did not believe it should be listed as a collector route, but Planning Director Hilbrands said it meets the definition of a collector route and is also listed as a truck route. He also pointed out that changing it to a local road rather than a collector road would make the golf course legal nonconforming.

Motion was made by Member Rissi to accept the proposed changes with the addition of John J Oostema Blvd and Tim Dougherty Dr to also be reclassified as collector roads. Supported by Member Korstange. Motion carried 7 to 0.

The Major Street Plan will be noticed and a public meeting will be held.

ARTICLE 8. Approval of 2023 Meeting Schedule

Planning Director Hilbrands presented the 2023 draft meeting schedule to the Planning Commission and pointed out the dates that would be changed due to when the holidays fell. The members requested the meeting set to take place on MLK Day be moved as it is a federal holiday, even though the township offices will still be open. Chair Noordyke and Member Rissi asked questions about what months meetings tend to be cancelled and Administrative Assistant Stine said she would find that information and pass it along.

Motion was made by Member Engel to approve the meeting schedule with the date change for the meeting that was set to take place on MLK Day. Motion carried 7 to 0.

ARTICLE 9. Old Business

There wasn't any old business to discuss.

ARTICLE 10. Any Other Business

Chair Noordyke said that there aren't any cases on the agenda for the December 19th meeting, so this meeting will be the last one of the year. A meeting cancellation notice will be posted in the coming days.

Chair Noordyke asked the commission members to go through the Strategic Plan and the Master Plan to find areas that don't align, for discussion at either the January 9th or January 30th meeting. This is at the request of Supervisor Lesperance.

The next AC Zoning subcommittee meeting will take place on December 15th.

ARTICLE 11. Acknowledge visitors and those wishing to speak.

There was no one that wished to speak.

ARTICLE 12. Adjournment

Motion was made by Member Rissi to adjourn the meeting. Supported by Member Engel. Motion carried 7 to 0. The meeting was adjourned at 7:34 P.M.

Respectfully submitted,

Diedre Deering, Secretary

TREASURER'S DEPARTMENT

CASCADE CHARTER TOWNSHIP

TAX ACCOUNTS

DECEMBER 2022

BANK BALANCES

TOWNSHIP BALANCES

BANK	AMOUNT
<u>FLAGSTAR BANK</u>	
TAX CHECKING	\$4,320,648.02
<u>FLAGSTAR BANK</u>	
DELINQUENT TAX	\$1,301.54
<u>FLAGSTAR BANK</u>	
TAX WIRE ACCT	\$279,548.05
GRAND TOTAL	<u><u>\$4,601,497.61</u></u>

REGISTER	AMOUNT
<u>FLAGSTAR BANK</u>	
TAX CHECKING	\$4,320,648.02
<u>FLAGSTAR BANK</u>	
DELINQUENT TAX	\$1,301.54
<u>FLAGSTAR BANK</u>	
TAX WIRE ACCT	\$279,548.05
GRAND TOTAL	<u><u>\$4,601,497.61</u></u>

Oxana 1/30/23
Submitted by Date
OXANA SOURINE
DEPUTY TREASURER

Kenneth B. Peirce 1/30/23
Reviewed by Date
KENNETH B. PEIRCE
TREASURER

CASCADE CHARTER TOWNSHIP
TREASURER'S OFFICE REPORT

DECEMBER 2022

FUND	INSTITUTION	DEMAND DEPOSIT		CDs			SECURITIES			TOTALS	
		\$	%	\$	%	DATE	\$	%	DATE	\$	%
101 GENERAL FUND	FLAGSTAR	757,138.39	0.80								
	FLAGSTAR MMA	216,447.78	2.90								
	KENT CTY POOL	1,190,744.07	1.83								
	MI CLASS	1,990,072.25	4.26								
	ADVENTURE CU			561,348.57	1.05	9/24/2025					
	HORIZON BANK			528,044.90	2.35	6/21/2023					
	GRAND RIVER			540,233.00	2.50	12/19/2023					
	CONSUMERS CU			269,648.86	0.75	1/8/2023					
	LMCU			1,044,648.34	0.90	6/2/2024					
	MSUFCU			508,051.52	2.50	8/24/2025					
	COMERICA SECUR							500,015.63	1.13	1/26/2026	
TOTAL GENERAL FUND		4,154,402.49	2.86	3,451,975.19	1.62			500,015.63	1.13		8,106,393.31
151 CEMETERY	LMCU	133,510.29	1.00	-							133,510.29
206 FIRE FUND	FLAGSTAR	172,180.42	2.90								
	MI CLASS	12,039.90	4.26								
	FIRST UNITED CU			279,704.93	1.45	10/29/2023					
	CONSUMERS CU			277,245.99	0.65	5/23/2023					
	ADVENTURE CU			517,061.41	1.95	2/27/2023					
TOTAL FIRE FUND		184,220.32	2.99	1,074,012.33	1.48			-			1,258,232.65
207 POLICE FUND	FLAGSTAR	498,480.09	2.90								
	NORTHPOINTE BANK	282,159.86	3.25								
	CIBC/ fna PRIVATE			828,328.94	1.00	3/25/2023					
	LMCU			412,762.10	1.00	3/18/2024					
TOTAL POLICE FUND		780,639.95	1.17	1,241,091.04	1.00			-			2,021,730.99
208 HAZMAT FUND	LMCU	45,207.92	0.75								45,207.92
209 OPEN SPACE	CONSUMERS CU	500,311.81	2.40								
	MI CLASS	386,874.79	4.26								
TOTAL OPEN SPACE		887,186.70	3.21	-							887,186.70
211 DAM REPAIR	MI CLASS	264,159.05	4.26								
	LMCU			348,202.46	1.00	3/10/2024					
TOTAL DAM REPAIR		264,159.05	4.26	348,202.46	1.00			-	-		612,361.51
216 PATHWAY FUND	MACATAWA	446,021.57	0.60								
	MI CLASS	110,577.73	4.26								
	GRAND RIVER			550,710.52	3.55	10/4/2024					
TOTAL PATHWAY FUND		556,599.30	1.33	550,710.52	3.55			-			1,107,309.82
220 LARAWAY LAKE IMP	FLAGSTAR	12,226.47	2.90								12,226.47
230 THORAPPLE RIVER	FLAGSTAR	120,541.79	2.90								120,541.79
243 BROWNFIELD R. A.	CONSUMERS CU	10,905.67	0.40								10,905.67
246 PUBLIC UTILITY	FLAGSTAR	699,098.97	2.90								
	IRF	MI CLASS	866,373.91	4.26							
	COMERICA SECUR							981,915.27	1.79	4/20/2023	
TOTAL PUBLIC UTILITY		1,565,472.88	3.65	-				981,915.27	1.79		2,547,388.15
248 DDA FUND	FLAGSTAR	131,659.57	2.90								
	MI CLASS	843,989.94	4.26								
	UNION BANK			263,178.58	2.45	8/26/2024					
	ADVENTURE CU			220,919.55	1.05	10/27/2025					
	COMERICA SECUR							1,176,107.61	4.00	10/31/2023	
TOTAL DDA FUND		975,649.51	4.08	484,098.13	1.81			1,176,107.61	4.00		2,635,855.25
249 BLDG. INSPECTION	FLAGSTAR BANK	603,081.68	2.90								
	FLAGSTARL BANK R.	204,191.64	2.90								
	MI CLASS	411,994.69	4.26								
	CONSUMERS CU	25.00	0.40								
	FNB OF AMERICA			320,815.75	0.90	10/19/2024					
	FNB OF AMERICA			113,085.55	4.40	12/18/2023					
	FNB OF AMERICA			226,536.98	1.05	9/18/2026					
	FNB OF MI			558,974.90	2.40	3/11/2024					
	INDEPENDENT BANK			337,109.88	2.80	9/16/2024					
	COMERICA TR NOTE							928,595.79	4.02	8/15/2027	
COMERICA SECUR							297,989.22	2.28	6/28/2024		
TOTAL BLDG. INSPECT.		1,219,293.01	3.36	1,556,523.06	1.52			1,226,585.01	0.55		4,002,401.08
270 LIBRARY FUND	UNITED BANK	541,260.91	0.25								
	MI CLASS	474,598.79	4.26								
	WMCB	31.47		273,476.66	2.15	7/27/2023					
	LMCU			453,604.26	1.00	3/27/2024					
	NORTHPOINTE BANK			577,172.36	0.90	4/8/2023					
TOTAL LIBRARY FUND		1,015,891.17	2.12	1,304,253.28	1.20			-			2,320,144.45
282 CARES ACT FUND	LMCU	2,071,498.25	1.00								2,071,498.25
403 FIRE ST. #1	MI CLASS	4,750,969.82	4.26								4,750,969.82
701 T & A	HUNTINGTON BANK	185,469.00	0.30								185,469.00
701 JAMES TIMMONS	LMCU			12,400.00	1.10	3/22/2027					12,400.00
701 JACK SMITH INV.	HUNTINGTON BANK	23,144.93	0.30								23,144.93
701 HENRY KRAMER	HUNTINGTON BANK	15,387.52	0.30								15,387.52
TOTAL		12,149,907.97	4.69	10,023,266.01	1.55			3,884,623.52	1.98		32,880,265.57

Submitted by *Oxana Sourine* 1/31/23 Date
Oxana Sourine Deputy Treasurer

Reviewed by *Jason Schreder* Date
Ken Peirce Treasurer



Downtown Development Authority **2022 ANNUAL REPORT**



PURPOSE OF DOWNTOWN DEVELOPMENT AUTHORITY

The primary purpose of the **Downtown Development Authority (DDA)**, as established by Public Act 197 of 1975 (now Public Act 57 of 2018), is:

- To halt property value deterioration
- Increase property tax valuation
- Eliminate the causes of deterioration
- Promote economic growth
- Create and provide for the operation of the DDA

The Cascade Downtown Development Authority was established in 1993. It was expanded in 2003 to include the Interchange area and again in 2004 to include Centennial Business Park.



cascadetwp.com/business/downtown-development-authority



facebook.com/CascadeTownship





DDA BOARD OF DIRECTORS

The DDA is governed by a Board of Directors (9 members) appointed by the Township Board. The board is made up of business owners, DDA residents and at-large residents.

Board Members:

- **Jennifer Puplava**, Chair, At-large resident
- **Steve Stephan**, Vice-Chair, Culver's Cascade
- **Rene Growney**, Secretary, Portobello Road
- **Grace Lesperance**, Cascade Supervisor
- **Rishi Makkar**, International Beverage
- **Rick Siegle**, Cascade Hospital for Animals
- **Scott Vogel**, Nothing Bundt Cakes
- **Michelle Kleyla**, At-large resident
- **The Late Gordon Reynolds**, DDA Resident

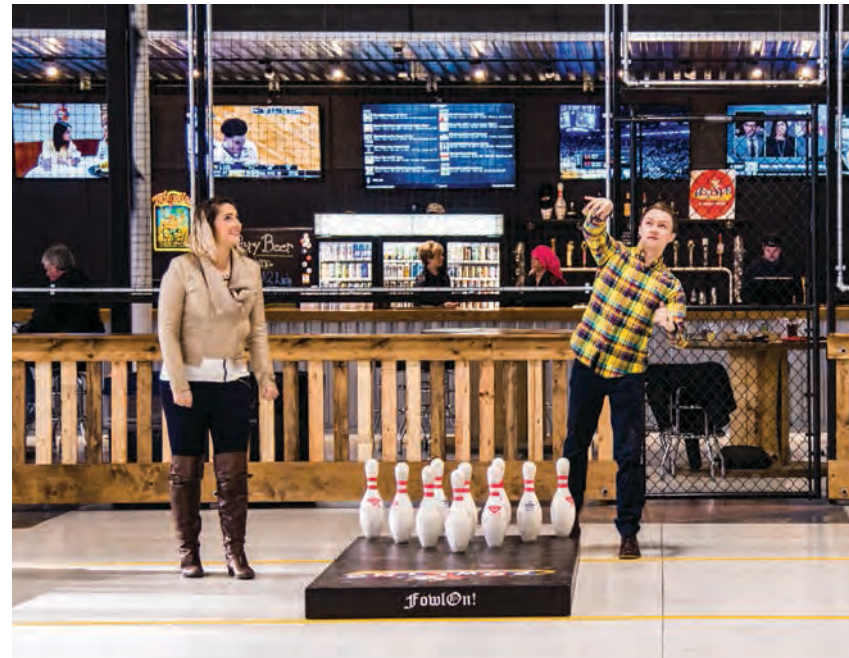
DDA BOUNDARIES



DDA FUNDING

The DDA's fiscal year runs from **January 1 – December 31**. The DDA receives its revenues from Tax Increment Financing (TIF).

- The DDA can capture the taxes generated by subsequent growth in the district.
- Taxing jurisdictions always receive the tax revenues from the base taxable value.
- DDA receives tax revenues generated from any taxable value growth from the base year, for the duration of the Tax Increment Financing Plan.
- Local school millages and State Education Tax is not subject to capture – they continue to receive tax revenues on growth.



DDA BASE VALUES BY AREAS



**Original District Established: 1993
Village and 28th Street to Kraft Ave.**

- Base Value - \$36,500,800
- 2022 Taxable Value - \$98,354,957

**Established and Added to District: 2003
28th Street - Kraft Ave. to Patterson Ave.**

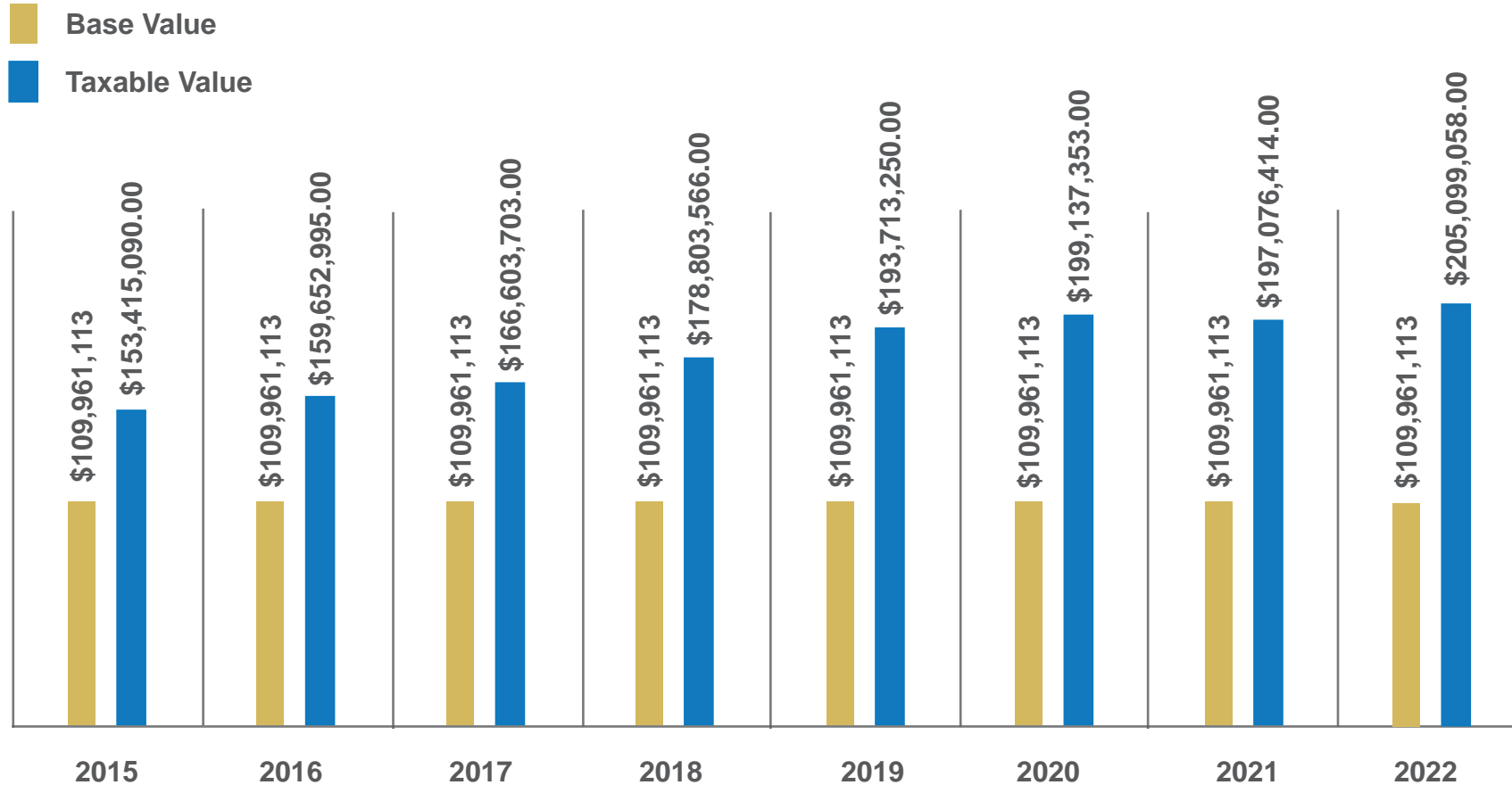
- Base Value - \$50,275,739
- 2022 Taxable Value - \$81,033,088



**Established and Added to District: 2004
Centennial Business Park**

- Base Value - \$23,184,574
- 2022 Taxable Value - \$25,711,013

BASE VS. TAXABLE VALUE



2022 SUMMARY OF BUSINESSES, EVENTS AND PROJECTS





2022 NEW OR RENOVATED BUSINESSES – AT A GLANCE

- Backyard Restaurant
- Chick-fil-A
- CycleBar
- El Centenario
- Farba House of Beauty
- Fifth Third Bank (reno)
- Holladay Photo
- Hyperbaric Wellness Center
- Lima Candles
- McDonald's (reno)
- Parooz (expansion)
- Robinson Dental
- Subaru
- The Wooden Owl
- Tommy's Car Wash
- United Bank (reno)
- Your Pets Naturally G.R.

BUSINESS SPOTLIGHT VIDEOS

- Bridal Elegance
- Daylily Floral
- Detroit Cookie Company
- EuroBistro
- Farba House of Beauty
- Goldfish Swim School
- IMPACT Fitness+Wellness
- International Beverage
- JRK Studios
- JT's Pizza
- KarateBuilt G.R.
- Kingsland Ace Hardware
- Lima Candles
- Nothing Bundt Cakes
- Pedego Electric Bikes
- Portobello Road
- Rebel Nutrition
- Sugar Momma's Bakery
- The Pit Stop
- Thornapple Brewing
- Tommy's Car Wash
- Up North Living and Brewing Supply

Average viewership – 661 views through Facebook, YouTube and Instagram.



PLANS AND COMMITTEES

Strategic Plan

Participated in the Township Strategic Plan.
connectingcascade.com.


Transportation

The Transportation Committee, with the assistance of McKenna (planning consultant), will research and review public transportation options available to businesses and the community.

DDA Strategic Plan

McKenna (planning consultant) is assisting the DDA board with the development of a DDA Strategic Plan.

VIRGIL NISHIMURA WESTDALE MEMORIAL PARK

 2839 Thornapple River Drive SE

The DDA supported the renaming and dedication of Westdale Park.



LANDSCAPE PROJECTS

A \$3,000 grant from Consumers Energy was received and allowed 15 trees to be planted in the district.



RIBBON CUTTING EVENTS



TREE LIGHTING CEREMONY

The ceremony brought approximately 100 people to Westdale Park. This event is held the **Sunday after Thanksgiving.**



CASCADE METRO CRUISE WARM-UP

This event brings in hundreds of participants.
This event takes place the fourth Thursday in August.

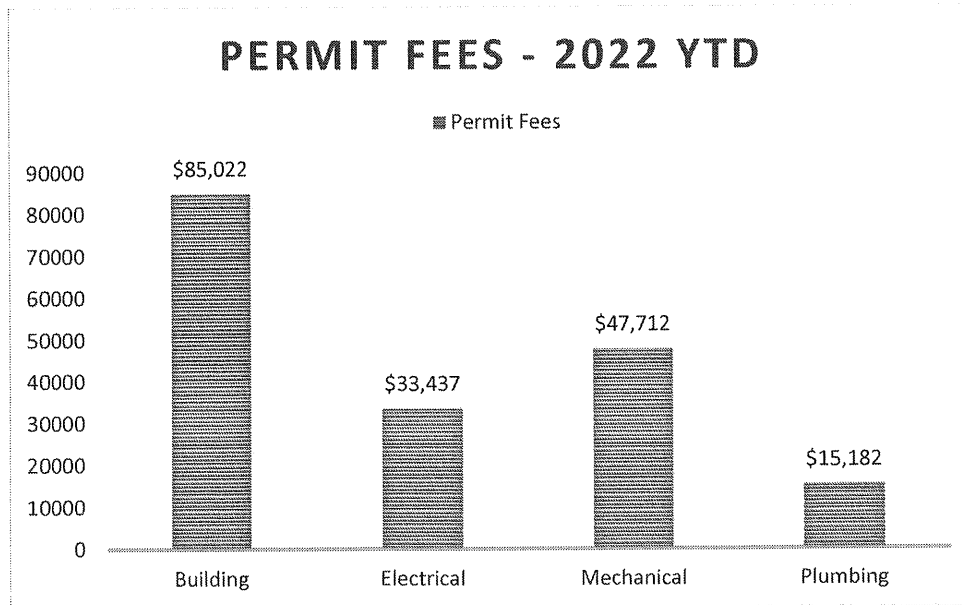
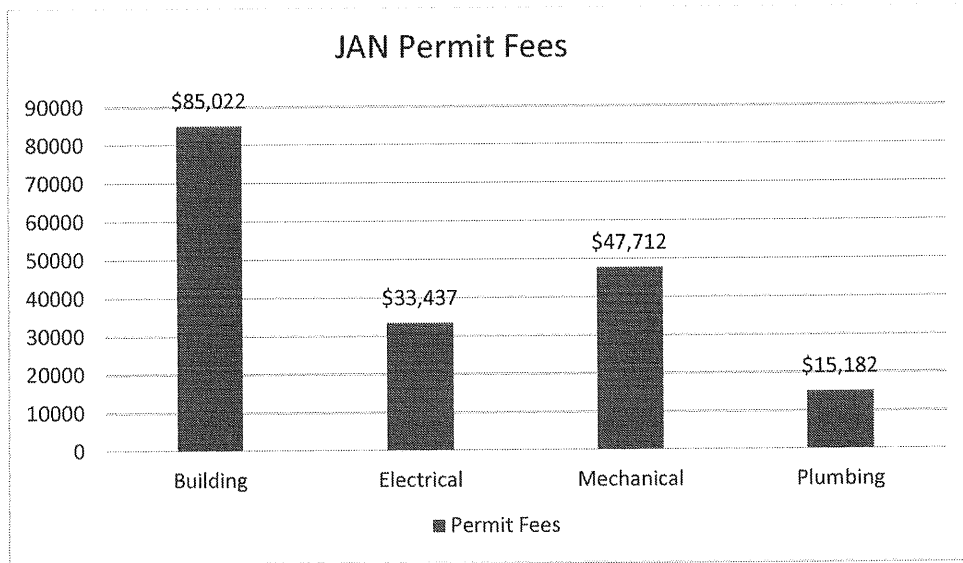
 facebook.com/CascadeMetroCruiseWarmUp



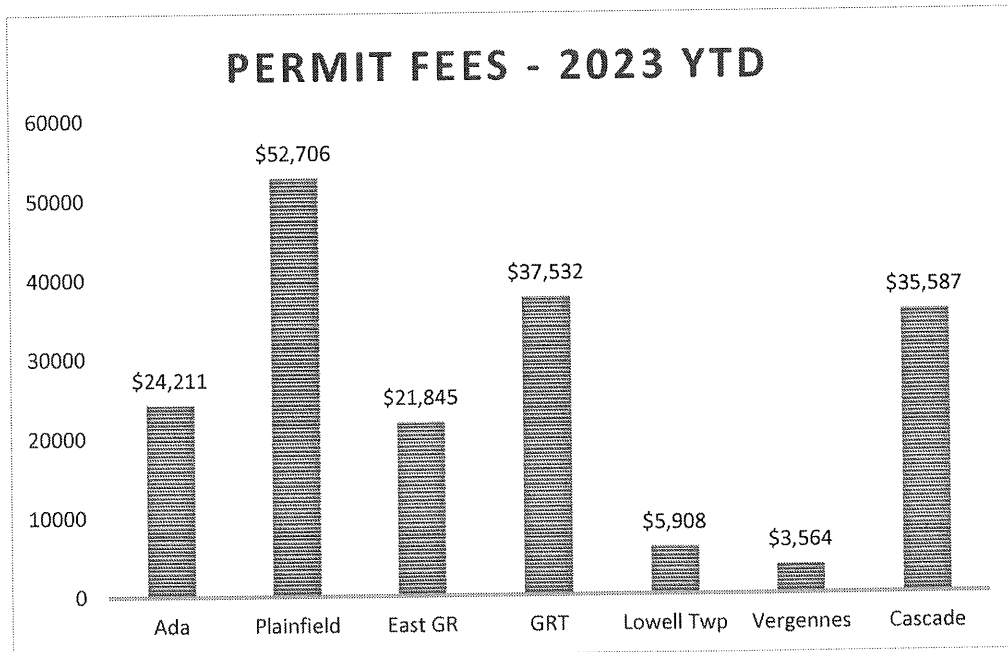
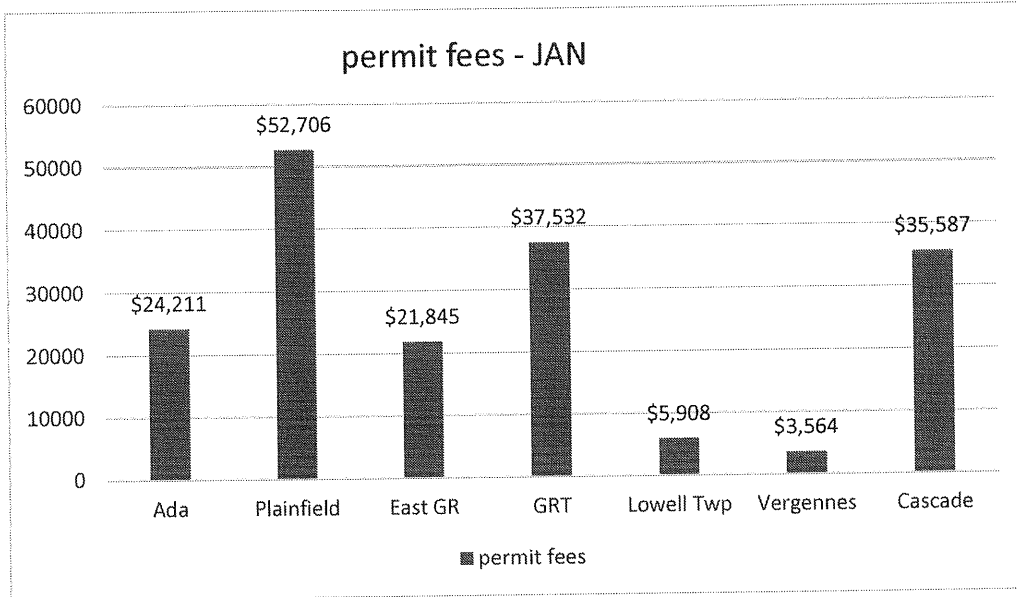
Cascade Inspection Services

JAN 2023

Permit Fees by Type



Permit Fees by Municipality



Township	#of Per Building	#of Per Electrical	# of Per Mechanical	# of Per Plumbing	Total Permits	Total Fees
PREV YTD TOTAL						
JAN						
Cascade	24 \$ 12,558.00	36 \$ 9,114.00	59 \$ 9,638.50	26 \$ 4,276.00	145 \$	35,586.50
Lowell Twp	4 \$ 2,284.00	8 \$ 1,571.00	10 \$ 1,875.00	1 \$ 178.00	23 \$	5,908.00
Ada	19 \$ 7,933.00	22 \$ 5,375.00	60 \$ 7,750.00	14 \$ 3,153.00	115 \$	24,211.00
Vergennes	3 \$ 1,498.00	4 \$ 731.00	7 \$ 1,105.00	2 \$ 230.00	16 \$	3,564.00
GR Twp	22 \$ 22,192.00	18 \$ 2,860.00	71 \$ 10,531.00	15 \$ 1,949.00	126 \$	37,532.00
EGR	30 \$ 6,855.00	28 \$ 5,279.00	43 \$ 6,885.00	19 \$ 2,826.00	120 \$	21,845.00
Plainfield	35 \$ 31,702.00	38 \$ 8,507.00	76 \$ 9,927.25	14 \$ 2,570.00	163 \$	52,706.25
MONTH TOTAL	137 \$ 85,022.00	154 \$ 33,437.00	326 \$ 47,711.75	91 \$ 15,182.00	708	\$181,352.75
YTD - 2023	137 \$ 85,022.00	154 \$ 33,437.00	326 \$ 47,711.75	91 \$ 15,182.00	708 \$	181,352.75
TOTAL-2022	2778 \$ 1,696,765.75	2417 \$ 485,983.96	4161 \$ 614,655.90	1829 \$ 323,360.00	11185 \$	3,120,765.61
TOTAL-2021	1974 \$ 765,878.00	2429 \$ 434,571.60	4018 \$ 509,156.00	1818 \$ 257,436.00	10239 \$	1,967,041.60
TOTAL-2020	1628 \$ 803,244.00	2017 \$ 307,137.85	3410 \$ 403,536.80	1616 \$ 212,701.00	8671 \$	1,726,619.65
TOTAL-2019	1675 \$ 631,143.50	2288 \$ 347,205.00	3478 \$ 406,781.95	1469 \$ 206,608.00	8910 \$	1,591,688.45
TOTAL-2018	1705 \$ 920,876.00	2116 \$ 380,754.00	3585 \$ 456,603.00	1654 \$ 238,664.00	9060 \$	1,996,897.00
TOTAL-2017	1758 \$ 753,389.00	2210 \$ 376,979.00	3273 \$ 412,867.25	1485 \$ 219,324.00	8726 \$	1,762,559.25
TOTAL-2016	1475 \$ 529,552.24	1992 \$ 310,463.00	3217 \$ 383,718.00	1404 \$ 190,762.00	8088 \$	1,414,495.24
TOTAL-2015	1510 \$ 665,025.51	1948 \$ 327,865.00	3070 \$ 385,822.30	1361 \$ 216,089.00	7889 \$	1,594,801.81
TOTAL-2014	1354 \$ 615,191.80	1780 \$ 297,971.00	2860 \$ 359,989.90	1257 \$ 196,553.00	7251 \$	1,469,705.70
TOTAL-2013	1241 \$ 644,712.00	1667 \$ 288,442.06	2583 \$ 334,045.70	969 \$ 142,474.00	6460 \$	1,409,673.76
TOTAL-2012	1,122 \$ 511,272.00	1,349 \$ 188,766.99	2,134 \$ 247,625.30	835 \$ 118,335.00	5,440 \$	1,065,999.29
TOTAL-2011	949 \$ 410,550.75	990 \$ 148,549.50	1585 \$ 189,180.10	753 \$ 111,023.00	4277 \$	859,303.35
TOTAL-2010	850 \$ 309,779.00	1330 \$ 162,994.00	1644 \$ 188,927.25	625 \$ 94,790.00	4449 \$	756,490.25
TOTAL-2009	712 \$ 222,039.00	875 \$ 125,848.00	1313 \$ 149,101.75	554 \$ 74,397.00	3463 \$	571,382.75
TOTAL-2008	848 \$ 582,100.75	1043 \$ 147,674.00	1348 \$ 164,271.30	697 \$ 91,695.00	3933 \$	951,266.55
TOTAL-2007	1032 \$ 336,749.55	1069 \$ 137,857.00	1447 \$ 151,002.60	778 \$ 98,270.00	4326 \$	723,879.15
TOTAL-2006	1181 \$ 481,673.30	1547 \$ 215,121.00	2147 \$ 243,076.90	1243 \$ 162,020.00	5173 \$	940,523.41
TOTAL-2005	1032 \$ 419,355.30	1369 \$ 191,694.00	1874 \$ 211,234.15	1111 \$ 144,926.00	5386 \$	967,209.45

	JAN	FEB	MARCH	APR	MAY	JUNE	JULY	AUGUST	SEPT	OCT	NOV	DEC	TOTAL
Township							2023						
Ada Twp	\$24,211.00												24,211.00
Permit Fees													-
Special Insp													-
Ada Total	\$24,211.00												24,211.00
Plainfield	\$52,706.25												\$52,706.25
Permit Fees													-
Special Insp													-
Plainfield Total	\$52,706.25												52,706.25
East Gr	\$21,845.00												21,845.00
Permit Fees													-
Special Insp													-
East Gr Tot	\$21,845.00												21,845.00
GR Twp	\$37,532.00												37,532.00
Permit Fees													-
Special Insp													-
GR Twp tot	\$37,532.00												37,532.00
Lowell Twp	\$5,908.00												5,908.00
Permit Fees													-
Special Insp													-
Lowell Tot	\$5,908.00												5,908.00
Vergennes	\$3,564.00												3,564.00
Permit Fees													-
Special Insp													-
Verg Total	\$3,564.00												3,564.00
Permit Fees													-
Special Insp													-
Subtotal	\$145,766.25												145,766.25
Cascade	\$35,586.50												35,586.50
Total w/ Cas	\$181,352.75												181,352.75
							2022 YTD	172,888					
							2023 YTD	\$181,352.75					
													DIFFERENCE
													\$8,464.50
GRAND TOTAL PERMIT FEE CHART													

CASCADE CONSOLIDATED FEES

YEAR 2023

MONTH	Building Comm.	Building Residential	Electrical	Mechanical	Plumbing	TOTAL
JANUARY	\$8,106.00	\$4,452.00	\$9,114.00	\$9,638.50	\$4,276.00	\$35,586.50
FEBRUARY						
MARCH						
APRIL						
MAY						
JUNE						
JULY						
AUGUST						
SEPTEMBER						
OCTOBER						
NOVEMBER						
DECEMBER						
YEAR END TOTAL	\$8,106.00	\$4,452.00	\$9,114.00	\$9,638.50	\$4,276.00	\$35,586.50
PERMIT # FOR MONTH	8	16	36	59	26	145
PREV PERMIT TOTAL						
PERMIT TOTAL FOR YR	8	16	36	59	26	145
YEAR TO DATE	2023	\$35,586.50				
YEAR TO DATE	2022	\$29,370.00				
OVER	\$6,216.50					

CASCADE SINGLE FAMILY HOMES

Number of Permits	JAN	YTD 2023	2022	2021	2020
New Residential Homes	1	1	49	69	55
VALUE - RESIDENTIAL	\$ 1,009,261.00	\$ 1,009,261.00	\$ 35,750,549.00	\$ 36,003,102.00	\$ 36,322,102.00

Cascade Twp -Permit Report by Category/ Fe

1/1/2023 12:00:00 to 1/31/2023 12:00:00

Permit	Applicant	Address	Issue Date	Project Value	Permit Fee
Res. Single Family					
PB23000107	INDIE HOMES LLC	3298 THORNCREST DR SE	01/30/2023	1,009,261	1,816.00
				1,009,261	1,816.00
1	Permits	Value Total		1,009,261	1,816

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

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



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



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



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

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

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

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

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

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

Thank you,

Julie Stachecki

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

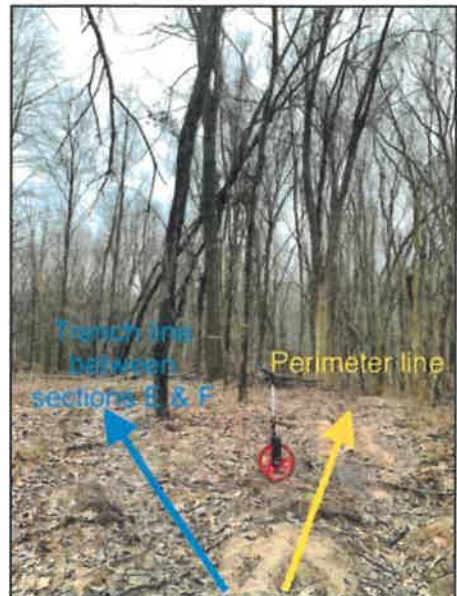


Cascade Charter Township Burton Park Oak Wilt Project Update 2022 - 2023

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

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

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



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



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



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



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

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



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



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

Thank you,

Julie Stachecki

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





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
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 \$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: Adam Magers (Fire Chaplain Diefenbach) Application Date: 1-25-2023

Name of Proposed Seminar/Conference: 1st Responder Mental Health & Wellness Conference

Seminar/Conference Date(s): May 15-16 2023

Location of Seminar/Conference: Elkart, IN

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

Education, mental health tools, and resources for individuals tasked with managing 1st responder mental health. (See Attached) Recommend sending Fire Chaplain Dieffenbach as he manages our firefighter mental health program.

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

Fire Chaplain Dieffenbach has volunteered as Cascade Fire Chaplain for the last 15 months. In that time he has dedicated countless hours connecting/mentoring/counselling/ and building trust with our firefighters. He has been integral in keeping our responders mentally healthy and on the job. I highly recommend this seminar for Chaplain Dieffenbach to advance his skillset and abilities in combating 1st responder PTSD, depression, stress, and any other issue that our firefighters deal with while responding to township emergencies.

Cost of the Seminar/Conference:

Registration \$ 300.00

Lodging \$ 139 x 2 = 278

Travel \$ 

Account # 206-336-726-000

Applicant: 
Signature

Approvals:

Department Head: 
Signature

1-25-2023
Date

Township Manager: _____
Signature

Date

Clerk: _____
(Signature Indicates Township Board Approval)

Date

➤ Original to Personnel File

➤ 1 Copy to Applicant

➤ 1 Copy to Accounting

Adam Magers

From: 1st Responder Conferences <amanda@1stresponderconferences.org>
Sent: Monday, January 23, 2023 9:02 AM
To: Adam Magers
Subject: 1st Responder Conferences - South Bend, Indiana - May 15-16, 2023

View in browser



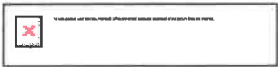
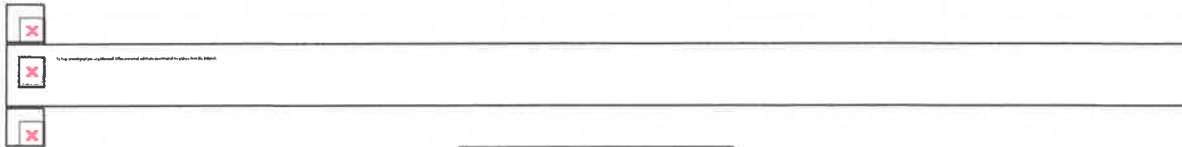
Mental Health and Wellness Conference
REGISTRATION IS NOW OPEN!

**** Please note this conference has limited seating.**

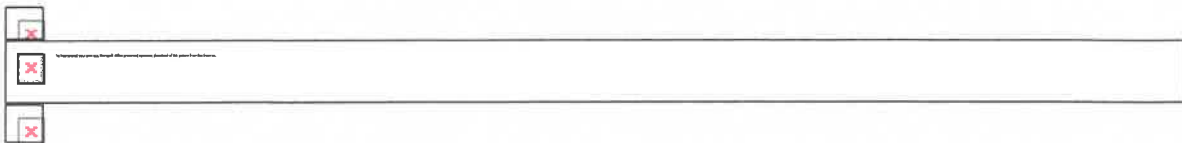
Our two-day multifaceted training and networking events are for **all 1st Responders**, Police, Fire, EMS, Dispatchers, Military/Veterans, Corrections, Coroners, Chaplains, Retired First Responders, Spouses, Professional staff, Clinicians, and all those who work in or around the Public Safety field.



[Click here to register](#)



Cohosted by:
Elkhart Police Department



First Responder Mental Health and Wellness Conference

Co-hosted by Elkhart Police Department
May 15-16, 2023, from 8am-4pm
May 15, Networking Social from 4-6pm

**Inn at Saint Mary's & Gillespie Conference Center
Hilton Garden Inn South Bend
53995 Indiana S.R. 933 - South Bend**

1st Responder Conferences is committed to the emotional, physical, and spiritual well-being of public safety professionals and we work with leaders in the public safety professions to make this possible. We recognize that first responders are our greatest asset, and we feel it is our responsibility to create a climate that supports wellness and resiliency. We are dedicated to promoting awareness surrounding the difficulties of the profession and inspiring conversations that minimize the stigma associated with the stress our first responders' experience. We provide education, mental health tools and resources for agencies, individuals, and family members. Our mission is to improve the quality of life for all who dedicate themselves to protecting and serving others.

1st Responder Conferences partners with nonprofit organizations like First H.E.L.P. and ICISF. We work together to make sure all first responders get the resources they need to live a happy and healthy life!

We have a great line-up of speakers!!

- Noel Meador, Stronger Families President & CEO, and Tim Sears, Director of First Responders for Stronger Families
- Marco Parzych (Lt Col, USAF Ret.), Founder & Executive Director of Mission Ready Finances
- Sgt. Karl D. Karch (Ret.) YogaFive-0 Founder
- Christy Lister, First H.E.L.P. Volunteer, Podcast Manager
- Kevin McNeil, CEO of The Twelve Project, LLC.
- Nancy Lockhart, ENP, St Joseph County 911, Deputy Director of Operations and Catherine Herzog, St. Joseph County 911 Clinical Liaison
- Molly Jones, LSW, Clinical Education Coordinator for Advanced Recovery Systems

More speakers coming soon!



**In partnership with
First H.E.L.P.**



Questions? Contact:

1st Responder Conferences

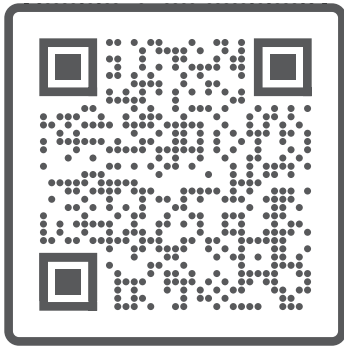
Shawn Thomas, Founder & CEO

shawnt@1stresponderconferences.org



This email was sent to amagers@cascadetwp.com

GRAND VALLEY METRO COUNCIL OPEN HOUSE



Scan to learn more about the Grand Valley Metro Council's study and complete a survey.



FEB. 16 • 4-6 P.M. // WISNER CENTER



The Cascade Township Board of Trustees has been informed that a proposal for major road changes in Cascade Township around the Gerald R. Ford International Airport is being considered.

The proposed changes are outlined in the Grand Valley Metro Council Airport Access Study and include the construction of new expressway on/off ramps and airport access sites at five locations between the Airport and the Thornapple River.

These proposed changes directly impact Cascade residents and properties. Your feedback is critical in determining future land use in our Township.

Please fill out the online survey and attend a public open house from 4-6 p.m. Thursday, Feb. 16 at the Wisner Center, 2870 Jacksmith Ave. SE.

Learn more and complete the survey:
gvmc.org/airport-access-study



Cascade Charter Township
5920 Tahoe Drive SE
Grand Rapids, MI 49546

PRSR STD
US POSTAGE
PAID
GRAND RAPIDS, MI
PERMIT NO. 657



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 8, 2023
To: Supervisor Lesperance and Township Board Members
From: Ben Swayze, Township Manager
Subject: Floodplain Management – Public Hearing and Consider Ordinance Adoption

FACTS:

The Federal Emergency Management Agency (FEMA) has completed the new Flood Insurance Rate Maps (FIRMS) for Kent County, which are scheduled to go into effect on February 23, 2023. The maps are set to go into effect after the required statutory 90-day appeal period that was initiated by FEMA and noticed in the local newspaper. FEMA did not receive any appeals of the proposed flood hazard determinations or submittals regarding the Preliminary Flood Insurance Study (FIS) report or FIRMS during that time.

Cascade Township currently participates in the National Flood Insurance Program (NFIP) and, as a member, the Township must now adopt a new Floodplain ordinance prior to the effective FIRM date of February 23, 2023. By participating in the NFIP, Cascade residents that live in designated floodplain areas are eligible for flood insurance. If the Township does not participate in the program, FEMA flood insurance policies would no longer be available to anyone in the township. Those home and business owners that have mortgages in the mapped floodplain would get their mortgages called due when their current policy expires, or be forced to obtain private flood insurance through Lloyds of London at typically substantially high rates. If a federal disaster is declared while a community is not participating, federal disaster assistance would not be available to the township or residents in the floodplain.

The first step in the process will be to set the public hearing for the ordinance adoption, which has been set and advertised for tonight, Wednesday February 8, at the regular Township Board meeting. Once the public hearing is held, the Township Board will be able to adopt the ordinance at the meeting, or at any future meeting of the Board.

Attached for your review is:

- Draft Floodplain Management Ordinance
- Communication from FEMA including a Summary of Map Actions
- Maps are available at the Planning Department counter at Township Hall or by visiting www.msc.fema.gov

ANALYSIS & CONCLUSIONS:

FEMA, EGLE and the Township Building Official, whom will be responsible for enforcing the applicable sections of Public Act 230 of 1972 (Michigan Building Code) in accordance with the ordinance, have all reviewed and approved the draft ordinance. The proposed ordinance will not

change any current processes or policies of the Township, other than referencing the newly approved Flood Insurance Rate Maps (FIRMS)

Once the public hearing is held, the Township Board may approve the ordinance at the meeting or any subsequent meeting of the Township Board.

FINANCIAL CONSIDERATIONS:

The adoption of the new Floodplain Management ordinance amendment itself comes with minimal costs, including staff time, printing and publishing. Adopting the ordinance ensures that Township residents in floodplain areas are eligible for FEMA flood insurance and eligible for FEMA disaster relief

RECOMMENDED ACTION:

Hold Public Hearing for and consider adoption of the Cascade Township Ordinance Addressing Floodplain Management Provisions of the State Construction Code.

**CASCADE CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN**

**AN ORDINANCE ADDRESSING FLOODPLAIN MANAGEMENT PROVISIONS OF
THE STATE CONSTRUCTION CODE**

**Ordinance No. _____ of 2023
Adopted: _____, 2023**

At a regular meeting of the Township Board for Cascade Charter Township held at the Cascade Library Wisner Center on _____, 2023, beginning at 7:00 p.m., the following Ordinance was offered for adoption by Township Board Member _____ and was seconded by Township Board Member _____.

An Ordinance to affirm and enforcing agency to discharge the responsibility of the Charter Township of Cascade located in Kent County, and to designate regulated flood hazard areas under the provisions of the State Construction Code Act, Act No. 230 of the Public Acts of 1972, as amended.

THE CHARTER TOWNSHIP OF CASCADE ORDAINS:

**FLOODPLAIN MANAGEMENT PROVISIONS OF THE STATE CONSTRUCTION
CODE**

Section 1 Agency Designated.

Pursuant to the provisions of the state construction code, in accordance with Section 8b(6) of Act 230, of the Public Acts of 1972, as amended, the Building Official of the Charter Township of Cascade is hereby designated as the enforcing agency to discharge the responsibility of the Charter Township of Cascade under Act 230, of the Public Acts of 1972, as amended, State of Michigan. The Charter Township of Cascade assumes responsibility for the administration and enforcement of said Act throughout the corporate limits of the community adopting this ordinance.

Section 2 Code Appendix Enforced.

Pursuant to the provisions of the state construction code, in accordance with Section 8b(6) of Act 230, of the Public Acts of 1972, as amended, Appendix G of the Michigan Building Code shall be enforced by the enforcing agency within the jurisdiction of the community adopting this ordinance.

Section 3 Designation of Regulated Flood Prone Hazard Areas.

The Federal Emergency Management Agency (FEMA) Flood Insurance Study (FIS) Entitled “The Flood Insurance Study for Kent County, all jurisdictions” and dated February 23, 2023 and the Flood Insurance Rate Map(s) (FIRMS) panel number(s) listed on index panels 26081CIND1A and 26081CIND2A dated February 23, 2023 are adopted by reference for the purposes of administration of the Michigan Construction Code, and declared to be a part of Section 1612.3 of the Michigan Building Code, and to provide the content of the “Flood Hazards” section of Table R301.2(1) of the Michigan Residential Code.

Section 4 Repeals

All ordinances inconsistent with the provisions of this ordinance are hereby repealed.

Section 5 Severability.

If any part of this Ordinance shall be found to be invalid or unconstitutional by any Court of competent jurisdiction, said finding shall not affect the remaining portions hereof which shall remain in full force and effect.

Section 5 Effective Date.

This Ordinance shall become effective upon publication.

YEAS: Board members _____

NAYS: Board members _____

ABSENT: Board members _____

(Certifications on next page)

ORDINANCE DECLARED ADOPTED

Susan B. Slater, Township Clerk

I HEREBY CERTIFY that the foregoing is a true and complete copy of an ordinance adopted by the Township Board of Cascade Charter Township, County of Kent, Michigan, at a regular meeting held on _____, 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



Federal Emergency Management Agency

Washington, D.C. 20472

August 23, 2022

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

IN REPLY REFER TO:
19P

Grace Lesperance
Supervisor, Charter Township of Cascade
5920 Tahoe Drive Southeast
Grand Rapids, Michigan 49546

Community Name: Charter Township of
Cascade,
Kent County,
Michigan
Community No.: 260814
Map Panels Affected: See FIRM Index

Supervisor Lesperance:

This is to notify you of the final flood hazard determination for Kent County, Michigan (All Jurisdictions), in compliance with Title 44, Chapter I, Part 67, Section 67.11, Code of Federal Regulations (CFR). This section requires that notice of final flood hazards shall be sent to the Chief Executive Officer of the community, all individual appellants, and the State Coordinating Agency, and shall be published in the *Federal Register*.

The statutory 90-day appeal period that was initiated for your community when the Department of Homeland Security's Federal Emergency Management Agency (FEMA) published a notice of proposed flood hazard determinations for your community in the local newspapers has elapsed. FEMA did not receive any appeals of the proposed flood hazard determinations or submittals regarding the Preliminary Flood Insurance Study (FIS) report and Flood Insurance Rate Map (FIRM) during that time.

Accordingly, the flood hazard determinations for your community are considered final. The final notice for flood hazard determinations will be published in the *Federal Register* as soon as possible. The FIS report and FIRM for your community will become effective on February 23, 2023. Before the effective date, we will send your community final printed copies of the FIS report and FIRM. For insurance purposes, the community number and new suffix code for the panels being revised are indicated on the FIRM and must be used for all new policies and renewals.

Because the FIS report for your community has been completed, certain additional requirements must be met under Section 1361 of the National Flood Insurance Act of 1968, as amended, within 6 months from the date of this letter.

It must be emphasized that all the standards specified in 44 CFR Part 60.3(d) of the National Flood Insurance Program (NFIP) regulations must be enacted in a legally enforceable document. This includes adoption of the current effective FIS report and FIRM to which the regulations

apply and other modifications made by this map revision. Some of the standards should already have been enacted by your community in order to establish initial eligibility in the NFIP. Your community can meet any additional requirements by taking one of the following actions in this Paragraph of the NFIP regulations:

1. Amending existing regulations to incorporate any additional requirements of 44 CFR Part 60.3(d);
2. Adopting all the standards of 44 CFR Part 60.3(d) into one new, comprehensive set of regulations; or
3. Showing evidence that regulations have previously been adopted that meet or exceed the minimum requirements of 44 CFR Part 60.3(d).

Also, prior to the effective date, your community is required, as a condition of continued eligibility in the NFIP, to adopt or show evidence of adoption of the floodplain management regulations that meet the standards of 44 CFR Part 60.3(d) of the NFIP regulations by the effective date of the FIRM. These standards are the minimum requirements and do not supersede any State or local requirements of a more stringent nature.

Many states and communities have adopted building codes based on the International Codes (I-Codes); the model I-Codes (2009 and more recent editions) contain flood provisions that either meet or exceed the minimum requirements of the NFIP for buildings and structures. The model codes also contain provisions, currently found in an appendix to the International Building Code, that apply to other types of development and NFIP requirements. In these cases, communities should request review by the NFIP State Coordinator to ensure that local floodplain management regulations are coordinated (not duplicative or inconsistent) with the State or Local building code. FEMA's resource, *Reducing Flood Losses through the International Code: Coordinating Building Codes and Floodplain Management Regulations, 5th Edition (2019)*, provides some guidance on this subject and is available at <https://www.fema.gov/emergency-managers/risk-management/building-science/building-codes/flood>.

Communities that fail to enact the necessary floodplain management regulations will be suspended from participation in the NFIP and subject to the prohibitions contained in Section 202(a) of the Flood Disaster Protection Act of 1973 (Public Law 93-234) as amended, and 44 CFR Part 59.24.

To assist your community in maintaining the FIRM, we have enclosed a Summary of Map Actions (SOMA) to document previous Letters of Map Change (LOMC) actions (i.e., Letters of Map Amendment, Letters of Map Revision) that will be affected when the revised FIRM panels referenced above become effective. If no LOMCs were issued previously for your community, you are receiving a SOMA for informational purposes only.

Once the FIS report and FIRM are printed and distributed, the digital files containing the flood hazard data for the entire county can be provided for use in a computer mapping system. These

files can be used in conjunction with other thematic data for floodplain management purposes, insurance requirements, and many other planning applications. Copies of the digital files of the FIRM panels may be obtained by calling our FEMA Mapping and Insurance eXchange (FMIX), toll free, at (877) 336-2627 (877-FEMA MAP) or by visiting the Map Service Center at <https://www.msc.fema.gov>. In addition, your community may be eligible for additional credits under our Community Rating System if you implement your activities using digital mapping files.

For assistance with your floodplain management ordinance or enacting the floodplain management regulations, please contact Matt Occhipinti, P.E., CFM, NFIP State Coordinator for Michigan by telephone at (616) 204-1708. If you should require any additional information, we suggest that you contact the Director, Mitigation Division of FEMA, Region 5 at (312) 408-5500 for assistance. If you have any questions concerning mapping issues in general or the enclosed SOMA, please call our FMIX at the telephone number shown above. Additional information and resources you may find helpful regarding the NFIP and floodplain management can be found on our website at <https://www.fema.gov/flood-maps>. Copies of these documents may also be obtained by calling our FMIX.

Sincerely,



Luis Rodriguez, P.E., Director
Engineering and Modeling Division
Federal Insurance and Mitigation Administration

Enclosure:
Final SOMA

cc: Community Map Repository
Brian Hilbrands, Planning Director, Charter Township of Cascade

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

To assist your community in maintaining the Flood Insurance Rate Map (FIRM), we have summarized below the effects of the enclosed revised FIRM panels(s) on previously issued Letter of Map Change (LOMC) actions (i.e., Letters of Map Revision (LOMRs), Letter of Map Revision based on Fill (LOMR-Fs), and Letters of Map Amendment (LOMAs)) that will be affected when the revised FIRM becomes effective on February 23, 2023.

1. LOMCs Incorporated

The modifications effected by the LOMCs listed below will be reflected on the revised FIRM. In addition, these LOMCs will remain in effect until the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
102	02-05-1697P	10/10/2002	GRAND RIVER - ADA MOORINGS	2608140025A	26081C0453D

2. LOMCs Not Incorporated

The modifications effected by the LOMCs listed below will not be reflected on the revised FIRM panels or will not be reflected on the revised FIRM panels because of scale limitations or because the LOMC issued had determined that the lot(s) or structure(s) involved were outside the Special Flood Hazard Area, as shown on the FIRM. These LOMCs will remain in effect until the revised FIRM becomes effective. These LOMCs will be revalidated free of charge 1 day after the revised FIRM becomes effective through a single revalidation letter that reaffirms the validity of the previous LOMCs.

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

2A. LOMCs on Revised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	93-05-0187W	02/01/1993	LOT 13 - MARACAIBO SHORES	2608140025A	26081C0463D
LOMA	93-05-0188W	02/01/1993	1424 BRIARCLIFF DRIVE, S.E.	2608140025A	26081C0453D
LOMA	93-05-0195W	06/15/1993	7357 KILMER DRIVE SOUTHEAST	2608140025A	26081C0580D
LOMA	96-05-1880A	05/07/1996	4670 LITTLE HARBOR DRIVE	2608140025A	26081C0463D
LOMA	96-05-2506A	06/14/1996	4545 LITTLE HARBOR DRIVE	2608140025A	26081C0463D
LOMA	96-05-2630A	07/08/1996	LOT 4 - THE ASPENS	2608140025A	26081C0463D
LOMA	96-05-4130A	10/08/1996	PART OF GOV'T LOT 7, SECTION 16	2608140025A	26081C0442D
LOMA	97-05-974A	01/28/1997	7796 THORNAPPLE BAYOU - N ₄ OF SE ₁ OF SECT. 27	2608140025A	26081C0463D 26081C0580D
LOMA	98-05-694A	12/12/1997	THE ASPENS - LOT 2 - 7545 KENROB DRIVE, S.E.	2608140025A	26081C0463D
LOMA	97-05-5230A	01/21/1998	THORNAPPLE VALLEY PLAT - LOT 20 - 7261 KILMER S.E.	2608140025A	26081C0580D
LOMA	98-05-4546A	07/31/1998	9487 GRAND RIVER DRIVE	2608140025A	26081C0466D
LOMA	98-05-4352A	09/16/1998	7114 GLADYS, S.E. - LOT 11, SECTION 4	2608140025A	26081C0453D
LOMA	98-05-6328A	10/28/1998	SECTION 3, TOWN 6 NORTH, RANGE 10 WEST - 1839 TIMBER TRAIL DRIVE S.E.	2608140025A	26081C0461D
LOMA	99-05-850A	01/06/1999	SECTION 9, T6N, R10W AND LOT 23 - SHAG BARK PLAT - 2627 THORNAPPLE RIVER DRIVE	2608140025A	26081C0461D
LOMA	99-05-2282A	02/17/1999	PARCELS A & B BEING PART OF GOVERNMENT LOT 5 - 6811 BURGER DRIVE S.E.	2608140025A	26081C0463D
LOMA	99-05-2480A	03/03/1999	LOTS 177-182, VILLAGE OF CASCADE SPRINGS - 2597 CASCADE SPRINGS DRIVE	2608140025A	26081C0461D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	99-05-2804A	05/21/1999	SHAG BARK PLAT - LOT 25 - 2621 THORNAPPLE RIVER DRIVE S.E.	2608140025A	26081C0461D
LOMA	99-05-4624A	10/22/1999	OAK BROOK VALLEY - LOT 13 - 6947 OAK BROOK SE	2608140025A	26081C0461D
LOMA	01-05-0133A	01/26/2001	2653 THORNAPPLE RIVER DRIVE, S.E.	2608140025A	26081C0461D
LOMA	01-05-3323A	10/17/2001	LOT 13, RIVERBEND HOMESITES--7130 GLADYS DRIVE, GRAND RAPIDS	2608140025A	26081C0453D
LOMA	02-05-2601A	08/02/2002	1360 BRIARCLIFF DRIVE, S.E.	2608140025A	26081C0453D
LOMA	03-05-0010A	10/18/2002	LOT 10 & PART OF LOT 11, RIVERBEND HOMESITES, --7106 GLADYS DR.	2608140025A	26081C0453D
LOMA	03-05-2357A	04/30/2003	CAMPO DEL RIO, LOT 4; 7166 PLACITA COURT	2608140025A	26081C0463D
LOMA	03-05-4237A	07/18/2003	LOTS 19, 20, & PORTIONS OF SEC. 9, LOTS 12-16; 2633 THORNAPPLE RIVER DR.	2608140025A	26081C0461D
LOMA	03-05-4509A	08/27/2003	SECTION 10, T6N, R10W; 2645 CASCADE SPRINGS DR. SE	2608140025A	26081C0461D
LOMA	04-05-0329A	12/19/2003	SHAG BARK PLAT, PART OF LOT 23, AND LOT 24; 2611 THORNAPPLE RIVER DRIVE	2608140025A	26081C0461D
LOMA	04-05-A233A	08/06/2004	OAK BROOK VALLEY SECTION 9, LOT 8 -- 6986 OAKBROOK STREET SE	2608140025A	26081C0461D
LOMA	04-05-A382A	09/01/2004	6927 OAKBROOK DRIVE -- PORTION OF SECTION 9, T6N, R10W	2608140025A	26081C0461D
LOMR-F	05-05-0876A	01/12/2005	ADA MOORINGS SITE CONDOMINIUM, PHASE 5, 6 & 7	2608140025A	26081C0453D 26081C0454D
LOMA	05-05-3595A	10/20/2005	VILLAGE OF CASCADE SPRINGS, LOTS 160, 161, 198 & 199	2608140025A	26081C0461D
LOMA	06-05-0045A	11/18/2005	2641 CASCADE SPRINGS DRIVE -- PORTION OF SECTION 10, T6N, R10W	2608140025A	26081C0461D
LOMR-F	06-05-BR30A	07/25/2006	2465 CASCADE SPRING DRIVE (MI)	2608140025A	26081C0461D
LOMA	07-05-0633A	11/16/2006	LITTLE HARBOR ON THE HILLSBORO, LOT 17 -- 4707 LITTLE HARBOR DRIVE SE (MI)	2608140025A	26081C0463D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	07-05-0502A	01/23/2007	THORNAPPLE VALLEY PLAT, LOT 22 -- 7249 KILMER SE (MI)	2608140025A	26081C0580D
LOMA	08-05-0404A	12/04/2007	CASCADE ACRES, LOT 3 -- 1491 THORNAPPLE RIVER DRIVE	2608140025A	26081C0461D
LOMA	08-05-2722A	05/27/2008	PORTION OF SECTIONS 9 AND 16 T6N, R10W -- 2796 THORNAPPLE RIVER DRIVE	2608140025A	26081C0461D
LOMA	08-05-4364A	08/19/2008	LITTLE HARBOR ON THE HILLSBORO, LOTS 4, 5 & 11 -- 4650, 4630 & 4607 LITTLE HARBOR DRIVE	2608140025A	26081C0463D
LOMA	08-05-4663A	09/16/2008	VILLAGE OF CASCADE SPRINGS, LOTS 155, 203 & 204 -- 2441 CASCADE SPRINGS COURT	2608140025A	26081C0461D
LOMA	09-05-0788A	12/18/2008	WOODSPOINTE, LOT 22 -- 5025 BUTTRICK AVENUE SE	2608140025A	26081C0580D
LOMA	09-05-1163A	04/07/2009	PORTION OF SECTIONS 3 & 10, T6N, R10W -- 2000 STEKETEE WOODS LANE SE	2608140025A	26081C0461D
LOMA	09-05-2800A	05/08/2009	2675 CASCADE SPRINGS DRIVE -- PORTION OF SECTION 10, T6N, R10W	2608140025A	26081C0461D
LOMA	09-05-5251A	08/18/2009	Lot 60; Cascade Acres No. 2	2608140025A	26081C0453D
LOMA	09-05-5145A	09/24/2009	RIVERBEND HOMESITES, LOT 6 -- 7123 GLADYS DRIVE SE	2608140025A	26081C0453D
LOMA	10-05-0281A	03/04/2010	LOT 24 GOODWOOD -- 3584 GOODWOOD DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	10-05-2077A	03/04/2010	PORTION OF LOTS 6 & 7, OAK BROOK VALLEY -- 2509 SHAGBARK AVENUE	2608140025A	26081C0461D
LOMA	10-05-4968A	07/20/2010	1550 THORNAPPLE RIVER DRIVE	2608140025A	26081C0461D
LOMR-F	10-05-5844A	09/14/2010	2315 CASCADE SPRINGS DRIVE	2608140025A	26081C0461D
LOMA	10-05-7875A	09/28/2010	Block 21 and 22 - 3824 Goodwood Drive	2608140025A	26081C0463D
LOMA	11-05-2644A	02/24/2011	LOT 12, CASCADE ACRES -- 1436 RIVERTON AVENUE SOUTHEAST	2608140025A	26081C0453D
LOMA	11-05-3564A	03/17/2011	1985 TIMBER TRAIL SOUTHEAST	2608140025A	26081C0461D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	11-05-3566A	03/15/2011	1843 TIMBER TRAIL SOUTHEAST	2608140025A	26081C0461D
LOMA	11-05-4320A	03/15/2011	Block 3 - 7390 Oliver Woods Drive	2608140025A	26081C0461D
LOMA	11-05-3520A	03/24/2011	LOTS 3 AND 4, ISLAND VIEW PARK -- 7249 DENISON DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	11-05-3189A	05/19/2011	A PORTION OF LOTS 4 & 6, GRACHEN PLAT -- 7303 GRACHEN DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	11-05-3092A	06/30/2011	LOT 6, LITTLE HARBOR ON THE HILLSBORO -- 4610 LITTLE HARBOR DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	11-05-6554A	08/04/2011	UNIT 41, ANDERSON WOODS -- 7300 KIRKWOOD TRAIL	2608140025A	26081C0580D
LOMA	11-05-6896A	08/25/2011	7107 GLADYS DRIVE SOUTHEAST	2608140025A	26081C0453D
LOMA	11-05-6284A	08/30/2011	2331 CASCADE SPRINGS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	11-05-7781A	09/08/2011	UNIT 40, ANDERSON WOODS -- 7400 KIRKWOOD TRAIL	2608140025A	26081C0580D
LOMA	11-05-8203A	09/08/2011	LOT 8 AND A PORTION OF LOT 7, RIVERBEND HOMESITES -- 7101 GLADYS DRIVE SOTHEAST	2608140025A	26081C0453D
LOMA	12-05-0154A	10/18/2011	LOT 7, RIVERBEND HOMESITES AND A PARCEL OF LAND -- 7115 GLADYS DRIVE SOUTHEAST	2608140025A	26081C0453D
LOMA	11-05-9177A	10/25/2011	LOT 38, CASCADE RIVERVIEW PARK --3178 THORNCREST DRIVE	2608140025A	26081C0461D
LOMA	12-05-1294A	12/13/2011	LOT 47, CASCADE ACRES -- 1441 SANDY POINT AVENUE SOUTHEAST	2608140025A	26081C0453D
LOMA	12-05-1616A	12/15/2011	2500 THORNAPPLE RIVER DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	12-05-1195A	01/12/2012	PART OF GOVERNMENT LOT 2, SECTION 16, T6N, R10W -- 7180 CASCADE ROAD SOUTHEAST	2608140025A	26081C0463D
LOMA	12-05-2598A	01/31/2012	7635 SANDY HOLLOW LAND SOUTHEAST	2608140025A	26081C0580D
LOMA	12-05-2362A	02/09/2012	CASCADE RIVERVIEW PARK, A PORTION OF LOT 51 -- 3031 THORNCREST DRIVE SOUTHEAST	2608140025A	26081C0461D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	12-05-2608A	03/06/2012	A PORTION OF LOT 5, THE ASPENS -- 7485 KENROB DRIVE	2608140025A	26081C0463D
LOMA	12-05-4151A	04/24/2012	2335 CASCADE SPRINGS DRIVE	2608140025A	26081C0461D
LOMA	12-05-7282A	07/26/2012	1396 BRIARCLIFF DRIVE SOUTHEAST	2608140025A	26081C0453D
LOMA	12-05-8262A	09/18/2012	LOT 20 & A PORTION OF LOT 19, BLOCK 1, CASCADE TERRACE -- 2777 CASCADE SPRINGS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	13-05-0341A	10/23/2012	2693 THORNAPPLE RIVER DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	12-05-9835A	11/08/2012	OAK BROOK VALLEY, A PORTION OF LOT 3 -- 2510 SHAGBARK AVENUE	2608140025A	26081C0461D
LOMA	13-05-2417A	01/22/2013	LOT 9, LITTLE HARBOR ON THE HILLSBORO -- 4581 LITTLE HARBOR DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	13-05-3453A	02/26/2013	LOT 13, CASCADE ACRES -- 1433 RIVERTON AVENUE SOUTHEAST	2608140025A	26081C0453D
LOMA	13-05-3286A	03/14/2013	8824 GRAND RIVER DRIVE	2608140025A	26081C0462D
LOMA	13-05-3839A	04/11/2013	7396 OLIVER WOODS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	13-05-5810A	06/18/2013	A PORTION OF LOT 7, GOEBEL PLAT -- 7314 THORNAPPLE PARK DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	13-05-6666A	07/16/2013	LOT 37, CASCADE RIVERVIEW PARK -- 3193 THORNCREST DRIVE	2608140025A	26081C0463D
LOMA	13-05-6665A	07/25/2013	LOT 36, CASCADE RIVERVIEW PARK -- 3206 THORNCREST DRIVE	2608140025A	26081C0463D
LOMA	13-05-8364A	09/24/2013	7196 CASCADE ROAD	2608140025A	26081C0463D
LOMA	14-05-0344A	10/22/2013	7219 KILMER DRIVE SOUTHEAST	2608140025A	26081C0580D
LOMA	14-05-1515A	12/05/2013	2541 CASCADE SPRINGS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-3274A	02/18/2014	7675 SANDY HOLLOW DRIVE SOUTHEAST	2608140025A	26081C0580D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	14-05-3354A	02/20/2014	2021 TIMBER POINT DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-5084A	04/08/2014	2727 THORNAPPLE RIVER DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-4899A	04/17/2014	LOTS 171, 172, 187, AND 188 -- 2551 CASCADE SPRINGS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-5170A	05/08/2014	LOT 12, LITTLE HARBOR ON THE HILLSBORO -- 4623 LITTLE HARBOR DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	14-05-4876A	06/03/2014	2525 CASCADE SPRINGS DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-6278A	06/10/2014	1833 TIMBER TRAIL DRIVE SOUTHEAST	2608140025A	26081C0461D
LOMA	14-05-6757A	06/17/2014	PART OF GOVERNMENT LOT 5, SECTION 16, TOWN 6 NORTH, RANGE 10 WEST -- 6943 BURGER DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	14-05-6787A	07/15/2014	4555 LITTLE HARBOR DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	14-05-7423A	07/29/2014	LOT 8, LITTLE HARBOR ON THE HILLSBORO -- 4567 LITTLE HARBOR DRIVE SOUTHEAST	2608140025A	26081C0463D
LOMA	14-05-8384A	09/09/2014	LOT 1, CASCADE ACRES -- 1453 THORNAPPLE RIVER DRIVE	2608140025A	26081C0453D
LOMA	15-05-0948A	12/01/2014	7430 CASCADE ROAD SOUTHEAST	2608140025A	26081C0463D
LOMA	15-05-0950A	12/11/2014	7378 CASCADE ROAD SOUTHEAST	2608140025A	26081C0463D
LOMA	15-05-0949A	12/23/2014	LOT 25, CASCADE ACRES -- 1434 HILLSBORO AVENUE SOUTHEAST	2608140025A	26081C0453D
LOMA	15-05-2324A	03/05/2015	7378 CASCADE ROAD SE (ACCESSORY)	2608140025A	26081C0463D
LOMA	15-05-2547A	03/19/2015	PORTION OF SECTION 16, T6N, R10W -- 7186 CASCADE ROAD SOUTHEAST	2608140025A	26081C0463D
LOMA	15-05-3247A	04/07/2015	PORTION OF SECTION 27, T6N, R10W -- 7804 AND 7802 THORNAPPLE DRIVE, 7749 SANDY HOLLOW DRIVE	2608140025A	26081C0580D
LOMA	15-05-3517A	04/16/2015	VILLAGE OF CASCADE SPRINGS, LOTS 175, 176, 183 & 184 -- 2573 CASCADE SPRING DRIVE SE	2608140025A	26081C0461D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	15-05-3548A	04/20/2015	CAMPO DEL RIO, LOT 12 -- 7177 AQUA FRIA COURT SE	2608140025A	26081C0463D
LOMA	15-05-3780A	04/30/2015	THORNAPPLE VALLEY PLAT, LOTS 16-17 -- 7291 KILMER DRIVE SE	2608140025A	26081C0580D
LOMA	15-05-3976A	05/08/2015	SECTION 27, T6N, R10W -- 4755 LITTLE HARBOR DRIVE SE	2608140025A	26081C0463D
LOMA	15-05-4285A	05/29/2015	Lot 16, Little Harbor On The Hillsboro Subdivision - 4623 Little Harbor Drive	2608140025A	26081C0463D
LOMA	15-05-4776A	06/24/2015	7428 Biscayne Way, SE	2608140025A	26081C0461D
LOMA	15-05-6275A	08/18/2015	GOODWOOD PLAT, PORTION OF LOTS 20, 21, AND 22 -- 3556 GOODWOOD DRIVE SE	2608140025A	26081C0463D
LOMA	16-05-1730A	12/28/2015	7223 Kilmer Drive, SE	2608140025A	26081C0580D
LOMA	16-05-1553A	01/15/2016	SECTION 10, T6N, R10W -- 2278 THORNAPPLE RIVER DRIVE SE	2608140025A	26081C0461D
LOMA	16-05-1875A	01/11/2016	7700 Thornapple Bayou Drive, SE	2608140025A	26081C0463D
LOMA	16-05-1800A	01/26/2016	RIVERBEND HOMESITES, LOT 15 -- 7150 GLADYS DRIVE SE	2608140025A	26081C0453D
LOMA	16-05-1802A	01/25/2016	SECTION 3, T6N, R10W -- 1350 BRIARCLIFF DRIVE SE	2608140025A	26081C0453D
LOMA	16-05-1224A	03/01/2016	CASCADE RIVERVIEW PARK, LOT 32 -- 3250 THORNCREST DRIVE SE	2608140025A	26081C0463D
LOMA	16-05-3169A	03/11/2016	Lot 10, Little Harbor on the Hillsboro Subdivision - 4593 Little Harbor Drive, SE	2608140025A	26081C0463D
LOMA	16-05-3170A	03/10/2016	7201 Kilmer Drive, SE	2608140025A	26081C0580D
LOMA	15-05-7642A	04/29/2016	SECTION 27, T6N, R10W -- 7733 SANDY HOLLOW DRIVE	2608140025A	26081C0580D
LOMA	16-05-3248A	04/25/2016	Lot 7, Little Harbor on the Hillsboro Subdivision - 4586 Little Harbor Drive, SE	2608140025A	26081C0463D
LOMA	16-05-3864A	05/02/2016	Lot 15, Little Harbor on the Hillsboro Subdivision - 4667 Little Harbor Drive, SE	2608140025A	26081C0463D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	17-05-0847A	11/16/2016	Lot 41, Cascade Riverview Park Subdivision - 3157 Thorncrest Drive SE	2608140025A	26081C0461D
LOMA	17-05-0611A	11/23/2016	CAMPO DEL RIO, LOT 13 -- 7178 AQUA FRIA COURT	2608140025A	26081C0463D
LOMA	17-05-0691A	11/30/2016	SECTION 27, T6N, R10W -- 7704 THORNAPPLE BAYOU DRIVE SE	2608140025A	26081C0463D
LOMA	17-05-1121A	12/19/2016	CASCADE ACRES, LOT 4 -- 1505 THORNAPPLE RIVER DRIVE SE	2608140025A	26081C0461D
LOMA	17-05-1484A	01/04/2017	Lot 26, Thornapple Valley Plat Subdivision - 7227 Kilmer Drive SE	2608140025A	26081C0580D
LOMA	17-05-2376A	02/21/2017	SECTION 10, T6N, R10W -- 2396 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D
LOMA	17-05-2730A	03/13/2017	OAK BROOK VALLEY, PORTION OF LOT 1 -- 7135 OAK BROOK STREET SE	2608140025A	26081C0461D
LOMA	17-05-2867A	03/20/2017	SECTION 3, T6N, R10W -- 1390 BRIARCLIFF DRIVE SE	2608140025A	26081C0453D
LOMA	17-05-3027A	03/29/2017	CASCADE RIVERVIEW PARK, LOT 50 -- 3049 THRONCREST DRIVE SE	2608140025A	26081C0461D
LOMA	17-05-3148A	04/10/2017	1460 Briarcliff Drive SE	2608140025A	26081C0453D
LOMA	17-05-4869A	07/24/2017	Lot 26, Cascade Acres Subdivision - 1437 Hillsboro Avenue SE	2608140025A	26081C0453D
LOMA	17-05-5713A	09/01/2017	VILLAGE OF CASCADE SPRINGS, LOTS 150-152/207-209 -- 2421 CASCADE SPRINGS ROAD SE	2608140025A	26081C0461D
LOMA	18-05-1872A	02/09/2018	GOVT. LOT 8, SECTION 16, T6N, R10W -- 6915 CASCADE ROAD SE	2608140025A	26081C0461D
LOMA	18-05-4168A	07/02/2018	WHISPERING BROOK, LOT 8 -- 6690 TANGLEWOOD DRIVE SE	2608140025A	26081C0444D
LOMA	18-05-4171A	07/02/2018	LITTLE HARBOR ON THE HILLSBORO, LOT 1 -- 4712 LITTLE HARBOR DRIVE SE	2608140025A	26081C0463D
LOMA	18-05-5643A	10/10/2018	SECTION 27, T6N, R10W -- 7732 THORNAPPLE BAYOU DRIVE SE	2608140025A	26081C0463D
LOMA	19-05-0132A	11/09/2018	CASCADE ACRES, LOTS 48-49 -- 1445 SANDY POINT SE	2608140025A	26081C0453D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	19-05-2074A	04/12/2019	GOVT. LOT 8, SECTION 16, T6N, R10W -- 2842 THORNAPPLE RIVER DRIVE SE	2608140025A	26081C0461D
LOMA	19-05-4586A	09/16/2019	SECTION 10, T6N, R10W -- 7466 DEER HAVEN SE	2608140025A	26081C0461D
LOMA	19-05-5422A	10/15/2019	Lot 3 - 4, Block 1, Cascade Terrace Subdivision - 2909 Cascade Springs Drive SE	2608140025A	26081C0461D
LOMA	20-05-0213A	11/19/2019	VILLAGE OF CASCADE SPRINGS, LOTS 173, 174, 185 & 186 -- 2561 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D
LOMA	20-05-0400A	11/20/2019	5060 Buttrick Avenue	2608140025A	26081C0580D
LOMA	20-05-1069A	01/14/2020	SECTION 27, T6N, R10W -- 7706 THORNAPPLE BAYOU DRIVE SE	2608140025A	26081C0463D
LOMA	20-05-1078A	01/14/2020	SECTION 27, T6N, R10W -- 7710 THORNAPPLE BAYOU DRIVE SE	2608140025A	26081C0463D
LOMA	20-05-1127A	02/12/2020	CASCADE TERRACE, LOTS 25 & 26 -- 2721 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D
LOMA	20-05-1223A	02/14/2020	CASCADE TERRACE, BLOCK 1, LOT 22 -- 2757 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D
LOMA	20-05-3538A	07/28/2020	SECTION 27, T6N, R10W -- 7750 THORNAPPLE BAYOU DR SE	2608140025A	26081C0463D
LOMA	20-05-3651A	08/05/2020	SECTION 27, T6N, R10W -- 7714 THORNAPPLE BAYOU DRIVE SE	2608140025A	26081C0463D
LOMR-F	20-05-3556A	09/14/2020	ADA MOORINGS, UNIT 139 -- 1266 DOGWOOD MEADOWS DRIVE SE	2608140025A	26081C0454D
LOMA	20-05-4777A	09/15/2020	7780 Thornapple Bayou Drive SE	2608140025A	26081C0580D
LOMA	20-05-4845A	11/13/2020	GOODWOOD, LOT 16 -- 3500 GOODWOOD DRIVE SE	2608140025A	26081C0463D
LOMA	21-05-0707A	12/23/2020	SECTION 16, T6N, R10W, GOVERNMENT LOT 7 -- 6600 MAHESH DRIVE SE	2608140025A	26081C0461D
LOMA	21-05-1095A	01/27/2021	SECTION 10, T6N, R10W -- 2510 THORNAPPLE RIVER DRIVE SE	2608140025A	26081C0461D
LOMA	21-05-1347A	02/12/2021	CASCADE TERRACE, BLOCK 1, LOT 27 -- 2685 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
LOMA	21-05-2484A	04/07/2021	Lot 153-54, 205-6, Village of Cascade Springs Subdivision - 2429 Cascade Springs Drive SE	2608140025A	26081C0461D
LOMR-F	21-05-2376A	04/30/2021	VILLAGE OF CASCADE SPRINGS, LOTS 157-159 & 200-202 -- 2465 CASCADE SPRINGS DRIVE SE	2608140025A	26081C0461D
LOMA	21-05-2526A	05/03/2021	SECTION 3, T6N, R10W -- 7412 OLIVER WOODS DRIVE SE	2608140025A	26081C0461D
LOMA	21-05-2794A	05/06/2021	6735 Cascade Road SE	2608140025A	26081C0442D
LOMA	21-05-4033A	08/26/2021	SECTION 33, T6N, R10W -- 7205 60TH STREET SE	2608140025A	26081C0580D
LOMA	22-05-0798A	01/10/2022	SECTION 16, T6N, R10W, GOVERNMENT LOT 7 -- 3044 THORNAPPLE RIVER DRIVE SE	2608140025A	26081C0442D
LOMA	22-05-0866A	01/20/2022	SECTION 2, T6N, R10W -- 8500 GRAND RIVER DRIVE SE	2608140025A	26081C0462D

2B. LOMCs on Unrevised Panels

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
			NO CASES RECORDED		

FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

3. LOMCs Superseded

The modifications effected by the LOMCs listed below have not been reflected on the Final revised FIRM panels because they are being superseded by new or revised flood hazard information or the information available was not sufficient to make a determination. The reason each is being superseded is noted below. These LOMCs will no longer be in effect when the revised FIRM becomes effective.

LOMC	Case No.	Date Issued	Project Identifier	Reason Determination Will be Superseded
LOMA	199300048R05	02/01/1992	UNKNOWN	1
LOMA	199300049R05	02/01/1993	UNKNOWN	1
LOMA	199300189R05	06/15/1993	UNKNOWN	1
LOMA	03-05-3355A	07/30/2003	VILLAGE OF CASCADE SPRINGS; 2465 CASCADE SPRINGS SE	1
LOMA	11-05-4743A	04/01/2011	Lot 13, Block 27, Little Harbor on the Hillsboro Subdivision - 4637 Little Harbor Drive	1
LOMA	14-05-1747A	12/17/2013	LOTS 171, 172, 187, 188 & A PARCEL OF LAND – 2551 CASCADE SPRINGS DRIVE SOUTHEAST	6

1. Insufficient information available to make a determination.
2. Lowest Adjacent Grade and Lowest Finished Floor are below the proposed Base Flood Elevation.
3. Lowest Ground Elevation is below the proposed Base Flood Elevation.
4. Revised hydrologic and hydraulic analyses.
5. Revised topographic information.
6. Superseded by another LOMC.

4. LOMCs To Be Redetermined

The LOMCs in Category 2 above will be revalidated through a single revalidation letter that reaffirms the validity of the determination in the previously issued LOMC. For LOMCs issued for multiple lots or structures where the determination for one or more of the lots or structures is no longer valid, the LOMC cannot be revalidated through this administrative process. Therefore, we will review the data previously submitted for the LOMC requests listed below and if appropriate issue a new determination for the affected properties after the effective date of the revised FIRM.

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
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FINAL SUMMARY OF MAP ACTIONS

Community: CASCADE, CHARTER TOWNSHIP OF

Community No: 260814

LOMC	Case No.	Date Issued	Project Identifier	Original Panel	Current Panel
			NO CASES RECORDED		



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 8, 2023
To: Supervisor Lesperance and Township Board Members
From: Ben Swayze, Township Manager
Subject: Contract with Hamilton Helicopter Inc. for Spongy Moth Suppression Services

FACTS:

In the fall of 2022 Cascade Township contracted with Aquatic Consulting Services LLC to conduct spongy moth (the name has officially been changed from gypsy moth to spongy moth by the Entomological Society of America) egg mass surveys to determine areas that require aerial spraying for 2023. As a result of that survey, it has been recommended that approximately 498 acres of the Township be sprayed for spongy moth suppression. It should be noted that the recommended acreage is a bit higher than what was sprayed in 2022 (431 acres) but significantly lower than years previous to that. In 2018 the Township sprayed 1,115 acres and 1,889 acres in 2019. 2020 brought a significant reduction in the spray area to 736 acres and in 2021 we sprayed 755 acres before dropping to 431 acres in 2022. Our biologist, Aquatic Consulting Services, indicates "Judging from observations this fall, Cascade Township is still in **much** better shape than other areas in Michigan, but we will need to maintain an intensive monitoring protocol to avoid losing the ground we have gained so far." ACS also note that the state in general is still in a very erratic spongy moth cycle, but there has been a notable rebound in some neighboring communities in 2021 and 2022. Ada Township, Kentwood, Walker and Wyoming have all preliminarily indicated they will be spraying again in 2023.

The Township had utilized Mid-Michigan Helicopter Inc. for Spongy Moth Suppression services since the onset of our program until 2015. In 2015 Mid-Michigan Helicopter was bought by Hamilton Helicopter, and they have overseen our spraying program for the last eight years. Our spray program last year was successful with no known issues reported from the contractor or residents in the affected areas. The Township last sprayed for spongy moths in spring of 2022, when we sprayed 431 acres. The follow up report from Aquatic Consulting Services in summer of 2022 indicated the spray program was successful in suppressing the spongy moth population in a majority of the indicated spray areas with very little defoliation observed

The 2021 contract rate was \$62.20 and 2022 was \$67.40, the first significant contract increase (percentage wise) in several years. The 2023 spray contract proposal from Hamilton Helicopter calls for spraying 498 acres at a cost of \$69.80 per acre, an increase of 3.6%. The rise in cost is associated in increases in product and fuel costs. The anticipated cost of the 2023 spray program is \$34,876.40.

The program will take place in the time period between May 1st and June 15th, with a more specific date to be available when the weather breaks. The Township is required to notify all residences in the spray block areas of the program. Any objectors to the spray program are eligible to be removed from the spray block at the discretion of the Township.

Attached for your review are:

- Proposed agreement with Hamilton Helicopter Inc. for Spongy Moth Suppression Services.
- Communication from Aquatic Consulting Services regarding spray program
- Map of the proposed spray blocks for 2023
- Spongy Moth information brochure published by the MSU Extension
- Information regarding Bacillus Thuringiensis pesticide.

ANALYSIS & CONCLUSIONS:

The Township has participated in the spongy moth spray program in conjunction with Mid-Michigan Helicopter Inc/Hamilton Helicopter and Aquatic Consulting Services going on 25 years. The Township has participated in the program because of the acknowledgement of the devastating effect the spongy moth population could have on the tree canopy cover of the Township.

During the onset of the program it was not uncommon for the Township to spray 1000 – 2000 acres per year. The continued treatment has allowed the program to be successful and our spongy moth populations to be controlled. The partnership with both Aquatic Consulting Resources and Hamilton Helicopters Inc. has allowed us to efficiently allocate our financial resources to this program. The survey ensures that the aerial spray program effectively targets areas of infestation above the set thresholds, and on several occasions has saved us from unnecessarily spraying, as was the case in 2013 and 2010-11

FINANCIAL CONSIDERATIONS:

The proposed agreement with Hamilton Helicopter Inc. is for a rate of \$69.80 per acre, which is \$2.40 per acre more than the 2022 contract and represents the increased cost of Bacillus Thuringiensis as well as fuel costs. The total cost of the program will come to \$34,876.40. The Township has budgeted \$50,000 for this program in 2023

RECOMMENDED ACTION:

Consider the agreement with Hamilton Helicopter Inc. for Spongy Moth Suppression Services.

GYPSY MOTH SUPPRESSION SERVICE AGREEMENT

This agreement is made as of _____, 2023, between Cascade Charter Township, a Michigan municipal corporation at 5920 Tahoe Dr. SE, Grand Rapids Michigan. 49546. (Hereafter referred to as the Township), and Hamilton Helicopter Inc.(hereafter referred to as Hamilton Helicopters).

Whereas the Township desires to control the gypsy moth population within its boundaries, and Hamilton Helicopters is interested in and capable of participating in a Gypsy moth suppression program with the Township.

NOW, therefore, the parties agree as follows.

- A With regard to the gypsy moth suppression program, the Township shall provide or arrange for the following to be performed.
- (1) Determination of spray blocks.
 - (2) Provide homeowner notification of the spraying program, and make all public notices required, and make sure there are no objectors in the spray blocks.
 - (3) Provide location of all objectors in and outside the spray blocks, and exclude and defend Hamilton Helicopters from any action, legal or otherwise, that should arise from the "no exclusion policy".
 - (4) Provide digitized maps of the spray blocks.
 - (5) Provide traffic and crowd control at the time of spraying, in the spray blocks and at the load site if deemed necessary by the parties.
 - (6) Provide a central loading site.
- B With regard to the gypsy moth suppression program, Hamilton Helicopters shall.
- (1) Have and maintain insurance coverage during the term of this agreement in the amount of \$1,000,000.00 single limit bodily injury and property damage. The Township and its employees shall be named as "additional insured". All liability for Hamilton Helicopters and its employees will be limited to the insurance policy provided.
 - (2) Will apply to the F.A.A. for a (workable) congested area spray plan for the time period from May 1, 2023 to June 15, 2023.
 - (3) Provide Bacillus Thuringiensis 'BT' at the rate of 19 B.I.U. per acre to cover 498 acres for the Township in 2023.
 - (4) Coordinate the spray timing with Aquatic Consulting Services.
- C For providing the services in paragraph A above, the Township shall pay Hamilton Helicopters a fee of \$69.80 per acre for providing the services in paragraph. This shall be within 30 days of billing.
- D In the event Hamilton Helicopters is prevented from spraying as a result of legal action, court injunction, terrorist related problems or any problems beyond the control of Hamilton Helicopters, the Township will pay \$15.00 per acre to cover some of the costs incurred.
- E For the purposes of this contract, the contractor and its employees shall be considered

Independent contractors.

F. This agreement may be amended by mutual consent of the parties.

IN WITNESS THERE OF, the parties here have executed this agreement by and through their authorized representatives as of the date written above.

Cascade Charter Township

Hamilton Helicopters Inc.

_____ DATE _____

Kent Hemker DATE 1/16/23

Its _____

Its *Pro*



Aquatic Consulting Services

P.O. Box 530, Sanford, MI 48657
www.aquaticremedies.com

989-689-0223

December 14, 2022

**Mr. Ben Swayze, Manager
Cascade Charter Township
5920 Tahoe Dr, S.E.
Grand Rapids, MI 49546**

Dear Mr. Swayze:

We have completed the spongy moth egg mass surveys, maps, and report for the 2023 season in Cascade Charter Township. I have included JPG and PDF map files of the results for you to review and to post on the city website as needed. Both JPG and PDF files are printable for your purposes although the PDF file will be more user friendly on your website. I have also included a short report on the conditions in each recommended spray block. An 18 x 24-inch map may be sent in a separate package for display purposes, if desired.

Overall, spongy moth populations in Cascade Township are continuing to decline, however we are starting to see signs of population rebound in few areas with historically elevated infestations. This is a common situation under the Integrated Pest Management (IPM) strategy. I know the idea of population rebound is not a pleasant thought, and it is definitely not something we like to report, but Cascade is still in very good standing overall. The observed 2023 season egg mass densities are still at nuisance levels, and we should see light defoliation at worst. We do still definitely need to respond to these population rebounds as well as continue to work on any residual infestations. Accordingly, we are recommending an increase of 67 acres (16%) for a total of 498 acres for spring 2023. We should continue to see limited nuisance and defoliation, but we are still in a very erratic spongy moth cycle across much of the state. We have seen notable rebound in some neighboring West Michigan communities in 2021 and 2022, so we need to be prepared to respond aggressively to any additional rebounds. Judging from observations this fall, Cascade Township is still in **much** better shape than other areas in Michigan, but we will need to maintain an intensive monitoring protocol to avoid losing the ground we have gained so far.

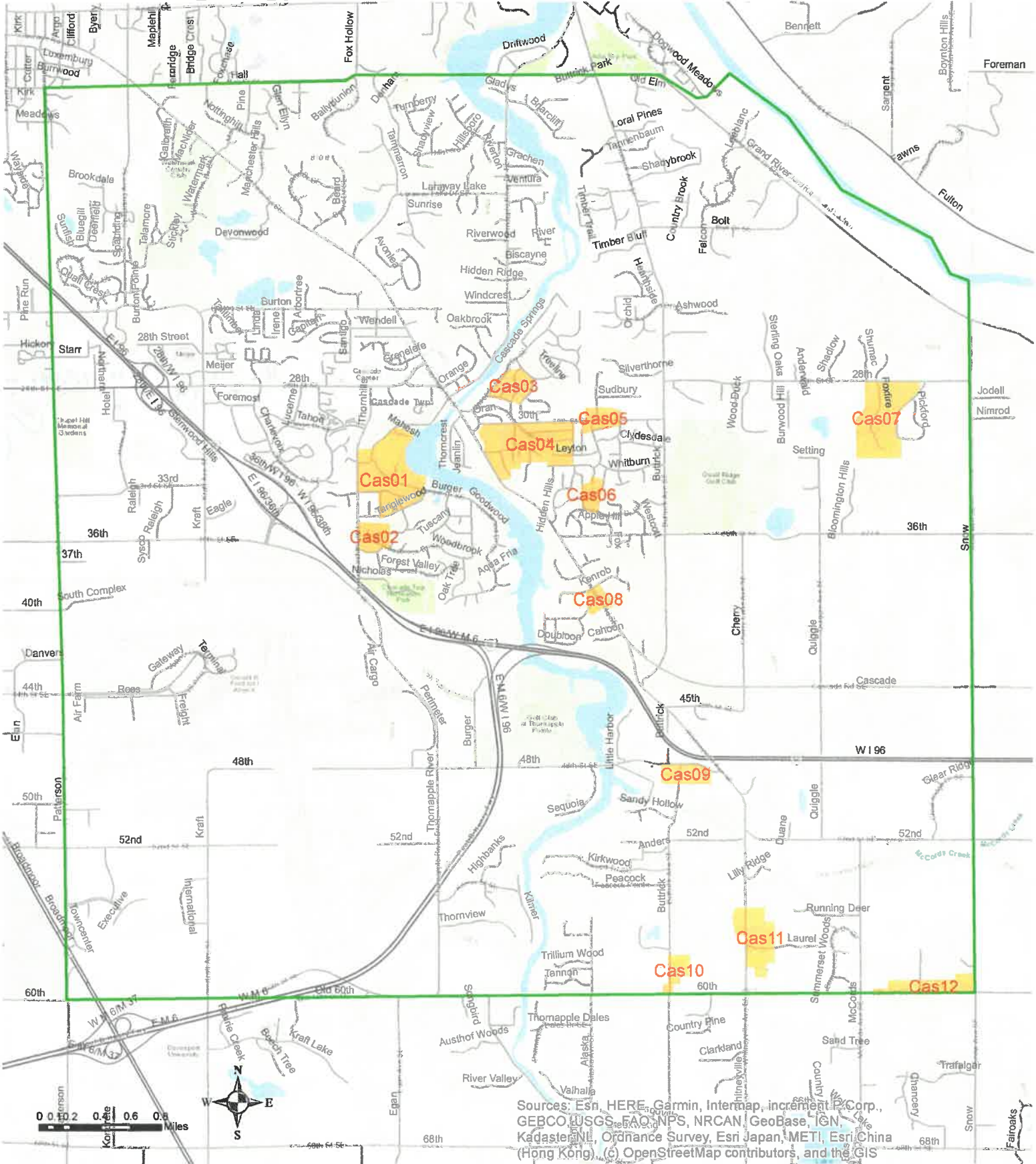
I will hold off on digitizing the spray blocks for the pilot's use until you have had a chance to review the maps. Once we get closer to spray time and you have selected an aerial applicator, I will provide the pilot with spray maps and digitized files.

Thank you for the opportunity to work for Cascade Township again this season. Please let me know if I can help with anything further, 989-689-0223 or spongymoth@aquaticremedies.com.

Sincerely,

Neal Swanson
Owner/Biologist

Cascade Township Spongy Moth Survey Report 2023 Season



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS

Shaded areas area recommended for Aerial B.t.k. spray in Spring 2023

Aquatic Consulting Services 2022

Cascade Charter Township
Recommended Spongy Moth Spray Areas 2023

By
Aquatic Consulting Services
December 2022

Block #	Acres	Reason for Spray
Cas01	98	A sustained population in very good habitat. Population has been largely suppressed for a few years but does show signs of rebound. Nuisance is the primary concern due to successive years of infestation. Spray to inhibit reinfestation and mitigate potential nuisance.
Cas02	21	A sustained population in prime habitat. Population was largely suppressed for several years but is showing signs of rebound. Nuisance is the primary concern due to several prior years of infestation. Tree damage is also a concern as some trees were heavily defoliated in past years. Spray to inhibit rebound, mitigate potential nuisance, and limit further tree damage.
Cas03	26	A remnant population in prime habitat showing signs of rebound. Nuisance is primary concern due to prior infestation in the area. Tree damage is a secondary concern due to high egg mass densities in prior years. Spray to inhibit rebound, mitigate potential nuisance, and limit further tree damage.
Cas04	102	A sustained population in prime habitat. Some areas within block are showing signs of population rebound. Tree damage and nuisance are both concerns due to history of high egg mass densities for several years prior. Spray to inhibit rebound, mitigate potential nuisance, and limit further tree damage.
Cas05	18	A sustained population in very good habitat. Population was largely suppressed for several years but is showing signs of slight rebound. Nuisance is primary concern as egg mass densities are not high enough to cause significant tree damage. Spray to mitigate potential nuisance and inhibit rebound.
Cas06	14	A sustained population in prime habitat. Habitat quality and considerations are identical to block Cas03. Spray to inhibit rebound, mitigate potential nuisance, and limit further tree damage.
Cas07	87	An established population in very good habitat. Nuisance is the primary concern due to history of infestation. Tree damage is not a concern due to relatively low egg mass densities. Spray to mitigate potential nuisance.
Cas08	12	A sustained population in very good habitat. Population was largely suppressed for several years but is showing signs of rebound. Tree damage is the primary concern particularly in trees overhanging Cascade Rd. Nuisance is secondary concern but is low according to resident reports. Spray to limit further tree damage and mitigate potential nuisance.
Cas09	23	A sustained population in good habitat. Nuisance is the primary concern here, due to history of infestation in the area. Spray to mitigate potential nuisance.
Cas10	15	An established population in good habitat. Nuisance is the primary concern. Overall egg mass densities are relatively low, so tree damage is of less concern. Population is continuous into untreated Caledonia Township, so likelihood of reinfestation is higher. Spray to mitigate potential nuisance and inhibit reinfestation.

Cas11	51	A sustained population in very good habitat. The population was largely suppressed but does show some signs of rebound. A few trees in the area were heavily defoliated in prior years, so tree damage is the primary concern. Nuisance was also very high for several years, so another year of infestation will likely cause nuisance. Spray to limit further tree damage and mitigate potential nuisance.
Cas12	31	A persistent remnant population in prime habitat. Tree damage is the primary concern, especially in previously heavily infested trees along 60 th St. Reinfestation from untreated adjacent communities in Lowell and Caledonia Townships is also a concern. Spray to inhibit reinfestation and limit further tree damage.

Total Acreage = 498 acres

The term “nuisance” is subjective and relates to the likelihood that the feeding behavior and number of caterpillars in the area will impact a property owner’s quality of life. Some property owners may experience heavy infestation yet go unbothered. Other property owners may view 5-10 caterpillars visible on a barn door as a nuisance. Field experience during spongy moth infestation suggests that the number of egg masses found in an area may yield a widespread nuisance situation. The term “tree damage” is more literal, but relative to environmental and historical factors as well. Any level of defoliation should be considered damaging, but otherwise healthy trees are generally much more resilient, even after consecutive years of defoliation. Other environmental stressors such as drought or disease are additive factors that will contribute to greater risk of tree degradation and/or mortality. Defoliation levels of >60% are also very stressful to trees, although most trees can survive 3+ years of >60% defoliation if few other stressors are present. Habitat quality relates to the species composition, density, distribution, understory, and topography of an area. Mixed forest type consisting primarily of oaks, neatly groomed understory, mixed age-class, and low topographic variability are the ideal conditions for persistent infestation, and so this habitat is designated as “prime” with very good, good, and marginal habitat in decreasing suitability. Trends in populations are designated by the egg mass residues in the area. Rising populations show a high new/old egg mass ratio, with established, sustained, and remnant populations extending toward a high old/new egg mass ratio.

Spray areas are recommended based on historical data, habitat suitability, population dynamics, and field experience in spongy moth management. Other areas within the township may also contain some level of spongy moth infestation, but such areas either show a significant downward trend or habitat conditions do not exhibit high likelihood of a vigorous infestation. The level of damage and/or nuisance can be difficult to predict given the interaction of unpredictable environmental factors. Additionally, spongy moth suppression program managers are often tasked with balancing high potential for damaging spongy moth numbers with high community benefit. Areas where these considerations overlap are generally the areas that are treated first with available funds and areas of diminishing return are treated as funds are depleted. Our treatment recommendations take this into account, and we try to limit recommended spray areas to these top-tier areas. Accordingly, it is possible that some residents may observe low level spongy moth activity outside of recommended treatment areas. These areas may have simply not met the requirements to warrant treatment this season but may qualify for treatment in coming seasons.

As stated in previous reports to Cascade Township, spongy moth suppression programs in Michigan generally follow an Integrated Pest Management (IPM) strategy which is focused on low environmental impact and economic awareness. Further, an IPM strategy intends to mitigate exponential population growth with treatment only until latent environmental controls begin to limit populations sufficiently. This approach requires that a monitoring period be commenced once environmental controls begin to act on populations sufficiently where tree damage is expected to be minimal and nuisance levels will be tolerable in the coming season. Unfortunately, in a few previously suppressed populations in Cascade, observed declining population trends have ceased and a few isolated populations have begun to rebound. This situation is common under the IPM strategy, but we feel we must respond aggressively to any population rebounds to avoid losing any ground we've gained. Accordingly, **we feel we must recommend an increase of 67 acres (16%) for a total of 498 acres indicated above.** The current population cycle continues to be challenging, but we are still seeing marked declines in some areas surrounding Cascade Township so we are confident the increases we are recommending this year will be temporary, and we will continue to make progress. We will just have to continue to stay on top of monitoring and treatment of rebounding populations and isolated rising populations as we continue to reduce numbers in wait of latent environmental controls. Accordingly, we advise that all recommended areas are treated with *Bacillus thuringiensis kurstaki* (B.t.k.) in Spring 2023.

Gypsy Moth in Michigan

Michigan State University Extension & Michigan State University Department of Entomology
& the Michigan Department of Agriculture

The following information was taken from the
Gypsy Moth in Michigan Homeowner's Guide

MICHIGAN STATE
UNIVERSITY
EXTENSION



WASHTENAW COUNTY

Michigan State University
Extension

705 N. Zeeb Road
P.O. Box 8645
Ann Arbor, Michigan
48107-8645

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Gypsy Moth Management Starts At Home

You are the first line of defense for protecting your trees and shrubs from damage by gypsy moth, other insects, nematodes and diseases. Being knowledgeable about the life cycle of the gypsy moth will pay off in money saved, labor expended and peace of mind.

Depending upon where you live in Michigan, gypsy moth outbreaks may last from two to several years or may never occur. Why gypsy moth populations explode from time to time is not entirely clear. Outbreaks will eventually collapse, usually from natural causes.

Until a local gypsy moth population crashes, however, there are several techniques that homeowners can employ to keep damage and nuisance to an affordable minimum.

Monitoring

Hopefully, the mind set of dragging the sprayer out of the garage and spraying insecticide on trees and shrubs just because something might be out there lurking is no longer a part of the Michigan mentality. Years ago this was called "insurance spraying" when everybody was spraying chlorinated hydrocarbon insecticides (e.g., DDT) on everything that moved. We all know where that got us!

Take time to inspect your trees and shrubs periodically for the various life forms of gypsy moth. Especially look for the caterpillars when they begin to hatch, usually in early May.

Contrary to popular belief, population explosions in a locality do not happen suddenly! An area will undergo a gradual population buildup for a time before the population goes into a phase of rapid release. This gives vigilant homeowners, neighborhoods and communities time to assess local conditions and take appropriate action.

The gypsy moth is in the egg mass form for nearly nine months, plenty of time to find and destroy them before they hatch in the spring. While it may not be possible to find and destroy all of the egg masses in and around your backyard, this activity will complement management activity taken in the spring.

Management Non-Pesticide Techniques:

Water and Fertilize

We often take trees and shrubs for granted, figuring that they are indestructible and meant to last forever. Trees and shrubs have specific nutrient and water requirements. Take the time to determine what they need, and water and fertilize properly. There are bulletins available at all county extension offices and garden centers. Most insects and diseases select trees and shrubs that are being stressed. Keeping your trees and shrubs healthy will reduce the pests and diseases attracted to your foliage and lessen the damage done if they are attacked.

Sanitation

Keep your yard as clean as possible. Remove discarded items, dead branches (from the ground and out of the trees), stumps, etc., where the adult female moth is likely to lay egg masses. It is very important that homeowners be watchful when obtaining firewood from areas infested by the gypsy moth. A good rule of thumb is to never get more firewood in the summer or fall than you can burn by spring.

Each fall, check recreation vehicles (boats, trailers, campers, etc.) for gypsy moth egg masses. Vehicular movement is how gypsy moth came to Michigan.

Destroy Egg Masses

As mentioned, gypsy moth egg masses are around for nearly nine months before they hatch. Homeowners can help reduce gypsy moth population on their property and in their neighborhood by seeking out and destroying egg masses each year.

When a gypsy moth caterpillar is about to pupate, it will look for a protected area such as a loose flap of bark, something flat nailed to a tree, woodpile of the underside of branches, etc. Once a suitable location is found, it weaves a loose net of silk around itself and

transforms into a pupa. This is the resting state where the caterpillar undergoes the miracle transformation from caterpillar to moth. This takes about two weeks.

Upon emergence, the female gypsy moth is creamy white and has a wingspan of about two inches. The male moth is smaller in size and camouflage brown with black mottling. Both have a distinguishing mark on their forewings: an inverted black V often referred to as a chevron marking.

The female generally deposits egg masses from early July to mid-August depending upon local weather conditions. The female cannot fly, so she will lay egg masses near where she was in the pupal (cocoon) stage.

The adult female lives about a week. Her only purpose in life is to breed as quickly as possible and lay her eggs. She cannot fly, so she emits a chemical odor to attract the nearest male for mating, the male flies off to mate several more times before dying. After mating, the female spends about a day depositing her egg mass, falls to the ground and dies. Neither the male or female moth feed.

Each egg mass can contain from 50-1,000 eggs. The eggs are intertwined in a matting of hair from the body of the female. The hair is a tan-buff color and helps insulate eggs.

The egg masses begin hatching the following May. Hatching coincides with the bud break of aspen and the flowering of serviceberry.

Homeowners are encouraged to search out and destroy egg masses. This is accomplished by scraping them from the surface to which they are attached into a coffee can or similar receptacle. They can be buried or burned. Remember that each egg mass destroyed probably eliminated 400-500 caterpillars. Destroying egg masses is not a cure all. Many times egg masses are overlooked or inaccessible. However, it is a very good and certainly very cheap way to significantly impact the gypsy moth population in your yard and neighborhood.

Continued on page 3

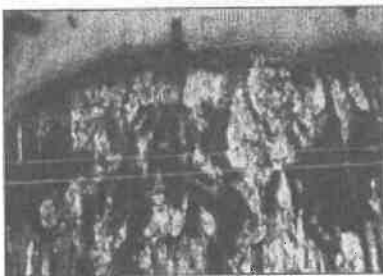
Barrier Bands

Sticky, or slippery bands can be placed around tree trunks to help curtail, though not necessarily prevent, the caterpillars movement into and out of the tree canopy.

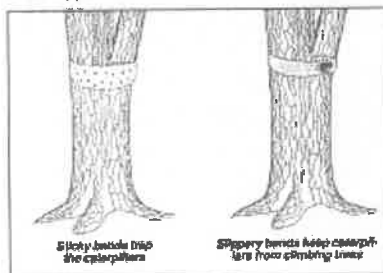
Sticky bands can be purchased or made using a nonporous material that can be wrapped around a tree trunk, then coated with a commercially made, vegetable-based sticky material. **Never put sticky material directly on the tree trunk.** This will permanently stain the bark and may harm the tree.

Sticky bands should not be put on the tree until the caterpillars are about an inch long. Smaller caterpillars usually stay in the tree canopy. Sticky bands eventually lose their effectiveness due to rain and other weather factors, the sticky material has to be reapplied periodically. Bands covered completely with caterpillars need to be cleaned or replaced.

Slippery bands are also intended to interrupt the daily migration of the caterpillar. They prevent the caterpillar from climbing up into the canopy.



Gypsy moth caterpillars use cloth bands to hide during daylight hours. Scrape the caterpillars into a bucket of soapy water



Hiding Bands

Cloth, or hiding bands, can be homemade from medium weight dark cloth about 12 to 18 inches wide and long enough to completely wrap

around the tree. Fasten each band at chest height around the tree with twine, cord or wire about midway from the bottom of the cloth. Then fold the top part of the cloth down over the bottom half.

Caterpillars descending the tree in the morning in search of a secluded daytime resting spot will hide under the flap of the band. Remove and destroy caterpillars each day by scraping them into a bucket of soapy water.

Pesticide Techniques

Biological Pesticide

Many pesticides are registered for use against gypsy moth in Michigan. A biological pesticide commonly used on gypsy moth is *Bacillus thuringiensis* var. *kurstaki*. B.t. is a common soil bacteria. It is commercially formulated and sold under various labels (e.g., Dipel, Foray, Thuricide and Bactur to name a few). B.t. can be applied from the ground or by aerial spraying.

B.t. formulations are quite safe to humans. There is no apparent human toxicity, although there have been rare cases of allergic reaction by humans to certain formulations of B.t. In fact, B.t. is only known to be toxic to the caterpillars of moths and butterflies. While there are many species of caterpillars affected by B.t., this pesticide is the most "selective" product available.

To be effective in minimizing defoliation, B.t. must be applied when caterpillars are less than one inch long. As caterpillars get larger, the efficacy of B.t. diminishes. B.t. has a reported residual activity (i.e. how long it remains potent) of about a week. It is broken down by sunlight. In instances where there are very high gypsy moth populations, two applications five days apart might be needed.

Most chemical pesticides are 95% - 99% effective. B.t.k. is probably is 80% - 85% efficient in field applications. This is a desirable attribute of B.t.k.. That may sound like a contradiction, but it isn't. Pesticides that are highly efficient will eventually work against the pest manager. Insects, through natural selection, will develop resistance to the pesticide. By

leaving 15% of the population intact, selection for resistance is slowed.

B.t.k. has been used against gypsy moth for over twenty-five years and no resistance has been discovered. There is, quite naturally, a trade off. When B.t.k. is applied there are still some caterpillars crawling around. However, nuisance is reduced to a minimum, defoliation lowered below damaging levels.

Soap and Water

In addition to destroying egg masses, homeowners can use other non-pesticide methods to reduce defoliation of their yard trees.

Watch for the appearance of the small caterpillars in the spring. A garden hose has sufficient water pressure to knock them off the foliage. Spraying them with water under pressure kills many of them.

Garden centers carry various brands of "insecticidal soap." An insecticidal soap is not a soap with a synthetic insecticide but instead refers to the ability of the soap to kill certain insects. Spraying gypsy moth caterpillars with a hose with an attachment to dispense soap can be effective. Always follow label directions on the insecticidal soap container. Small and large caterpillars can be drowned when submerged into a bucket of soapy water.

Chemical Insecticides

A number of chemical pesticides are registered against gypsy moth in Michigan. Many are available at your local garden center or nursery. Some of the most common are formulations of acephate, carbaryl, and malathion.

If you choose to use chemical insecticides, apply them judiciously and wisely. Besides gypsy moth they can have a potential impact on a variety of beneficial insects, including valuable predators, parasites and honeybees.

Regardless of what insecticide you choose, read the label instructions and follow them exactly. If you have any potential personal health concerns regarding pesticides, discuss them with a physician or contact your local health department.

Trees and shrubs defoliated by gypsy moth

Although gypsy moth caterpillars feed primarily on deciduous tree species such as oak or aspen, this insect is known for its wide-ranging appetite. When populations of gypsy moth are very high, the caterpillars quickly devour the leaves of their preferred host tree species. Once their favored food source disappears, the hungry caterpillars do not hesitate to seek out new sources of food. When this occurs, almost any deciduous or conifer tree, shrub or other landscape plant may be at risk of suffering some amount of defoliation.

Consequently, it is difficult to state exactly how susceptible a tree or shrub species is to defoliation by gypsy moth caterpillars. Therefore, the following list is offered only as a guide to homeowners. This list does not guarantee that any species listed as minimally at risk will never be defoliated by the gypsy moth.

More importantly, homeowners need to recognize that gypsy moth caterpillars do have preferences for certain types of trees and thrive best on those species. Typically these favored food sources are usually the first ones attacked in a homeowner's yard, especially tall, large crowned trees. These are the trees most likely at risk to defoliation.

Generally speaking, when gypsy moth caterpillars move into less preferable food sources, the caterpillars do not thrive as well and often only cause minor damage.

However, regardless of this insect's food preferences, close inspection of yard trees and outdoor fixtures and prompt action by the homeowner to destroy egg masses and small caterpillars is crucial. This is the real key to minimizing the discomfort and, to some degree, the defoliation caused by large numbers of gypsy moth caterpillars.

If a homeowner is able to minimize the amount of defoliation from the gypsy moth, it will lessen the overall impact on tree health. When a hardwood tree is heavily defoliated, the needed energy to regrow a new set of leaves causes stress. This stress often weakens a tree which may lead

to additional tree health problems. Moreover, conifer species, such as spruce or pine, are at greater risk than hardwoods because conifers are not able to regrow needles lost to defoliation. Thus complete defoliation of conifers by gypsy moth is usually fatal.

Trees and Shrubs Most at Risk to Defoliation

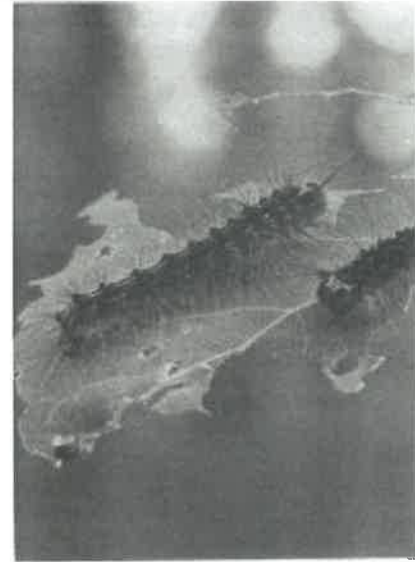
All Oak (*Quercus*).
 All aspen and poplar (*Populus*).
 Gray, paper (white), and river birch (*Betula*).
 All willow (*Salix*).
 All apple and crabapple (*Malus*).
 All thornapple and hawthorne (*Craetagus*).
 White pine (*Pinus*).
 Blue spruce (*Picea*).
 American beech (*Fagus*).
 Basswood (*Tilia*).
 Sweetgum (*Liquidambar*).
 Juneberry or serviceberry (*Amelanchier*).
 Witch hazel (*Hamamelis*).
 Hazelnut (*Cornus*).
 Mountain ash (*Sorbus*).

Trees and Shrubs Somewhat at Risk to Defoliation

Black walnut and butternut (*Juglans*).
 All cherry and plum (*Prunus*).
 Norway, red and sugar maple (*Acer*).
 Hophornbeam or ironwood (*Ostrya*).
 Alder (*Alnus*).
 Elm (*Ulmus*).
 Hickory (*Carya*).
 Eastern redbud (*Cercis*).
 Sassafras (*Sassafras*).
 Paw paw (*Asimina*).
 White and Norway spruce (*Picea*).
 Balsam fir (*Abies*).
 Eastern hemlock (*Tsuga*).
 Red, jack, scotch and Austrian Pine (*Pinus*).

Trees and Shrubs at Minimal Risk to Defoliation

Ash (*Fraxinus*).
 Tulip tree or yellow poplar (*Liriodendron*).
 Sycamore and London plane tree (*Plantanus*).
 Northern catalpa (*Catalpa*).
 Honey locust (*Gleditsia*).
 Black locust (*Robinia*).
 Horsechestnut (*Aesculus*).
 Dogwood (*Cornus*).



Gypsy moth caterpillars prefer to eat leaves of certain tree species, including poplar.

Eastern redcedar (*Juniperus*).
 Juniper (*Juniperus*).
 Yew (*Taxus*).
 Lilac (*Syringa*).
 Azalea (*Azalea*).
 Rhododendron (*Rhododendron*).
 Arborvitae (*Thuja*).
 Viburnum (*Viburnum*).

Homeowners considering planting trees or shrubs in areas prone to high gypsy moth population build-ups should choose species that are at minimal risk to defoliation. Contact your local MSU Extension office for bulletins and information on tree selection, planting and care.



Be careful about quick fixes for your gypsy moth problem

Struggling with the effects of the gypsy moth can be frustrating enough without unscrupulous people trying to take advantage of the homeowner by offering quick fixes.

There are no quick fixes, declares Russell Kidd, MSU Extension district forestry agent in Roscommon County.

He advises homeowners to be wary of products or services that promise or imply they can end gypsy moth problems in the backyard or woodlot.

Be careful of salespeople who want to spray your trees with chemicals that are "guaranteed" to control the gypsy moth. In some cases, these may be worthless or even dangerous.

Homeowners should ask what chemical is to be used, its hazard, what its effect will be and what precautions will be taken to minimize spray drift to nearby objects.

Homeowners should also ask to see proof that the company and the individual are certified and licensed to

apply such a material. Michigan law requires that commercial pesticide spraying companies be certified and licensed by the Michigan Department of Agriculture.

Remember that chemical sprays are effective only during the caterpillar stage of the gypsy moth. Spraying trees before the eggs hatch or after the caterpillars have pupated or emerged as adults moths is worthless. (See the gypsy moth life cycle chart).

Be wary of unrealistic claims about products or techniques to rid your property of the gypsy moth by themselves.

Some products, such as sticky bands, are indeed useful, but they will not control the gypsy moth completely, especially when used alone. Only a combination of control treatments, used diligently by the homeowner, will achieve satisfactory control of the gypsy moth.

Other products may not do what their names imply. Take, for instance, the gypsy moth trap. The

purpose of the trap is to attract and capture the adult gypsy moth.

Traps are used to monitor gypsy moth populations. They will not control or eliminate next year's gypsy moth problem in your yard because one adult male moth can mate with many female moths and one or two traps will not capture enough males to interfere with mating or cause the population to decline significantly next year.

Be very careful about timber buyers who offer to buy standing trees that have been defoliated. Unscrupulous timber buyers may use gypsy moth infestations in an area as a scare tactic to persuade people to sell valuable timber at low prices before the tree die.

Timber owners should always consult with professional foresters before they decide to sell any standing timber.

Your county MSU Extension office can provide the names of professional foresters in your area.



Be careful with pesticides!



Use proper recycling procedures for disposing of pesticide containers.

This publication contains pesticide recommendations based on research and pesticide regulations. However, changes in pesticide regulations occur constantly. Some pesticides mentioned may no longer be available, and some may no longer be legal. If you have questions about the legality and/or registration status for using pesticides, contact your MSU Extension county office.

To protect yourself and others and the environment, always read the label before applying any pesticide. For information about pesticide labels see Extension Bulletin E-2182 *Reading a Pesticide Product Label*.

For more information about pesticide safety, see Extension Bulletin E-2215, *Using Pesticides Safely: A Guide for the Applicator*; Extension Bulletin E-1546 *Take Cover! Protect Yourself from Exposure (Pesticides)*.

For more information about safe disposal of pesticide containers see Extension Bulletin AM-95 *Rinsing and Recycling Pesticide containers*.

Dozens of other Extension bulletins on safe application of pesticides are also available.

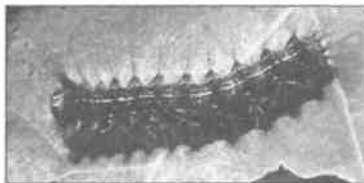
Gypsy Moth Life Cycle

1) Small Larvae. This stage lasts for 7-10 days after eggs hatch in early May (or sooner in warmer weather). Larvae are less than 1.2 inch long and usually black. They linger around the egg cluster for several days if the weather is cool or rainy, then climb trees or other objects, trailing silken threads as they move. When the larvae reach the top of the tree, they do not feed but drop on silken threads and are dispersed by the wind.

2) Large Larvae. Feeding at night for 4 to 6 weeks, large larvae generally rest during the day unless populations are very large, then they wander constantly. They grow until they are about 2 inches long.



1. Small Larvae—May



2. Large Larva—June



3. Pupae—July



4. Adults—August

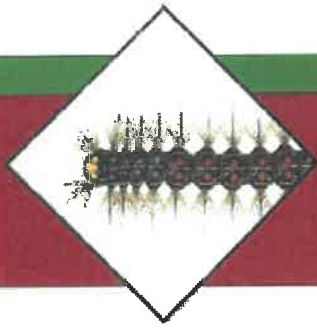


5. Egg masses—August

3) Pupae. During this stationary stage the larvae are changing into moths. This generally occurs from the end of July until early August. After about 10 days in the dark colored pupal cases, the adult moths emerge, leaving the pupal cases behind.

4) Adults. The female moth is creamy white and does not fly but emits a chemical called a pheromone to attract a male moth. The male is brownish and flies in a zigzag pattern looking for the female. A single male can mate with many females. Both sexes have chevron markings (V or notch-shaped marking) on each forewing.

5) Egg masses. The buff-colored egg masses contain between 50 and 1,500 eggs. The female deposits the eggs on any convenient surface. The masses are usually covered with hairs from the female's abdomen. The egg masses are quite cold resistant and can survive temperatures as low as -20 degrees F. Egg masses hatch during May.



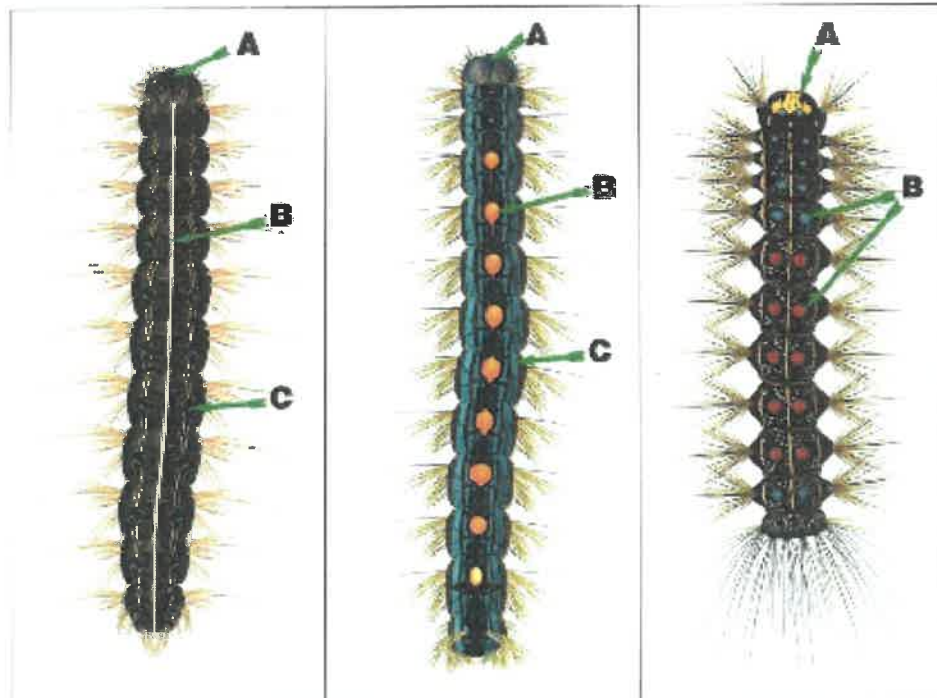
Comparison of the Eastern Tent Caterpillar, Forest Tent Caterpillar and Gypsy Moth

Michigan State University Extension

These three insects are often found feeding on the leaves of hardwood trees early in the summer. They can be easily confused with one another. The illustrations and information here will help you to identify which caterpillar is feed-

ing on your trees. Contact your local MSU Extension office or regional Dept. of Natural Resources office for more information on the biology and management of these insects.

Illustrations by Rex Carnegie


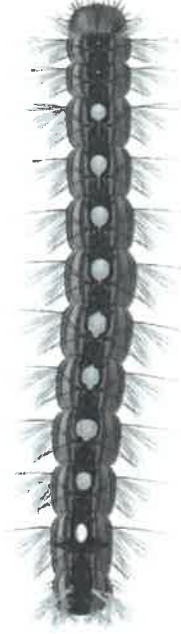
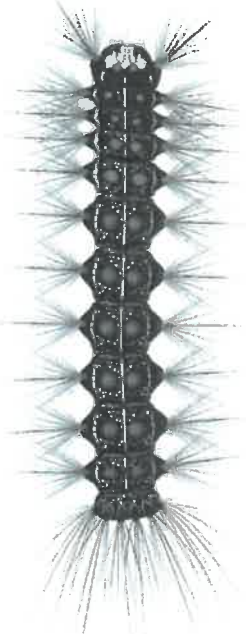





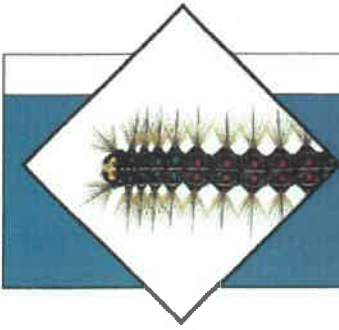
	Eastern Tent Caterpillar (<i>Malacosoma americanum</i>)	Forest Tent Caterpillar (<i>Malacosoma disstria</i>)	Gypsy Moth Caterpillar (<i>Lycuantria dispar</i>)
Markings	A) Dark head; B) prominent white or yellow stripe down the center of the body; C) small blue spots to the side.	A) Blue head; B) prominent central row of white or yellow markings in keyhole or footprint shape; C) bluish on sides of body.	A) Yellow head with black markings; B) prominent blue and red spots.
Tents	Prominent silk tents in branch junction.	They do not spin silk tents; resting sites on leaves may have small silk layer.	No silk tents.

(2007)



Comparison of the Eastern Tent Caterpillar, Forest Tent Caterpillar and Gypsy Moth

	 Eastern Tent Caterpillar <i>(Malacosoma americanum)</i>	 Forest Tent Caterpillar <i>(Malacosoma disstria)</i>	 Gypsy Moth Caterpillar <i>(Lymantria dispar)</i>
Egg Mass	Dark, spindle-shaped mass wrapped around twigs; rough varnished texture. 	Similar to eastern tent caterpillar. 	Tan color; covered with fine hairs; 1 to 3 inches long; usually on tree bark. 
Preferred Host Trees	Black cherry, apple, crabapple.	Aspen, sugar maple, oaks, birch, black gum.	Oaks, aspen, birch, willow and more than 250 other species.
Populations	Native insect; silk tent is unattractive, but feeding rarely harms trees; common pest of ornamental trees in urban settings.	Native insect; outbreaks occur at roughly 10-year intervals and usually last 2 to 4 years; most common in forests, especially where aspen is abundant.	Exotic pest; severe defoliation during outbreaks can occur for 2 to 3 years in urban and forested areas, especially where oaks are abundant.



Entomophaga maimaiga - A Natural Enemy of Gypsy Moth

Michigan State University Extension

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The gypsy moth (*Lymantria dispar* L.) is an exotic pest of urban and forest trees. Gypsy moth caterpillars feed on the leaves of oaks, aspens, and many other hardwood and conifer trees. During gypsy moth outbreaks, trees may be completely stripped of leaves. Although gypsy moth caterpillars rarely kill trees by themselves, trees weakened by heavy defoliation may become more susceptible to drought, disease or other insect pests. In addition, the large hairy caterpillars annoy people living or recreating in outbreak areas.

Managing gypsy moth requires the integration of a variety of control tactics. Biological control, the use of natural enemies to control a pest, can be an important part of an integrated pest management program for gypsy moth. One biocontrol agent that has recently shown much promise is a fungal pathogen, *Entomophaga maimaiga*.

Origin of *Entomophaga maimaiga*

Entomophaga maimaiga is a common disease in gypsy moth populations in its native country of Japan. The fungus was first released into the United States near Boston in 1910 as part of a program to introduce natural enemies of gypsy moth. Scientists could find no evidence that the fungus had become established and the project was abandoned a few years later. However, the fungus appeared unexpectedly in several northeastern states in 1989 and caused high mortality in many gypsy moth populations. Although scientists have several theories, the strange reappearance of the fungus is still a mystery.

Entomophaga maimaiga was first brought into Michigan in 1991 by scientists at Michigan State University and the USDA Forest Service. It was released in three sites in northern lower Michigan and monitored closely.

Additional introductions have since occurred and the fungus also is spreading naturally. *Entomophaga maimaiga* has now been found throughout most of Lower Michigan.

Life history of *Entomophaga maimaiga*

Entomophaga maimaiga passes the winter as a tough, thick-walled "resting spore" in the soil and on tree bark. In May and June, resting spores germinate and produce sticky spores at the end of a stalk that grows just above the soil surface. Gypsy moth caterpillars come into contact with these spores in the spring as they search for suitable leaves to feed on. The fungus digests its way through the exoskeleton of the caterpillar and grows inside the body of the caterpillar. Infected caterpillars may die within one week.

When young caterpillars are affected early in the summer, the fungus will produce a second type of spore called conidia. These microscopic spores are spread by the wind and can infect other caterpillars. The cycle of conidia production and infection may occur four to nine times during the summer. When the fungus develops in large caterpillars, it produces the overwintering resting spores.

Weather plays an important role in determining how effective *Entomophaga maimaiga* will be. Like most fungi, its spores need moisture and high humidity to germinate. Frequent rainfall during May and June contributes to the start and spread of *Entomophaga maimaiga* through a gypsy moth population. Temperatures of 50 to 80 degrees F enhance fungal growth.



Entomophaga maimaiga – A Natural Enemy of Gypsy Moth



Figure 1. Gypsy moth larva killed by NPV hanging in an inverted "V" position.



Figure 2. Dead larva covered with conidia of *Entomophaga maimaiga*.



Figure 3. Larvae killed by *Entomophaga maimaiga* often remain attached to trees.

Distinguishing *Entomophaga maimaiga* from NPV

Another disease is common in outbreak populations of gypsy moth. NPV (nuclearpolyhedrosis virus) is a virus disease that often causes gypsy moth outbreak populations to collapse. One important difference between the two diseases is that NPV is seldom prevalent until gypsy moth populations reach very high levels. In contrast, *Entomophaga maimaiga* may be found even when gypsy moth populations are low.

Caterpillars killed by NPV often remain attached to the stem or branches of trees. The bodies of the dead caterpillars are soft, filled with a brown liquid and disintegrate rapidly. Usually they hang limply in an upside-down "V" position (Fig. 1).

Caterpillars killed by *Entomophaga maimaiga* will also remain attached to tree stems or branches. However, the bodies tend to be stiff and straight, and the legs extend stiffly from the body. Some of the dead caterpillars may have tiny white conidia attached to the hairs on the body (Fig. 2). The cadavers may remain on the stem well into autumn (Fig. 3).

The future of *Entomophaga maimaiga*

Entomophaga maimaiga may become an important biological control of gypsy moth in both low and high populations. Infections may be more common in years with rainy spring weather than in years with dry spring weather. Scientists have found that the fungus is established in a number of areas in Michigan. Laboratory and field studies have shown that *Entomophaga maimaiga* is host specific and poses little risk to other insect populations. It will not affect other animals or humans. Introductions and evaluation will continue. Although there is not likely to be any "silver bullet" for gypsy moth, *Entomophaga maimaiga* should improve our ability to manage this pest in Michigan.

MICHIGAN STATE UNIVERSITY EXTENSION

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Issued in furtherance of MSU Extension work in agriculture and home economics, acts of May 8, and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Margaret A. Bethel, acting Extension director, Michigan State University Extension, E. Lansing, MI 48824

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Gypsy Moth Populations Growing

Robert Bricault, MSU Horticulture Educator

One of the hardest lessons I learned over the years is that information taught in the past may not be remembered tomorrow. Gypsy Moth management was the central focus of my career from 1985 through 1999. I worked in landscaping in Midland and Isabella Counties when Gypsy Moths caused the first defoliation in Michigan in 1985. During the 1990's the insect moved into Southeast Michigan where it continued its destructive pattern of ravenous eating, stripping thousands of trees of their leaves.



By 1994, Extension worked with the Michigan Department of Agriculture mapping out areas with large Gypsy Moth egg mass counts for aerial spraying with the bacteria, Bt (*Bacillus thuringiensis*). Bt did not kill the caterpillars quickly, but made them sick by changing the pH in their stomachs. Eventually they stopped eating and starved to death.

Bt helped to reduce the population not eliminate it, giving parasites, predators and pathogens a chance to develop. A pathogen called NPV, nucleopolyhedrosis virus, began killing large number of caterpillars leaving them hanging in an upside down V on tree trunks. Unfortunately, NPV only worked well when populations of the insect were very high. A real break came when a soil borne fungus, *Entomophaga maimaiga* started to kill off large numbers of caterpillars in midsummer leaving them hanging straight down on tree trunks. The fungus was effective even in sites with low numbers of Gypsy Moths present. The fungus spreads during periods of consistent rainfall in late spring and early summer. Gypsy Moth populations have been at very low numbers for the past eight years in Washtenaw County mostly due to the *Entomophaga* fungus.

The drought of 2007 reduced the development of the fungus allowing more caterpillars to survive, change into moths and lay eggs. The increasing population of caterpillars led to localized defoliation of trees. The worst damage was on Blue Spruces. Fortunately, we did experience good rainfall in June 2008, allowing the *Entomophaga* fungus to spread and kill many caterpillars. Enough Gypsy Moth did survive in 2008 to produce larger numbers of egg masses than we have seen in over six years. This may cause some localized defoliation of trees again this coming summer, increasing the need to educate residents on managing this pest.

Gypsy moth eggs hatch in mid spring usually about the time serviceberry is in bloom. People often confuse Gypsy Moth with other caterpillars that make tents or webs in trees. Gypsy Moth can hang from silk like strands from a branch but do not make webbed tents. They can spread by wind while hanging from this thread. At this early stage they are susceptible to Bt. Bt works well on young caterpillars, but is ineffective once they get beyond an inch long. Trees can be banded with burlap to trap caterpillars that seek shelter under the burlap during the day. Unfortunately, in blue spruces it is

hard to manage them through banding. Once in the moth stage Gypsy Moth does not feed. The brown male moths can be seen flying around searching for the white female moths that do not fly. The female leaves behind buff colored egg masses that are easy to see.



Fall and winter are great times to go hunting for the buff colored egg masses in trees. If you have spruces check under the branches for the egg masses. If you find egg masses on structures, outdoor furniture or trees, knock them off into soapy water. This sanitation practice greatly reduces the number of caterpillars the following year. Some of their favorite trees include oak, birch, apple, willow, hawthorn, white pine, blue spruce, serviceberry and poplars, but they will eat leaves from maples and other trees that are not their most preferred species. If large populations are found damaging trees it may become necessary to treat the trees with an insecticide. The greatest risk is to evergreens like blue spruces and white pines that do not come back from defoliation as well as deciduous trees will. If using a pesticide make sure it is labeled for control of Gypsy Moth.



We are often asked why the county is not still part of the state's suppression program. The need for the program in Washtenaw and across Michigan declined as Gypsy Moth levels dropped very low across the state. The State's Suppression program actually ended in 2006 and also the availability of federal dollars to assist communities in aerial spray programs. The suppression program did what it was supposed to do, reducing the insects population long enough for other forces that help control Gypsy Moth to develop in our ecosystem.

Through careful monitoring, sanitation practices, banding as well as localized pesticide treatment, you can help to keep Gypsy Moth in check while allowing natural pathogens, predators and parasites to gain back a balance of control. Our hope is that nature will continue to keep Gypsy Moth populations at low levels in most years and eliminate the need for large scale spray programs. If you find large local Gypsy Moth infestations please share this information with the Horticulture staff at the MSU Extension office: 734 997-1678 or contact the Master Gardener Hotline from mid April through October at 734 997-1819.

**Gypsy moth and gardening questions phone:
Washtenaw County, MSU Extension
Master Gardening Hotline at: 734 997-1819**

**Master Gardener Volunteers are available:
mid April through October
Monday through Thursday
9:00 a.m. – 12:00 noon
1:00 p.m. – 4:00 p.m.**

At other times phone the MSU Extension office at 734 997-1678



Lymantria dispar caterpillar feeding on oak leaf.
Photo by Clifford Sadof, Purdue University

Btk: One management option for *Lymantria dispar*

Authors: Deborah G. McCullough, Ph.D., Professor, Dept. of Entomology and Dept. of Forestry, Michigan State University

Leah S. Bauer, Ph.D., Research Entomologist, Northern Research Station, U.S. Dept. of Agriculture, Forest Service

Update MSU Extension bulletin E-2421 - October 2021

Lymantria dispar, formerly gypsy moth, an invasive pest native to Europe, was introduced into Massachusetts in 1869 by a well-meaning, but clearly misguided, amateur naturalist. Despite many efforts to contain this pest, *Lymantria dispar* populations have continued to expand. People can accidentally move *Lymantria dispar* egg masses or other life stages into new areas, which greatly increases the rate of spread. Populations are now found across much of the eastern United States and Canada.

Lymantria dispar was first discovered in central Lower Michigan in the 1950s, and the first outbreaks occurred in this area in the mid-1980's. By the late 1990's, much of Lower Michigan and areas in the Upper Peninsula had experienced a major *Lymantria dispar* outbreak. Today, *Lymantria dispar* is present in all Michigan counties. During most years, *Lymantria dispar* populations are low and few people even notice them. Occasionally, however, the density of a local *Lymantria dispar* population builds to outbreak levels.

Lymantria dispar outbreaks typically last two to four years, then collapse, usually because the caterpillars die from viral and fungal diseases. Parasitoids, predators, starvation and unfavorable weather may also help reduce *Lymantria dispar* numbers. Once an outbreak collapses, the population will remain low for some time, often several years.

A *Lymantria dispar* outbreak can be unpleasant for people who live, work or enjoy outdoor recreation in affected areas. Large hairy caterpillars can be abundant in forests, campgrounds and parks, and in residential areas. The caterpillars often wander in search of cool, shady areas, often resting on the sides of houses and trees during the day. Frass (insect feces) produced by the caterpillars feeding on leaves in the tree canopies can rain down on driveways, sidewalks and picnic tables. Oaks and other favorite host trees can be heavily defoliated, usually between late June and mid-July.

Lymantria dispar completes one generation each year. Tiny *Lymantria dispar* caterpillars hatch from eggs sometime between late April and mid to late May. Newly hatched caterpillars disperse by hanging from a silk strand and waiting to be carried in the wind. The caterpillars feed for six to eight weeks on the leaves of trees in forested, rural, suburban and urban areas. By the time caterpillars finish feeding, they may be 2 to 3 inches long.

Oak trees are usually their favorite hosts, but *Lymantria dispar* caterpillars can feed on many other hardwood trees including aspen, basswood (linden), willow, birch and crabapple. When populations are high, caterpillars sometimes feed on spruce, pines or other conifer trees. In fact, *Lymantria dispar* caterpillars can feed on at least 300 different species of trees and woody shrubs.

Hardwood trees (those that lose their leaves in fall) can tolerate two or three years of severe or even complete defoliation if they are reasonably healthy. Often, severely defoliated hardwood trees produce a second set of leaves in midsummer, which allows the trees to build up energy for the next year. Producing the second set of leaves, however, can stress the trees, slowing growth and sometimes making the trees more vulnerable to other pests.

Unfortunately, conifers (evergreens) such as spruce, fir and pine trees cannot produce a second set of buds during the summer. If caterpillars consume all or nearly all the needles on conifer trees, the trees will die.

Though *Lymantria dispar* is here to stay, there are several options to help control this pest during outbreaks. One option involves spraying Bt to protect tree foliage and reduce the annoyance caused by caterpillars. Bt refers to a microorganism called *Bacillus thuringiensis*. Bt is widely used to control *Lymantria dispar* and certain other caterpillar pests

because of its effectiveness, ease of use and its low toxicity to other animals, including other insects. This publication is designed to answer some frequently asked questions (FAQs) about Bt.

What is Bt?

Bt is the abbreviation for *Bacillus thuringiensis*, a native bacterium commonly found in soil and on plants. Thousands of Bt varieties exist in nature, each with its own unique characteristics. Most Bt varieties are insect pathogens that cause disease in specific groups of insects, and several are registered with the U.S. Environmental Protection Agency (EPA) as microbial insecticides. Though Bt products can be highly effective in controlling specific insects, they have little impact on other animals. Therefore, sprays made with Bt pose much less risk of affecting non-target organisms than conventional chemical insecticide sprays.

The Bt products used to control *Lymantria dispar* during outbreaks are made from a strain known as *Bacillus thuringiensis* var. *kurstaki* HD-1, or more simply, as Btk. Btk has been used for *Lymantria dispar* control in the northeastern U.S. since 1961 and in Michigan since 1985.

The Btk formulation used for *Lymantria dispar* spray programs in Michigan is certified by the Organic Materials Review Institute (OMRI), a national nonprofit organization that approves products for organic growers, as regulated by the USDA National Organic Program. Btk is commonly used by organic gardeners and farmers, as well as some conventional farmers, to control caterpillar pests of fruits and vegetables.

How does Btk control *Lymantria dispar*?

When Btk grows, it produces spores and non-living protein crystals. When *Lymantria dispar* caterpillars eat leaves that have been sprayed with Btk, the protein crystals dissolve in their digestive system and become toxic. This can occur only in caterpillars because of the many unique conditions present in their digestive system. For example, caterpillars have an alkaline digestive system, while humans and many other animals have acidic digestive systems.

Soon after caterpillars feed on leaves sprayed with Btk, they stop feeding. If the caterpillars consume enough Btk, they die after a few days from a combination of starvation, damage to their digestive system and bacterial growth within their bodies.



Newly hatched *Lymantria dispar* caterpillars on egg mass. Photo by Steven Katovich, USDA Forest Service, Bugwood.org.

There are a few unusual but important things to remember about the way Btk works:

- Btk must be eaten by caterpillars to be effective. Therefore, the leaves of trees or shrubs must be well coated with Btk.
- Young *Lymantria dispar* caterpillars are usually more sensitive to Btk than older, larger caterpillars. This is one reason why Btk should be applied soon after caterpillar eggs hatch. Timing of Btk applications depends on spring weather conditions and varies by location (see MSU's [Enviroweather's Lymantria dispar treatment guidelines](#)). Older, larger caterpillars may become ill, but can often survive a Btk application.

What are the ingredients in a Btk product?

Commercially available Btk products are composed of two major components: the active ingredients and the inert ingredients. The active ingredients in products used to control *Lymantria dispar* are Bt *kurstaki* HD-1 spores and protein crystals. Bt *kurstaki* HD-1 is a naturally occurring bacterium in the environment.

Inert (non-active) formulation ingredients are added to the Btk spores and crystals. These ingredients make it easier to mix, spray and store the product. These ingredients are food-grade additives that appear on the U.S. Food and Drug Administration's "[Generally Recognized As Safe](#)" list.

How does Btk differ from conventional chemical insecticides?

In contrast to Btk, conventional chemical insecticides are man-made or synthetic chemicals that usually affect the nervous systems of insects and other animals. These products can kill insects on contact or when eaten. This means conventional insecticides are capable of killing most non-target insects, including beneficial parasitoids and predators, and pose greater health hazards to humans and other animals.

How long does Btk last?

Most of the Btk sprayed on tree foliage is destroyed by sunlight and microbial activity within a few days. To help reduce *Lymantria dispar* populations and defoliation during an outbreak, tree foliage must be sprayed each year, ideally soon after *Lymantria dispar* eggs hatch.

Does Btk harm other insects?

Btk is much more selective than conventional

chemical insecticides, but it can affect other kinds of foliage-feeding caterpillars if they are also feeding on treated leaves. This is a good reason to use Btk only when *Lymantria dispar* populations are high. Some caterpillar species are more sensitive to Btk than *Lymantria dispar*, while others are less sensitive. Scientists have studied non-target species of caterpillars following Btk sprays for *Lymantria dispar* suppression. They found that populations of native caterpillar species tend to recover by re-colonizing areas relatively quickly.

Btk has little or no effect on the large majority of insects, including bees, lacewings, ladybird beetles and other beneficial species. This is a significant benefit of using Btk rather than conventional chemical insecticide products, which are toxic to many kinds of insects.

How safe is Btk for humans?

After 50 years of testing and widespread use, Btk has demonstrated minimal hazards to people and other mammals, birds, fish, beneficial insects and other non-target organisms. To ensure the continued safety of Btk for the public, the EPA administers an extensive system of regulatory safeguards. These include requirements for mammalian and environmental toxicology testing of the Btk active ingredients and formulated products. Quality control procedures are also in place to ensure the safety of each batch of Btk products.

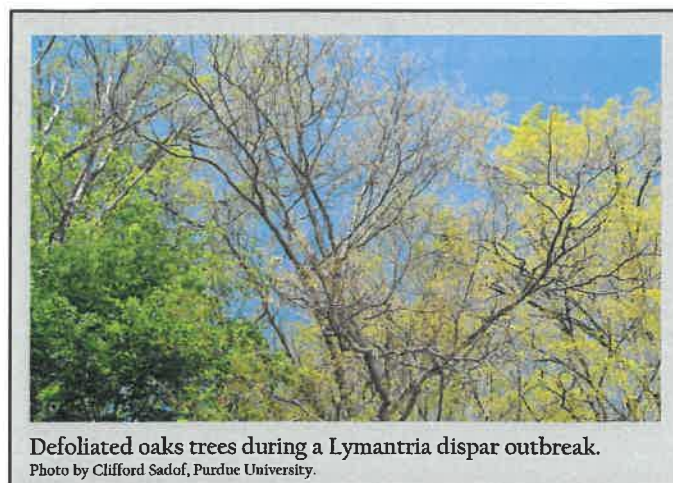
As part of its regulatory function, a reassessment of Btk safety conducted by the EPA confirmed earlier findings, including: "...the lack of any reports of significant human health hazards of the various *Bacillus thuringiensis* strains..." (EPA document #EPA 738-R-98-004, available at: <https://archive.epa.gov/pesticides/reregistration/web/pdf/O247.pdf>).

Major studies were conducted in New Zealand when populated areas were repeatedly sprayed with Btk to eradicate another introduced pest, the white-spotted tussock moth¹. A key citation in a report on the New Zealand study stated: "...The data support the belief that they [*Bt kurstaki* products] can be safely used in environments in which human exposure is likely to occur." However, if you are concerned about your exposure to Btk, remaining indoors during the spray application is a good, common-sense strategy.

This publication was produced in part with support by the Crop Protection and Pest Management Program 2017-70006-27175 from the USDA National Institute of Food and Agriculture. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

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Will Btk get rid of ALL my *Lymantria dispar* caterpillars?

It's important to realize that a Btk spray will not kill every *Lymantria dispar* caterpillar on your property. When Btk is applied properly, however, it can help protect your trees from serious defoliation and reduce the annoyance caused by high numbers of *Lymantria dispar* caterpillars during an outbreak.

Is it possible to buy Btk to spray caterpillars in my own garden?

Yes, several commercially available Btk products can be used to control caterpillars on shade trees, fruit trees or plants in the garden. Both liquid formulations and wettable powders are available from local garden stores. Be sure to follow the directions on the label.

Where can I get more information on Bt?

More detailed information on the use of Btk to control *Lymantria dispar* caterpillars during an outbreak is available from:

- The U.S. Forest Service's "[Bacillus thuringiensis for managing gypsy moth: A review.](#)"
- The Entomological Society of America's "[Is Bt safe for humans to eat?](#)"

¹1998 Report to the Ministry of Forestry prepared by Jenner Consultants Ltd., Parnell Auckland, New Zealand, to address issues raised in 1995 by Diane Wharton, Society Targeting Overuse of Pesticides, North Vancouver.



CASCADE CHARTER TOWNSHIP

5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 8, 2023
To: Supervisor Lesperance and Township Board Members
From: Ben Swayze, Township Manager
Subject: Uniti Fiber, LLC METRO Act Right of Way Permit Application

FACTS:

The METRO Act (Public Act 48 of 2002) was enacted as a means to provide state-wide oversight (through the Michigan Public Service Commission), and uniformity to the permitted use of local public right-of-ways for telecommunication infrastructure. We have received a METRO Act Permit Bilateral Form and Application from Uniti Fiber, LLC. The initial term of the request is 15 years.

Typically, the Township receives in the neighborhood of \$23,000 in METRO Act permit fees from the MPSC. These funds are used for right-of-way maintenance activities. Uniti Fiber, LLC did include the required \$500 application fee.

Attached for your review are:

- METRO Act Permit Application Form from Uniti Fiber, LLC, including required attachments
- METRO Act Permit Bilateral Form

ANALYSIS & CONCLUSIONS:

The passage of the METRO Act provided uniformity to right-of-way permit applications for telecommunication providers and, as such, there is very little opportunity for the Township to request modifications to the permit. State records indicate no issues with Uniti Fiber, LLC as a METRO Act permit entity. In our communication with the Kent County Road Commission, who will be responsible for permitting any work allowed by the METRO Act Permit being approved, they indicate they have no issue with the proposed application.

FINANCIAL CONSIDERATIONS:

There are no expenditures related to the approval of the request from Uniti Fiber, LLC. Granting the request will ensure the Township will receive METRO Act monies from the State related to Uniti Fiber, LLC telecommunication infrastructure.

RECOMMENDED ACTION:

Approve the METRO Act Right-of-Way Bilateral Permit request from Uniti Fiber, LLC and authorize the Township Manager to execute the agreement on behalf of the Township.

**METRO Act Permit Application Form
Revised February 2, 2015**

Cascade Charter Township, Kent County, MI
Name of Local Unit of Government

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY
TELECOMMUNICATIONS PROVIDERS
UNDER
METROPOLITAN EXTENSION TELECOMMUNICATIONS
RIGHTS-OF-WAY OVERSIGHT ACT
2002 PA 48
MCL SECTIONS 484.3101 TO 484.3120**

BY

**Uniti Fiber LLC
("APPLICANT")**

Unfamiliar with METRO Act?--Assistance: Municipalities unfamiliar with Michigan Metropolitan Extension Telecommunications Rights-of-Way Oversight Act ("METRO Act") permits for telecommunications providers should seek assistance, such as by contacting the Telecommunications Division of the Michigan Public Service Commission at 517-284-8190 or via its web site at http://www.michigan.gov/mpsc/0,4639,7-159-16372_22707---,00.html.

45 Days to Act—Fines for Failure to Act: The METRO Act states that "A municipality shall approve or deny access under this section within 45 days from the date a provider files an application for a permit for access to a public right-of-way." MCL 484.3115(3). The Michigan Public Service Commission can impose fines of up to \$40,000 per day for violations of the METRO Act. It has imposed fines under the Michigan Telecommunications Act where it found providers or municipalities violated the statute.

Where to File: Applicants should file copies as follows [municipalities should adapt as appropriate—unless otherwise specified service should be as follows]:

-- Three (3) copies (one of which shall be marked and designated as the master copy) with the Clerk at **Cascade Charter Township, Attn: Susan Slater, Clerk, 5920 Tahoe Drive SE, Grand Rapids, MI 49546.**

Cascade Charter Township, Kent County, MI
Name of local unit of government

**APPLICATION FOR
ACCESS TO AND ONGOING USE OF PUBLIC WAYS BY
TELECOMMUNICATIONS PROVIDERS**

By
Uniti Fiber LLC
("APPLICANT")

This is an application pursuant to Sections 5 and 6 of the Metropolitan Extension Telecommunications Rights-of-Way Oversight Act, 2002 PA 48 (the "METRO Act") for access to and ongoing usage of the public right-of-way, including public roadways, highways, streets, alleys, easements, and waterways ("Public Ways") in the Municipality for a telecommunications system. The METRO Act states that "A municipality shall approve or deny access under this section within 45 days from the date a provider files an application for a permit for access to a public right-of-way." MCL 484.3115(3).

This application must be accompanied by a one-time application fee of \$500, unless the applicant is exempt from this requirement under Section 5(3) of the METRO Act, MCL 484.3105(3).

1 GENERAL INFORMATION:

1.1 Date: **December 29, 2022**

1.2 Applicant's legal name: **Uniti Fiber LLC**
Mailing Address: **107 St. Francis Street, Suite 1800**
Mobile, AL 36602
Telephone Number: **501-850-0820**
Fax Number: _____
Corporate website: **www.uniti.com**

Name and title of Applicant's local manager (and if different) contact person regarding this application:

Noel Rice - Construction Manager
Mailing Address: **2101 Riverfront Drive, Suite A**
Little Rock, AR 72202
Telephone Number: **304-615-4207**
Fax Number: _____
E-mail Address: **Noel.Rice@uniti.com**

1.3 Type of Entity: (Check one of the following)

- Corporation
- General Partnership
- Limited Partnership
- Limited Liability Company**
- Individual
- Other, please describe: _____

1.4 Assumed name for doing business, if any: **Uniti Fiber LLC**

1.5 Description of Entity: **Telecommunications**

1.5.1 Jurisdiction of incorporation/formation;

1.5.2 Date of incorporation/formation;

1.5.3 If a subsidiary, name of ultimate parent company;

1.5.4 Chairperson, President/CEO, Secretary and Treasurer (and equivalent officials for non-corporate entities).

1.6 Attach copies of Applicant's most recent annual report (with state ID number) filed with the Michigan Department of Licensing and Regulatory Affairs and certificate of good standing with the State of Michigan. For entities in existence for less than one year and for non-corporate entities, provide equivalent information. **See attached Exhibit A.**

1.7 Is Applicant aware of any present or potential conflicts of interest between Applicant and Municipality? If yes, describe: **No.**

1.8 In the past three (3) years, has Applicant had a permit to install telecommunications facilities in the public right of way revoked by any Michigan municipality?

Circle: Yes **No**

If "yes," please describe the circumstances.

1.9 In the past three (3) years, has an adverse finding been made or an adverse final action been taken by any Michigan court or administrative body against Applicant under any law or regulation related to the following:

1.9.1 A felony; or

1.9.2 A revocation or suspension of any authorization (including cable franchises) to provide telecommunications or video programming services?

Circle: Yes **No**

If "yes," please attach a full description of the parties and matters involved, including an identification of the court or administrative body and any proceedings (by dates and file numbers, if applicable), and the disposition of such proceedings.

1.10 [If Applicant has been granted and currently holds a license to provide basic local exchange service, no financial information needs to be supplied.] If publicly held, provide Applicant's most recent financial statements. If financial statements of a parent company of Applicant (or other affiliate of Applicant) are provided in lieu of those of Applicant, please explain. **Yes, Uniti Fiber LLC holds a license to provide basic local exchange service, thus no financial information is provided per the instructions above. See attached Exhibit B.**

1.10.1 If privately held, and if Municipality requests the information within 10 days of the date of this Application, the Applicant and the Municipality should make arrangements for the Municipality to review the financial statements.

1.11 *If no financial statements are provided, please explain and provide particulars.* **Uniti Fiber LLC holds a license to provide basic local exchange service, thus no financial information is provided per the instructions above.**

2 DESCRIPTION OF PROJECT:

2.1 Provide a copy of authorizations, if applicable, Applicant holds to provide telecommunications services in Municipality. If no authorizations are applicable, please explain. **See attached.**

2.2 Describe in plain English how Municipality should describe to the public the telecommunications services to be provided by Applicant and the telecommunications facilities to be installed by Applicant in the Public Ways. **Uniti Fiber LLC is a telecommunication company that works with other carriers to help connect existing long haul networks cross country. Current proposal is an installation of 9,200' of x3 1.25" conduit and a 144F cable, and also placing x10 2'x3'x2' handholds in the public ROW.**

2.3 Attach route maps showing the location (including whether overhead or underground) of Applicant's existing and proposed facilities in the public right-of-way. To the extent known, please identify the side of the street on which the facilities will be located. (If construction approval is sought at this time, provide engineering drawings, if available, showing location and depth, if applicable, of facilities to be installed in the public right-of-way).

2.4 Please provide an anticipated or actual construction schedule. **1st Quarter 2023**

2.5 Please list all organizations and entities which will have any ownership interest in the facilities proposed to be installed in the Public Ways. **Uniti Fiber LLC, a Delaware limited liability company**

2.6 Who will be responsible for maintaining the facilities Applicant places in the Public Ways and how are they to be promptly contacted? If Applicant's facilities are to be

installed on or in existing facilities in the Public Ways of existing public utilities or incumbent telecommunications providers, describe the facilities to be used, and provide verification of their consent to such usage by Applicant.

Robert Dixon - Operations and Service Delivery Director

2101 Riverfront Drive, Suite A

Little Rock, AR 72202

727-471-5661

Robert.Dixon@uniti.com

3 TELECOMMUNICATION PROVIDER ADMINISTRATIVE MATTERS:

Please provide the following or attach an appropriate exhibit.

3.1 Address of Applicant's nearest local office; **No local office**

3.2 Location of all records and engineering drawings, if not at local office; **2101 Riverfront Drive, Suite A, Little Rock, AR 72202**

3.3 Names, titles, addresses, e-mail addresses and telephone numbers of contact person(s) for Applicant's engineer or engineers and their responsibilities for the telecommunications system;

Noel Rice - Construction Manager

2101 Riverfront Drive, Suite A

Little Rock, AR 72202

304-615-4207

Noel.Rice@uniti.com

Clay Madar - Asset and Lease Manager

2101 Riverfront Drive, Suite A

Little Rock, AR 72202

501-628-1281

Clay.Madar@uniti.com

Barry Sweigart - Business Operations Manager

2101 Riverfront Drive, Suite A

Little Rock, AR 72202

307-421-2432

Barry.Sweigart@uniti.com

3.4 Provide evidence of self-insurance or a certificate of insurance showing Applicant's insurance coverage, carrier and limits of liability for the following:

3.4.1 Worker's compensation;

3.4.2 Commercial general liability, including at least:

- 3.4.2.1 Combined overall limits;
- 3.4.2.2 Combined single limit for each occurrence of bodily injury;
- 3.4.2.3 Personal injury;
- 3.4.2.4 Property damage;
- 3.4.2.5 Blanket contractual liability for written contracts, products, and completed operations;
- 3.4.2.6 Independent contractor liability;
- 3.4.2.7 For any non-aerial installations, coverage for property damage from perils of explosives, collapse, or damage to underground utilities (known as XCU coverage);
- 3.4.2.8 Environmental contamination;

3.4.3 Automobile liability covering all owned, hired, and non-owned vehicles used by Applicant, its employee, or agents.

3.5 Names of all anticipated contractors and subcontractors involved in the construction, maintenance and operation of Applicant's facilities in the Public Ways.

4 CERTIFICATION:

All the statements made in the application and attached exhibits are true and correct to the best of my knowledge and belief.

UNITI FIBER LLC ("APPLICANT")

12/29/22
Date

By: 
Type or Print Name: Kelly A. McGriff

Vice President and Deputy General Counsel
Title

Exhibit A

**Michigan Department of Licensing and Regulatory Affairs Annual Report and Certificate
of Good Standing**

(Documents begin on next page.)

LARA Corporations
Online Filing System
 Department of Licensing and Regulatory Affairs

Form Revision Date 07/2016

ANNUAL STATEMENT
For use by FOREIGN LIMITED LIABILITY COMPANY
(Required by Section 207, Act 23, Public Act of 1993)

Identification Number: 802032940

Annual Statement Filing Year: 2022

1. Limited Liability Company Name:

UNITI FIBER LLC

2. The street address of the limited liability company's registered office and name of the resident agent at that office:

1. Resident Agent Name: CSC-LAWYERS INCORPORATING SERVICE (COMPANY)
 2. Street Address: 2900 WEST ROAD STE 500
 Apt/Suite/Other:
 City: EAST LANSING
 State: MI Zip Code: 48823

3. Mailing address of the registered office:

P.O. Box or Street Address: 2900 WEST ROAD STE 500
 Apt/Suite/Other:
 City: EAST LANSING
 State: MI Zip Code: 48823

This annual statement must be signed by a member, manager, or an authorized agent.

Signed this 8th Day of February, 2022 by:

Signature	Title	Title if "Other" was selected
Daniel Heard	Other	Secretary

By selecting ACCEPT, I hereby acknowledge that this electronic document is being signed in accordance with the Act. I further certify that to the best of my knowledge the information provided is true, accurate, and in compliance with the Act.

. Decline . Accept

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
FILING ENDORSEMENT

This is to Certify that the 2022 ANNUAL STATEMENT

for

UNITI FIBER LLC

ID Number: 802032940

received by electronic transmission on February 08, 2022 ***, is hereby endorsed.***

Filed on February 08, 2022 ***, by the Administrator.***

The document is effective on the date filed, unless a subsequent effective date within 90 days after received date is stated in the document.



In testimony whereof, I have hereunto set my hand and affixed the Seal of the Department, in the City of Lansing, this 8th day of February, 2022.

Linda Clegg

Linda Clegg, Director
Corporations, Securities & Commercial Licensing Bureau

Payment Confirmation

Date: 2/8/2022

Transaction date/time: 2/8/2022 3:50:42 PM
Confirmation number: 22020894116253
Entity ID Number: 802032940
Entity Name: UNITI FIBER LLC
Entity Type: FOREIGN LIMITED LIABILITY COMPANY
Filing Type: 2022 ANNUAL STATEMENT

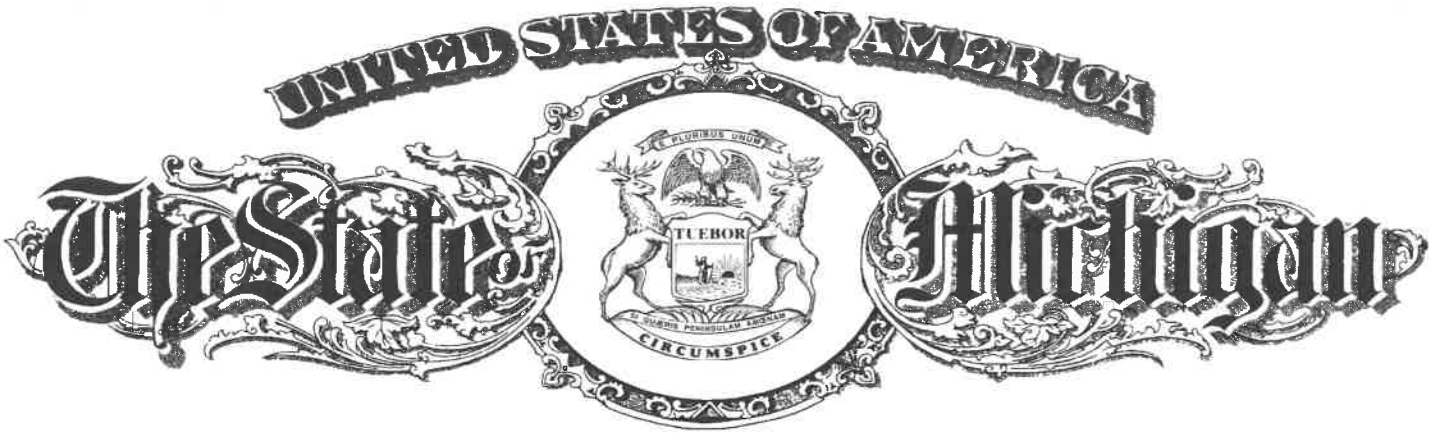
Filing fee: \$25.00
Expedited service fee: \$0.00
Total fee: \$25.00

Your payment has been successfully processed. Your filing has been submitted and will be reviewed by the Corporations Division. If your submission is rejected for any reason, we will contact you immediately.

Please note that for security reasons your payment credit card and/or bank information is processed at a secure website. The Department of Licensing and Regulatory Affairs does not retain any credit card information.

If you have any questions about your request, contact our office:

- phone: 517-241-6470
- email: CorpsMail@michigan.gov



Department of Licensing and Regulatory Affairs

Lansing, Michigan

This is to Certify That

UNITI FIBER LLC

a(n) Delaware FOREIGN LIMITED LIABILITY COMPANY.

was validly authorized on September 16 , 2016, to transact business in Michigan, and that said limited liability company holds a valid certificate of authority to transact business in this state, and has satisfied its annual filing obligations.

This certificate is issued pursuant to the provisions of 1993 PA 23 to attest to the fact that the limited liability company is in good standing in Michigan as of this date and is duly authorized to transact in this state any business set forth in its application which a domestic limited liability company formed under this act may lawfully conduct except as limited by statements in its Application for Certificate of Authority or under the law of its jurisdiction of organization.

This certificate is in due form, made by me as the proper officer, and is entitled to have full faith and credit given it in every court and office within the United States.



Sent by electronic transmission

Certificate Number: 22120340303

*In testimony whereof, I have hereunto set my hand,
in the City of Lansing, this 15th day of December , 2022.*

Linda Clegg, Director

Corporations, Securities & Commercial Licensing Bureau

Verify this certificate at: URL to eCertificate Verification Search <http://www.michigan.gov/corpverifycertificate>.

Exhibit B

Unifi Fiber LLC - CPCN

(Document begins on the next page.)

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * * *

In the matter of the application of)
UNITI FIBER-PEG LLC,)
f/k/a PEG BANDWIDTH, LLC,)
d/b/a UNITI FIBER,)
for temporary and permanent licenses to provide)
basic local exchange service throughout the state of)
Michigan in the zone and exchange areas served by)
AT&T Michigan, Frontier North Inc., Frontier)
Midstates Inc., CenturyTel of Michigan, Inc.,)
CenturyTel Midwest-Michigan, Inc., CenturyTel)
of Northern Michigan, Inc., and CenturyTel of)
Upper Michigan, Inc.)
_____)

Case No. U-18176

At the December 20, 2016 meeting of the Michigan Public Service Commission in Lansing,
Michigan.

PRESENT: Hon. Sally A. Talberg, Chairman
Hon. Norman J. Saari, Commissioner
Hon. Rachael A. Eubanks, Commissioner

ORDER

On September 21, 2016, Uniti Fiber-PEG LLC f/k/a PEG Bandwidth, LLC, d/b/a Uniti Fiber (Uniti Fiber), filed an application, under the Michigan Telecommunications Act (MTA), MCL 484.2101 *et seq.*, for a temporary and permanent license to provide basic local exchange service throughout the state of Michigan in the incumbent geographic territories of AT&T Michigan, Frontier North Inc., Frontier Midstates Inc., CenturyTel of Michigan, Inc., CenturyTel Midwest – Michigan, Inc., CenturyTel of Northern Michigan, Inc., and CenturyTel of Upper Michigan, Inc. The application was filed under the former corporate name, PEG Bandwidth, LLC,

d/b/a Uniti Fiber. On October 27, 2016, Uniti Fiber filed a revised application. On November 18, 2016, a second revised application was filed indicating the company had changed its name from PEG Bandwidth, LLC, to Uniti Fiber-PEG LLC.¹

At an evidentiary hearing on December 5, 2016, Uniti Fiber presented the testimony and exhibits of the company's Chief Financial Officer, James Volk. At the close of the hearing, the parties waived compliance with Section 81 of the Michigan Administrative Procedures Act, MCL 24.281.

After a review of the application and testimony, the Commission finds that approval of the application is in the public interest. On numerous occasions, the Commission has found that competition can be advantageous to the citizens of this state. Approval of the request for a license to provide basic local exchange service will expand the opportunities for competition. Accordingly, the application is approved. The grant of a license is conditioned on full compliance with the provisions of the MTA, as well as the anti-slamming procedures adopted in Case No. U-11900, the access restructuring mechanism contribution methodology adopted in Case No. U-16183, and the number reclamation process adopted in Case No. U-12703. Failure to comply fully may result in revocation of the license and other penalties. The grant of a license is conditioned upon the provision of service to customers within a reasonable time. Failure to do so may result in revocation of the license. Finally, the Commission notes that any numbers obtained by the applicant are a public resource and are not owned by the applicant. If the applicant fails to provide service or goes out of business, any numbers assigned to it are subject to reclamation.

¹ Uniti Fiber-PEG LLC continues to do business as Uniti Fiber.

THEREFORE, IT IS ORDERED that:

A. Uniti Fiber-PEG LLC f/k/a PEG Bandwidth, LLC, is granted a license to provide basic local exchange service throughout the state of Michigan in the incumbent geographic territories of AT&T Michigan, Frontier North Inc., Frontier Midstates Inc., CenturyTel of Michigan, Inc., CenturyTel Midwest – Michigan, Inc., CenturyTel of Northern Michigan, Inc., and CenturyTel of Upper Michigan, Inc.

B. Uniti Fiber-PEG LLC f/k/a PEG Bandwidth, LLC, shall provide basic local exchange service in accordance with the regulatory requirements specified in the Michigan Telecommunications Act, MCL 484.2101 *et seq.*, including the number portability provisions of MCL 484.2358, the access restructuring mechanism contribution requirements of MCL 484.2310 and Case No. U-16183, the anti-slamming procedures adopted in Case No. U-11900, and the number reclamation process adopted in Case No. U-12703.

C. Before commencing basic local exchange service, Uniti Fiber-PEG LLC f/k/a PEG Bandwidth, LLC, shall submit its tariff reflecting the services that it will offer and identifying the exchanges in which it will offer service.

The Commission reserves jurisdiction and may issue further orders as necessary.

Any party desiring to appeal this order must do so by the filing of a claim of appeal in the Michigan Court of Appeals within 30 days of the issuance of this order, under MCL 484.2203(12). To comply with the Michigan Rules of Court's requirement to notify the Commission of an appeal, appellants shall send required notices to both the Commission's Executive Secretary and to the Commission's Legal Counsel. Electronic notifications should be sent to the Executive Secretary at mpscedockets@michigan.gov and to the Michigan Department of the Attorney General - Public Service Division at pungp1@michigan.gov. In lieu of electronic submissions, paper copies of such notifications may be sent to the Executive Secretary and the Attorney General - Public Service Division at 7109 W. Saginaw Hwy., Lansing, MI 48917.

MICHIGAN PUBLIC SERVICE COMMISSION

Sally A. Talberg, Chairman

Norman J. Saari, Commissioner

Rachael A. Eubanks, Commissioner

By its action of December 20, 2016.

Kavita Kale, Executive Secretary

PROOF OF SERVICE

STATE OF MICHIGAN)

Case No. U-18176

County of Ingham)

Gloria Pearl Jones being duly sworn, deposes and says that on December 20, 2016 A.D. she electronically notified the attached list of this **Commission Order via e-mail transmission**, to the persons as shown on the attached service list (Listserv Distribution List).

Gloria Pearl Jones

Gloria Pearl Jones

Subscribed and sworn to before me
this 20th day of December 2016

Lisa Felice

Lisa Felice
Notary Public, Eaton County
My Commission Expires April 15, 2020

Service List -- Case No. U-18176

Name

Patrick Crocker

Heather Durian

Sharon Feldman

PEG Bandwidth, LLC d/b/a Uniti Fiber

Email Address

patrick@crockerlawfirm.com

durianh@michigan.gov

feldmans@michigan.gov

jplowman@unitifiber.com

METRO Act Permit
Bilateral Form
Revised 12/06/02

**RIGHT-OF-WAY
TELECOMMUNICATIONS PERMIT**

TERMS AND CONDITIONS

1 Definitions

- 1.1 Company shall mean **Uniti Fiber LLC** organized under the laws of the State of **DE** whose address is **107 St. Francis Street, Suite 1800, Mobile, AL 36602.**
- 1.2 Effective Date shall mean the date set forth in Part 13.
- 1.3 Manager shall mean Municipality's [Mayor/Manager/Supervisor/Village President] or his or her designee.
- 1.4 METRO Act shall mean the Metropolitan Extension Telecommunications Rights-of-Way Oversight Act, Act No. 48 of the Public Acts of 2002, as amended.
- 1.5 Municipality shall mean **Cascade Charter Township, Kent County,** a Michigan municipal corporation.
- 1.6 Permit shall mean this document.
- 1.7 Public Right-of-Way shall mean the area on, below, or above a public roadway, highway, street, alley, easement, or waterway, to the extent Municipality has the ability to grant the rights set forth herein. Public right-of-way does not include a federal, state, or private right-of-way.
- 1.8 Telecommunication Facilities or Facilities shall mean the Company's equipment or personal property, such as copper and fiber cables, lines, wires, switches, conduits, pipes, and sheaths, which are used to or can generate, receive, transmit, carry, amplify, or provide telecommunication services or signals. Telecommunication Facilities or Facilities do not include antennas, supporting structures for antennas, equipment shelters or houses, and any ancillary equipment and miscellaneous hardware used to provide federally licensed commercial mobile service as defined in Section 332(d) of Part I of Title III of the Communications Act of 1934, Chapter 652, 48 Stat. 1064, 47 U.S.C. 332 and further defined as commercial mobile radio service in 47 CFR 20.3, and service provided by any wireless, 2-way communications device.

1.9 Term shall have the meaning set forth in Part 7.

2 Grant

2.1 Municipality hereby grants a permit under the METRO Act to Company for access to and ongoing use of the Public Right-of-Way to construct, install and maintain Telecommunication Facilities in those portions of the Public Right-of-Way identified on Exhibit A on the terms set forth herein.

2.1.1 Exhibit A may be modified by written request by Company and approval by Manager.

2.1.2 Manager shall not unreasonably condition or deny any request for a modification of Exhibit A. Any decision of Manager on a request for a modification may be appealed by Company to Municipality's legislative body.

2.2 Overlapping. Company shall not allow the wires or any other facilities of a third party to be overlapped to the Telecommunication Facilities without Municipality's prior written consent. Municipality's right to withhold written consent is subject to the authority of the Michigan Public Service Commission under Section 361 of the Michigan Telecommunications Act, MCL § 484.2361.

2.3 Nonexclusive. The rights granted by this Permit are nonexclusive. Municipality reserves the right to approve, at any time, additional permits for access to and ongoing usage of the Public Right-of-Way by telecommunications providers and to enter into agreements for use of the Public Right-of-Way with and grant franchises for use of the Public Right-of-Way to telecommunications providers, cable companies, utilities and other providers.

3 Contacts, Maps and Plans

3.1 Company Contacts. The names, addresses and the like for engineering and construction related information for Company and its Telecommunication Facilities are as follows:

3.1.1 The address, e-mail address, phone number and contact person (title or name) at Company's local office (in or near Municipality) is

Noel Rice - Construction Manager

2101 Riverfront Drive, Suite A

Little Rock, AR 72202

304-615-4207

Noel.Rice@uniti.com

3.1.2 If Company's engineering drawings, as-built plans and related records for the Telecommunication Facilities will not be located at the preceding local office, the location address, phone number and contact person (title or department) for them is

Clay Madar - Asset and Lease Manager
2101 Riverfront Drive, Suite A
Little Rock, AR 72202
501-628-1281
Clay.Madar@uniti.com

3.1.3 The name, title, address, e-mail address and telephone numbers of Company's engineering contact person(s) with responsibility for the design, plans and construction of the Telecommunication Facilities is

Noel Rice - Construction Manager
2101 Riverfront Drive, Suite A
Little Rock, AR 72202
304-615-4207
Noel.Rice@uniti.com

Barry Sweigart - Business Operations Manager
2101 Riverfront Drive, Suite A
Little Rock, AR 72202
307-421-2432
Barry.Sweigart@uniti.com

3.1.4 The address, phone number and contact person (title or department) at Company's home office/regional office with responsibility for engineering and construction related aspects of the Telecommunication Facilities is

Noel Rice - Construction Manager
2101 Riverfront Drive, Suite A
Little Rock, AR 72202
304-615-4207
Noel.Rice@uniti.com

3.1.5 Company shall at all times provide Manager with the phone number at which a live representative of Company (not voice mail) can be reached 24 hours a day, seven (7) days a week, in the event of a public emergency.

877-652-2321

3.1.6 The preceding information is accurate as of the Effective Date. Company shall notify Municipality in writing as set forth in Part 12 of any changes in the preceding information.

3.2 Route Maps. Within ninety (90) days after the substantial completion of construction of new Facilities in a Municipality, a provider shall submit route maps showing the location of the Telecommunication Facilities to both the Michigan Public Service Commission and to the Municipality, as required under Section 6(7) of the METRO Act, MCLA 484.3106(7).

3.3 As-Built Records. Company, without expense to Municipality, shall, upon forty-eight (48) hours notice, give Municipality access to all "as-built" maps, records, plans, and specifications showing the Telecommunication Facilities or portions thereof in the Public Right-of-Way. Upon request by Municipality, Company shall inform Municipality as soon as reasonably possible of any changes from previously supplied maps, records, or plans and shall mark up maps provided by Municipality so as to show the location of the Telecommunication Facilities.

4 Use of Public Right-of-Way

4.1 No Burden on Public Right-of-Way. Company, its contractors, subcontractors, and the Telecommunication Facilities shall not unduly burden or interfere with the present or future use of any of the Public Right-of-Way. Company's aerial cables and wires shall be suspended so as to not endanger or injure persons or property in or about the Public Right-of-Way. If Municipality reasonably determines that any portion of the Telecommunication Facilities constitutes an undue burden or interference, due to changed circumstances, Company, at its sole expense, shall modify the Telecommunication Facilities or take such other actions as Municipality may determine is in the public interest to remove or alleviate the burden, and Company shall do so within a reasonable time period. Municipality shall attempt to require all occupants of a pole or conduit whose facilities are a burden to remove or alleviate the burden concurrently.

4.2 No Priority. This Permit does not establish any priority of use of the Public Right-of-Way by Company over any present or future permittees or parties having agreements with Municipality or franchises for such use. In the event of any dispute as to the priority of use of the Public Right-of-Way, the first priority shall be to the public generally, the second priority to Municipality, the third priority to the State of Michigan and its political subdivisions in the performance of their various functions, and thereafter as between other permit, agreement or franchise holders, as determined by Municipality in the exercise of its powers, including the police power and other powers reserved to and conferred on it by the State of Michigan.

4.3 Restoration of Property. Company, its contractors and subcontractors shall immediately (subject to seasonal work restrictions) restore, at Company's sole expense, in a manner approved by Municipality, any portion of the Public Right-of-Way that is in any way disturbed, damaged, or injured by the construction,

installation, operation, maintenance or removal of the Telecommunication Facilities to a reasonably equivalent (or, at Company's option, better) condition as that which existed prior to the disturbance. In the event that Company, its contractors or subcontractors fail to make such repair within a reasonable time, Municipality may make the repair and Company shall pay the costs Municipality incurred for such repair.

- 4.4 Marking. Company shall mark the Telecommunication Facilities as follows: Aerial portions of the Telecommunication Facilities shall be marked with a marker on Company's lines on alternate poles which shall state Company's name and provide a toll-free number to call for assistance. Direct buried underground portions of the Telecommunication Facilities shall have (1) a conducting wire placed in the ground at least several inches above Company's cable (if such cable is nonconductive); (2) at least several inches above that, a continuous colored tape with a statement to the effect that there is buried cable beneath; and (3) stakes or other appropriate above ground markers with Company's name and a toll-free number indicating that there is buried telephone cable below. Bored underground portions of the Telecommunication Facilities shall have a conducting wire at the same depth as the cable and shall not be required to provide the continuous colored tape. Portions of the Telecommunication Facilities located in conduit, including conduit of others used by Company, shall be marked at its entrance into and exit from each manhole and handhole with Company's name and a toll-free telephone number.
- 4.5 Tree Trimming. Company may trim trees upon and overhanging the Public Right-of-Way so as to prevent the branches of such trees from coming into contact with the Telecommunication Facilities, consistent with any standards adopted by Municipality. Company shall dispose of all trimmed materials. Company shall minimize the trimming of trees to that essential to maintain the integrity of the Telecommunication Facilities. Except in emergencies, all trimming of trees in the Public Right-of-Way shall have the advance approval of Manager.
- 4.6 Installation and Maintenance. The construction and installation of the Telecommunication Facilities shall be performed pursuant to plans approved by Municipality. The open cut of any Public Right-of-Way shall be coordinated with the Manager or his designee. Company shall install and maintain the Telecommunication Facilities in a reasonably safe condition. If the existing poles in the Public Right-of-Way are overburdened or unavailable for Company's use, or the facilities of all users of the poles are required to go underground then Company shall, at its expense, place such portion of its Telecommunication Facilities underground, unless Municipality approves an alternate location. Company may perform maintenance on the Telecommunication Facilities without prior approval of Municipality, provided that Company shall obtain any and all

permits required by Municipality in the event that any maintenance will disturb or block vehicular traffic or are otherwise required by Municipality.

- 4.7 Pavement Cut Coordination. Company shall coordinate its construction and all other work in the Public Right-of-Way with Municipality's program for street construction and rebuilding (collectively "Street Construction") and its program for street repaving and resurfacing (except seal coating and patching) (collectively, "Street Resurfacing").
- 4.7.1 The goals of such coordination shall be to encourage Company to conduct all work in the Public Right-of-Way in conjunction with or immediately prior to any Street Construction or Street Resurfacing planned by Municipality.
- 4.8 Compliance with Laws. Company shall comply with all laws, statutes, ordinances, rules and regulations regarding the construction, installation, and maintenance of its Telecommunication Facilities, whether federal, state or local, now in force or which hereafter may be promulgated. Before any installation is commenced, Company shall secure all necessary permits, licenses and approvals from Municipality or other governmental entity as may be required by law, including, without limitation, all utility line permits and highway permits. Municipality shall not unreasonably delay or deny issuance of any such permits, licenses or approvals. Company shall comply in all respects with applicable codes and industry standards, including but not limited to the National Electrical Safety Code (latest edition adopted by Michigan Public Service Commission) and the National Electric Code (latest edition). Company shall comply with all zoning and land use ordinances and historic preservation ordinances as may exist or may hereafter be amended. This section does not constitute a waiver of Company's right to challenge laws, statutes, ordinances, rules or regulations now in force or established in the future.
- 4.9 Street Vacation. If Municipality vacates or consents to the vacation of Public Right-of-Way within its jurisdiction, and such vacation necessitates the removal and relocation of Company's Facilities in the vacated Public Right-of-Way, Company shall, as a condition of this Permit, consent to the vacation and remove its Facilities at its sole cost and expense when ordered to do so by Municipality or a court of competent jurisdiction. Company shall relocate its Facilities to such alternate route as Municipality and Company mutually agree, applying reasonable engineering standards.
- 4.10 Relocation. If Municipality requests Company to relocate, protect, support, disconnect, or remove its Facilities because of street or utility work, or other public projects, Company shall relocate, protect, support, disconnect, or remove its Facilities, at its sole cost and expense, including where necessary to such

alternate route as Municipality and Company mutually agree, applying reasonable engineering standards. The work shall be completed within a reasonable time period.

- 4.11 Public Emergency. Municipality shall have the right to sever, disrupt, dig-up or otherwise destroy Facilities of Company if such action is necessary because of a public emergency. If reasonable to do so under the circumstances, Municipality shall attempt to provide notice to Company. Public emergency shall be any condition which poses an immediate threat to life, health, or property caused by any natural or man-made disaster, including, but not limited to, storms, floods, fire, accidents, explosions, water main breaks, hazardous material spills, etc. Company shall be responsible for repair at its sole cost and expense of any of its Facilities damaged pursuant to any such action taken by Municipality.
- 4.12 Miss Dig. If eligible to join, Company shall subscribe to and be a member of "MISS DIG," the association of utilities formed pursuant to Act 174 of the Public Acts of 2013, as amended, MCL § 460.721 et seq., and shall conduct its business in conformance with the statutory provisions and regulations promulgated thereunder.
- 4.13 Underground Relocation. If Company has its Facilities on poles of Consumers Energy, Detroit Edison or another electric or telecommunications provider and Consumers Energy, Detroit Edison or such other electric or telecommunications provider relocates its system underground, then Company shall relocate its Facilities underground in the same location at Company's sole cost and expense.
- 4.14 Identification. All personnel of Company and its contractors or subcontractors who have as part of their normal duties contact with the general public shall wear on their clothing a clearly visible identification card bearing Company's name, their name and photograph. Company shall account for all identification cards at all times. Every service vehicle of Company and its contractors or subcontractors shall be clearly identified as such to the public, such as by a magnetic sign with Company's name and telephone number.

5 Indemnification

- 5.1 Indemnity. Company shall defend, indemnify, protect, and hold harmless Municipality, its officers, agents, employees, elected and appointed officials, departments, boards, and commissions from any and all claims, losses, liabilities, causes of action, demands, judgments, decrees, proceedings, and expenses of any nature (collectively "claim" for this Part 5) (including, without limitation, attorneys' fees) arising out of or resulting from the acts or omissions of Company, its officers, agents, employees, contractors, successors, or assigns, but only to the extent such acts or omissions are related to the Company's use of or installation of

facilities in the Public Right-of-Way and only to the extent of the fault or responsibility of Company, its officers, agents, employees, contractors, successors and assigns.

- 5.2 Notice, Cooperation. Municipality shall notify Company promptly in writing of any such claim and the method and means proposed by Municipality for defending or satisfying such claim. Municipality shall cooperate with Company in every reasonable way to facilitate the defense of any such claim. Municipality shall consult with Company respecting the defense and satisfaction of such claim, including the selection and direction of legal counsel.
- 5.3 Settlement. Municipality shall not settle any claim subject to indemnification under this Part 5 without the advance written consent of Company, which consent shall not be unreasonably withheld. Company shall have the right to defend or settle, at its own expense, any claim against Municipality for which Company is responsible hereunder.

6 Insurance *See Exhibit C, Attached

- 6.1 Coverage Required. Prior to beginning any construction in or installation of the Telecommunication Facilities in the Public Right-of-Way, Company shall obtain insurance as set forth below and file certificates evidencing same with Municipality. Such insurance shall be maintained in full force and effect until the end of the Term. In the alternative, Company may satisfy this requirement through a program of self-insurance, acceptable to Municipality, by providing reasonable evidence of its financial resources to Municipality. Municipality's acceptance of such self-insurance shall not be unreasonably withheld.
 - 6.1.1 Commercial general liability insurance, including Completed Operations Liability, Independent Contractors Liability, Contractual Liability coverage, railroad protective coverage and coverage for property damage from perils of explosion, collapse or damage to underground utilities, commonly known as XCU coverage, in an amount not less than Five Million Dollars (\$5,000,000).
 - 6.1.2 Liability insurance for sudden and accidental environmental contamination with minimum limits of Five Hundred Thousand Dollars (\$500,000) and providing coverage for claims discovered within three (3) years after the term of the policy.
 - 6.1.3 Automobile liability insurance in an amount not less than One Million Dollars (\$1,000,000).

- 6.1.4 Workers' compensation and employer's liability insurance with statutory limits, and any applicable Federal insurance of a similar nature.
- 6.1.5 The coverage amounts set forth above may be met by a combination of underlying (primary) and umbrella policies so long as in combination the limits equal or exceed those stated. If more than one insurance policy is purchased to provide the coverage amounts set forth above, then all policies providing coverage limits excess to the primary policy shall provide drop down coverage to the first dollar of coverage and other contractual obligations of the primary policy, should the primary policy carrier not be able to perform any of its contractual obligations or not be collectible for any of its coverages for any reason during the Term, or (when longer) for as long as coverage could have been available pursuant to the terms and conditions of the primary policy.
- 6.2 Additional Insured. Municipality shall be named as an additional insured on all policies (other than worker's compensation and employer's liability). All insurance policies shall provide that they shall not be canceled, modified or not renewed unless the insurance carrier provides thirty (30) days prior written notice to Municipality. Company shall annually provide Municipality with a certificate of insurance evidencing such coverage. All insurance policies (other than environmental contamination, workers' compensation and employer's liability insurance) shall be written on an occurrence basis and not on a claims made basis.
- 6.3 Qualified Insurers. All insurance shall be issued by insurance carriers licensed to do business by the State of Michigan or by surplus line carriers on the Michigan Insurance Commission approved list of companies qualified to do business in Michigan. All insurance and surplus line carriers shall be rated A+ or better by A.M. Best Company.
- 6.4 Deductibles. If the insurance policies required by this Part 6 are written with retainages or deductibles in excess of \$50,000, they shall be approved by Manager in advance in writing. Company shall indemnify and save harmless Municipality from and against the payment of any deductible and from the payment of any premium on any insurance policy required to be furnished hereunder.
- 6.5 Contractors. Company's contractors and subcontractors working in the Public Right-of-Way shall carry in full force and effect commercial general liability, environmental contamination liability, automobile liability and workers' compensation and employer liability insurance which complies with all terms of this Part 6. In the alternative, Company, at its expense, may provide such coverages for any or all its contractors or subcontractors (such as by adding them to Company's policies).

6.6 Insurance Primary. Company's insurance coverage shall be primary insurance with respect to Municipality, its officers, agents, employees, elected and appointed officials, departments, boards, and commissions (collectively "them"). Any insurance or self-insurance maintained by any of them shall be in excess of Company's insurance and shall not contribute to it (where "insurance or self-insurance maintained by any of them" includes any contract or agreement providing any type of indemnification or defense obligation provided to, or for the benefit of them, from any source, and includes any self-insurance program or policy, or self-insured retention or deductible by, for or on behalf of them).

7 Term

7.1 Term. The term ("Term") of this Permit shall be until the earlier of:

7.1.1 Fifteen years (15) from the Effective Date; provided, however, that following such initial term there shall be three subsequent renewal terms of five (5) years. Each renewal term shall be automatic unless Municipality notifies Company in writing, at least twelve (12) months prior to the end of any term then in effect, that due to changed circumstances a need exists to negotiate the subsequent renewal with Company. Municipality shall not unreasonably deny a renewal term; or

7.1.2 When the Telecommunication Facilities have not been used to provide telecommunications services for a period of one hundred and eighty (180) days by the Company or a successor of an assign of the Company; or

7.1.3 When Company, at its election and with or without cause, delivers written notice of termination to Municipality at least one-hundred and eighty (180) days prior to the date of such termination; or

7.1.4 Upon either Company or Municipality giving written notice to the other of the occurrence or existence of a default by the other party under Sections 4.8, 6, 8 or 9 of this Permit and such defaulting party failing to cure, or commence good faith efforts to cure, such default within sixty (60) days (or such shorter period of time provided elsewhere in this Permit) after delivery of such notice; or

7.1.5 Unless Manager grants a written extension, one year from the Effective Date if prior thereto Company has not started the construction and installation of the Telecommunication Facilities within the Public Right-of-Way and two years from the Effective Date if by such time construction and installation of the Telecommunication Facilities is not complete.

8 Performance Bond or Letter of Credit *See Exhibit B, Attached.

8.1 Municipal Requirement. Municipality may require Company to post a bond (or letter of credit) as provided in Section 15(3) of the METRO Act, as amended [MCL § 484.3115(3)].

9 Fees

9.1 Establishment; Reservation. The METRO Act shall control the establishment of right-of-way fees. The parties reserve their respective rights regarding the nature and amount of any fees which may be charged by Municipality in connection with the Public Right-of-Way.

10 Removal

10.1 Removal; Underground. As soon as practicable after the Term, Company or its successors and assigns shall remove any underground cable or other portions of the Telecommunication Facilities from the Public Right-of-Way which has been installed in such a manner that it can be removed without trenching or other opening of the Public Right-of-Way. Company shall not remove any underground cable or other portions of the Telecommunication Facilities which requires trenching or other opening of the Public Right-of-Way except with the prior written approval of Manager. All removals shall be at Company's sole cost and expense.

10.1.1 For purposes of this Part 10, "cable" means any wire, coaxial cable, fiber optic cable, feed wire or pull wire.

10.2 Removal; Above Ground. As soon as practicable after the Term, Company, or its successor or assigns at its sole cost and expense, shall, unless waived in writing by Manager, remove from the Public Right-of-Way all above ground elements of its Telecommunication Facilities, including but not limited to poles, pedestal mounted terminal boxes, and lines attached to or suspended from poles.

10.3 Schedule. The schedule and timing of removal shall be subject to approval by Manager. Unless extended by Manager, removal shall be completed not later than twelve (12) months following the Term. Portions of the Telecommunication Facilities in the Public Right-of-Way which are not removed within such time period shall be deemed abandoned and, at the option of Municipality exercised by written notice to Company as set forth in Part 12, title to the portions described in such notice shall vest in Municipality.

11 Assignment. Company may assign or transfer its rights under this Permit, or the persons or entities controlling Company may change, in whole or in part, voluntarily,

involuntarily, or by operation of law, including by merger or consolidation, change in the ownership or control of Company's business, or by other means, subject to the following:

- 11.1 No such transfer or assignment or change in the control of Company shall be effective under this Permit, without Municipality's prior approval (not to be unreasonably withheld), during the time period from the Effective Date until the completion of the construction of the Telecommunication Facilities in those portions of the Public Right-of-Way identified on Exhibit A.
- 11.2 After the completion of such construction, Company must provide notice to Municipality of such transfer, assignment or change in control no later than thirty (30) days after such occurrence; provided, however,
 - 11.2.1 Any transferee or assignee of this Permit shall be qualified to perform under its terms and conditions and comply with applicable law; shall be subject to the obligations of this Permit, including responsibility for any defaults which occurred prior to the transfer or assignment; shall supply Municipality with the information required under Section 3.1; and shall comply with any updated insurance and performance bond requirements under Sections 6 and 8 respectively, which Municipality reasonably deems necessary, and
 - 11.2.2 In the event of a change in control, it shall not be to an entity lacking the qualifications to assure Company's ability to perform under the terms and conditions of this Permit and comply with applicable law; and Company shall comply with any updated insurance and performance bond requirements under Sections 6 and 8 respectively, which Municipality reasonably deems necessary.
- 11.3 Company may grant a security interest in this Permit, its rights thereunder or the Telecommunication Facilities at any time without notifying Municipality.

12 Notices

- 12.1 Notices. All notices under this Permit shall be given as follows:
 - 12.1.1 If to Municipality, to **Cascade Charter Township, Attn: Susan Slater, Clerk, 5920 Tahoe Drive SE, Grand Rapids, MI 49546**, with a copy to **Cascade Charter Township, Attn: Engineering Department, 5920 Tahoe Drive SE, Grand Rapids, MI 49546**.
 - 12.1.2 If to Company, to **Uniti Fiber LLC, 107 St. Francis Street, Suite 1800, Mobile, AL 36602**, with a copy to **Uniti Fiber LLC, 2101 Riverfront Drive, Suite A, Little Rock, AR 72202**.

12.2 Change of Address. Company and Municipality may change its address or personnel for the receipt of notices at any time by giving notice thereof to the other as set forth above.

13 Other items

13.1 No Cable, OVS. This Permit does not authorize Company to provide commercial cable type services to the public, such as “cable service” or the services of an “open video system operator” (as such terms are defined in the Federal Communications Act of 1934 and implementing regulations, currently 47 U.S.C. §§ 522 (6), 573 and 47 CFR § 76.1500).

13.2 Duties. Company shall faithfully perform all duties required by this Permit.

13.3 Effective Date. This Permit shall become effective when issued by Municipality and Company has provided any insurance certificates and bonds required in Parts 6 and 8, and signed the acceptance of the Permit.

13.4 Authority. This Permit satisfies the requirement for a permit under Section 5 of the METRO Act [MCL 484.3105].

13.5 Amendment. Except as set forth in Section 2.1 this Permit may be amended by the written agreement of Municipality and Company.

13.6 Interpretation and Severability. The provisions of this Permit shall be liberally construed to protect and preserve the peace, health, safety and welfare of the public, and should any provision or section of this Permit be held unconstitutional, invalid, overbroad or otherwise unenforceable, such determination/holding shall not be construed as affecting the validity of any of the remaining conditions of this Permit. If any provision in this Permit is found to be partially overbroad, unenforceable, or invalid, Company and Municipality may nevertheless enforce such provision to the extent permitted under applicable law.

13.7 Governing Law. This Permit shall be governed by the laws of the State of Michigan.

CASCADE CHARTER TOWNSHIP, KENT
COUNTY, MI

Attest:
By: _____
Clerk

By: _____
Its: _____
Date: _____

“Company accepts the Permit granted by Municipality upon the terms and conditions contained therein.”

UNITI FIBER LLC

By: 
Its: Vice President and Deputy General Counsel
Date: 12/29/22

Exhibit A

Public Right-of-Way to be Used by Telecommunication Facilities



OUTSIDE PLANT CONSTRUCTION
FIBER OPTIC CABLE ROUTE

WIN AP 3 GRAND RAPIDS
KENT COUNTY
OPPORTUNITY # 233340
4782 44TH ST SE
GRAND RAPID, MI
KENT COUNTY

PERMIT DRAWINGS
PERMIT ID: N/A

FOR PERMITTING: 11/10/22

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SHT. 08	DIRECTIONAL BORE
SHT. 09	2.5' x 5' x 2.5' HANDHOLE DETAILS
SHT. 10	2' x 3' x 2' HANDHOLE DETAILS
SHT. 11	HANDHOLE INSTALLATION DETAILS
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SHT. 13	CABLE GROUNDING INSTALLATION DETAILS
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MAP REFERENCE		
COMPANY		
PROJECT WIN AP 3 GRAND RAPIDS		
CO.		
SEC.		
TWN.		
RNG.		
TAX.		
DATE 11/10/22	REVISION	BY
	KENT COUNTY COMMENTS	GV



DATE: 8/19/22
 DESIGN: TLM
 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50



ENGINEERING COMPANY:
 MTC ENGINEERING
 8600 PARK MEADOWS DR
 SUITE 500
 LONE TREE, CO 80124
 TEL: 720-344-8877

VICINITY MAP

CITY: GRAND RAPIDS, MI COUNTY: KENT
 LATITUDE: N 42.883431° LONGITUDE: W-85.547136°



CONSTRUCTION NOTES:

1. BORE 16,352' AND INSTALL (X3) 1.25" HDPE CONDUIT AND PULL 144F CABLE
2. PROPOSED (X19) 2"X3"X2' HANDHOLES AND (X5) 4"X4"X4' BOREPITS

PROPOSED UNDERGROUND: 16,352 FEET

LEGEND

- GREEN = PROJECT AREA
- RED = UNDERGROUND CONSTRUCTION
- BLUE = AERIAL CONSTRUCTION
- MAGENTA = EXISTING DUCT

SHEET... 3 ... OF ... 36...	ROUTE...	EXCHANGE...	SERVICE AREA	MAP REFERENCE	COMPANY	PROJECT WIN AP 3 GRAND RAPIDS	CO...	SEC...	TWN...	RNG...	TAX...	DATE...	REVISION	BY			
MISSDIG811																	
DATE: 8/19/22			DESIGN: TLM			DRAFTED: TLM			CHECKED:			QA/QC:			SCALE: 1:50		
Uniti ENGINEERING COMPANY:																	
WTE ENGINEERING A FULL SERVICE ENGINEERING COMPANY 8800 PARK MEADOWS DR SUITE 600 SLOPE TREE, CO 49124 TEL: 726-344-5577																	

BOM

SHEET 4 OF 36
 ROUTE
 EXCHANGE
 SERVICE AREA
 MAP REFERENCE
 COMPANY
 PROJECT WIN AP 3 GRAND RAPIDS

CO.
 SEC.
 TWN.
 RANG.
 TAX
 DATE 11/10/22 REVISION BY
 11/10/22 KENT COUNTY COMMENTS SV



DATE: 8/19/22
 DESIGN: TLM
 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50

Uniti
 ENGINEERING COMPANY:
MTC ENGINEERING
 8600 PARK MEADOWS DR
 SUITE 800
 LONE TREE, CO 80124
 TEL: 720-344-3577

WIN AP 3 GRAND RAPIDS - KENT COUNTY		
ITEM DESCRIPTION	U/M	TOTAL
Proposed UG	FT	16,352
Existing UG	FT	
1.25" HDPE Conduit	FT	49,056
4" HDPE Conduit	FT	
Schedule 80 PVC 90° Sweep	EA	
Conduit Coupler	EA	
144F Pull Through Conduit	FT	16,352
144F Slackloop	FT	1,000
144F Total	FT	17,352
Splice Enclosure	EA	
Ground Rod Assembly	EA	
HH	24x36x24	
HH	30x60x30	19
MH Size	Standard	
BP Size	4x4x4	5
3M Marker Ball	EA	19
Marker Post	EA	19

CONTACT SHEET

SHEET	5	OF	36
ROUTE			
EXCHANGE			
SERVICE AREA			
MAP REFERENCE			
COMPANY			
PROJECT	WIN AP 3 GRAND RAPIDS		
CO.		SEC.	
TWN.		RNG.	
TAX.			
DATE	11/19/22	REVISION	BY
		KENT COUNTY COMMENTS	CV

CITY GOVERNMENT
 GARY CAMPBELL
 CALEDONIA TOWNSHIP BUILDING OFFICIAL
 OFFICE (616)891-0442
 CELL: (616)-240-5904
 building@caledoniatownship.org

KENTWOOD ENGINEERING DEPT
 JAMES M BEKE
 4900 BRETON AVE SE
 KENTWOOD, MI 49508
 (616)554-0737
 (616)698-7118
 bekej@ci.kentwood.mi.us

COUNTY GOVERNMENT
 KENT COUNTY PUBLIC WORKS
 DAR BAAS
 DEPARTMENT DIRECTOR
 (616)632-7919
 darwin.baas@kentcounty.mi.gov

MICHIGAN DEPARTMENT OF TRANSPORTATION
 GRAND REGION OFFICE
 ERICK KIND, P. E. REGION ENGINEER
 1420 FRONT AVE, NW
 GRAND RAPIDS, MI 49504
 (616)451-3091

UTILITIES
 MICHIGAN 811
 800-482-7171
 OR 811

RAILROADS:
 BNSF RAILWAY
 2560 LOU MENK DR
 FORT WORTH, TX 76131
 (800)-795-2673

UNION PACIFIC RAILROAD
 1400 DOUGLAS ST
 OMAHA, NE 68179
 (402)-544-5000 OR
 (888)-870-8777

UTILITY OWNER
 UNITI
 10802 EXECUTIVE CENTER DR.
 BENTON BUILDING, SUITE 300
 LITTLE ROCK, AR 72211
 (501)-850-0820

ROBERT DIXON
 (727)-543-4206

ENGINEERING CONTRACTOR
 MTC ENGINEERING
 8600 PARK MEADOWS DR, SUITE 800
 LONE TREE, CO 80124
 (720)-344-5577

MATTHEW MINUTI
 TRACI MONROE
 (630)-743-3639
 (720)-891-8374

CONSTRUCTION CONTRACTOR
 TBD



DATE: 8/19/22
 DESIGN: TLM
 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50

ENGINEERING COMPANY

MTC ENGINEERING
 A DIVISION OF MICHIGAN DEPARTMENT OF TRANSPORTATION

8600 PARK MEADOWS DR
 SUITE 800
 LONE TREE, CO 80124
 TEL: 720-344-5577

GENERAL CONSTRUCTION NOTES

SHEET 6 OF 36
ROUTE
EXCHANGE
SERVICE AREA
MAP REFERENCE
COMPANY
PROJECT WIN AP 3 GRAND RAPIDS
CO.
SEC.
TWN.
RNG.
TAX.
DATE 11/10/22
REVISION
BY KENT COUNTY COMMENTS CV
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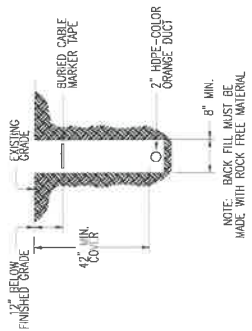


SYMBOLS KEY

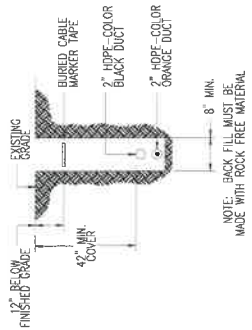
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	BORE		GAS UTILITY FEATURE		EXIST FIBER SPLICE
	PLOW		SANITARY UTILITY FEATURE		PROP FIBER SPLICE
	EX BUCT		STORMWATER UTILITY FEATURE		EXIST FIBER STORAGE
	AERIAL		WATER UTILITY FEATURE		PROP FIBER STORAGE
	CURB		UTILITY RISER		EXIST MANHOLE
	EOP		COMMUNICATIONS UTILITY FEATURE		PROP MANHOLE
	CENTERLINE		TRAFFIC CONTROL UTILITY FEATURE		EXIST HANDHOLE
	PROPERTY LINE		FIRE HYDRANT		PROP HANDHOLE
	RIGHT-OF-WAY		BUS STOPS		BORE PIT
	EASEMENT		ADA RAMPS		PROP GROUND ROD
	FENCE		PARKING METER		MARKER
	R/R TRACKS		DUMPSTER		STEEL PILING
	SANITARY SEWER		PED TRAFFIC SIGNAL		CULVERT
	STORM SEWER		MAILBOX		MONUMENT
	POWER		POWER/PHONE		POWER
	COMMUNICATIONS		EXIST GUY		PHONE
	GAS		EXIST S/W ANCH		PROPOSED MAKE-READY
	WATER		EXIST FIBER SPLICE		FIBER SYMBOL
	IRRIGATION		EXIST FIBER STORAGE		PROP GUY
	TRAFFIC CONTROL		SIGNAL POLE		PROP S/W ANCH
	EXISTING STRAND		R/R CROSSING SIGNAL		PROP FIBER SPLICE
	STRAND		SIGN		PROP FIBER STORAGE
	EXISTING AERIAL		LUMINAIRE		STREET CAR POLE
	GUARDRAIL		VEGETATION		UTILITY CROSSING POINT

DIRECTIONAL BORE

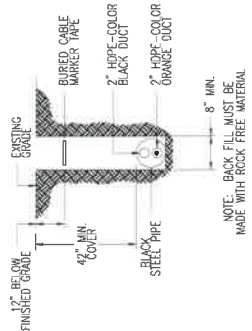
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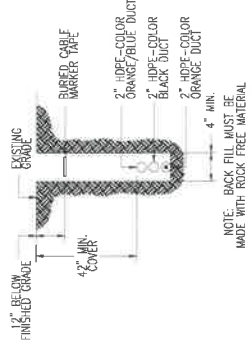
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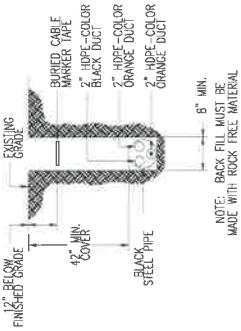
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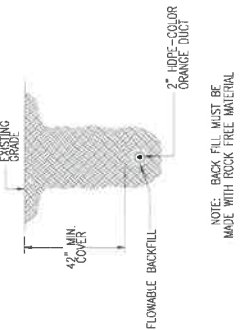
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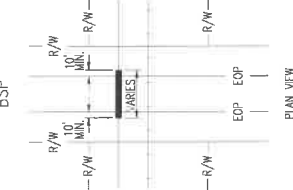
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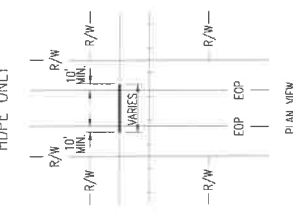
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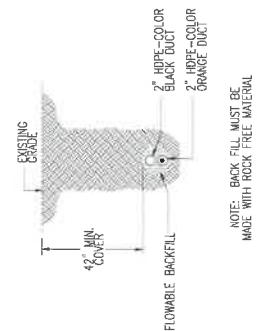
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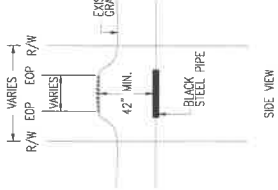
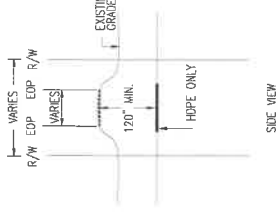
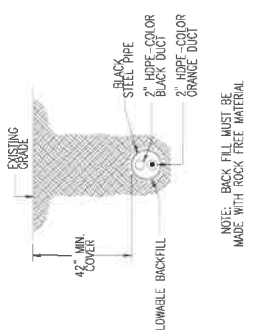
TYPICAL DB-R DIRECTIONAL BORE ROADWAY HDPE ONLY



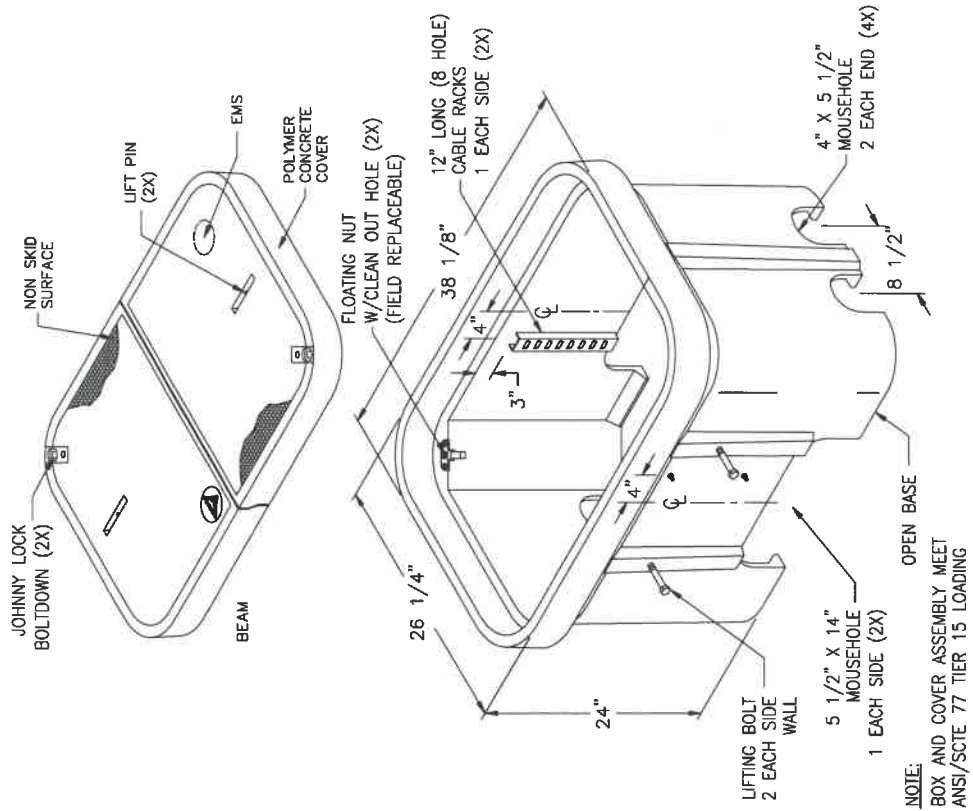
TYPICAL DB-2



TYPICAL DB-2P



2' x 3' x 2' HANDHOLE DETAILS



NOTE:
BOX AND COVER ASSEMBLY MEET
ANSI/SC1E 77 TIER 15 LOADING

SHEET 10 OF 36	ROUTE	EXCHANGE	SERVICE AREA	MAP REFERENCE	COMPANY	PROJECT WIN AP 3 GRAND RAPIDS	CO.	SEC.	TWN.	RNG.	TAX.	DATE	REVISION	BY
												11/10/22	KENT COUNTY COMMENTS	GV

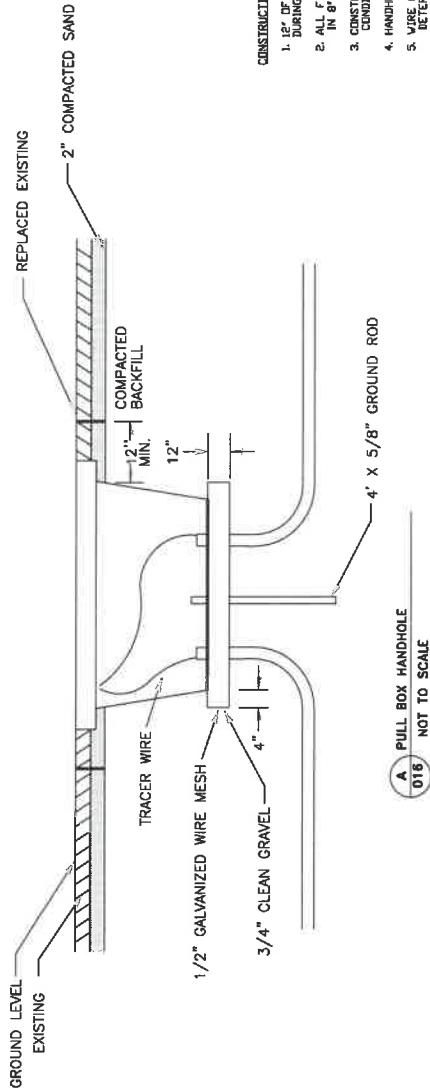
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DATE: 8/19/22
DESIGN: TLM
DRAFTED: TLM
CHECKED:
QA/QC:
SCALE: 1:50

Uniti
ENGINEERING COMPANY:

MTS ENGINEERING
1 FULL CIRCLE FIRM 33 STATES CONTINENTAL
8600 PARK MEADOWS DR
SUITE 800
DENVER, CO 80224
TEL: 720-344-8377

HANDHOLE INSTALLATION TYPICAL



CONSTRUCTION NOTES:

1. 1/2" OF GRAVEL SHALL BE PLACED UNDER ENCLOSURE DURING INSTALLATION TO ASSIST IN DRAINAGE.
2. ALL FILL AROUND ENCLOSURE SHALL BE COMPACTED IN 8" LAYERS.
3. CONSTRUCTION AREA SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
4. HANDHOLE SHALL NOT BE PLACED ON A SLOPE GREATER THAN 15%.
5. WIRE MESH SHALL BE PLACED UNDER HANDHOLE IN GRAVEL TO PREVENT ROBERT ENTRY.
6. ALL TRACER WIRES MUST BE CONNECTED TO TESTING LUG AT EACH HANDHOLE AND CENTRALLY VERIFIED.

SHEET 11 OF 36
 ROUTE
 EXCHANGE
 SERVICE AREA
 MAP REFERENCE
 COMPANY
 PROJECT WIN AP 3 GRAND RAPIDS

CO.
 SEC.
 TWP.
 RANG.
 TAX

DATE 11/19/22 REVISION BY
 11/19/22 KENT COUNTY COMMENTS BY



DATE: 8/19/22
 DESIGN: TLM
 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50



ENGINEERING COMPANY:
MTC ENGINEERING
 8800 PARK MEADOWS DR
 SUITE 800
 LONE TREE, CO 80124
 TEL: 720-344-5377

HANDHOLE SLACK STORAGE DETAILS

SHEET 12 OF 36	ROUTE	EXCHANGE	SERVICE AREA	MAP REFERENCE	COMPANY	PROJECT WIN AP 3 GRAND RAPIDS	CO.	SEC.	TWN.	RNG.	TAX.	DATE	REVISION	BY
												11/10/22	KENT COUNTY COMMENTS	BY

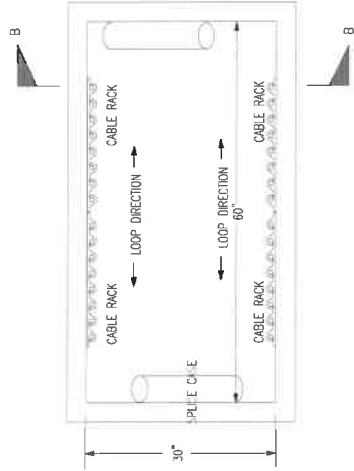


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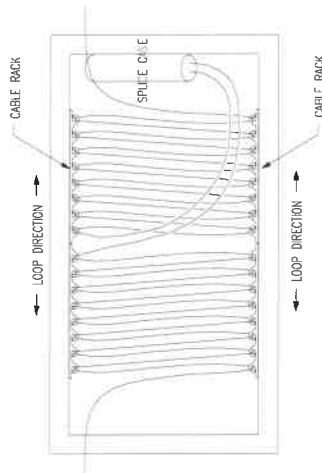


ENGINEERING COMPANY:
MTI ENGINEERING
 8800 PARK MEADOWS DR
 SUITE 800
 TOLSON, ILLINOIS 62551
 TEL: 708-344-5577

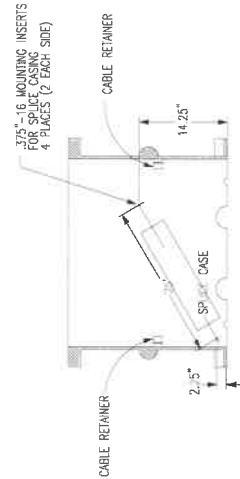
DETAIL "B"
HANDHOLE LAYOUT



DETAIL "A"
CABLE SLACK ARRANGEMENT



SECTION B-B



CABLE GROUNDING INSTALLATION DETAILS
(FOR CONTRACTOR INSTALLATION)

SHEET 13 OF 36	ROUTE	EXCHANGE	SERVICE AREA	MAP REFERENCE	COMPANY	PROJECT WIN AP 3 GRAND RAPIDS	CO.	SEC.	TWN.	RNG.	TAX.	DATE 11/10/22	REVISION	BY

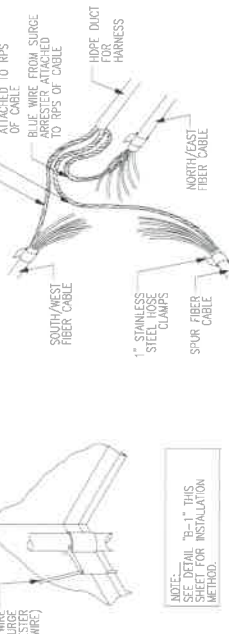
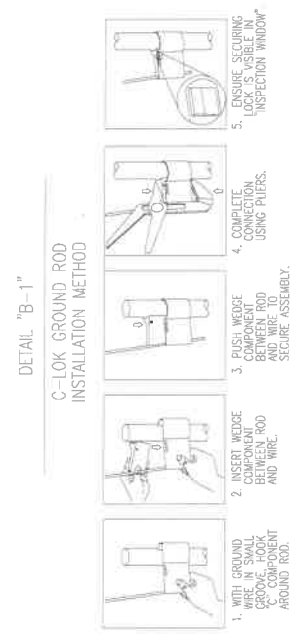
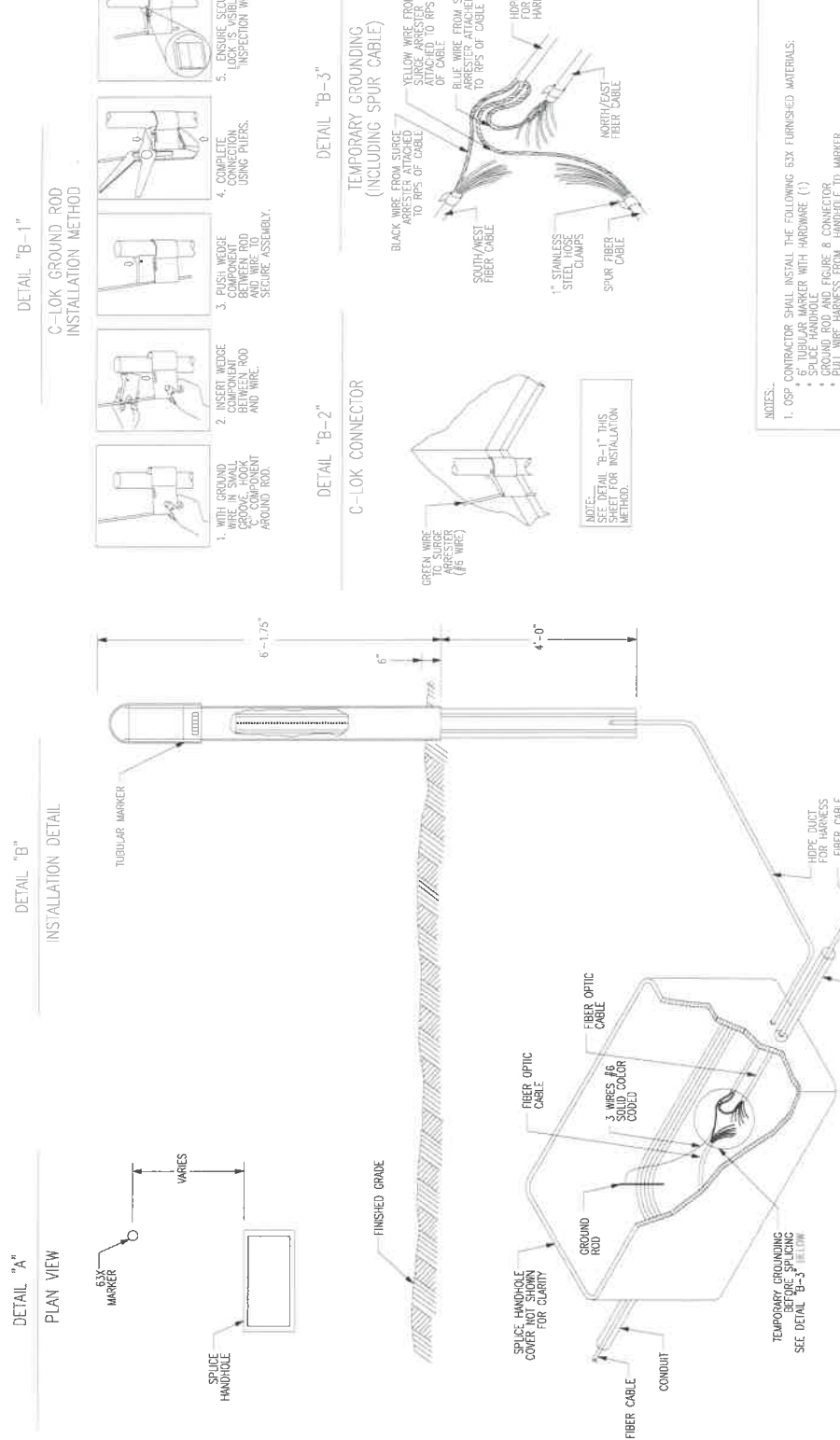
CABLE GROUNDING INSTALLATION DETAILS

MISSDIG811

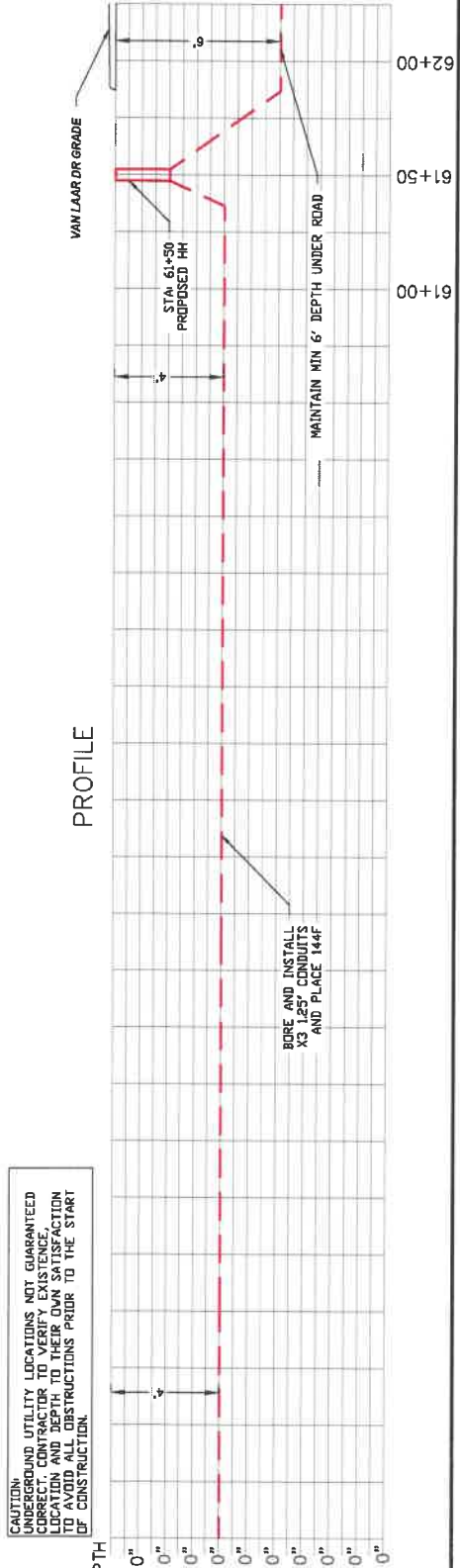
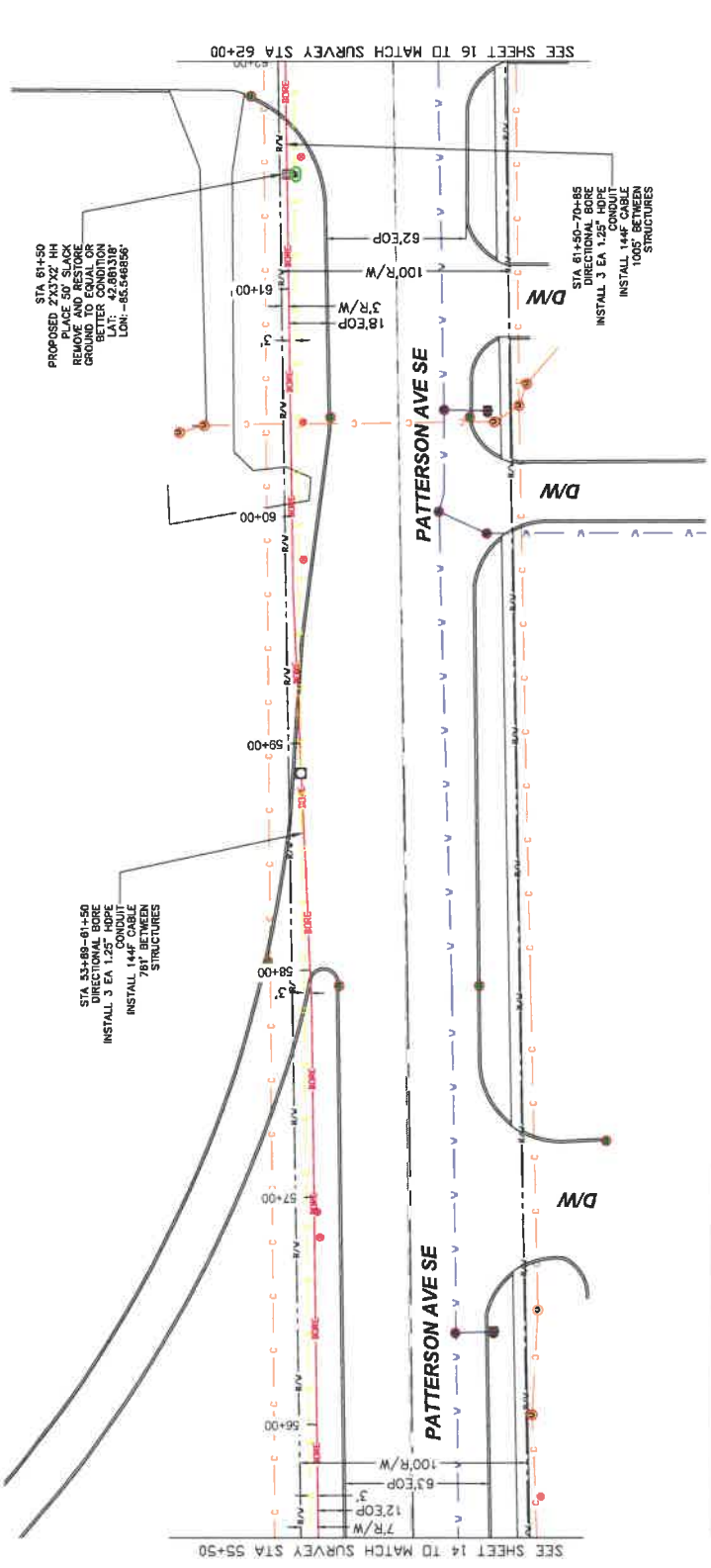
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 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50

Uniti
 ENGINEERING COMPANY:

MTI ENGINEERING
 8600 PARK MEADOWS DR
 SUITE 800
 FORT COLLINS, CO 80524
 TEL: 970-344-8877



- NOTES:
- OSP CONTRACTOR SHALL INSTALL THE FOLLOWING 63X FURNISHED MATERIALS:
 - GROUND ROD
 - SPUR HARNESS
 - SPICE HANDHOLE
 - PULL WIRE HARNESS FROM HANDHOLE TO MARKER
 - THE CONTRACTOR SHALL FURNISH AND INSTALL THE HOPE, LENGTH AS REQUIRED PER THE DRAWINGS.
 - ALL 63X AND CONTRACTOR FURNISHED MATERIALS SHALL BE IN PLACE PRIOR TO PLACEMENT OF THE FIBER OPTIC CABLE AT WHICH TIME THE TEMPORARY GROUND CONNECTION WILL BE MADE.
 - AFTER CONNECTION OF THE TEMPORARY GROUND, THE CONTRACTOR SHALL SEAL THE ENDS OF THE FIBER OPTIC CABLE TO PREVENT THE ENTRY OF MOISTURE.
 - AFTER INSTALLATION OF THE FIBER OPTIC CABLE AND WIRING HARNESS BY THE CONTRACTOR, THE CONTRACTOR SHALL SEAL THE HOPE DUCT LINE OPENINGS WITH 63X APPROVED MATERIAL TO PREVENT THE ENTRY OF MOISTURE.
 - MARKER AND HANDHOLE SHOULD BE PLACED IN LINE WITH THE NORTHERN CORNER OF THE SPICE HANDHOLE FOR NORTH/SOUTH ROUTES, THE EASTERN CORNER OF THE SPICE HANDHOLE FOR EAST/WEST ROUTES.



CAUTION:
 UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
 CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
 LOCATION AND DEPTH TO THEIR OWN SATISFACTION
 PRIOR TO ANY CONSTRUCTION.

SHEET 16 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RNG. TAX.

DATE: 11/10/22 REVISION: BY: 11/10/22 KENT COUNTY COMMENTS

DATE: 8/19/22 DESIGN: TLM

DRAFTED: TLM

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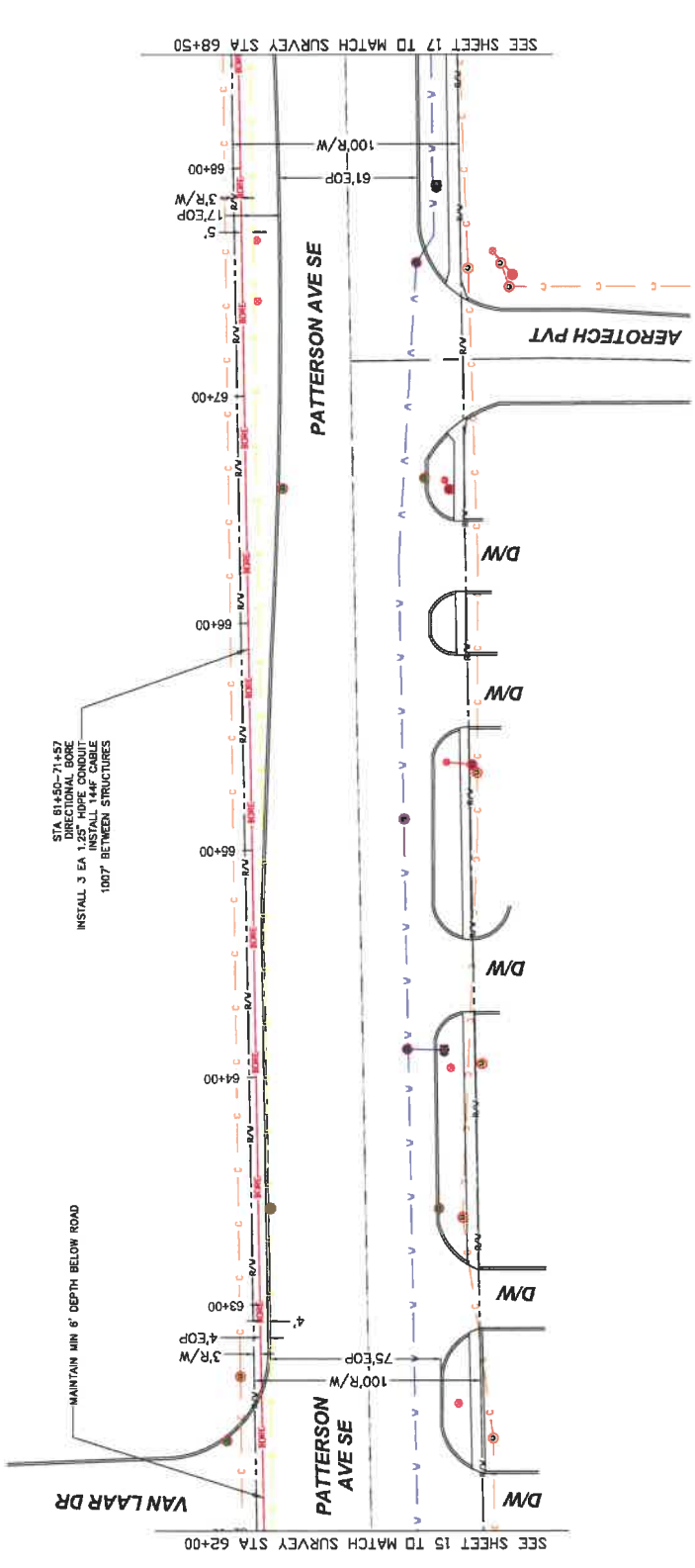
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MISSDIG 811

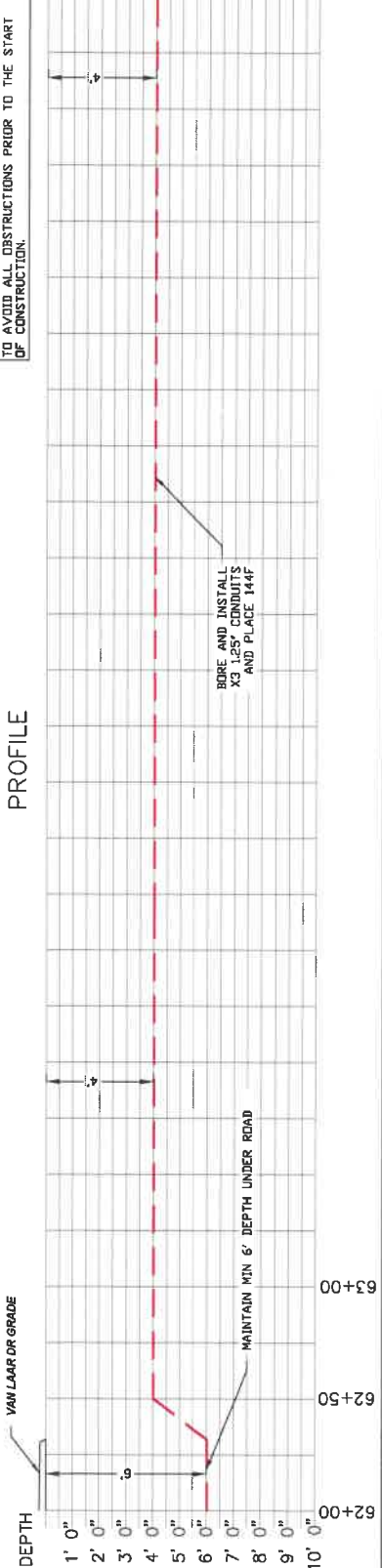
Uniti
ENGINEERING COMPANY:

MTC ENGINEERING
1000 S. STATE ST. SUITE 200
GRAND RAPIDS, MI 49503
8600 PARK MEADOWS DR
SUITE 800
ONE TREE, CO 80724
TEL: 725-344-5577



CAUTION: UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED. CONTRACTOR TO VERIFY EXISTENCE, LOCATION AND DEPTH TO THEIR OWN SATISFACTION TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START OF CONSTRUCTION.

PROFILE



SHEET 17 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO.

SEC.

TWN.

RNG.

TASK:

DATE: 11/10/22

REVISION: KENT COUNTY COMMENTS

BY:

11/10/22

DATE: 8/19/22

DESIGN: TLM

DRAFTED: TLM

CHECKED:

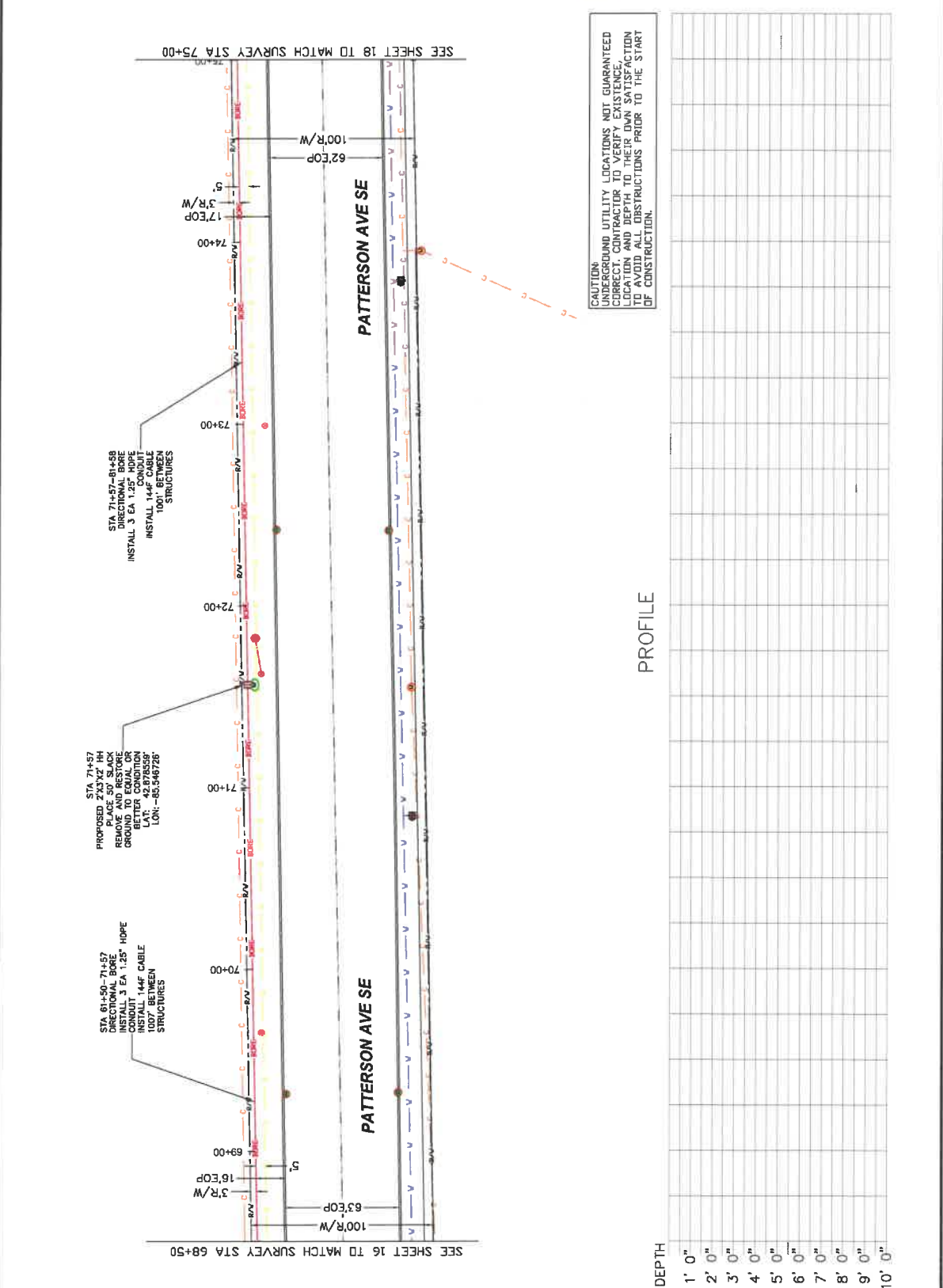
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SCALE: 1:50

MISSDIG811

Uniti
ENGINEERING COMPANY:

MTC ENGINEERING
8600 PARK MEADOWS DR
SUITE 800
DENVER, CO 80224
TEL: 720-344-5577



SHEET 18 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RNG. TAX.

DATE 11/10/22 REVISION BY 11/10/22 KENT COUNTY COMMENTS BV

DATE: 8/19/22

DESIGN: TLM

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QA/QC:

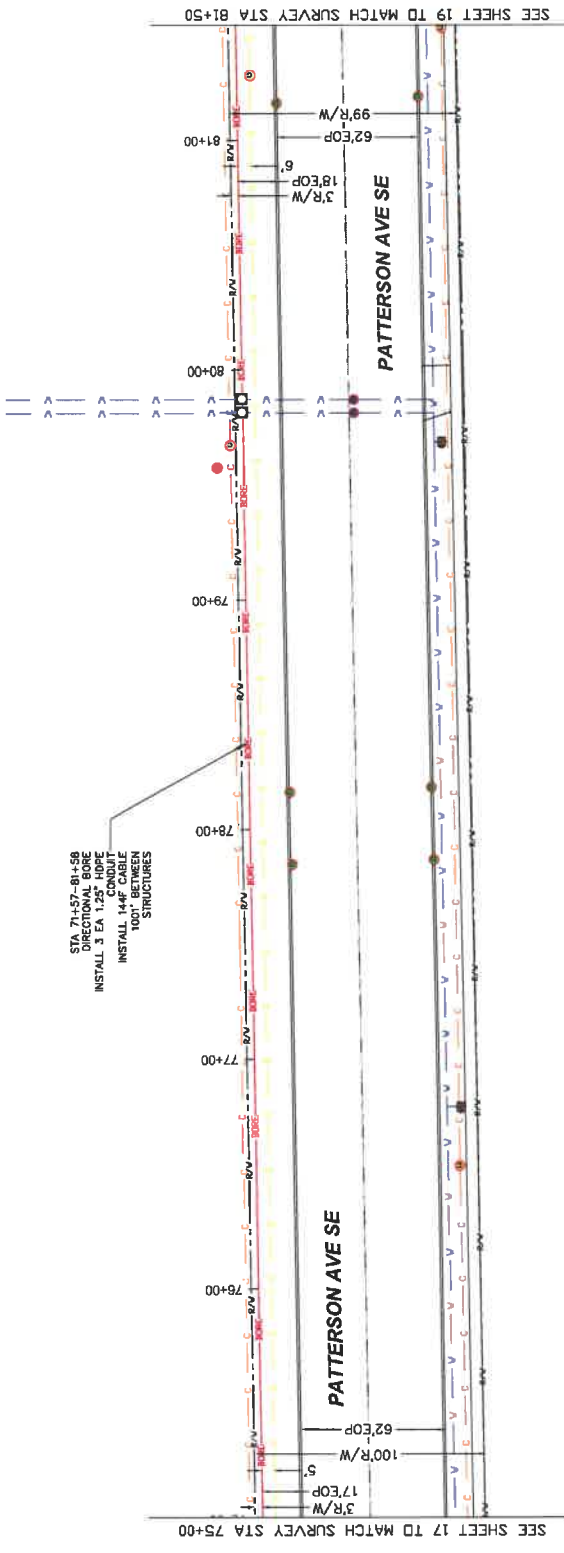
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Uniti

ENGINEERING COMPANY:

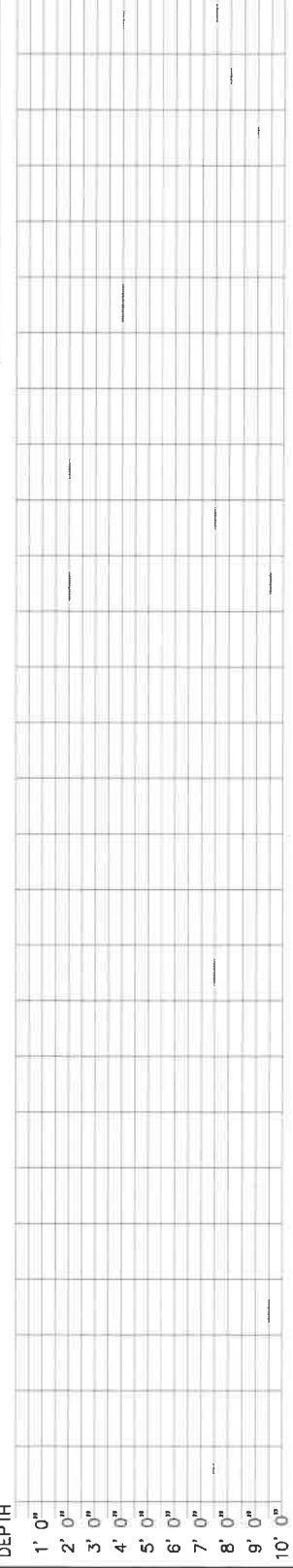
ATC ENGINEERING

8800 PARK MEADOWS DR
SUITE 800
LEWISVILLE, OH 44641
TEL: 720-344-5574



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
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PROFILE



SHEET 19 OF 36

ROUTE

EXCHANGE

SERVICE AREA

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COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RING. TAX:

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DATE: 8/19/22

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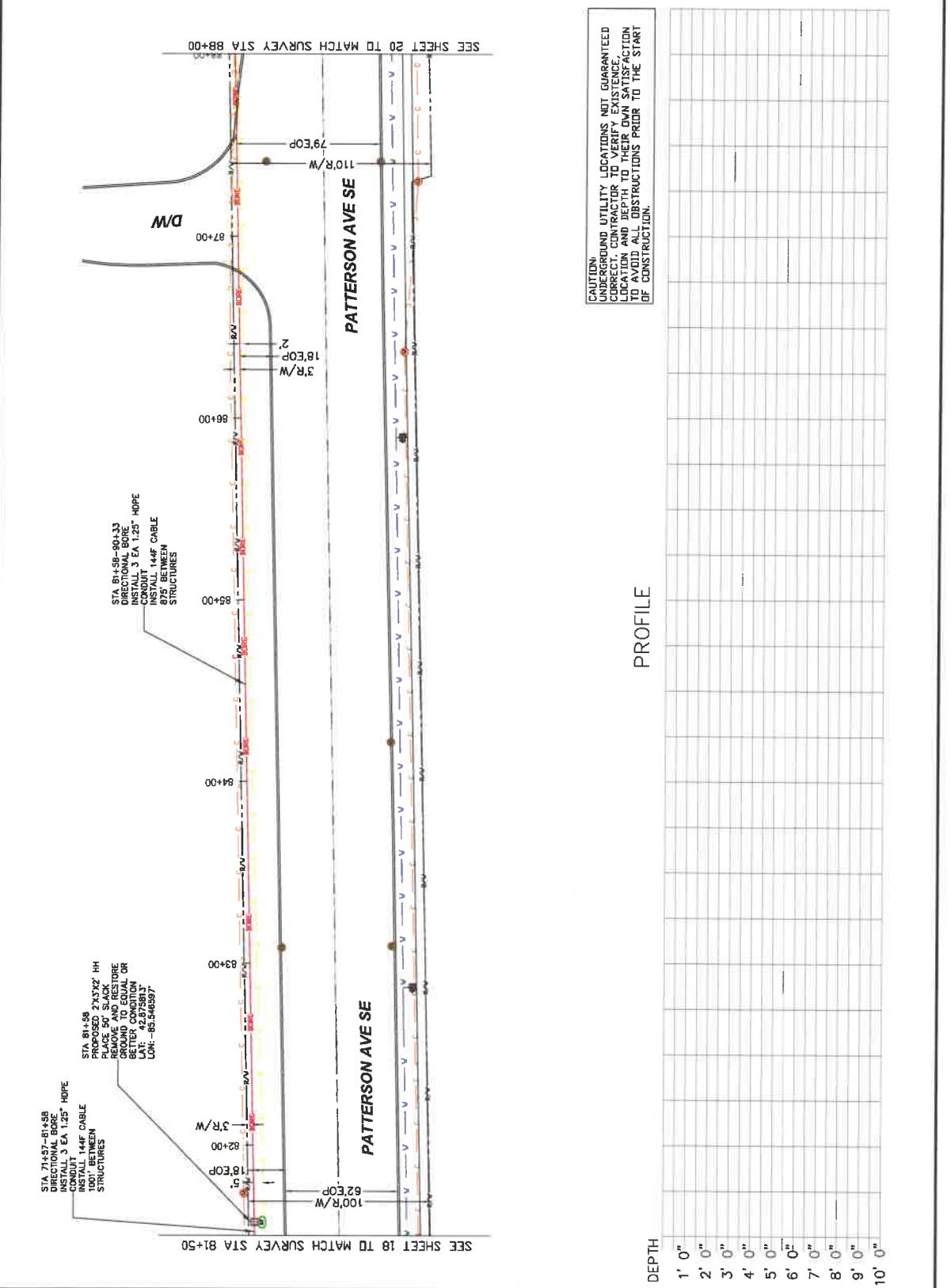
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Uniti

ENGINEERING COMPANY:

MTC ENGINEERING

8600 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-9577



SHEET 21 OF 36

ROUTE

EXCHANGE

SERVICE AREA

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COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RNS. TAX.

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11/10/22 KENT COUNTY COMMENTS

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DATE: 8/19/22

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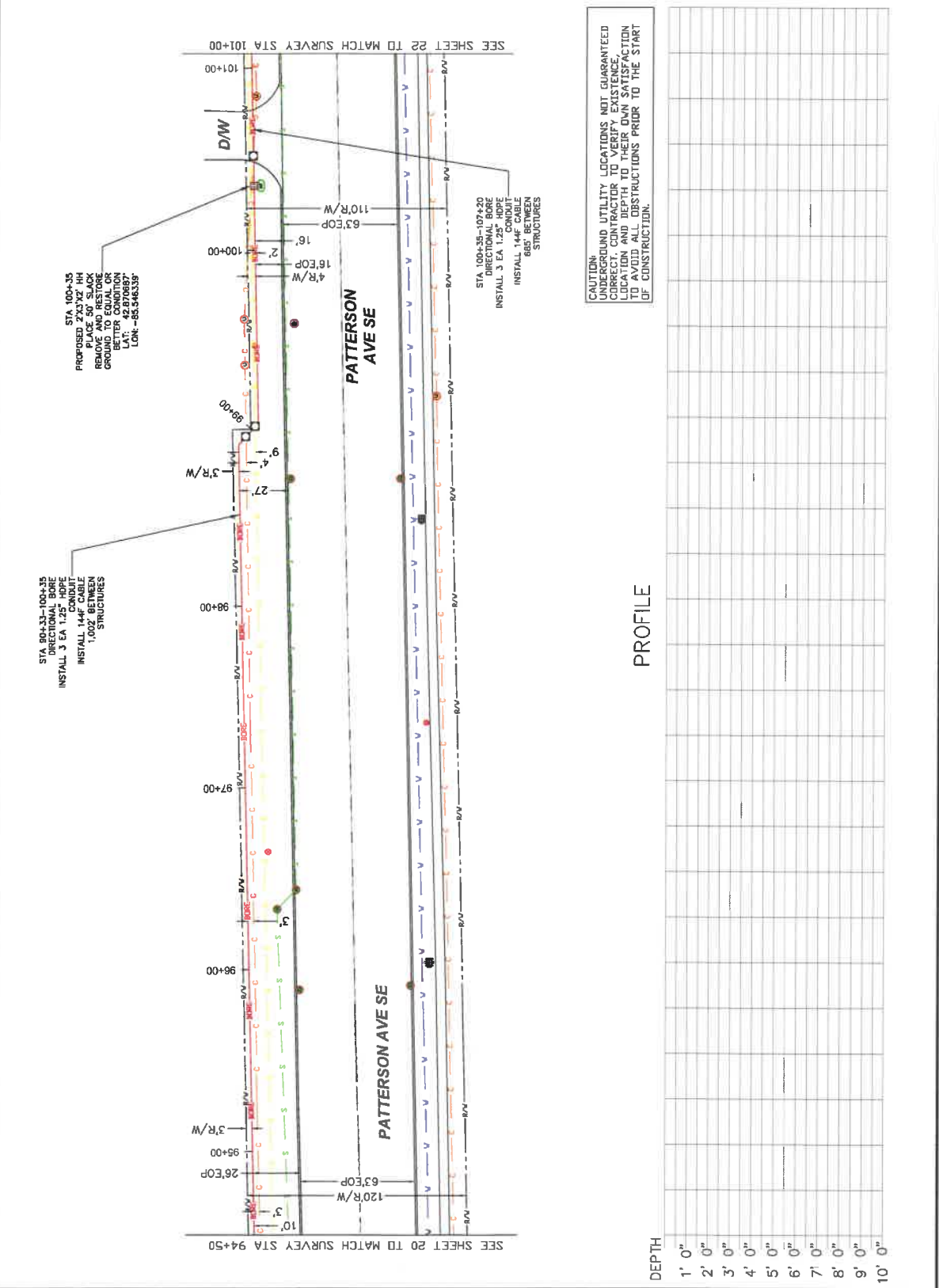
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Uniti

ENGINEERING COMPANY:

MTC ENGINEERING

6800 PARK MEADOWS DR
SUITE 800
LONE TREE, CO 80124
TEL: 720-344-5577



SHEET 23 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO.

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TWN.

RNG.

TAX.

DATE 11/10/22 REVISION BY

11/10/22 KENT COUNTY COMMENTS BY

DATE: 8/19/22

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QA/QC:

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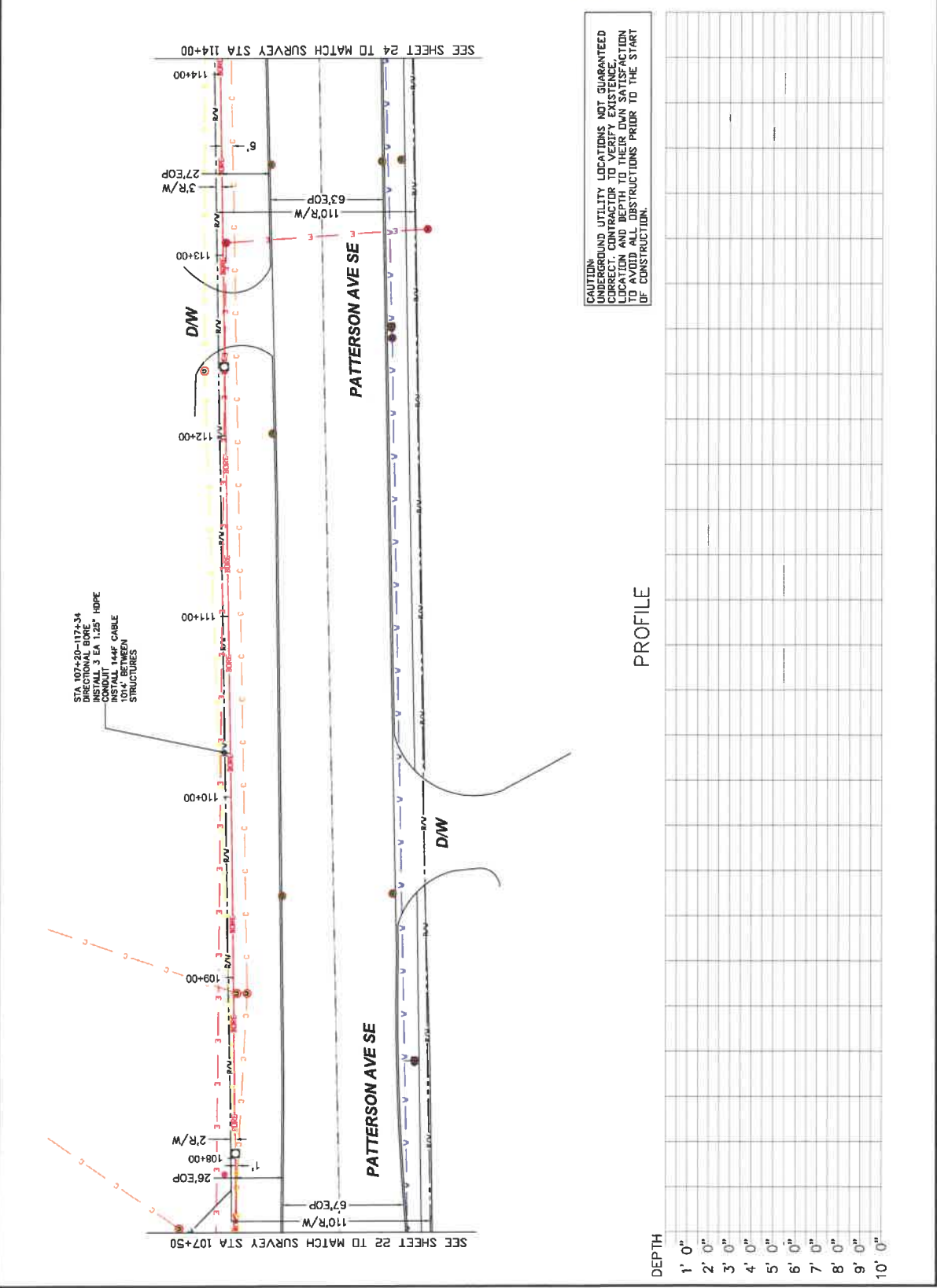
Uniti

ENGINEERING COMPANY:

MTC ENGINEERING

A Full-Service Engineering Consulting Firm

8800 PARK MEADOWS DR
SUITE 300
JENNER, CO 80124
TEL: 720-344-5577



SHEET 25 OF 36

ROUTE
EXCHANGE
SERVICE AREA
MAP REFERENCE
COMPANY
PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWIN. RING. TAX.

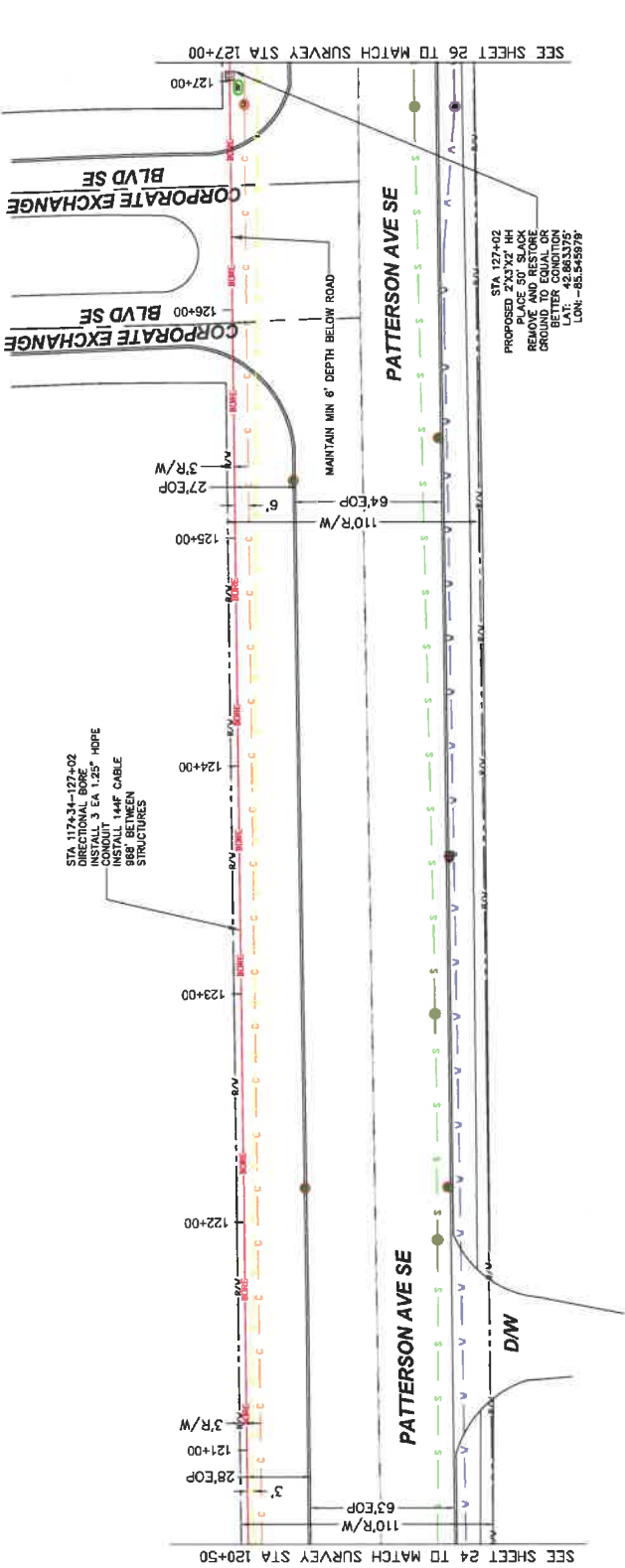
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QA/QC:
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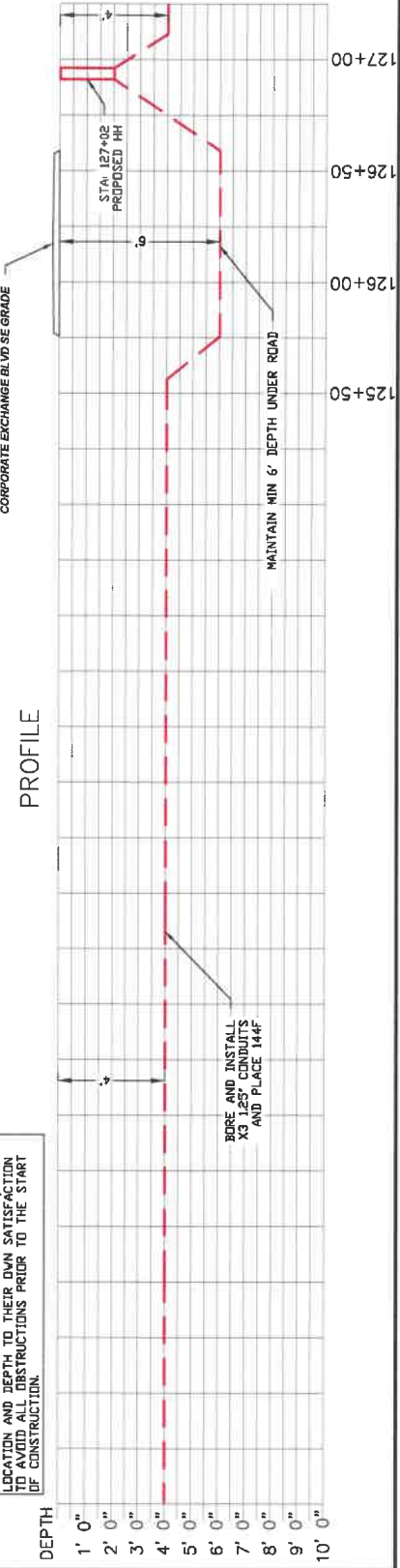
MISSDIG811

Uniti
ENGINEERING COMPANY:

MTC ENGINEERING
1000 W. 11th Street, Grand Rapids, MI 49503
8800 PARK MEADOWS DR
SUITE 800
GRAND RAPIDS, MI 49508
TEL: 726-344-5577



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
BEFORE ANY CONSTRUCTION PRIOR TO THE START
OF CONSTRUCTION.



SHEET 27 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO.

SEC.

TWN.

RANG.

TAX.

DATE 11/10/22

REVISION

BY GW

COMMENTS

DATE: 8/19/22

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CHECKED:

QA/QC:

SCALE: 1:50

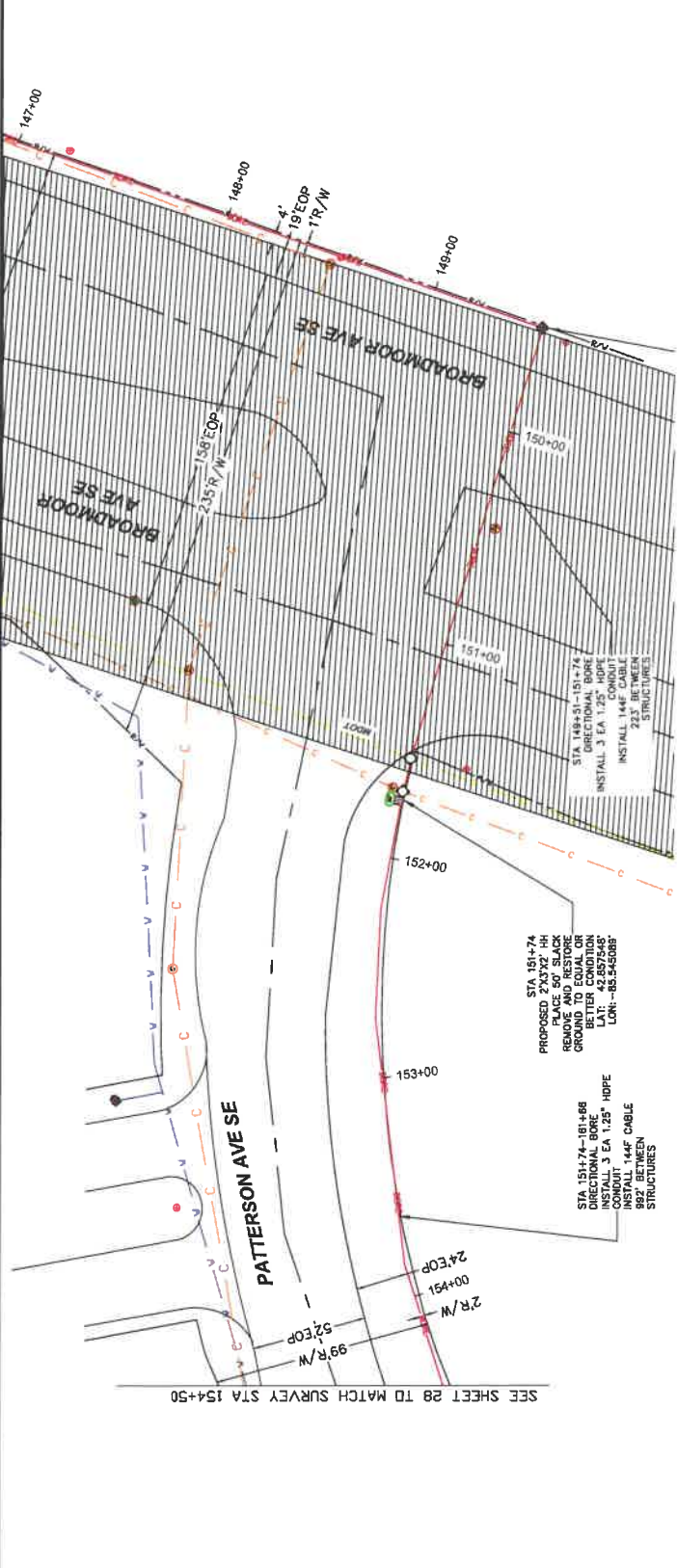
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Uniti

ENGINEERING COMPANY:

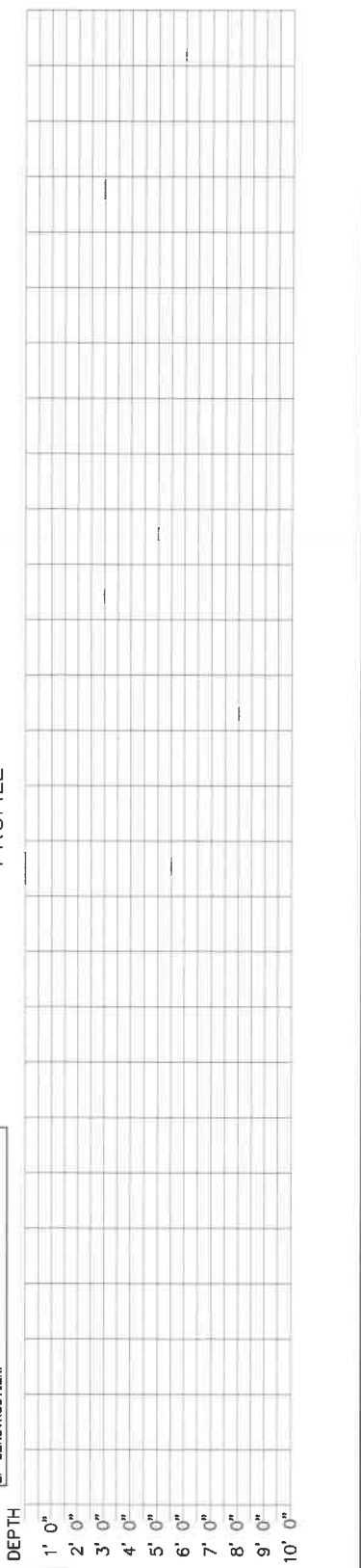
MTC ENGINEERING

6600 PARK MEADOWS DR
SUITE 800
GRAND RAPIDS, MI 49507
TEL: 734-944-5577



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CONSTRUCTION TO BE MADE AT OWNERS RISK
LOCATION AND DEPTH TO THEIR OWN SATISFACTION
TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

PROFILE



SHEET 29 OF 36

ROUTE
EXCHANGE
SERVICE AREA
MAP REFERENCE
COMPANY
PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RNC. TAX.

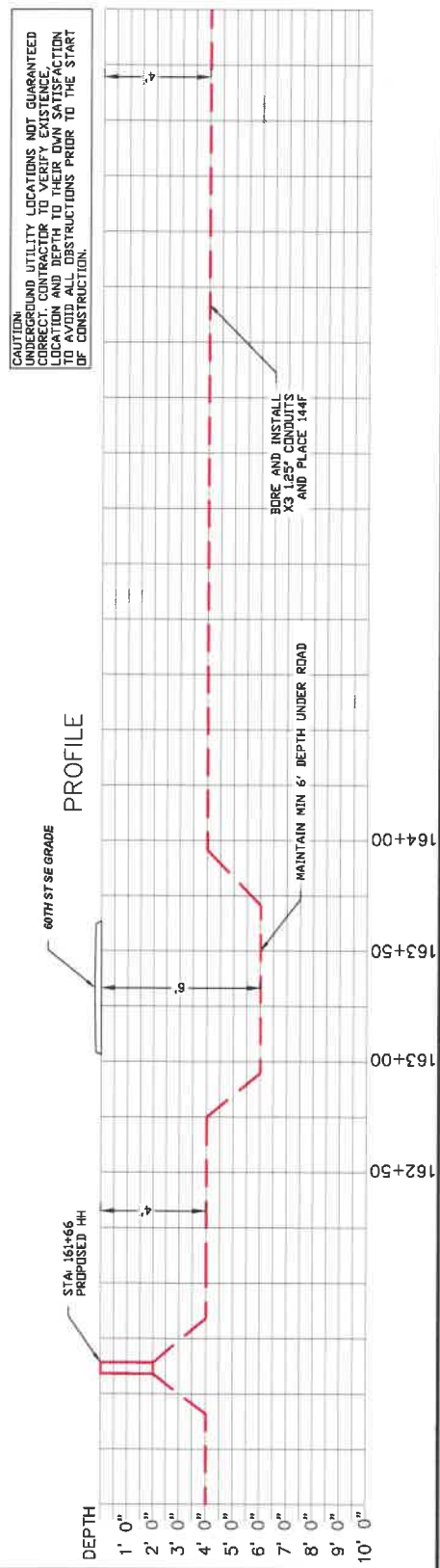
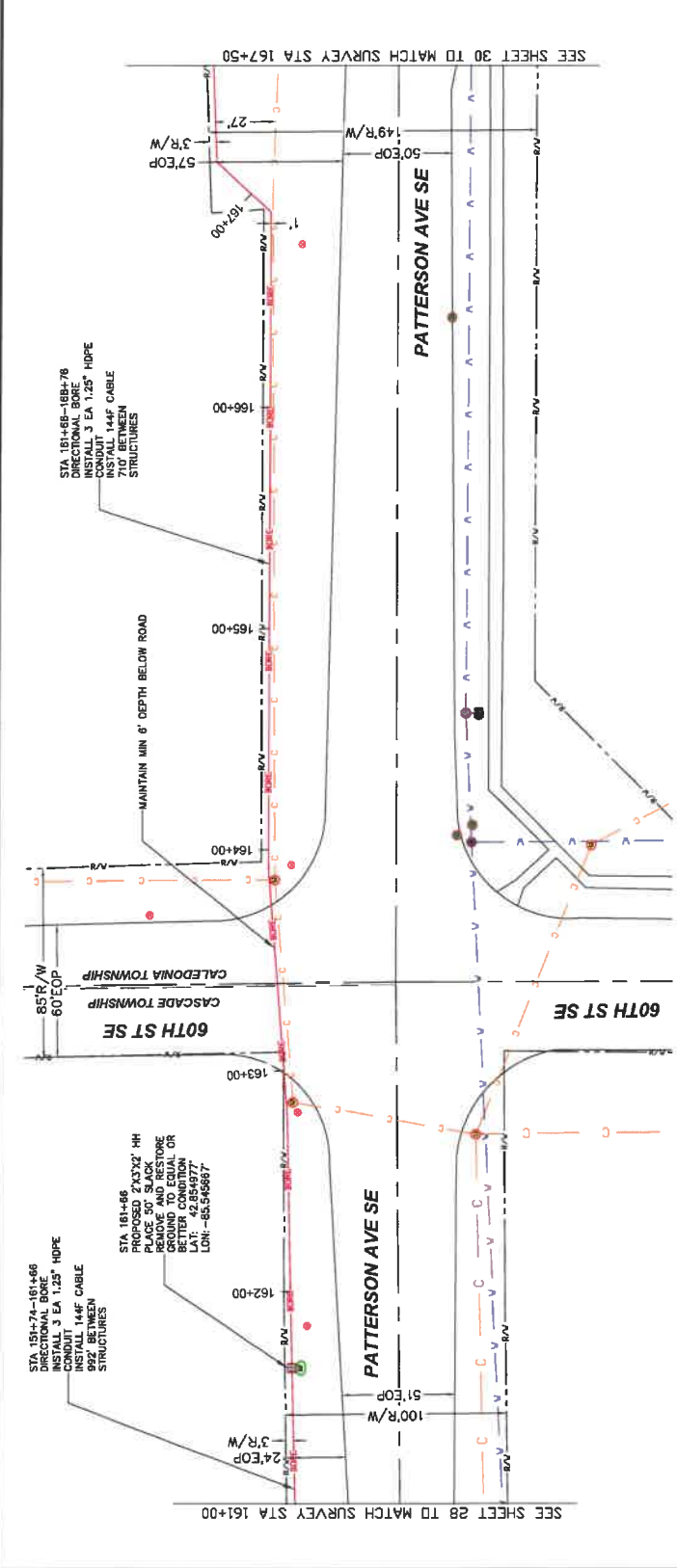
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RENT COUNTY COMMENTS

MISSDIG811

DATE: 8/19/22
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CHECKED:
QA/QC:
SCALE: 1:50

Uniti
ENGINEERING COMPANY:

MTC ENGINEERING
A FULLY LICENSED PROFESSIONAL ENGINEERING FIRM
8600 PARK MEADOWS DR
SUITE 800
KENT, OHIO 44204
PHONE: 330.881.2424
FAX: 330.881.2424
TEL: 730.344.5577



SHEET 30 OF 36

ROUTE

EXCHANGE

SERVICE AREA

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COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO. SEC. TWN. RING. TAX

DATE 11/19/22 REVISION BY

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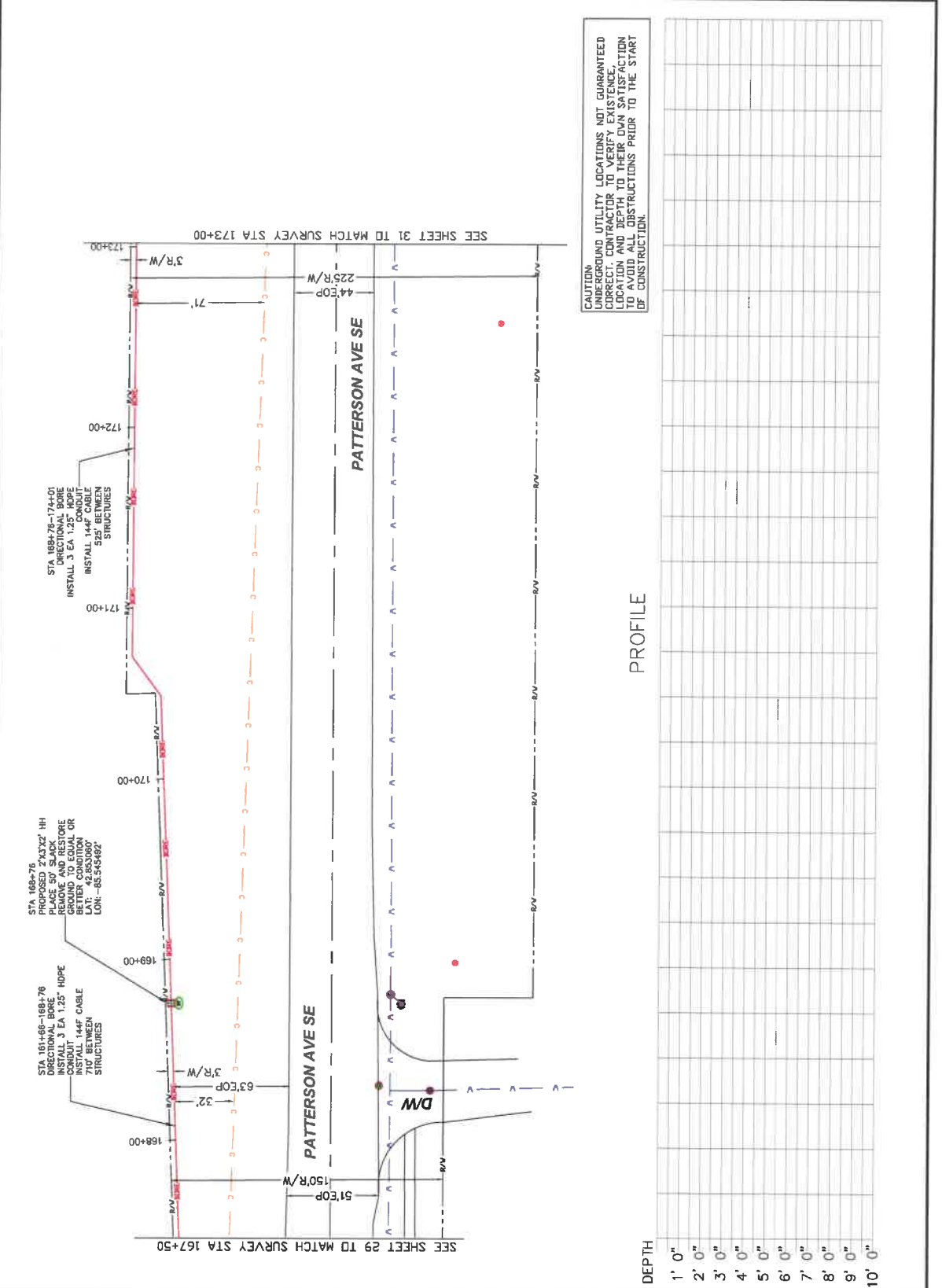
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Uniti

ENGINEERING COMPANY:

MTC ENGINEERING

8600 PARK MEADOWS DR
SUITE 600
LOVE TREE, CO 80124
TEL: 720-344-5577



SHEET 31 OF 36

ROUTE
EXCHANGE
SERVICE AREA
MAP REFERENCE
COMPANY
PROJECT WIN AP 3 GRAND RAPIDS

CO.
SEC.
TWN.
RNG.
TAX:

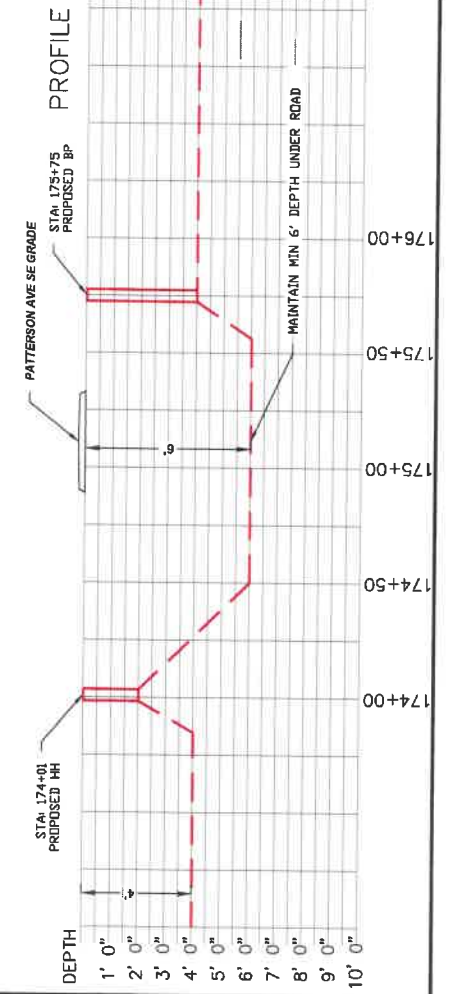
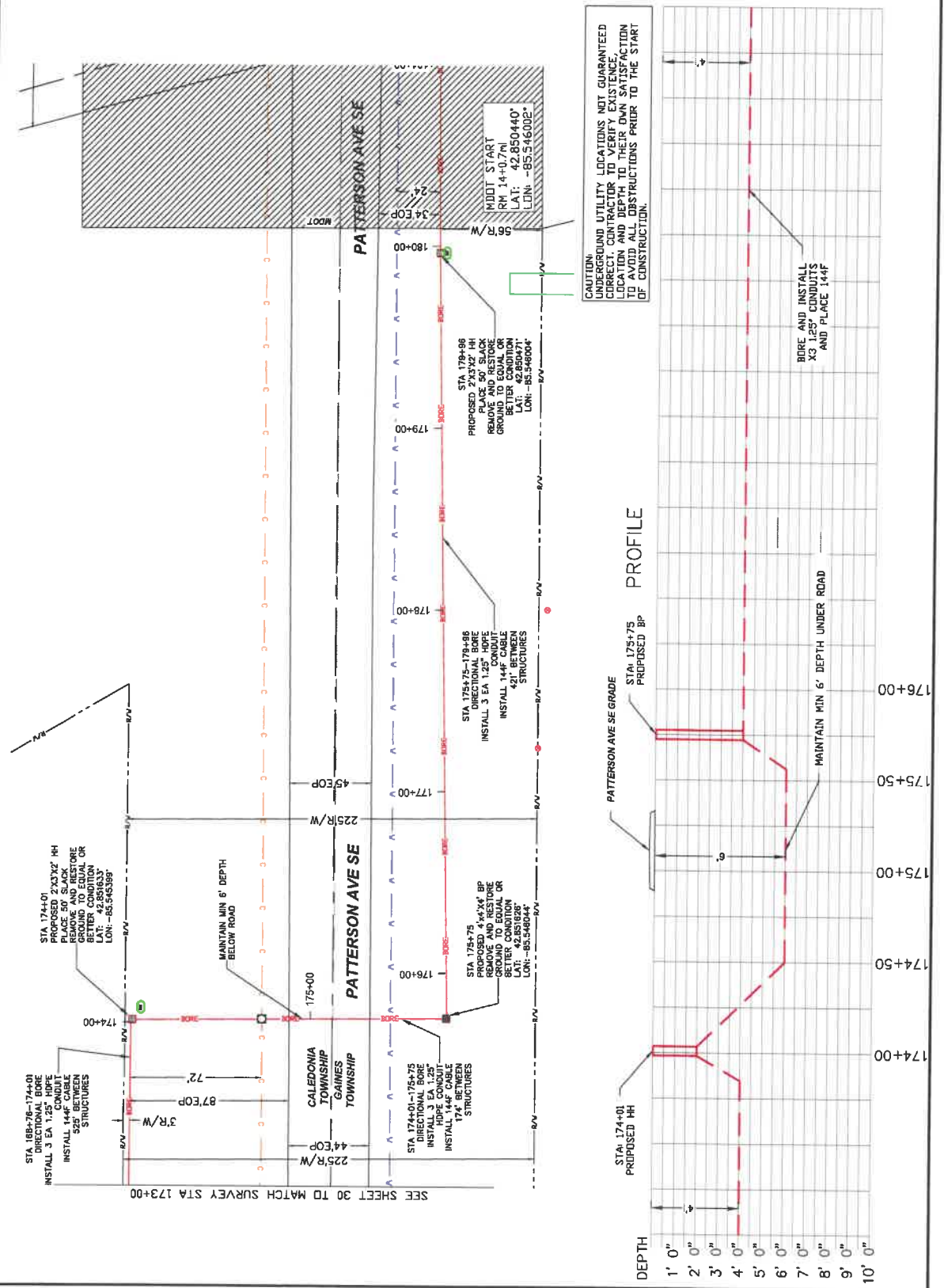
DATE 11/10/22 REVISION BY
NEXT COUNTY COMMENTS

DATE: 8/19/22
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CHECKED:
QA/QC:
SCALE: 1:50

MISSDIG811

Uniti
ENGINEERING COMPANY:

AT&T ENGINEERING
GENERAL ENGINEERING CONSULTANTS
8600 PARK MEADOWS DR
DALLAS, TX 75247
TEL: 720-344-5577



SHEET 33 OF 36

ROUTE

EXCHANGE

SERVICE AREA

MAP REFERENCE

COMPANY

PROJECT WIN AP 3 GRAND RAPIDS

CO.

SEC.

TWN.

RNG.

TAX.

DATE 11/10/22

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BY

11/10/22 KENT COUNTY COMMENTS

GV

MISSDIG811

DATE: 8/19/22

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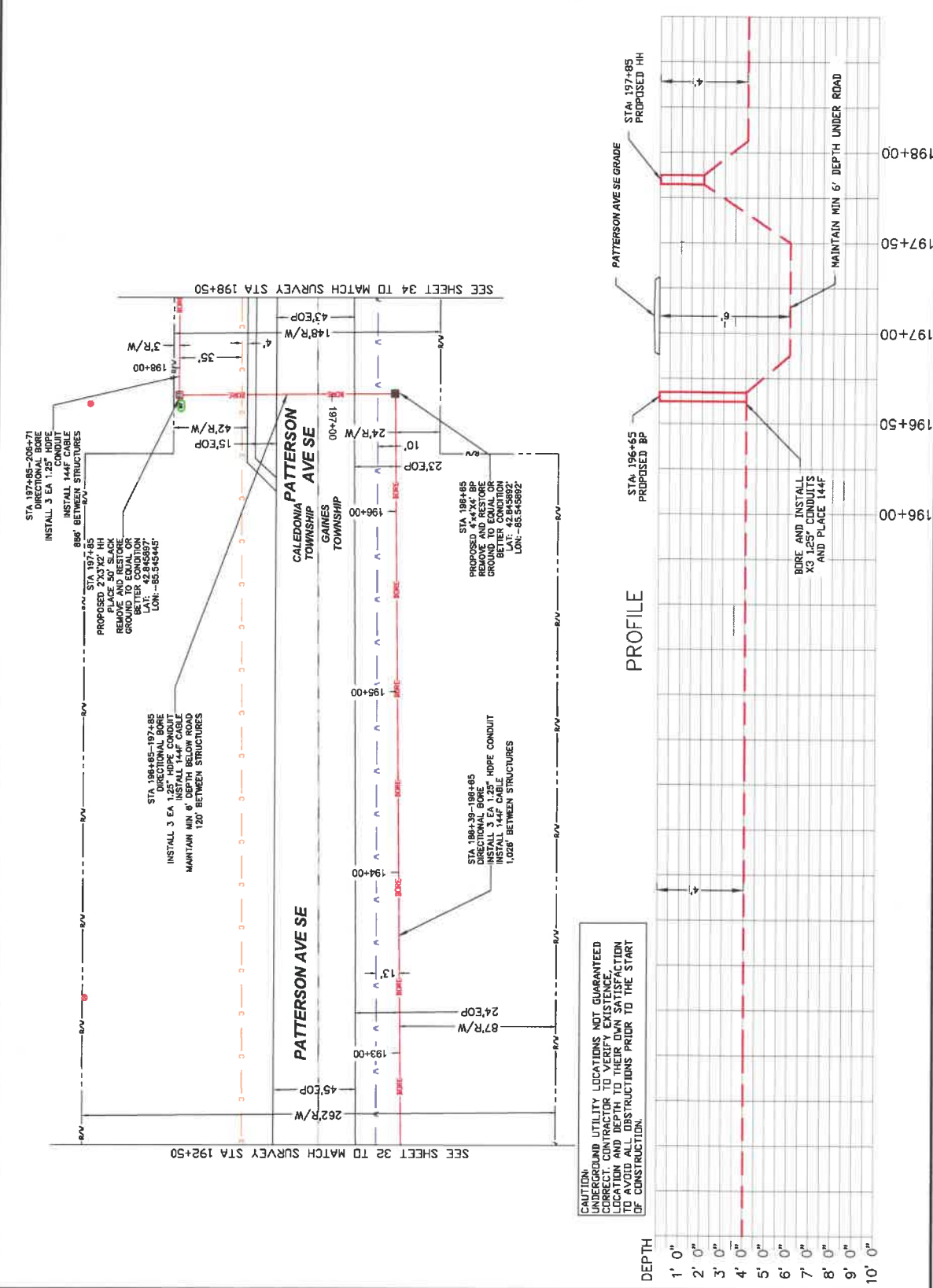
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Uniti

ENGINEERING COMPANY:

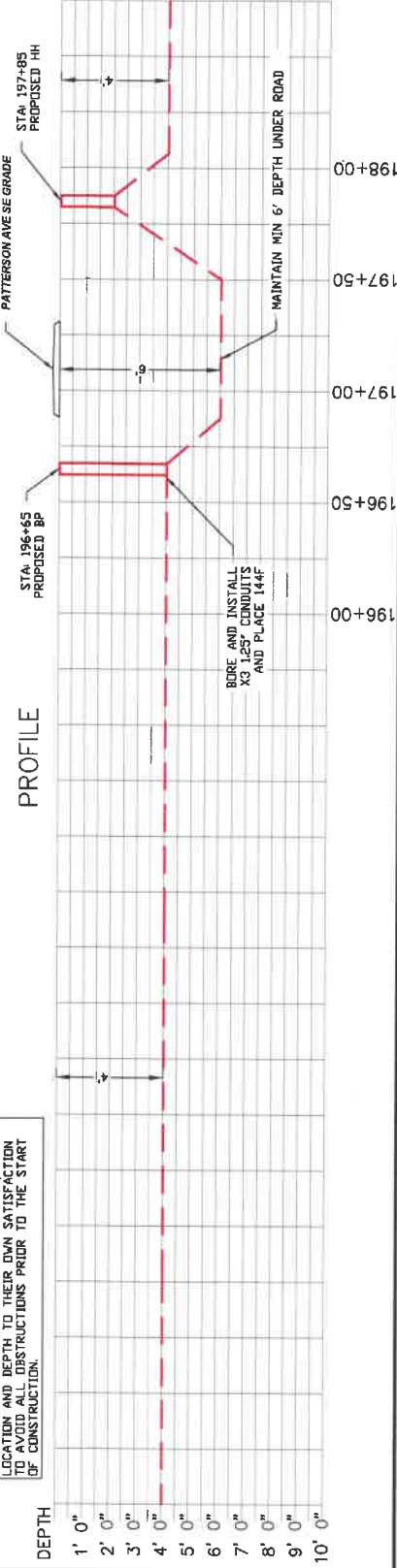
MTI ENGINEERING

8600 PARK MEADOWS DR
SUITE 800
LOUISVILLE, CO 80124
TEL: 720-344-3377



CAUTION:
UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
CORRECT. CONTRACTOR TO VERIFY EXISTENCE,
DEPTH AND LOCATION TO THEIR OWN SATISFACTION
BEFORE ANY DEEP FOUNDATION OR
IT TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
OF CONSTRUCTION.

PROFILE



SHEET 34 OF 36
 ROUTE
 EXCHANGE
 SERVICE AREA
 MAP REFERENCE
 COMPANY
 PROJECT WIN AP 3 GRAND RAPIDS

CO.
 SEC.
 TWP.
 RNG.
 TAX.

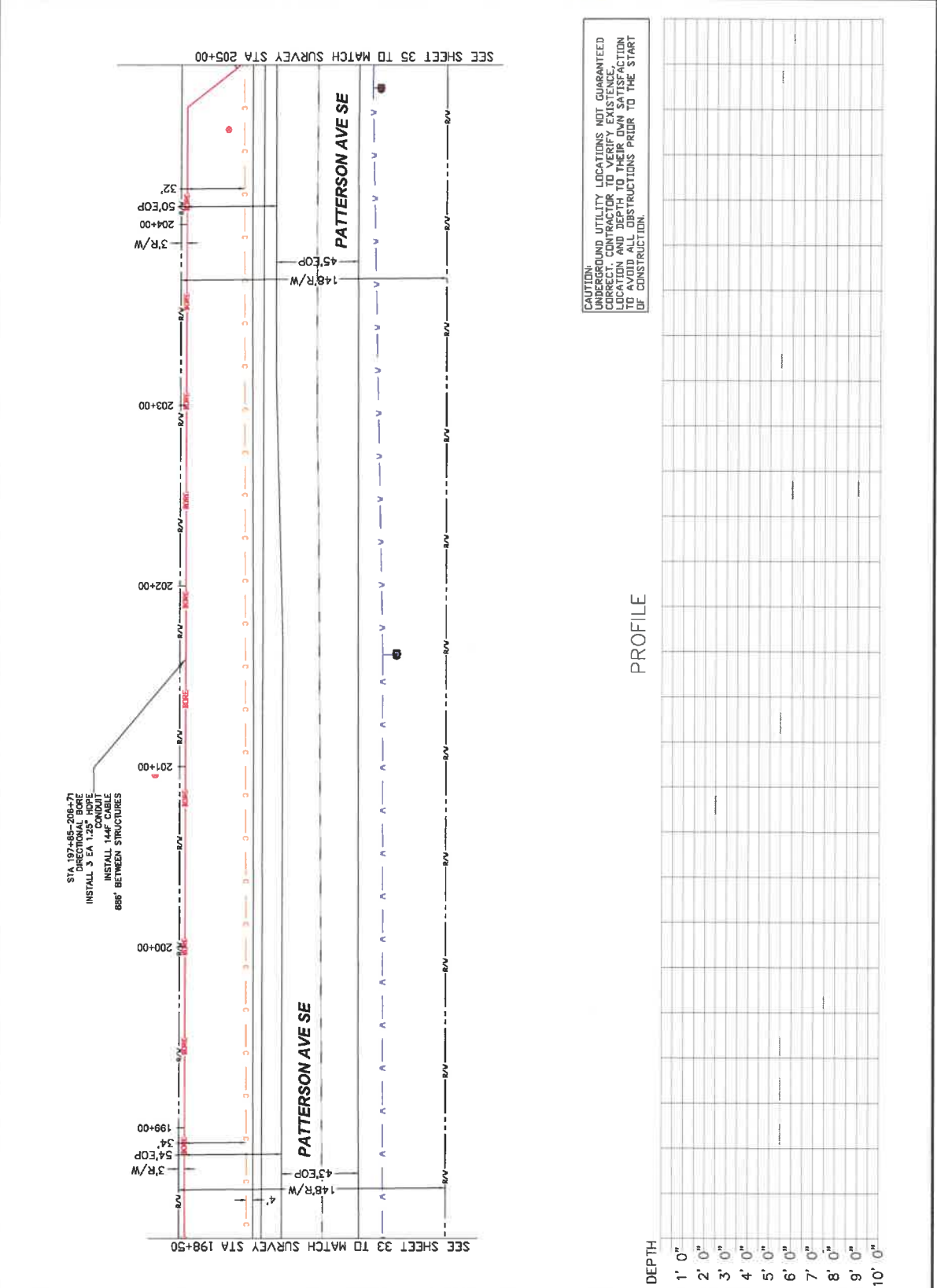
DATE 11/10/22 REVISION 11/10/22 BY GV
 KENT COUNTY COMMENTS

MISSDIG811

DATE: 8/19/22
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 CHECKED:
 QA/QC:
 SCALE: 1:50

Uniti
 ENGINEERING COMPANY

MTC ENGINEERING
 8600 PARK MEADOWS DR
 SUITE 800
 KENTON, OH 45024
 TEL: 781-344-5877



SHEET 35 OF 36
 ROUTE
 EXCHANGE
 SERVICE AREA
 MAP REFERENCE
 COMPANY
 PROJECT WIN AP 3 GRAND RAPIDS
 CO.
 SEC.
 TWP.
 RANG.
 TAX.
 DATE 11/19/22
 REVISION
 BY
 11/19/22 KENT COUNTY COMMENTS GV

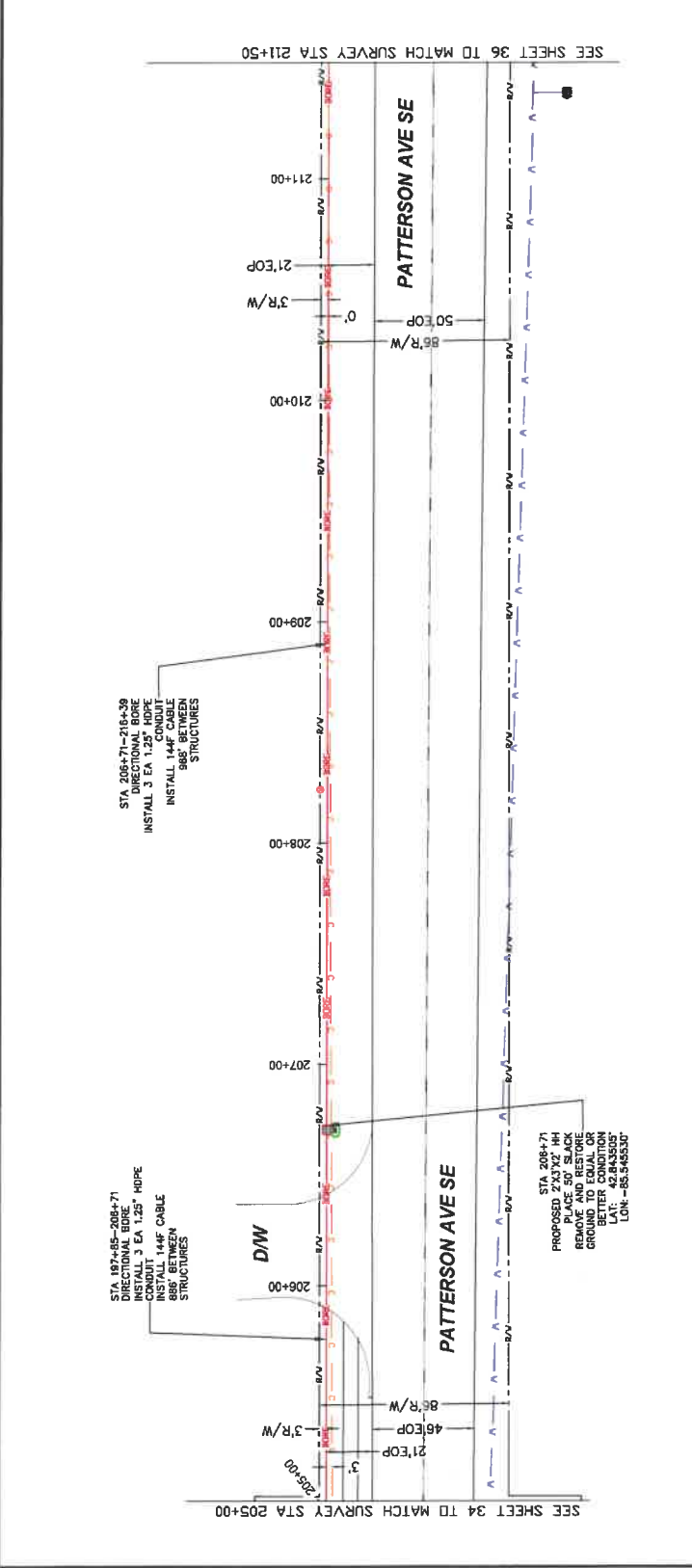


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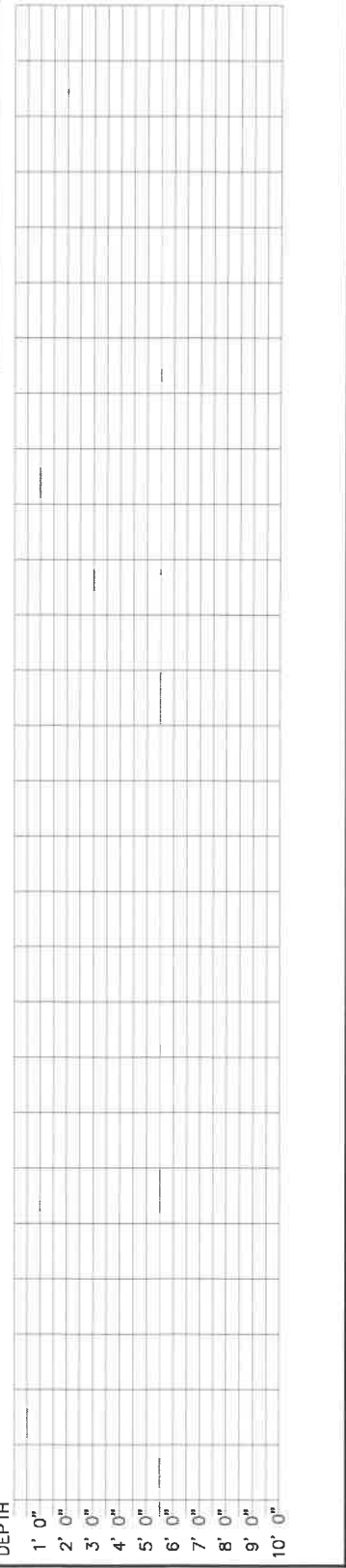
Uniti
 ENGINEERING COMPANY

MTC ENGINEERING
 8800 PARK MEADOWS DR
 SUITE 800
 CO 80124
 TEL: 720-344-5977

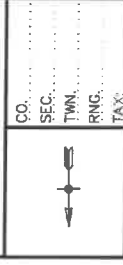


CAUTION:
 UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
 CONTRACTOR TO VERIFY EXISTENCE,
 LOCATION AND DEPTH TO THEIR OWN SATISFACTION
 PRIOR TO ANY CONSTRUCTION. ALL OBSTRUCTIONS PRIOR TO THE START
 OF CONSTRUCTION.

PROFILE



SHEET 36 OF 36
 ROUTE
 EXCHANGE
 SERVICE AREA
 MAP REFERENCE
 COMPANY
 PROJECT WIN AP 3 GRAND RAPIDS

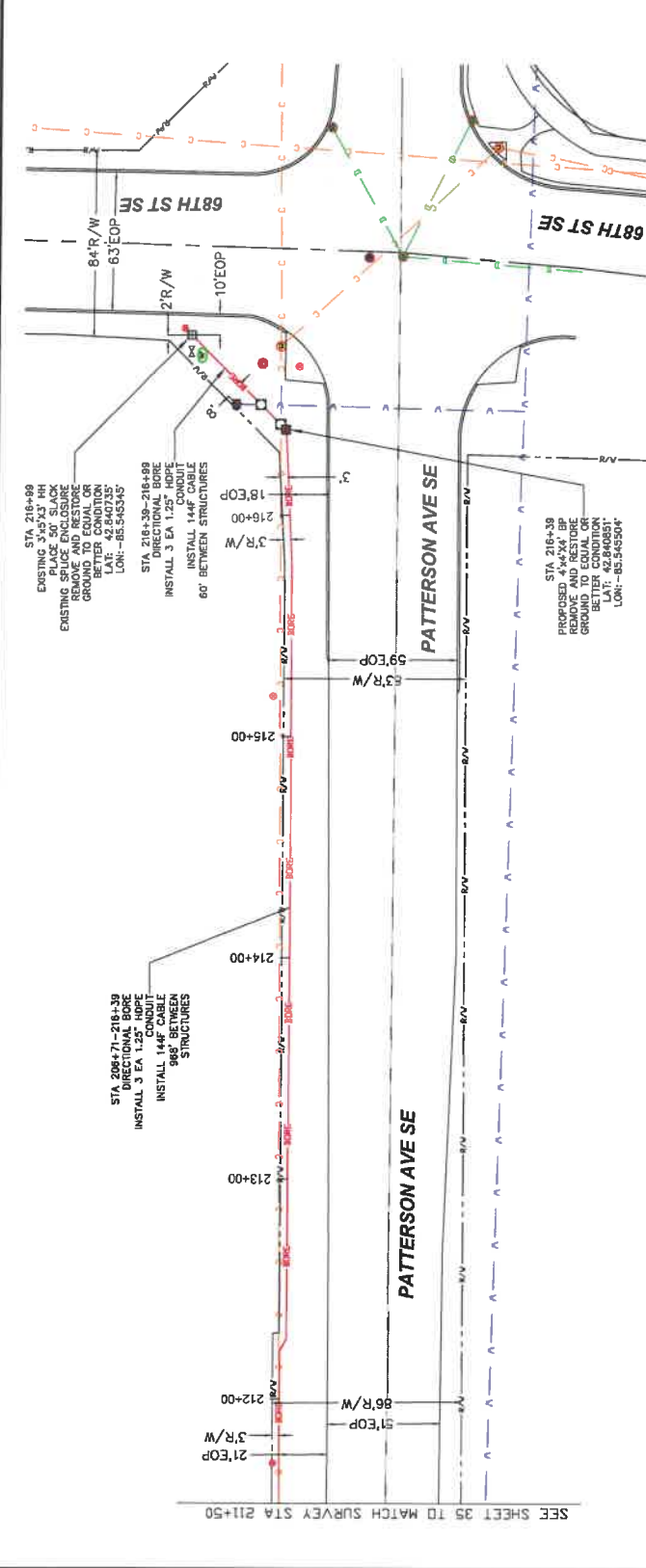


DATE: 11/19/22
 REVISION: 11/19/22
 BY: KENT COUNTY COMMENTS

MISS DIG 811

DATE: 8/19/22
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 DRAFTED: TLM
 CHECKED:
 QA/QC:
 SCALE: 1:50

ENGINEERING COMPANY:
MTI ENGINEERING
 8500 PARK MEADOWS DR
 SUITE 600
 LONE TREE, CO 80124
 TEL: 720-344-5577



CAUTION:
 UNDERGROUND UTILITY LOCATIONS NOT GUARANTEED
 CONTRACTOR TO VERIFY EXISTENCE
 LOCATION AND DEPTH TO THEIR OWN SATISFACTION
 TO AVOID ALL OBSTRUCTIONS PRIOR TO THE START
 OF CONSTRUCTION.

PROFILE

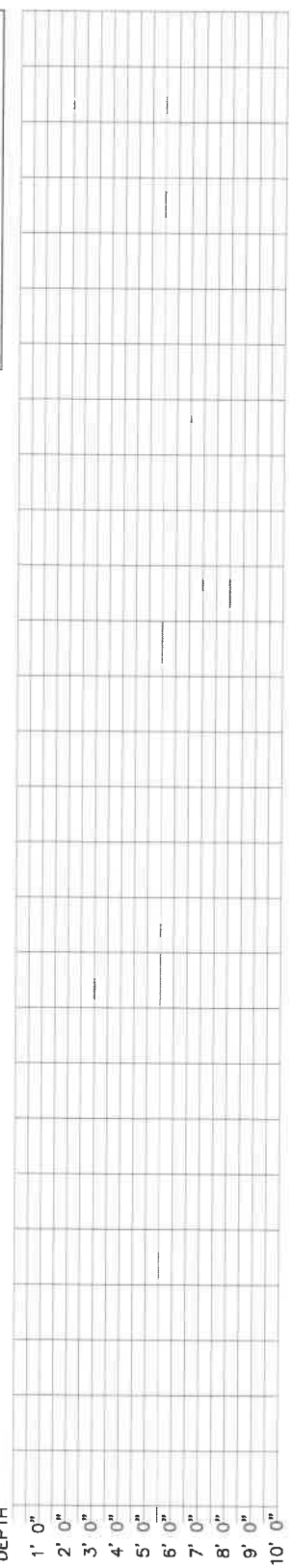


Exhibit B

Bond

KENT COUNTY ROAD COMMISSION
BOND FOR HIGHWAY PERMITS

KNOW ALL MEN BY THESE PRESENTS,

That..... Uniti Dark Fiber, LLCas Principal, and
.....and Berkshire Hathaway Specialty Insurance Company.....as
sureties, both of the County of Douglas.....and State of Nebraska.....

are held and firmly bound unto the County of Kent, and the Board of Kent County Road Commissioners or their assigns, in the
penal sum of TEN THOUSAND (\$10,000.00) Dollars, lawful money of the United States of America, for the payment of which,
well and truly to be made to the said County of Kent and the Board of Kent County Road Commissioners or their assigns, we bind
ourselves, our heirs, executors and administrators, jointly and severally, firmly by these presents.

Sealed with our seals and dated this 8th day of November A.D. 2022

WHEREAS, the above bounden Uniti Dark Fiber, LLCmay be granted
permits for construction operations within the limits of the highway right of way, and/or for the moving on any street or highway
of any object which exceed the legal limits for either length, width, height or weight, the Board of Kent County Road
Commissioners during the year ending Dec. 31, 2023.....
or.....

Location of the work to be done: Kent County, Michigan.

NOW, THEREFORE, The condition of the above obligation is such that if the above bounden Principal shall do and perform all
work done and performed under said permits in a careful, secure, skillful and workmanlike manner, and shall so guard the work
authorized by the said permits, and the materials for use during the progress thereof, that no injury, loss of damage shall occur to
persons or property, and shall promptly at the conclusion of such work replace and restore the street or highway and right of way to
as good a state and condition as the same was previous to and at the time of the opening of the same, and shall so replace and
restore such street or highway and right of ways as to cause it to be in a state of reasonable repair so as to be reasonably safe and
convenient for public travel, and to the satisfaction of the Board of County Road Commissioners, and shall save the County of Kent
and/or said Board of Kent County Road Commissioners on harmless from all claims, suits, actions, damages, or judgments against
it which shall arise out of any failure on the part of the above bounden Principal to comply with the terms of this bond, and if the
said above bounden Principal shall also observe the statutes of the State of Michigan, and the ordinances of the County of Kent,
relating to safety of highways and the requirements of the Board of Kent County Road Commissioners, and shall comply with all
articles set forth the "Specifications and Condition" for highway permits and shall pay all bills rendered by said Board of Kent
County Road Commissioners for the repair or replacement of pavement, roadway and right of way where disturbed or displaced by
this work, then this obligation shall be null and void, otherwise to be and remain in full force and effect.

Uniti Dark Fiber, LLC

Principal Kelly A. H. KELLY A. McGRIFF 101 Riverfront Drive, Suite A Little Rock , AR 72202
(Signature Required) Address
V.P. i DEPUTY GEN. COUNSEL

Surety Berkshire Hathaway Specialty Insurance Company 1314 Douglas Street, Suite 1400, Omaha, NE 68102
(S Seal) Address

Surety Daniel P. Dunigan 1041 Old Cassatt Rd Berwyn PA 19312
(Signature Required) Address
Daniel P. Dunigan
Attorney-in-Fact



**Berkshire Hathaway
Specialty Insurance**

Power Of Attorney

**BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY
NATIONAL INDEMNITY COMPANY / NATIONAL LIABILITY & FIRE INSURANCE COMPANY**

Know all men by these presents, that **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at One Lincoln Street, 23rd Floor, Boston, Massachusetts 02111, **NATIONAL INDEMNITY COMPANY**, a corporation existing under and by virtue of the laws of the State of Nebraska and having an office at 3024 Harney Street, Omaha, Nebraska 68131 and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, a corporation existing under and by virtue of the laws of the State of Connecticut and having an office at 100 First Stamford Place, Stamford, Connecticut 06902 (hereinafter collectively the "Companies"), pursuant to and by the authority granted as set forth herein, do hereby name, constitute and appoint: Daniel P. Dunigan, their true and lawful attorney(s)-in-fact to make, execute, seal, acknowledge, and deliver, for and on their behalf as surety and as their act and deed, any and all undertakings, bonds, or other such writings obligatory in the nature thereof, in pursuance of these presents, the execution of which shall be as binding upon the Companies as if it has been duly signed and executed by their regularly elected officers in their own proper persons. This authority for the Attorney-in-Fact shall be limited to the execution of the attached bond(s) or other such writings obligatory in the nature thereof.

Surety Bond No.: 47-SUR-200133-01-0237
Principal: Southern Light LLC
Obligee: Louisiana Public Service Commission

In witness whereof, this Power of Attorney has been subscribed by an authorized officer of the Companies, and the corporate seals of the Companies have been affixed hereto this date of December 20, 2018. This Power of Attorney is made and executed pursuant to and by authority of the Bylaws, Resolutions of the Board of Directors, and other Authorizations of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, which are in full force and effect, each reading as appears on the back page of this Power of Attorney, respectively. The following signature by an authorized officer of the Company may be a facsimile, which shall be deemed the equivalent of and constitute the written signature of such officer of the Company for all purposes regarding this Power of Attorney, including satisfaction of any signature requirements on any and all undertakings, bonds, or other such writings obligatory in the nature thereof, to which this Power of Attorney applies.

**BERKSHIRE HATHAWAY SPECIALTY
INSURANCE COMPANY,**

**NATIONAL INDEMNITY COMPANY,
NATIONAL LIABILITY & FIRE INSURANCE COMPANY,**

By:

David Fields, Executive Vice President

By:

David Fields, Vice President

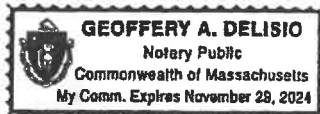


NOTARY

State of Massachusetts, County of Suffolk, ss:

On this 20th day of December, 2018, before me appeared David Fields, Executive Vice President of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY** and Vice President of **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, who being duly sworn, says that his capacity is as designated above for such Companies; that he knows the corporate seals of the Companies; that the seals affixed to the foregoing instrument are such corporate seals; that they were affixed by order of the board of directors or other governing body of said Companies pursuant to its Bylaws, Resolutions and other Authorizations, and that he signed said instrument in that capacity of said Companies.

[Notary Seal]



Notary Public

I, Ralph Tortorella, the undersigned, Officer of **BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY**, **NATIONAL INDEMNITY COMPANY** and **NATIONAL LIABILITY & FIRE INSURANCE COMPANY**, do hereby certify that the above and foregoing is a true and correct copy of the Power of Attorney executed by said Companies which is in full force and effect and has not been revoked. IN TESTIMONY WHEREOF, see hereunto affixed the seals of said Companies this November 8, 2022



Officer

BHSIC, NICO & NLF POA (2018)

To verify the authenticity of this Power of Attorney please contact us at: BHSI Surety Department, Berkshire Hathaway Specialty Insurance Company, One Lincoln Street, 23rd Floor Boston, MA 02111 | (770) 625-2516 or by email at Jennifer.Porter@bhspecialty.com. THIS POWER OF ATTORNEY IS VOID IF ALTERED. To notify us of a claim please contact us on our 24-hour toll free number at (855) 453-9675, via email at claimsnotice@bhspecialty.com, via fax to (617) 507-8259, or via mail.

BERKSHIRE HATHAWAY SPECIALTY INSURANCE COMPANY (BYLAWS)

ARTICLE V.

CORPORATE ACTIONS

....

EXECUTION OF DOCUMENTS:

....

Section 6.(b) The President, any Vice President or the Secretary, shall have the power and authority:

- (1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company bonds and other undertakings, and
- (2) To remove at any time any such Attorney-in-fact and revoke the authority given him.

NATIONAL INDEMNITY COMPANY (BY-LAWS)

Section 4. Officers, Agents, and Employees:

A. The officers shall be a President, one or more Vice Presidents, a Secretary, one or more Assistant Secretaries, a Treasurer, and one or more Assistant Treasurers none of whom shall be required to be shareholders or Directors and each of whom shall be elected annually by the Board of Directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the Board of Directors, and shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the Board of Directors; and the Board of Directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the corporation.

NATIONAL INDEMNITY COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BY-LAWS)

ARTICLE IV

Officers

Section 1. Officers, Agents and Employees:

A. The officers shall be a president, one or more vice presidents, one or more assistant vice presidents, a secretary, one or more assistant secretaries, a treasurer, and one or more assistant treasurers, none of whom shall be required to be shareholders or directors, and each of whom shall be elected annually by the board of directors at each annual meeting to serve a term of office of one year or until a successor has been elected and qualified, may serve successive terms of office, may be removed from office at any time for or without cause by a vote of a majority of the board of directors. The president and secretary shall be different individuals. Election or appointment of an officer or agent shall not create contract rights. The officers of the Corporation shall have such powers and rights and be charged with such duties and obligations as usually are vested in and pertain to such office or as may be directed from time to time by the board of directors; and the board of directors or the officers may from time to time appoint, discharge, engage, or remove such agents and employees as may be appropriate, convenient, or necessary to the affairs and business of the Corporation.

NATIONAL LIABILITY & FIRE INSURANCE COMPANY (BOARD RESOLUTION ADOPTED AUGUST 6, 2014)

RESOLVED, That the President, any Vice President or the Secretary, shall have the power and authority to (1) appoint Attorneys-in-fact, and to authorize them to execute on behalf of this Company bonds and other undertakings and (2) remove at any time any such Attorney-in-fact and revoke the authority given.

Exhibit C

Insurance



ADDITIONAL REMARKS SCHEDULE

AGENCY Stephens Insurance, LLC		NAMED INSURED Uniti Group Inc. (See Complete Named Insured Addendum) 2101 Riverfront Drive, Suite A Little Rock AR 72201	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability (03/16)

HOLDER: Cascade Charter Township

ADDRESS: 5920 Tahoe Drive SE Grand Rapids MI 49546

NAMED INSURED SCHEDULE:
 FIRST NAMED INSURED: UNITI GROUP INC
 Uniti Group LP LLC
 Uniti Group LP
 Uniti Group Finance Inc
 CSL Capital, LLC
 Talk America Services, LLC
 CSL National GP, LLC
 CSL National, LP - Below Entities are Holding Companies for REIT Assets
 CSL Alabama System, LLC
 CSL Arkansas System, LLC
 CSL Florida System, LLC
 CSL Georgia System, LLC
 CSL Iowa System, LLC
 CSL Kentucky System, LLC
 CSL Mississippi System, LLC
 CSL Missouri System, LLC
 CSL New Mexico, LLC
 CSL North Carolina Realty GP, LLC
 CSL North Carolina System, LP
 CSL North Carolina Realty, LP
 CSL Tennessee Realty Partner, LLC
 CSL Tennessee Realty, LLC
 CSL Ohio System, LLC
 CSL Oklahoma System, LLC
 CSL Texas System, LLC
 CSL Realty, LLC
 CSL Georgia Realty, LLC
 Uniti Holdings GP, LLC
 Uniti Holdings LP
 Uniti Fiber Holdings, Inc.
 Uniti Fiber LLC
 Uniti QRS Holdings GP LLC
 Uniti LATAM GP LLC
 Uniti QRS Holdings LP
 Uniti Leasing LLC
 Uniti Dark Fiber LLC
 Uniti Towers LLC
 PEG Bandwidth Services, LLC
 Contact Network, LLC
 PEG Bandwidth DC, LLC
 PEG Bandwidth DE, LLC
 Inline Services, LLC
 PEG Bandwidth LA, LLC
 PEG Bandwidth MA, LLC
 PEG Bandwidth MD, LLC
 PEG Bandwidth MS, LLC
 PEG Bandwidth NJ, LLC
 PEG Bandwidth PA, LLC
 PEG Bandwidth TX, LLC
 PEG Bandwidth VA, LLC
 PEG Bandwidth NY Telephone Corp



ADDITIONAL REMARKS SCHEDULE

AGENCY Stephens Insurance, LLC		NAMED INSURED Uniti Group Inc. (See Complete Named Insured Addendum) 2101 Riverfront Drive, Suite A Little Rock AR 72201	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability (03/16)

HOLDER: Cascade Charter Township

ADDRESS: 5920 Tahoe Drive SE Grand Rapids MI 49546

Hunt Telecommunications, LLC
 Hunt Brothers of LA, LLC
 Integrated Data Systems, LLC
 Nexus Systems, Inc.
 Nexus Wireless, LLC
 Southern Light, LLC
 Uniti Wireless Holdings LLC
 Uniti LATAM LP
 Uniti Leasing X LLC
 Uniti Leasing XI LLC
 Uniti Leasing XII LLC
 Information Transport Solutions, Inc.
 Uniti Group Holdco Inc
 ANS Connect, LLC
 Uniti National, LLC
 Uniti Towers NMS, LLC
 BB Fiber Holdings, LLC
 Uniti Group Finance 2019 Inc.
 Uniti Fiber 2020, LLC



ADDITIONAL REMARKS SCHEDULE

AGENCY Stephens Insurance, LLC		NAMED INSURED Uniti Group Inc. (See Complete Named Insured Addendum) 2101 Riverfront Drive, Suite A Little Rock AR 72201	
POLICY NUMBER		EFFECTIVE DATE:	
CARRIER	NAIC CODE		

ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 **FORM TITLE:** Certificate of Liability (03/16)

HOLDER: Cascade Charter Township

ADDRESS: 5920 Tahoe Drive SE Grand Rapids MI 49546

NOTE - COPIES OF THE FORMS REFERENCED BELOW ARE AVAILABLE UPON REQUEST:

The General Liability Policy includes a blanket automatic additional insured endorsement that provides additional insured status to any persons or organizations to which you are obligated by a written agreement to procure additional insured coverage per form

CNA75079XX (1-15)

The "Other Insurance - Primary/Excess provision" with respect to additional insured's per form CNA7470XX(1-15)

The General Liability policy includes blanket automatic waiver of subrogation provision where required by written agreement per form CNA7470XX(1-15)

The General Liability policy includes thirty (30) day notice of cancellation endorsement, for reasons other than non-payment of premium, to persons or organizations on file with agent or broker at the time of cancellation if required by contract per form CNA74702XX (1-15)

The Auto Liability Policy includes a blanket automatic additional insured endorsement that provides additional insured status to any persons or organizations to which you are obligated by a written agreement to procure additional insured coverage per form SCA 23 500 D (10-11)

The "Other Insurance - Primary/Excess provision" with respect to additional insured's per form CNA71527XX(1-15)

The Auto Liability includes a blanket automatic waiver of subrogation provision where required by written agreement per form CA 04 44 (10-13)

The Auto Liability policy includes thirty (30) day notice of cancellation endorsement, for reasons other than non-payment of premium, to persons or organizations on file with agent or broker at the time of cancellation if require by contract per form CNA72315XX (04-19)

The Workers Compensation includes a blanket automatic waiver of subrogation provision where required by written agreement per forms WC 00 03 13 (04-84) or Texas WC 42 03 04B (06-14)

The Work Comp policy includes thirty (30) day notice of cancellation endorsement, for reasons other than non-payment of premium, to persons or organizations on file with agent or broker at the time of cancellation if require by contract per form CC68021A (02-13)

Longshore and Harbor Workers' Compensation Act endorsement (WC 00 01 06 A) is attached to the policy This endorsement amends the basic policy definition of workers compensation law to include the LHWCA

The Umbrella Liability follows over underlying General Liability, Auto Liability and Work Comp policies. The Umbrella policy includes additional insured as in underlying per form C CNA75504XX (03-15). The Umbrella policy includes blanket waiver of subrogation per form CNA75504XX (03-15)

General Liability & Umbrella Liability policies both include separation of insured provisions that are automatically built into coverage forms CG0001 (04-113) and CNA75504XX (03-15). The General Liability & Excess policies "do not" include cross suits exclusion endorsements.

Contractors' GL Extension Endorsement per form CNA7470XX(1-15) includes Contractual Liability Railroad (#7)



FIRE DEPARTMENT MEMORANDUM

TO: BENJAMIN SWAYZE - TOWNSHIP MANAGER & TOWNSHIP BOARD MEMBERS
FROM: ADAM MAGERS – FIRE CHIEF
SUBJECT: 2023 JULY 4TH CELEBRATION – FUNNY BUSINESS CONTRACT WHICH INCLUDES
TRILOGY BAND
MEETING FEBRUARY 8, 2023
DATE:

Attached is the signed copy of the contract submitted by Funny Business Entertainment Agency for the 2023 4th of July Celebration.

The contract includes the activities, staff & services, tent for the stage, new splash zone water activities, game zone with carnival games, tents, chairs, Porta-Jons, pony rides and so much more.

Included in this contract is also the “Trilogy Band”.

The total for this year's contract is \$51,875.00.

I request that the township board approve the Contract from Funny Business in the amount of \$51,875.00 for the 2023 4th of July Celebration.



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

www.funny-business.com

Mon, Jan 30, 2023, 02:22 PM

THANK YOU FOR YOUR BUSINESS!

To ensure quick and easy processing of the contract please follow these guidelines:

All signed contracts and completed data sheets should either be:

Emailed to alicia@funny-business.com or

Faxed to 888.308.9644

Accepted methods of payment:

Check (payable to Funny Business Agency, Inc.)

ACH/Direct Deposit (details upon request)

US Bank Wire (details upon request)

(Please indicate which you plan to use upon return of contract)

Our Federal Tax ID# is 38-3227974.

NOTE: All contracts and deposits are due within 5 business days unless otherwise specified in the Additional Agreement Provisions of the contract

Mailing Address:

Funny Business Agency

PO Box 1052

Ada, MI 49301

If you have any questions, please call (888) 593-7387 x100 or email alicia@funny-business.com



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

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CONTRACT ID#: 101756 (please refer to contract ID for all correspondence)

The undersigned ARTIST and PURCHASER agree to the following terms on: **January 30, 2023**

- 1. NAME OF ARTIST/EVENT: **See Exhibit A**
- 2. PURCHASER INFORMATION: **Cascade Charter Township
Ben Swayze
5920 Tahoe Dr. Southeast
Grand Rapids, MI 49546
PHONE:(616) 949-1320 FAX:6169493918**
- 3. PERFORMANCE DAY(S)/DATE(S): **Tuesday, July 4, 2023 to Tuesday, July 4, 2023**
- 4. PERFORMANCE PLACE: **Cascade KDL - 2870 Jacksmith Ave SE, Grand Rapids, MI 49546**
- 5. ESTIMATED ARRIVAL TIME:
SHOWTIME: **11:30 AM to 3:30 PM**
AMT OF TIME: **4 Hours**
- 6. AGREED PRICE: **\$ 51,875.00**
Deposit of **\$ 25,937.50** to be sent with signed contracts.
Balance of **\$ 25,937.50** (see Additional Agreement Provisions).

All checks should be payable to: **Funny Business Agency, Inc. Our FED ID# 38-3227974**

7. LODGING: **No**

8. ADDITIONAL AGREEMENT PROVISIONS:

Rider: _ (see any attached rider if yes)

Purchaser to provide Sound?: Stage?: Lights?:

Purchaser agrees to email or fax signed contract and deposit of \$ 25,937.50 by Feb 10, 2023 to secure entertainment. Balance of \$ 25,937.50 to be paid by 06/02/23. Deposit is non-refundable unless Artist cancels. Balance is due and non-refundable if Purchaser cancels event at any time, for any reason, other than Force Majeure (see Addendum).The information on the attached addendum is incorporated as part of this agreement. Full amount due rain or shine. Additional terms and conditions per attached Exhibit A.

AGREED BY FUNNY BUSINESS AGENCY, INC

AGREED BY OFFICIAL PURCHASER REPRESENTATIVE:

BY: _____ DATE: 1/30/23

BY: _____ DATE: _____



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

www.funny-business.com

Addendum to Contract # 101756

1. It is understood that the AGENCY is an independent contractor and that the AGENCY and its' sub-contractors shall have exclusive control over, and means, method and details of, fulfilling the obligations under this contract, except for performing time(s).
2. Funny Business Agency, Inc., agrees to refund to the PURCHASER any advances or deposits received from the PURCHASER in the event that the AGENCY or its' sub-contractors cancels the contract and AGENCY cannot arrange comparable interactive event equipment that is acceptable to the PURCHASER.
3. The AGENCY agrees to perform and discharge all obligations as an independent contractor under any and all laws, whether existing or in the future, in any way pertaining to the engagement hereunder, including but not limited to social security laws, worker's compensation insurance, income taxes, state employment insurance taxes or contributions, and public liability insurance.
4. The parties agree that this agreement represents the full and complete understanding between them, and there are no other oral or verbal understandings except as set forth in this contract. Any controversies arising between the AGENCY and the PURCHASER pertaining to this contract shall be resolved by the courts of the state wherein the engagement was, or was to be performed.
5. The Official Purchaser Representative, in signing this contract, warrants that he signs as a properly authorized representative of PURCHASER.
6. In the event that the AGENCY is required to place the collection of any sums due under this contract in the hands of an attorney for collection, or sums due are collected by suit or through a court bankruptcy, than the PURCHASER agrees to pay all court costs, interest and actual attorney fees incurred as a result of such collection efforts.
7. In the event Purchaser fails or refuses to provide any of the items as herein stated, or fails or refuses to make any of the payments as provided herein or to proceed with the Engagement, AGENCY shall have no obligation to perform this agreement and shall retain any amounts theretofore paid to Funny Business Agency, Inc., and Purchaser shall remain liable for the full balance of the contract price herein set forth.
8. Purchaser hereby indemnifies and holds Funny Business Agency, Inc., as well as their respective agents, sub-contractors, representatives, principals, employees, officers and directors, harmless from and against any loss, damage or expense, including reasonable attorney's fee, incurred or suffered by or threatened against AGENCY or any of the foregoing in connection with or as a result of (a) Purchaser's negligence, act(s) or omission(s) or breach of this contract or (b) any claim for personal injury or property damage or otherwise brought by or on behalf of any third party person, firm or corporation as a result of or in connection with the Engagement, which claim does not result from the active and willful negligence of the AGENCY or its sub-contractors.
9. Force Majeure: Notwithstanding any other provision of this agreement, in the event that the performance of any obligation under this contract by any party to this contract (ARTIST, PURCHASER or Funny Business Agency, Inc.) is prevented due to acts of God, any



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www.funny-business.com

government restriction, wars, hostilities, civil disturbances, revolutions, strikes, terrorist attacks, lockouts, or any other cause beyond the reasonable control of any party, then such party shall not be responsible to the other parties for failure of performance in its obligations under the agreement. The terms of this clause shall not exempt, but merely suspend, any party from its duty to perform the obligations under this contract as soon as practicable after a force majeure condition ceases to exist. Notwithstanding the foregoing, if Artist is ready and willing to perform, PURCHASER will pay Artist the full amount of the guarantee (full amount of agreed contract price) set forth in this Agreement. The parties acknowledge and agree that the occurrence of any epidemic in an area in close proximity to the performance venue shall not in and of itself be deemed a Force Majeure Occurrence, unless the US Department of Health and Human Services officially declares such occurrence to be an epidemic affecting the particular state in which the performance is scheduled to take place. Inclement weather shall not be deemed a Force Majeure occurrence and the full amount of the contract is due rain or shine.

AGREED TO BY: _____ DATE: _____



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

www.funny-business.com

DEPOSIT INVOICE

January 30, 2023

Invoice No.: 101756-1

To:

Ben Swayze
Cascade Charter Township
5920 Tahoe Dr. Southeast
Grand Rapids, MI 49546

Deposit for Event Date: Tuesday, July
4, 2023

Salesperson	Event ID #	Terms	Due Date
Jamison Yoder	101756	Signed contract & deposit due by Feb 10, 2023	02/10/23

Entertainment Booked	Amount
See Exhibit A	\$ 25,937.50
(please refer to Event ID# 101756 on all checks)	
	\$ 25,937.50

Payment Options

Pay Online via:

- ACH/E-Check (details upon request)

Or Pay via:

- Bank Wire (details upon request)
- Check (payable to Funny Business Agency, Inc.):
 - Federal ID# 38-322-7974
 - Funny Business Agency, Inc.
 - PO Box 1052
 - Ada, MI 49301

If you have any questions concerning this invoice, call or e-mail: Alicia Wobma at (888) 593-7387 ext: 100 | alicia@funny-business.com



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

www.funny-business.com

BALANCE DUE INVOICE

January 30, 2023

Invoice No.: 101756-2

To:

Ben Swayze
Cascade Charter Township
5920 Tahoe Dr. Southeast
Grand Rapids, MI 49546

Deposit for Event Date: Tuesday, July
4, 2023

Salesperson	Event ID #	Terms	Due Date
Jamison Yoder	101756		06/02/23

Entertainment Booked	Amount
See Exhibit A	\$ 25,937.50
(please refer to Event ID# 101756 on all checks)	
	\$ 25,937.50

Payment Options

Pay Online via:

- Credit Card (3.5% convenience fee added to transaction)
- ACH/E-Check (details upon request)

Or Pay via:

- Bank Wire (details upon request)
- Check (payable to Funny Business Agency, Inc.):
 - Federal ID# 38-322-7974
 - Funny Business Agency, Inc.
 - PO Box 1052
 - Ada, MI 49301

If you have any questions concerning this invoice, call or e-mail: Alicia Wobma at (888) 593-7387 ext: 100 | alicia@funny-business.com



P: (888) 593.7387

F: (888) 308.9644

E: info@funny-business.com

www.funny-business.com

CASCADE TOWNSHIP EXHIBIT A

Event Date and Hours: Tuesday, July 4, 2023 from 11:30AM-3:30PM

Event Location: Cascade Library Grounds + Noto's Parking Lot in Grand Rapids, MI

Services included:

- On-site event management and coordination
- Pre-event site inspection
- Map/lay-out of activities
- Liaison between exhibitors, township and vendors
- Event staff
- Liability insurance with Cascade Township listed as additionally insured
- Set/strike of all equipment
- Extensive knowledge of the event and how it's run from 15+ years of working together

Purchaser to provide:

- Access to event space day/night prior
- Access to power on Noto's building, Library exterior and township breakers
- (2) generators fully fueled from Cascade Fire Department (if requested)
- Set-up/strike tables and chairs

Payment Terms: 50% deposit due with signed contract; balance in full minimum of two weeks prior to event. Full amount due rain or shine.

MECHANICAL RIDES AND CLIMBING WALLS

- Frolic (new for 2023)
- Parachutes (new for 2023)
- V4 Bungee
- Dixie Twister
- Pirates Revenge
- Bumper Cars
- 32' Rock Wall
- 24' 3D Wall
- Trackless Train

UNIQUE INFLATABLES

- Vertical Rush
- Stars 'n' Stripes Obstacle Course
- Zoo Toddler Inflatable



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www.funny-business.com

- Adrenaline Rush Junior Obstacle Course
- Basic Bounce House
- 3-Lane Bungee Basketball

GAME ZONE

We would set up all the self-service games underneath our large inflatable dome tent. We would have a staff person at the entrance allowing 8-10 people into the game area at a time.

- Dome Tent
- Hit Lit
- High Striker
- Carnival Case Games (6)
- Table Top Games (3)

SPLASH ZONE

Requires water hook-up within 100'

- Slip 'n' Slide
- Flipper Dipper Beach Slide
- Life's a Beach Slide

OTHER ATTRACTIONS

- (3) Rings of Pony Rides
- (2) Face Painters
- (2) Airbrush Artists
- Trilogy Band

TENTS, TABLES, TOILETS AND CHAIRS

- (1) 20'x40'
- (1) 20'x30'
- (2) 10'x10'
- (1) 30'x75'
- (1) 20'x20' frame tent for stage
- (51) 8' Tables
- (384) Chairs
- (9) Standard Porta-Jons
- (2) Handicap Porta-Jons



28th St SE

28th St SE

28th St SE

28th St SE

Jacksmith Ave SE

Jacksmith Ave SE

Jacksmith Ave SE

Jacksmith Ave SE

Jacksmith Ave SE

Thornbrook St SE

Thornbrook St SE

Kent District Library - Cascade...

20x30 8 TABLES, 64 CHAIRS

Pjx2

VERTICAL RUSH

PONY RIDES

STARS 'N' STRIPES OBSTACLE COURSE

BUNGEE RUN Bounce House

AMPHIBIAN AIR ZOO TROLLER

VET TENT

ASSOC TENTS

10x10 AIRBRUSH FACE PAINTING 10x10 4 TABLES, 8 CHAIRS

GAME ZONE

SPLASH ZONE 3 Sprinklers from Hydrant

FOOD TRUCKS

20x40 20 TABLES 80 chairs 20x20 on stage 30x75 STAGE 29 TABLES 222 CHAIRS

HCP Jx1 Pjx2

FROLIC + CHUTES

Pjx2

Bumper Cars

TRACKLESS TRAIN

TRACKLESS TRAIN

TWO ROCK WALLS

Noto's Old World Italian Dining

V4 BUNGEE

Dixie Twister

Pirates Revenge

TRACKLESS TRAIN

TRACKLESS TRAIN

MESSAGE THERAPY

Google

New Attractions

Flipper Dipper



Adrenaline Jr.



Slip 'n' Slide



Life's a Beach



Dome Tent



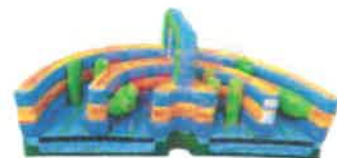
Stars 'n' Stripes



Stars 'n' Stripes



Stars 'n' Stripes Turnaround



July 4th Celebration Budget & Sponsored Funds

Expenses: (as of 1.30.23)		
Funny Business Contract	\$ 51,875.00	(Note: Includes Trilogy Band \$1,950.00)
Ada - Fireworks	\$ 21,000.00	
36x36 laminated event map for command center	\$ 125.00	
25 each of Poster & Float Contest	\$ 66.57	
2- Grand Marshal Magnetic Signs	\$ 170.00	
Sponsor signs (sponsor event/attraction)	\$ 432.00	(For two new sponsors. If we have more than two then add \$216.00 per sponsor)
Ice for water/pop/keep food cold	\$ 50.00	
Baudville Brands - 2 Trophies	\$ 87.00	
6- 24" x 18" Signs (SLOW and SPECTATOR)	\$ 206.00	(Coroplast signs will last us a long time)
Event map with notes 36 x 36 (laminated)	\$ 123.00	
Food Truck fees ?	\$ -	(No fees are required thus far)
Total	\$ 74,134.57	
add Sheriff Dept. cost of deputies	\$ 5,000.00	
Grand Total	\$ 79,134.57	

July 4th Sponsor Funds - Years 2015 - 2022		
2015	\$ 14,750.00	
2016	\$ 16,500.00	
2017	\$ 13,550.00	
2018	\$ 20,200.00	
2019	\$ 18,530.00	
2020	\$ 5,300.00	(2020- We stopped mail out for funds & canceled celebration due to COVID)
2021	\$ -	(2021- Canceled celebration due to COVID)
2022	\$ 6,825.00	(Funds brought forward from 2020 \$5,300.00 and added to 2022 \$6,825.00 which gave us a combined total of \$12,125.00 for the 2022 celebration.) Note business were still struggling financially from COVID shut downs therefor funds donated were smaller \$ amounts.
2023	\$	



FIRE DEPARTMENT MEMORANDUM

TO: BENJAMIN SWAYZE – TOWNSHIP MANAGER & TOWNSHIP BOARD
FROM: ADAM MAGERS – FIRE CHIEF
SUBJECT: RESOLUTION FOR ROAD CLOSURES FOR JULY 4TH 2023
DATE: FEBRUARY 8, 2023
CC: TOWNSHIP BOARD

Attached is a resolution for road closures for Tuesday, July 4th, 2023. Listed are the roads and times they will be closed on July 4th for the parade and celebration. This is the same closures that were approved on previous years.

I request that this resolution be approved for the road closures on July 4th 2023.

Cascade Charter Township
Kent County, Michigan
Resolution No. _____

The Cascade Charter Township Board Hereby Resolves: Cascade Charter Township to hold a 4th of July Celebration using Cascade Road, 28th Street and Jacksmith Drive;

Whereas, Cascade Charter Township has held a July 4th Parade and Celebration for decades; and,

Whereas, Cascade Charter Township desires to close streets and hold a parade on July 4th 2023 starting from the intersection of Cascade Road and Burton Street, then proceeding East on Cascade Road to 28th Street, then proceeding West on 28th Street, ending at Thornhills Drive. The street closure will start at 9:15 am and continue until about 11:45 am; and,

Whereas, Cascade Charter Township desires to close Jacksmith Drive for the Annual Cascade July 4th Celebration on Jacksmith Drive on Tuesday, July 4th, 2023. The street will be closed from 7:30 a.m. – 5:00 p.m. for set up and removal of equipment and the street fair operation from 11:30 am to 3:30 pm; and,

Whereas, the Kent County Sheriff will be on special patrol starting at 7:00 am until 3:30 pm for both the parade and celebration to provide traffic control for the general public.

Therefore, Be It Resolved, that the Cascade Charter Township Board respectively request that the Kent County Road Commission issue a permit allowing Cascade Charter Township to close Cascade Road, 28th Street and Jacksmith Dr. on July 4th 2023 as noted above for the annual Cascade Township July 4th Celebration.

The foregoing Resolution was offered by _____ and supported by _____. The roll call vote being as follows:

YEAS:

NAYS:

ABSENT:

RESOLUTION DECLARED ADOPTED.

Susan B. Slater
Township Clerk

CERTIFICATION

I hereby certify the above to be a true copy of a Resolution adopted by the Cascade Charter Township Board at a Regular Board Meeting held at the Wisner Center on the day of February 8, 2023 at 7:00 p.m., pursuant to the required statutory procedures.

Dated: _____

By _____
Susan B. Slater
Township Clerk

MEMORANDUM

To: Cascade Charter Township Board of Trustees
From: Brian Hilbrands, Planning Director
Subject: Proposed Amendment to the Zoning Ordinance to allow for Revisions to the Major Street Plan
Meeting Date: February 8, 2023

Attached is a draft zoning ordinance amendment regarding revisions to the Major Street Plan map.

The Major Street Plan is included as an appendix in the Zoning Ordinance, and is a zoning tool that can be used to help regulate where certain uses may be located. The plan classifies all streets in the Township as either Freeway/Expressway, Arterial, Collector, or Local. Type 2 Special Uses listed in Section 17.07(1) of the Zoning Ordinance (such as trucking terminals, daycares, golf courses, etc.) are required to have direct access to either an Arterial or Collector street. The reasoning behind this is that these streets are more equipped to handle larger traffic loads. Every so often the Major Street Plan should be reviewed to see if conditions have changed, and the last time the plan has been revised is 2010.

This was brought to Staff's attention because a potential business was looking to locate a trucking terminal/freight facility on an industrial zoned parcel of Kraft Avenue, between 52nd and 60th Streets. While the zoning would allow for the use, that section of Kraft is only classified as a local street, so a trucking terminal would not be permitted because it is a special use that is required to have access to an Arterial or Collector street. As a result, Staff determined that it would be a good time to review the entire Major Street Plan to see if this section of street, along with others in the Township, should be reclassified.

With insight from the Planning Commission, the review of the Major Street Plan primarily focused on industrial zoned areas of the Township. This is because these areas are more likely to have roads that can handle larger amounts of traffic, and these are preferred areas for more intensive uses to be located. Staff also used the Kent County Road Commission Truck Route Map as a guide, to ensure that any streets proposed for reclassification could handle increased truck traffic.

One additional thing to note is that setbacks for residential properties are also tied to the street classification. For example, if a street were to be reclassified from a Local street to a Collector, the required front yard setback for residential dwellings would increase from 35' to 43'. While the majority of parcels in this area are industrial, there are still ten homes located on Kraft Avenue. After reviewing these properties online, it appears that there are two homes that would now be located within the required front yard setback, and would be considered legal-

nonconforming. Both of these homes are located on properties that have already been rezoned to Transitional Industrial. Notices were mailed to all of the residential properties to inform them of the proposed amendments.

After review, Staff and the Planning Commission identified ten streets that are proposed to be reclassified from Local Streets to Collector Streets. Included in your packet is a map showing proposed revisions to the Major Street Plan, as well as a resolution to amend the zoning ordinance to allow for the revisions.

The majority of these roads are located fully within one of the industrial zoning districts, and all of the roads are shown to be designated as an all-season road on the KCRC Truck Route map. An inventory of the streets that are proposed to have their classification changed, roughly from north to south, is included below:

Street	Segment
33 rd Street	From Patterson Ave east to Kraft Ave
Raleigh Drive	From 33 rd Street south to 36 th St
Kraft Avenue	From 36 th Street south to the end of the street
Tim Dougherty Drive	From Patterson Ave east to the end of the street
John J. Oostema Blvd (44th St)	From Patterson Ave east to the end of the street
Corporate Grove Drive	From 52 nd St south to Corporate Exchange Blvd
Corporate Exchange Boulevard	From Patterson Ave east to Executive Pkwy
Kraft Avenue	From 52 nd St south to 60 th St
International Parkway	From Kraft Ave west and south to Lacks Industrial Dr
Lacks Industrial Drive	From International Parkway east to Kraft Ave

The Planning Commission held the required public hearing to review the proposed amendments at the January 9, 2023 meeting, during which there were no comments received. After the public hearing the Planning Commission recommended that the amendments be adopted by a vote of 9-0. At this time Staff are requesting that the Board approve the resolution to amend the Zoning Ordinance and revise the Major Street Plan map.

- Attachments:
- Resolution to Amend the Zoning Ordinance
 - Map of Streets to be Reclassified
 - Current Major Street Plan Map
 - KCRC Truck Route Map
 - Zoning Ordinance Street Classification Definitions
 - Section 17.07(1) of the Zoning Ordinance

CASCADE CHARTER TOWNSHIP
KENT COUNTY, MICHIGAN

Ordinance #_ of 2023

AN ORDINANCE TO AMEND THE CASCADE CHARTER TOWNSHIP
ZONING ORDINANCE AS FOLLOWS:

CASCADE CHARTER TOWNSHIP ORDAINS:

Section 1. Appendix A -Major Street Plan, of the Cascade Charter Township Zoning Ordinance is amended to read as follows:

The Major Street Plan map shall be amended so that the following streets are reclassified from Local Roads to Collector Roads:

Street	Segment
33 rd Street	From Patterson Ave east to Kraft Ave
Raleigh Drive	From 33 rd Street south to 36 th St
Kraft Avenue	From 36 th Street south to the end of the street
Tim Dougherty Drive	From Patterson Ave east to the end of the street
John J. Oostema Blvd (44 th St)	From Patterson Ave east to the end of the street
Corporate Grove Drive	From 52 nd St south to Corporate Exchange Blvd
Corporate Exchange Boulevard	From Patterson Ave east to Executive Pkwy
Kraft Avenue	From 52 nd St south to 60 th St
International Parkway	From Kraft Ave west and south to Lacks Industrial Dr
Lacks Industrial Drive	From International Parkway east to Kraft Ave

Section 2. Effective Date

This ordinance/ordinance amendment shall become effective upon publication in the Grand Rapids Press, a newspaper of general circulation within Cascade Charter Township.

Section 3. Effect

The Cascade Charter Township Zoning Ordinance, as amended, except as otherwise expressly amended herein, shall remain in full force and effect.

The foregoing Ordinance amendment was offered by Board Member _____ supported by Board Member _____. The roll call vote being as follows:

YEAS:

NAYS:

ABSENT:

ABSTAIN:

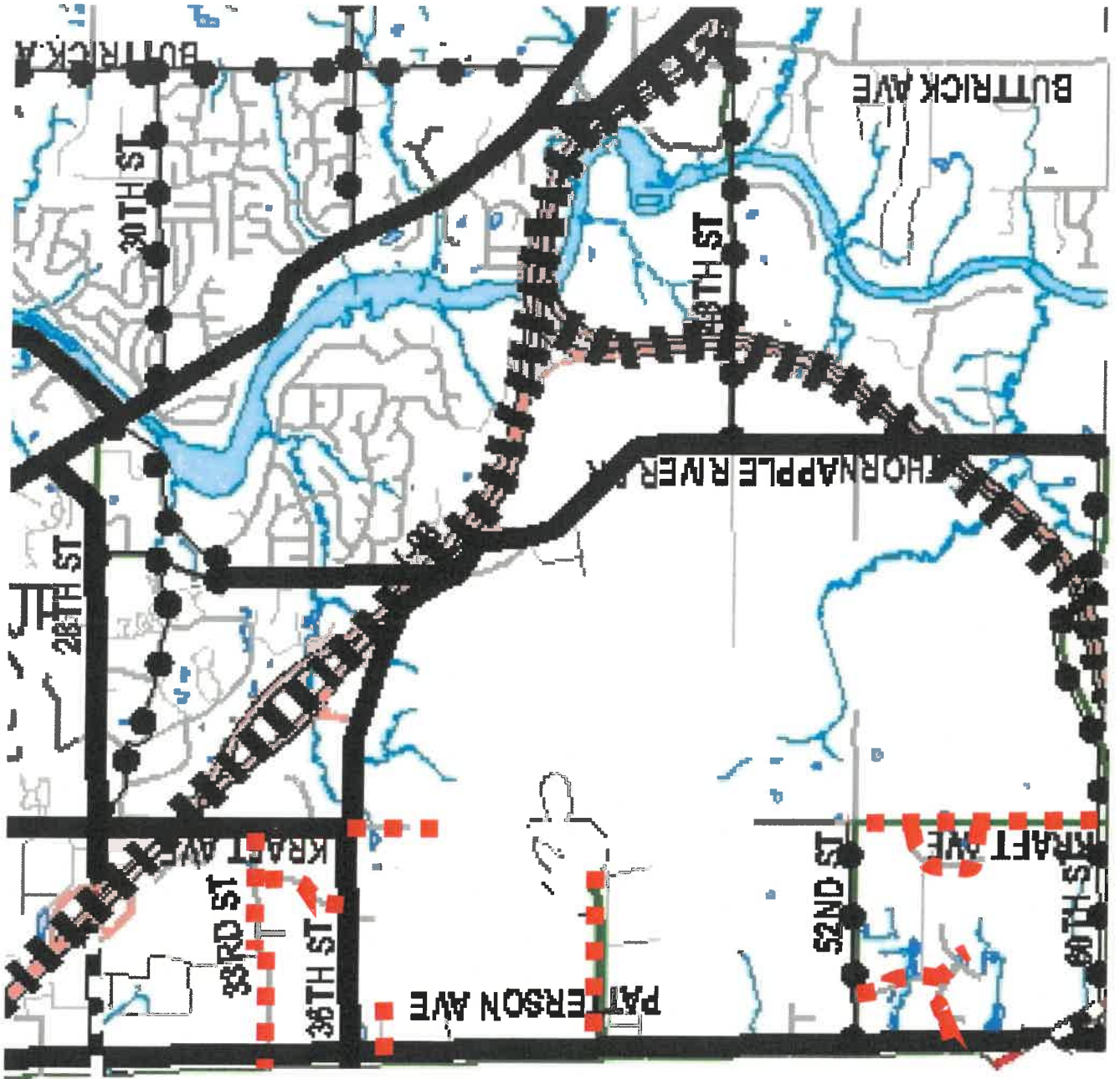
Sue Slater
Cascade Charter Township Clerk

CERTIFICATION

I hereby certify the foregoing to be a true copy of an Ordinance adopted at a Regular Meeting of the Cascade Charter Township Board on the ___th day of _____ 2023.

Sue Slater
Cascade Charter Township Clerk

Proposed Changes to Major Street Plan

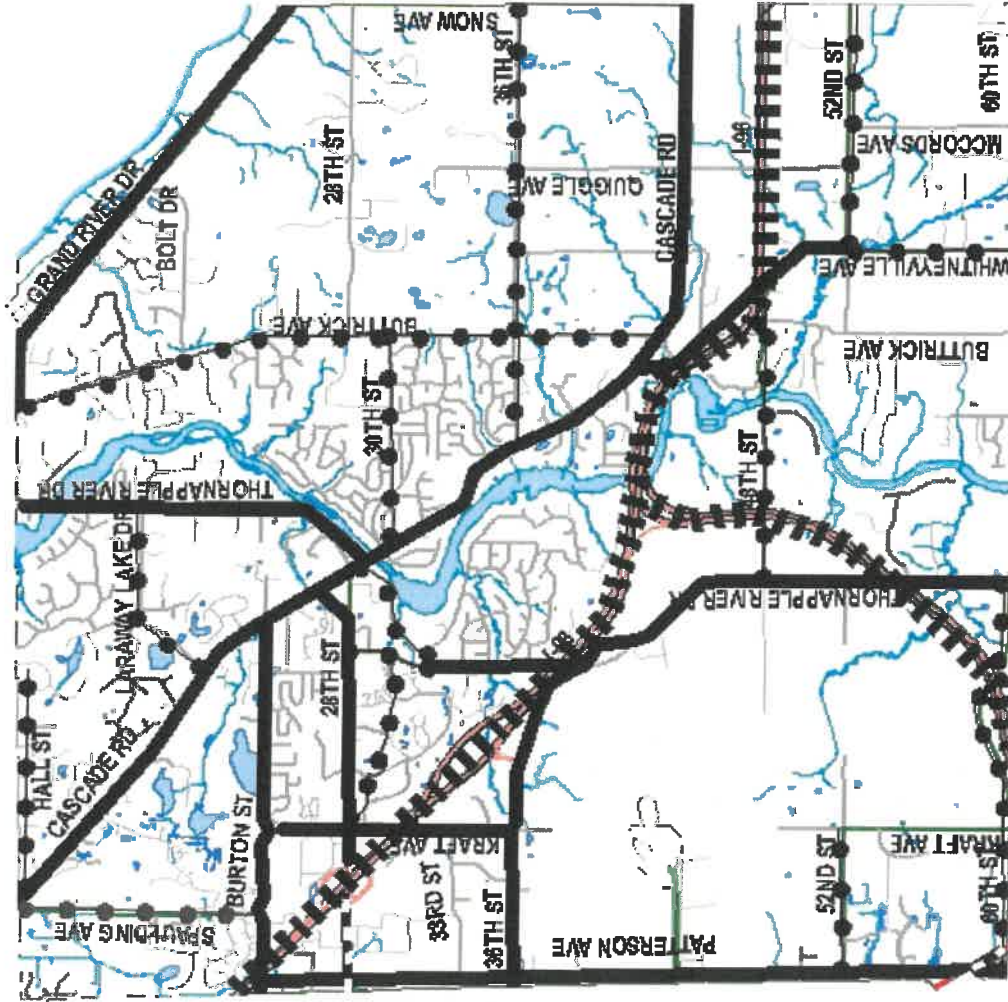


- Interstate Highway
- State Road/Highway
- Arterial Road
- Collector Road

- Change from Local Road to Collector Road
- Change from Local Road to Road

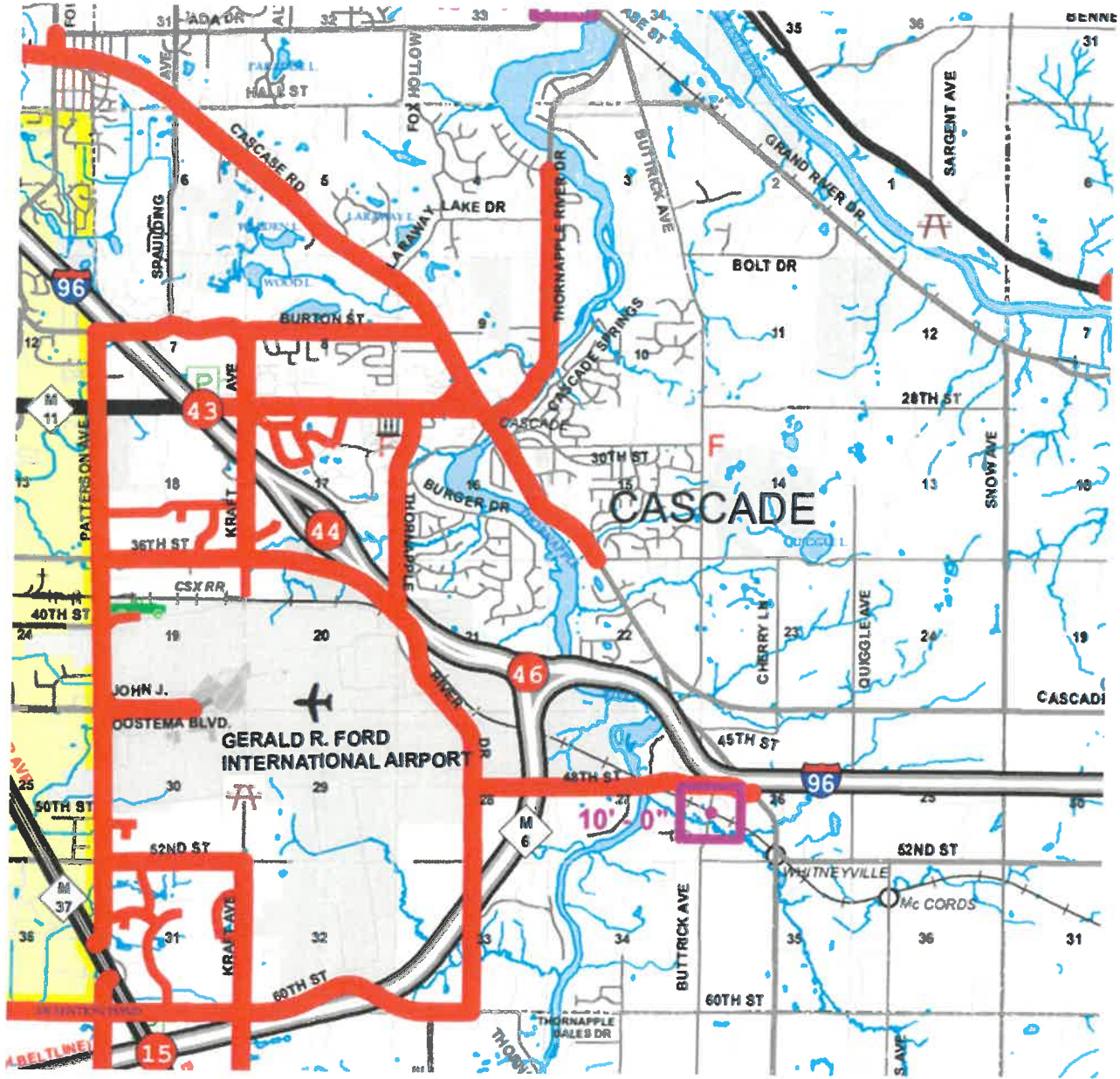
Appendix A Major Street Plan

-  Interstate Highway
-  State Road/Highway
-  Arterial Road
-  Collector Road



Map amended by Ordinance #5 of 2010
March 10, 2010

KCRC Truck Route Map



COUNTY ROADS

- ▬ All Season - Primary
- ▬ All Season - Local
- ▬ Restricted

CHAPTER 3 Definitions

Story Above Grade:

Any story having its finished floor surface entirely above grade except that a basement shall be considered as a story above grade when the distance from grade to the finished surface of the floor above the basement is more than 6 feet for more than 50 percent of the total perimeter or more than 12 feet at any point. (See Figure 3-1)

Street, Private:

An irrevocable easement running with the land to one or more owners of adjacent properties which provides access to those adjacent properties and which is not dedicated for general public use.

Street, Public:

Any public thoroughfare dedicated for the purpose of traffic circulation and principle means of access to abutting property, including any avenue, place, way, drive, land boulevard, highway, road, or other thoroughfare except an alley.

Street, Functional Classification:

1. **Freeway/Expressway:** Highways and parkway having the sole purpose of carrying through traffic, and will not provide direct land/property access. Freeway access is fully controlled with carefully spaced high speed exit/entrance ramps and grade separation with intersecting roadways.
2. **Arterial:** Streets primarily intended to carry large volumes of through traffic connecting major activity centers to other major traffic generators. Access to abutting properties must be limited to carefully controlled points.
3. **Major Collector:** Streets having the primary purpose of collecting traffic from intersecting local streets and distributing this volume to the nearest arterial. A secondary purpose is to carry moderate volumes through traffic. Access to abutting land uses is a secondary function which, with proper land planning, can be limited.
4. **Minor Collector:** Streets having the primary purpose of collecting traffic from intersecting local streets and distributing this volume to the nearest major collector and/or arterial. As such it provides the linkage from neighborhoods (i.e. local streets) to the arterial system and provides intra-neighborhood access. Continuity of the minor collector beyond the

nearest major collector and/or arterial is not desirable.

5. **Local:** The primary function of the local street system is to serve adjacent properties. As such it provides the linkage from adjacent land uses to the collector street system. Thru volume service is in conflict with these functions and must be prohibited in the design of the street network.

Street Right-of-Way:

A general term denoting land, property or a property interest usually in a strip, acquired for or devoted to transportation purposes which has been dedicated to the public.

Structure:

Anything constructed, erected, or placed, or a combination of materials with a fixed location above, on, or below the ground, or attachment to something having such location, including buildings, signs, billboards, signs, light posts, utility poles, radio and television antennas, swimming pools, gazebos, tennis courts, sheds, storage bins, but excluding fences, sidewalks, driveways, and streets.

Swimming Pool:

An artificially constructed basin for the holding of water for swimming and aquatic recreation and does not include any plastic, canvas, or rubber portable pools temporarily erected upon the ground with less than two (2) feet of water.

Tavern:

An establishment with an occupant load of under 100 that serves alcoholic beverages in which the principal business is the sale of such beverages for consumption on site. (Ord No. 11 of 2014)

Theater:

Any building or place used for presentation of dramatic spectacles, shows, movies, or other entertainment, open to the public with or without charge.

Use:

Any purpose for which a building or other structure or a tract of land may be designed, arranged, intended, maintained, or occupied; or any activity occupation,



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Height, Area, & Placement

Parking & Access

Landscaping

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Chapter 17 Special Uses

hearing is to be held before the Township Board. A decision rendered by the Township Board shall be final unless such decision is reversed or modified by a court of competent jurisdiction.

Section 17.05 Zoning Board of Appeals Action:

Owing to the discretionary nature of the decision to approve or deny a request for special use the Zoning Board of Appeals is without jurisdiction to accept appeals or grant variances from the General Standards set forth in Section 17.06 and the decision of the Planning Commission or Township Board with respect to the approval or denial of special uses.

Section 17.06 Special Use Approval Standards - General:

In formulating recommendations or approving any special use, the Planning Commission and Township Board shall require that the following general standards be satisfied.

1. Upon review of each application there shall be a determination as to whether each use on the proposed site will:
 - a. Be designed, constructed, operated and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the area in which the use is proposed.
 - b. Be adequately served by essential facilities and services such as highways, streets, police and fire protection, drainage, refuse disposal, water and sewer facilities and schools.
 - c. Not create excessive additional requirements at public cost for public facilities and services.
 - d. Not cause traffic congestion, conflict or movement in greater proportion to that normally prevailing for the use in the particular zoning district.
 - e. Not involve uses, activities, processes, materials, equipment or conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of noxious or offensive production of noise, smoke, fumes, glare, vibration, odor or traffic.
2. All applicable federal, state and local licensing regulations shall be complied with. Initial and annual

proof of such compliance shall be a condition of special use approval and the continuance thereof.

3. As a minimum or unless specifically modified by the provisions in Section 17.07 the dimensional standards and landscape, buffering and parking regulations otherwise applicable to the use and/or zoning district shall be maintained as outlined within the other various applicable chapters of this Ordinance. For uses permitted by right in one district, but which require special use approval in another district, the standards relating to the district in which the use is permitted by right shall serve as the minimum standards to which the site shall be designed. In such cases where there the conflicting standards, the most restrictive shall apply, unless specifically modified by the provisions of Section 15.07 or the approving body.
4. Upon review, the Planning Commission or Township Board as appropriate may stipulate such additional conditions and safeguards deemed necessary for the protection of individual property rights and values, the general welfare and for insuring that the intent and objectives of this Ordinance are observed.
5. Upon finding that any condition, safeguard or requirement has been breached, the Township Board may automatically invalidate the special use approval.

Section 17.07 Type II Special Use Design Standards:

The specific requirements set forth in this Section are requirements which must be met by certain Type II special uses in addition to the general standards outlined or referenced in the above Section 17.06.

1. As a condition of approval each of the following uses must be situated such that the proposed site has direct primary access on at least one collector or arterial street as classified by the Major Street Plan.
 - a. Public, parochial and other private elementary, intermediate and high schools.
 - b. Public or private parks and recreation and activity centers including swimming pools, tennis courts, baseball fields, community center, libraries and similar facilities intended to serve areas beyond the immediate neighborhood.
 - c. Child or adult day care centers as defined in Chapter 3, whether free standing or in conjunction with a principal permitted use.



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Chapter 17 Special Uses

- d. Bed and Breakfast establishment, as defined in Chapter 3.
 - e. Golf courses and country clubs.
 - f. Public utility and private contractors storage and service yards and trucking terminals and freight facilities.
 - g. Roadside stands as defined in Chapter 3.
2. The following uses shall be further subject to the specific requirements outlined.
- a. **Churches requiring special use approval.**
 - 1) Churches With a Seating Capacity of Less Than 200 Persons, (seating capacity shall be determined by the seating capacity of the sanctuary and auxiliary assembly halls combined). Such facilities shall be located on a lot or parcel of land having a minimum area of two (2) acres and a minimum lot width of 200 feet as measured at the front property line. There shall be a minimum front, side and rear yard building setback of 50 feet except that churches having frontage on arterial streets shall have a front yard building setback of at least 100 feet.
 - 2) Churches with a seating capacity of more than 200 persons: Such facilities shall be located on a lot or parcel of land having at a minimum lot size of three (3) acres and a minimum lot width of 300 feet. Such facilities shall also have frontage on at least one collector or Arterial Street as classified by the Major Street Plan. There shall be a minimum front, side and rear yard building setback of 50 feet except that churches having frontage on arterial streets shall have a front yard building setback of at least 100 feet.
 - 3) Churches shall also be required to install bufferyards according to section 18.06 of this Ordinance. (Ord. No. #10 of 2001)
 - b. **Bed and Breakfast establishments.**
 - 1) Location outside of a platted residential subdivision.
 - 2) Subordination to the principle use of a single-family dwelling unit.
 - 3) Occupancy of no more than fifty (50) percent of the dwelling unit.
 - 4) The premises shall be the principal residence of the operations owner/operator when the establishment is active.
 - 5) The structure shall be erected or retained as a single-family structure. Commercial food preparation equipment and eating or bathroom facilities within individual sleeping quarters shall not be installed.
 - 6) Meal services shall be limited to during normal and customary breakfast hours and shall be provided only to lodgers registered at the establishment.
 - 7) Two (2) off-street parking spaces for the owner operator and one (1) off-street parking space per room to be rented shall be provided.
 - 8) Signs shall be subject to the regulations applicable to signs in the district in which the use is located.
 - c. **Golf courses, country clubs.**
 - 1) The minimum area shall be 40 acres for a par 3 course, 65 acres for a 9-hole course, and 120 acres for an 18-hole course.
 - 2) No building or non-golfing use, with the exception of parking, shall be located within 200 feet of the front property line or 400 feet of the side and rear property lines.
 - 3) Parking areas shall be setback a minimum of 30 feet from all property lines and street right-of-way. A buffer strip shall be required if parking is located less than 50 feet from a property line.
 - 4) Signs shall be subject to the regulations applicable to signs in the district in which the use is located.
 - d. **Outdoor recreational uses other than campgrounds and golf courses and excluding amusement parks.**
 - 1) A minimum lot area of three (3) acres.
 - 2) Parking areas shall be setback a minimum of thirty (30) feet from all property lines and street right-of-way. A buffer strip shall be required if parking is located less than fifty (50) feet from a property line.
 - 3) Front yard building setbacks shall be a minimum of one hundred (100) feet and no building or use other than parking shall be



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CASCADE CHARTER TOWNSHIP
5920 Tahoe Dr. SE Grand Rapids, Michigan 49546

Date: February 3, 2023
To: Cascade Charter Township Board of Trustees
From: Grace Lesperance, Supervisor
Subject: Annual Township Manager Performance Evaluation

It is time for the Township Manager's Annual Performance Evaluation.

To maintain fairness and continuity, the attached evaluation (1) maintains the same format as last year, and (2) will be disseminated to the entire Board of Trustees. Last year's master/composite evaluation is available for review from the HR Department.

I suggest the following schedule to complete the Township Manager Performance Evaluation process:

1. Individual Board members complete the Performance Evaluation and submit it to HR Director Katie Murawski by *Friday, February 24, 2023*.
2. HR Director Murawski creates one master document, which includes the compiled comments and numerical scoring (computed average for each essential function and an overall total average).
3. Township Manager Annual Performance Evaluation conducted at the *March 8, 2023* Township Board meeting. Evaluation may occur in closed session, upon the request of Township Manager.

1.	Essential Function: Leadership <ul style="list-style-type: none"> • Coordinate the recruitment, selection, orientation and training of Department Heads • Develop and implement strategies to achieve the Township's annual and long-term goals. • Lead and manage the performance of the Management Team.(Dept. Heads) • Regularly coach and annually evaluate direct reports to maximize performance. 	Rating
	Comments: .	
2.	Essential Function: Management <ul style="list-style-type: none"> • Develop and administer the annual operating budgets for the Township. • Ensure that all Township contracts, franchises and agreements are executed. • Ensure that all Township policies, ordinances and laws are being enforced. • Oversee the personnel administration activities of the Township. • Prepare long-term budgets for capital expenditures and dedicated millage funds. 	Rating
	Comments:	
3.	Essential Function: Community and Governmental Relations <ul style="list-style-type: none"> • Develop and maintain effective relationships with the leaders of other state and local governmental agencies. • Respond to inquiries and handle all public relations for the Township with regards to its residents, other public officials and agencies. • Serve on the Township Committees as requested by the Board. • Work collaboratively with the Township Board, Supervisor, Clerk and Treasurer. 	Rating
	Comments:	
4.	Essential Function: Other <ul style="list-style-type: none"> • Perform duties consistent with the Township's policies and procedures. • Perform other duties as directed by the Township Board. 	Rating
	Comments:	
5.	Attendance / Reliability:	Rating
	Comments:	

6.	Communication Skills: <ul style="list-style-type: none"> • Strong ability to listen empathically and facilitate resolution of conflicts. • Effectively communicate to audiences with good use of both written and verbal skills. 	Rating
	Comments:	
7.	Leadership Skills: <ul style="list-style-type: none"> • Create vision, set goals and develop action plans. • Build effective working relationships with others. • Ability to adjust to changing conditions and situations quickly. 	Rating
	Comments:	
8.	Management Skills: <ul style="list-style-type: none"> • Make decisions and solve problems. • Prioritize responsibilities, organize tasks and follow through to completion. • Plan and manage multiple projects simultaneously. 	Rating
	Comments:	
9.	Contact with the Public/ "Customer Service": <ul style="list-style-type: none"> • Be approachable, confident, energetic and personable. • Demonstrate integrity by being accountable for actions, keeping commitments and speaking honestly with others. 	Rating
	Comments:	
		N/A
10.	Additional Responsibilities that will improve Employee's performance.	
	Comments: See Section II for detail.	

Cascade Charter Township Board (Individual)

Completed by: _____

Signature: _____

Date: _____