



**ACME TOWNSHIP PLANNING COMMISSION MEETING  
ACME TOWNSHIP HALL  
6042 Acme Road, Williamsburg MI 49690  
October 8<sup>th</sup>, 2018 7:00 p.m.**

**CALL TO ORDER WITH PLEDGE OF ALLEGIANCE at 7:00 pm**

**ROLL CALL: Members present:** K. Wentzloff (Chair), S. Feringa (Vice Chair), B. Balentine, D. Rosa, M. Timmins (Secretary), D. VanHouten, D. White

**Members excused:** None

**Staff present:** S. Winter, Planning & Zoning Administrator, J. Jocks, Legal Counsel, Claire Karner, Associate Planner, V. Donn, Recording Secretary

**A. LIMITED PUBLIC COMMENT:** Open at 7:01 pm

Brian Kelley, 4893 Ridgecrest, stated his concerns regarding the Master Plan.  
(Written comments submitted)

Limited Public Comment Closed at 7:04 pm

**B. APPROVAL OF AGENDA:**

**Motion by Timmins to approve agenda as presented supported by Balentine. Motion carried unanimously.**

**C. INQUIRY AS TO CONFLICTS OF INTEREST:**

White recused from I. New Business, PD 2018-02 – Engle Ridge Farm Pre-Application and Review of Qualifications.

**D. SPECIAL PRESENTATIONS:**

**1. PD 2018-01 Windward Group – Paul Bandrowski, CEO North Bay Capital**

Winter explained the pre-application and review of qualifications for PD of the former Kmart property on US-31. The proposed plan would bring the redevelopment of the existing structure into a research and development center and headquarters for Inphastos, a construction technology start-up company. The proposed plan includes new construction of mixed-use buildings along US-31, site improvements to the parking lot and pedestrian/vehicular circulation. An article from the Traverse City Ticker dated September 28, 2018 was included in the packet for reference.

Paul Bandrowski, CEO of North Bay Capital, the parent company of Inphastos, and CEO/Founder of Inphastos, was present for the Planning Commission to ask questions and bring transparency of their intentions. He explained their long-term vision is to build a world-class company in Acme. He provided an overview of how their company intends to use the Kmart building as a research and development facility and provided a detailed explanation of those practices and working environment.

**E. CONSENT CALENDAR:**

**1. RECEIVE AND FILE**

a. None

**2. ACTION:**

a. Adopt Planning Commission Meeting Draft Minutes 09.10.18

**Motion by Timmins to approve the Adopt Planning Commission Meeting Draft Minutes 09.10.18 as presented, supported by Rosa. Motion carried unanimously.**

F. **ITEMS REMOVED FROM THE CONSENT CALENDAR:** None

G. **CORRESPONDENCE:**

1. **Barr Engineering – August 2018 Results, Post-Construction Monitoring Grand Traverse Town Center**
2. **Barr Engineering – 2018 Inspection Report of Storm Water Management System, Grand Traverse Town Center**

H. **PUBLIC HEARINGS:** None

I. **NEW BUSINESS:**

1. **PD 2018-02 – Engle Ridge Farm Pre-Application and Review of Qualifications (S. Keever, Applicant; S. Winter, Staff)**

Winter informed an application has been received from Sarah Keever of Northview 22, on behalf of Ken & Janet Engle, for a PD pre-application review. The PD request is to create 12-unit residential site condo development at 8114 Sayler Rd in Phase 1, and a future winery in Phase 2. The lots would be approximately 1-acre each with 10 acres earmarked for the winery. The balance of the property would be conserved for continued agricultural operations and to protect sensitive wetlands. The applicant is proposing to transfer four dwelling units from the owners' Bates Rd property utilizing the TDR option. The Bates Rd property would in return be protected with a conservation easement. The plan will be completed in Phases, with Phase 1 projected for Spring - Fall, 2019, proposed 12-unit residential site condominium and future winery as Phase 2, time to be determined.

Information outlining the required standard for a project to qualify for a PD, along with the corresponding analysis is enclosed in the packet.

Sarah Keever showed on the proposed drawing, the plan for the project including dedicated open space, stormwater detention basins, wetland setback and land buffers.

Ken Engle was present for questions and felt he was proposing a plan that put the lease pressure on the surrounding farm land.

**Motion by Timmins to approve the pre-application for PD 2018-02 Engle Ridge Farm located at 8114 Sayler Rd for a residential site condo development consisting of ten to twelve residential lots, to be determined by a boundary survey, a future phase with a winery, and continued agricultural operations, based on the materials submitted by the Applicant and recommended by Township staff, supported by Rosa. Motion carried by six (Wentzloff, Feringa, Balentine, Rosa, Timmins, VanHouten), recused by one White.**

J. **OLD BUSINESS:**

1. **Master Plan Update Kick-Off Discussion (Claire Karner, Beckett & Raeder)**

Claire Karner, Associate Planner at Beckett & Raeder Traverse City, was the project lead for the township master plan update. There was a brainstorming session to determine the PC's focus, and the public's engagement including the process of the current community survey input. The timeline for the update was included in the packet for reference.

Changes in the Township in the past 5 years were discussed.

1. Meijer built, that area is possibly going into Trust
2. Kmart closed
3. Tiny house planned development approved – microflats - 20 acres at 4240 M-72
4. Numerous new retail and commercial closings
  - a. Overall, openings seemed to have out-paced closings
5. Zoning amendments
  - a. Adopted police power short term rental ordinance and related zoning amendments
  - b. Solar farm ordinance

- c. Form based code adopted
  - d. Medical marijuana ordinance
  - e. Planned development ordinance adopted
  - f. Provisions for temporary outdoor sales
  - g. Winter is working on a complete rewrite of the zoning ordinance based on the 2013 adopted master plan. Any changes to the master plan should be reflected as possible in the new zoning ordinance
6. A site plan review committee was established
  7. Flintfields Horse Park (home of GT Equestrian Festival) changing of hands
  8. RV park – phase 3 is complete, more planned
  9. CIP is in process-almost complete
  10. Many improvements in trails and parks
    - a. Bayside Park important community asset
  11. New roundabouts have been constructed on M-72 and Lautner Road
  12. Acme Creek restoration project – led by the Tribe
  13. Bunker Hill reconstruction
  14. Wintergreen park – 20-acre parcel acquired by GTRLC
    - a. New trails, autumn olive control

There was also discussion on the future land use map for the master plan

1. Original Acme plat – this could be developed as a traditional neighborhood, mixed use walkable development
  - a. Currently zoned commercial and single family
2. Bertha Vos (closed elementary school) opportunity to serve as a community asset – whether the school reopens, or it is converted into a community center. Owned by TCAPS.
3. Refocus on mixed use development options
4. Township owned assets: opportunity for a new Township Hall – either at current location or elsewhere. New fire station is needed, maybe an Acme Branch of the Traverse Area District Library network.
5. Limited active recreation opportunities in the township
6. Currently no public water available in the commercial area. County sewer exists throughout much of the commercial district. Public water is a higher priority than sanitary sewer expansion. Water is a limiting factor on new development
7. Stormwater ordinance needs to be updated
  - a. Current one is adopted from GT County, very long and clunky to use. Some green infrastructure standards have been integrated into FBC
8. Huge housing shortage in the township.
  - a. Look at a PILOT ordinance
  - b. Barriers to workforce housing:
    - i. Septic and well in much of the residential areas
    - ii. Time required to get a develop approved.
9. Township may be interested in RRC certification through MEDC. Will need to discuss further with Board.

## 2. **Recreational Marihuana Update (J. Jocks, Counsel)**

Jocks explained the State Proposal 1 on the November election ballot will allow voters to decide if recreational marijuana should be legalized in Michigan. If the proposal passes, there may be some necessary actions the Township would need to take to opt-in or opt-out of the program. Should the proposal be elected, there is an excise tax that municipalities will receive a percentage of only if a recreational marihuana facility is located within the municipality. If the township doesn't want marihuana facilities, it is best to opt-out after the election if the proposal passes. The PC Committee and Board will need to decide if they want to opt-in or out. There is a limit on the number of facilities and the township would need to determine who within the

received applications would receive a recreation license. Medical and recreation marijuana are treated separately and are not to be in the same facility.

The Planning Commission decided to wait until after the November 6<sup>th</sup> election to see if the vote passes and discuss at that time.

**K. PUBLIC COMMENT & OTHER PC BUSINESS**

Public Comment open at 9:35 pm

Brian Kelley stated he felt the township should preserve the agriculture properties and he's concerned of these properties turning to high density properties.

Public comment closed at 9:37 pm

**1. Zoning Administrator Report – Shawn Winter**

Winter informed Metro is having an open house on Saturday, October 13, from 11:00 – 2:00 pm at the Acme Fire Station.

The Water Shed Center is working on updating their protection plan. They had the first meeting last week and went through what they are looking for in the process.

Metro will be doing training exercises on October 9, from 7:00-8:00 pm by the Meijer roundabouts.

The township received a \$20,000 growth grant to go toward the engineering for the Acme connector trail from Bunker Road up to town center.

There is a site plan review committee meeting on Monday, October 22<sup>nd</sup> at 4:00 pm in the Township Hall. This meeting will be to review the application submitted by Wolverine Power Cooperative to construct a second substation on their property located at 6033 Arnold Rd.

Winter reminded everyone the Township Hall will be closed for regular business on Tuesday, November 6<sup>th</sup> for the election.

He attended the annual Planning Michigan Conference held in conjunction with the annual Michigan Municipal League conference and shared some of the key takeaways from select sessions.

**2. Planning Consultant Report – John Iacoangeli: No Report**

**3. Township Board Report – Doug White: No Report**

**4. Parks & Trails Committee Report – Marcie Timmins: Reported ABA Makers Market has been contacted for the park's opening celebration next May.**

**ADJOURN: Motion to adjourn by Timmins, supported by VanHouten. Meeting adjourned at 9:48**



**ACME TOWNSHIP PLANNING COMMISSION MEETING  
ACME TOWNSHIP HALL  
6042 Acme Road, Williamsburg MI 49690  
October 8<sup>th</sup>, 2018 7:00 p.m.**

**CALL TO ORDER WITH PLEDGE OF ALLEGIANCE**

**ROLL CALL:**

- A. LIMITED PUBLIC COMMENT:** Members of the public may address the Commission regarding any subject of community interest during public comment periods by filling out a Public Comment Card and submitting it to the Secretary. Public comments are limited to three minutes per individual. Comments during other portions of the agenda may or may not be entertained at the moderator's discretion
- B. APPROVAL OF AGENDA:**
- C. INQUIRY AS TO CONFLICTS OF INTEREST:**
- D. SPECIAL PRESENTATIONS:**
  - 1. PD 2018-01 Windward Group – Paul Bandrowski, CEO North Bay Capital
- E. CONSENT CALENDAR:** The purpose of the consent calendar is to expedite business by grouping non-controversial items together for one Commission motion without discussion. A request to remove any item for discussion later in the agenda from any member of the Commission, staff or public shall be granted.
  - 1. **RECEIVE AND FILE**
    - a. None
  - 2. **ACTION:**
    - a. Adopt Planning Commission Meeting Draft Minutes 09.10.18
- F. ITEMS REMOVED FROM THE CONSENT CALENDAR**
  - 1. \_\_\_\_\_
  - 2. \_\_\_\_\_
- G. CORRESPONDENCE:**
  - 1. Barr Engineering – August 2018 Results, Post-Construction Monitoring Grand Traverse Town Center
  - 2. Barr Engineering – 2018 Inspection Report of Storm Water Management System, Grand Traverse Town Center
- H. PUBLIC HEARINGS:**
- I. NEW BUSINESS:**
  - 1. PD 2018-02 – Engle Ridge Farm Pre-Application and Review of Qualifications (S. Keever, Applicant; S. Winter, Staff)
- J. OLD BUSINESS:**
  - 1. Master Plan Update Kick-Off Discussion (Claire Karner, Beckett & Raeder)
  - 2. Recreational Marihuana Update (J. Jocks, Counsel)
- K. PUBLIC COMMENT & OTHER PC BUSINESS**
  - 1. Zoning Administrator Report – Shawn Winter
  - 2. Planning Consultant Report – John Iacoangeli
  - 3. Township Board Report – Doug White
  - 4. Parks & Trails Committee Report – Marcie Timmins

**ADJOURN:**



# MEMORANDUM

## Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: [www.acmetownship.org](http://www.acmetownship.org)

To: Acme Township Planning Commission  
 From: Shawn Winter, Planning & Zoning Administrator  
 CC: Jeff Jocks, Counsel; John Iacoangeli, Planning Consultant  
 Date: October 2, 2018  
 Re: October 8, 2018 Planning Commission Packet Summary

**A. LIMITED PUBLIC COMMENT:**

**Open:** \_\_\_\_\_ **Close:** \_\_\_\_\_

**B. APPROVAL OF AGENDA:**

**Motion to approve:** \_\_\_\_\_ **Support:** \_\_\_\_\_

**C. INQUIRY AS TO CONFLICTS OF INTEREST**

**Name:** \_\_\_\_\_ **Item:** \_\_\_\_\_  
**Name:** \_\_\_\_\_ **Item:** \_\_\_\_\_

**D. SPECIAL PRESENTATIONS:**

**1. PD 2018-01 Windward Group – Paul Bandrowski, CEO North Bay Capital**

The PC approved the pre-application and review of qualifications for PD of the former Kmart property on US-31. The proposed plan would bring the redevelopment of the existing structure into a research and development center and headquarters for Inphastos, a construction technology start-up company. Additionally, the proposed plan includes new construction of mixed-use buildings along the US-31 ROW and site improvements to the parking lot and pedestrian/vehicular circulation.

Paul Bandrowski is the CEO of North Bay Capital, the parent company of Inphastos, as well as the CEO and founder of Inphastos. He has requested to attend this month’s meeting and provide an overview of how their company intends to use the Kmart building. A research and development facility is a new use/concept to the Township, and he wants to make sure everyone understands the vision they have for the property. His desire is to provide a more detailed explanation of the business’ practices that may not have been expounded upon as much during the conceptual site plan discussions last month, discuss how this facility will fit into their larger business plan, and provide an opportunity for the PC members to ask specific questions. I appreciate his openness and transparency with Township. An article from the Traverse City Ticker dated September 28, 2018 has been included for reference.

**E. CONSENT CALENDAR:**

- 1. RECEIVE AND FILE:**
  - a. None
- 2. ACTION:**
  - a. Approve Draft Planning Commission Meeting Draft Minutes 10.08.18

**Motion to adopt:** \_\_\_\_\_ **Support:** \_\_\_\_\_

**F. ITEMS TO BE REMOVED FROM THE CONSENT CALENDAR:**

1. \_\_\_\_\_
2. \_\_\_\_\_

**G. CORRESPONDENCE:**

1. **Barr Engineering – August 2018 Results, Post-Construction Monitoring Grand Traverse Town Center**
2. **Barr Engineering – 2018 Inspection Report of Storm Water Management System, Grand Traverse Town Center**

**H. PUBLIC HEARINGS:**

**I. NEW BUSINESS:**

1. **PD 2018-02 – Engle Ridge Farm Pre-Application and Review of Qualifications**  
 An application has been received from Sarah Kever of Northview 22, on behalf of Ken & Janet Engle, for a PD pre-application review. The PD request is to create 12-unit residential site condo development at 8114 Saylor Rd in Phase 1, and a future winery in Phase 2. The lots would be approximately 1-acre each with 10 acres earmarked for the winery. The balance of the property would be conserved for continued agricultural operations and to protect sensitive wetlands. The applicant is proposing to transfer four dwelling units from the owners’ Bates Rd property by the utilizing the TDR option. The Bates Rd property would in return be protected with a conservation easement in perpetuity.

The staff report enclosed in this packet outlines the required standard for a project to qualify for a PD, along with the corresponding analysis.

Suggested Motion for Consideration:

*Motion to approve the pre-application for PD 2018-02 Engle Ridge Farm located at 8114 Saylor Rd for a residential site condo development consisting of ten to twelve residential lots, to be determined by a boundary survey, a future phase with a winery, and continued agricultural operations, based on the materials submitted by the Applicant and recommended by Township staff.*

**J. OLD BUSINESS:**

1. **Master Plan Update Kick-Off Discussion**  
 Claire Karner, Associate Planner at Beckett & Raeder, is the project lead for our master plan update. She will be attending this month’s PC meeting to have a kick-off discussion on the process. The intent is to have a brainstorming session to determine the PC’s focus, discuss the public engagement process (in addition to the survey), and talk about the type of data and analysis that would be useful. She has submitted a documenting some of the areas for updates they identified in their master plan review. The timeline for the update from last month has been included again for reference. Some additional questions she plans to discuss include:
  1. What has changed in the past 4-5 years since the master plan was last updated? Specific items to consider:
    - i. Mix of businesses/commercial activity along main corridors
    - ii. Any new community facilities or new developments
    - iii. Any new updates in placemaking strategies and approaches from the previous master plan

2. Are there key zoning issues that have emerged that you would like to address through this process?
3. Have there been any new attitudes or trends towards the type, density, and location of growth?
4. Redevelopment Ready Community® (RRC) certification incorporated into update process?

This would be a great time to refamiliarize yourself with the master plan if you haven't done so in a while. It is available on our website ([www.acmetownship.org](http://www.acmetownship.org)) under Planning and Zoning → Documents-Master Plans → Acme Township Community Master Plan 2014, or following this link directly:

[https://www.acmetownship.org/uploads/2/4/3/0/24300134/acme\\_masterplan\\_2014.pdf](https://www.acmetownship.org/uploads/2/4/3/0/24300134/acme_masterplan_2014.pdf)

**2. Recreational Marijuana Update**

I contacted *Planning & Zoning News* because we haven't been receiving our issues. They were kind enough to send the last four back issues. If you only have time to read one, please read the most recent issue titled "How Are You Voting On The Recreational Marijuana Ballot Initiative?" (September 2018). As you may know, state Proposal 1 on November's ballot will allow voters to decide if recreational marijuana should be legalized in Michigan. If the proposal passes, then there may be some necessary actions the Township would need to take in order to opt-in or opt-out of the program. Counsel will be on hand to provide his interpretation of what the ballot measure would require and answer any questions. Ultimately, many of these decisions will need to be discussed and determined at the Board level. However, it felt appropriate to begin understanding what may be coming down to the PC sooner rather than later. The November 6<sup>th</sup> election is just over a month away!

**K. PUBLIC COMMENT & OTHER PC BUSINESS:**

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**1. Public Comment:**

**Open:**

**Close:**

**2. Zoning Administrator Report: Shawn Winter**

• **Permits** (since September 10, 2018)

➤ Land Use Permits – 4

- LUP 2018-31 Commercial (cell antennae), 6233 Yuba Rd
- LUP 2018-32 New Home, 7375 Peaceful Valley
- LUP 2018-33 Commercial, LochenHeath Golf Cottage
- LUP 2018-34 New Home, 6311 Plum Dr

➤ Sign Permits – 1

- SIGN 2018-14 Permanent, Lee Plaza, 3875 E M-782

- There will be a site plan review committee meeting on Monday, October 22<sup>nd</sup> at 4:00 pm in the Township Hall. This meeting will be to review the application submitted by Wolverine Power Cooperative to construct a second substation on their property located at 6033 Arnold Rd

- Reminder the Township Hall will be closed for regular business on Tuesday, November 6<sup>th</sup> for the election. Please remember to vote!

- I attended the annual Planning Michigan Conference in Grand Rapids between September 20-22. A new twist this year was that the conference was held in conjunction with the annual Michigan Municipal League conference. This fostered a



great interaction between administration staff and planning staff from across the state. Some of the key takeaways from select sessions include:

➤ **Principles to Establish Traditional Neighborhoods in Cities and Suburbs**

- A subdivision is not the same thing as a neighborhood. Neighborhoods should contain a mix of housing types and limited commercial uses. Allows people to meet many of their day-to-day needs within their neighborhood, and to age in place choosing a different housing type when the need arises.
- “Hamlets” are more appropriate in rural settings: limited commercial, typically free-standing buildings
- Mix should contain residential, civic/institutional, parks and commercial:
  - Typical block dimensions should be 300’ x 300’ with alleys
  - Single-family – smaller lots, (40’ – 50’ wide), shallow front yard setbacks
  - Cottages – small building, small lot (30’-40’ wide), 10’ – 15’ front yard, front porches, rear detached garages
  - Bungalow Courts – cottages clustered around an open square or courtyard. A lot of zoning issues prevent these!
  - Townhomes – 20’-22’ wide
  - Live/Work Units – at least 600 sf of office space needed on first floor, residential unit above
  - Multifamily – often negatively perceived. Set multifamily units apart with better building materials. Where single-family units should be wood or fiber board (no vinyl!), multifamily should use brick and stone facades
  - Commercial – corner stores are a great option, 1,500-2,500 sf.
- No “snout” houses – garages should be placed in the rear of the property accessed through alleys. If you are to provide the prescribed mix of housing options, then narrower lots will need to be utilized. Having attached garages in the front will occupy almost the whole front façade, creating a negative aesthetic from the public ROW and eliminated the neighborhood interactions fostered by front porches.
- Civic/Institutional buildings should be aspirational – quality materials and architecture, and located on the best, most prominent property.
- Planned “open space” is too vague. Avoid it, make parks/squares instead. Surround squares with a narrow lane that incorporates off-street parking, make houses along them face the park, use the highest quality designs in housing surrounding parks.
- Traditionally designed neighborhoods are perceived as being too expensive to buy into. That is a market driven force. They are not necessarily more expensive to build due to the higher density, however less than 1% of current residential developments are built in this manner and demand is driving up price. One development downstate started with residential units with a price in \$130,000 range. A year later they were selling for \$400,000 due to the market demand. Data shows people are also willing to pay more in order to walk to every day commercial services, such as a coffee shop
- Two major issues: politics and fire department. Traditional neighborhood developments incorporate higher densities and smaller lots than what many municipalities allow through zoning. Public opposition to this new, old design often kills the development. Fire department regulations also make it difficult to build. If you have a subdivision with no alleys, the fire department doesn’t seem to mind that they don’t have rear access to the

property. Once you add an alley they often demand a significant ROW width to allow access that wouldn't otherwise be there. Same goes with the narrower streets prescribed in traditional neighborhoods. Nationally it seems we are not buying fire trucks to fit our built environment, but rather building the environment around the size of our fire trucks.

➤ **Complete Streets + Green Infrastructure = Vital Streets**

- Planners and engineers from the City of Grand Rapids presented their approach to redesigning their streets. Complete streets aim to equitably incorporate multiple modes of transportation, where green infrastructure are design elements that help mitigate negative environmental consequences from our built environment, most notably storm water run-off
- Grand Rapids streets were falling apart, alternative options were limited, and a new approach was needed, especially after the City prioritized protecting the Grand River more so than it had in the past.
- They designed a very comprehensive plan to guide their work. Typically, roads are designed from the centerline out. They decided to design from building facades inward to the centerline. This approach allowed them to create roadways that fit the existing context and land uses.
- Limited ROW width forces tough decisions – you can't fit everything into the roadway. Using GIS and census data they were able to prioritize which elements to incorporate into each corridor.
- Self-enforcing design elements were incorporated to produce the desired behaviors. You can't design and build a road for 35 or 45 mph and expect people to travel 25 mph just because its posted.
- They have found that street improvements serve as a catalyst for development and investment along the corridor.
- This new approach was a heavy lift financially. 67% of voters approve a city income tax extension (0.2% or 1.2%?) over 15 years to fund the project. Since that money comes in slowly, the City bonded \$50 million to jump start the project. In return, the City took over maintenance of the sidewalks that used to be the property owner's responsibility.
- The City has created a website that is a great resource to explore for ideas and other information: [www.GRVitalStreets.com](http://www.GRVitalStreets.com)

➤ **Creating Sustainable Retail Districts**

- Retail is different than office or services (attorney, architect, etc.)
- Major shifts in the retail sector due to online sales and changes in buyers' behaviors
- Approximately 13 billion sf of retail space exists in the US, which is currently overbuilt by about 1 billion sf.
- Focus on retail studies to set retail needs, not just what people say they want. Avoiding oversupply is key. Empty retail spaces do not attract tenants, customers, or investment.
- Best to cluster retail to facilitate convenience, especially in the age of internet sales. Avoid greenfield development if empty commercial land is already available.
- For rural communities, mixed use developments should incorporate retail that highlights the area's heritage and tourism as well as meeting the needs of the local community. Land is an asset in these communities, its often still available. Allow for onsite residential instead of the past practice of strict separation in the retail districts. Regular "eventing" creates a frequent draw and exposes customers to what is available.

➤ **Approaches to Resiliency in Michigan**

- This session focused on how we are experiencing climate change locally, and ways to address the issues. Claire Karner was actually one of the speakers for this session and is an extremely knowledgeable resource
- Effects experienced in Michigan:
  - Increased frequency in heavy rain events is the number one issue. 2013 was the wettest year on record
  - General increase in the annual precipitation since the 1930's (strong drought period). Now receiving 3" – 4" more of rain each year. That's a month's worth of rain.
  - In addition to more extreme rain events, have more days with measurable precipitation
  - As far as temperature, Michigan is seeing an increase in winter and spring temperatures, creating longer frost-free periods per year. Northern Michigan in particular is seeing an increase in nighttime low temperatures.
  - Seeing less droughts and less severe droughts.
  - These are all trends over time and does not mean we won't see outliers. 2013-2014 and 2014-2015 winters were very severe, but we haven't had two back to back winters like that since 1911. Although it did occur, it is not indicative of the overall pattern. Likewise, precipitation overall has been increasing since the 1930's, despite a notable drought period in the 1950's.
- Key word to describe our weather based on climate trends: ERRATIC
- History shows that society can handle general, steady changes, but does much more poorly when it comes to extreme variability.
- Many ordinances reflect outdated climate data, especially storm water ordinances. What we're seeing is a need to redefine 100-year storm events. Most ordinances really on a manual created in 1992. That data is no longer valid for most locations and should be replaced with the NOAA Atlas 14 Point Precipitation Frequency Estimates created in 2014.
- When planning for climate variability, identify actions of "no regret". Focus on the data, not politics; what is happening, not why it is happening
- Not only is this important for the natural environment, but also for the people of our community affected by these noticeable changes. Often the greatest burden of climate changed is placed on the most vulnerable. Vulnerability is determined based on a population's sensitivity and exposure.
- As a coastal and agricultural community, and one that is located in a growing development market, we should take a closer look at these issues and plan now for how we intend to address them. Some great resources include:
  - Master Planning for Resiliency and Sustainability: <http://www.michigancoastalcommunities.com/>
  - Planning for Resilience in Michigan Handbook: <http://www.resilientmichigan.org/handbook.asp>

3. **Planning Consultant Report:** John Iacoangeli

4. **Township Board Report:** Doug White

5. **Parks & Trails Committee Report:** Marcie Timmins

L. **ADJOURN:**

**Motion to adjourn:**

**Support:**



## Major Development Project Proposed For Pugsley

By Beth Milligan | Sept. 28, 2018

A proposed development deal could bring new life to the former Pugsley Correctional Facility site in Kingsley - a major new manufacturing facility that has the potential to bring hundreds of jobs back to the area and also carries an opportunity for Fife Lake Township to establish its first public water system.

The Michigan Land Bank Authority (MLBA), which holds the title for the 179-acre Pugsley site, is in negotiations with North Bay Capital and Grand Traverse County to sell the property for an as-yet-undisclosed price. Under a proposed contract agreement, North Bay Capital, a local investment group, would own the majority of the property, with plans to develop the site in three phases. Grand Traverse County, meanwhile, would own approximately 10 acres of the property that currently houses a shooting range for the Grand Traverse County Sheriff's Office. The gun range would continue to be used by law enforcement, but could potentially be expanded in the future for public use, according to County Treasurer Heidi Scheppe, who has participated in the sale discussions.

North Bay Capital CEO Paul Bandrowski is also the founder and CEO of Inphastos, a technology company that uses “advanced systems, robots, and technology” to construct factory-built housing. Inphastos is pursuing permit approvals in Acme Township to open the company’s global headquarters and a research-and-development center in the township's former Kmart store (<https://www.traverseticker.com/news/tech-headquarters-proposed-for-acme-kmart-site/>). Bandrowski says he is pursuing the Pugsley site as a location for the company’s manufacturing plant, which would serve as a sister facility to the Acme center.

“(Acme) can’t be our permanent production facility...so we have been working with the state for quite some time to evaluate and to design Pugsley as a location for a permanent manufacturing facility,” says Bandrowski. He says the first phase of development would focus on repurposing the existing Pugsley buildings for Inphastos’ use; the company hopes to start up operations in those buildings by April 2020, one year after Bandrowski aims to be operational in Acme.

A second phase of development calls for constructing another 150,000-200,000 square-foot building on the Pugsley property for additional manufacturing. The third phase could be “a potential housing expansion, some residential housing development – either that, or it will be even a further expansion of (manufacturing),” Bandrowski says. Because of the company’s need to be operational by 2020, Bandrowski says Inphastos is simultaneously exploring a second alternative site to Pugsley for the plant in case the state deal falls through. But if the sale is finalized, the CEO says his company would likely employ 100 employees between his two locations in the first year or two, expanding to “hundreds of jobs” within the next several years.

“These would be both high-tech jobs as well as traditional manufacturing jobs,” says Bandrowski. “There would also be trucking jobs, other types of jobs. It’s a fairly large operation.”

Fife Lake Township Supervisor Linda Forwerck says the potential redevelopment of the Pugsley property is “very exciting” for the township. “We have been concerned about the loss of state tax revenue that we captured from the prison, so this would give us some manufacturing jobs and more of a tax base,” she says. “There’s a lot of potential in how this will impact Fife Lake Township.”

Another major option for Fife Lake is the potential for the township to have its first public water supply system by connecting to a 19-acre site on the prison property that houses Pugsley’s former water system supply wells, pipes, and pumphouse. The proposed contract terms being negotiated between the MLBA and North Bay Capital discuss

providing Fife Lake with access to the system and sharing costs between the township and development group to use the water infrastructure. Plans also call for North Bay Capital to either use or maintain an existing wastewater treatment facility on the property.

Forwerck cautions that the township is still in the early stages of exploring a potential municipal water system, and that with township residents accustomed to private wells, more public feedback is needed before proceeding. “We just had a major sewer upgrade and sewer costs were raised, so I don’t know how the community would feel,” she says, adding township board and public input meetings will be held before any kind of decision is made. “We would have a lot of things to explore in terms of costs, loans, and hook-in fees. We’d have to figure out all those details.”

In the meantime, sale negotiations for Pugsley are continuing between the MLBA, North Bay Capital, and Grand Traverse County. While the proposed property agreement was on the agenda to be discussed at today’s (Friday’s) Grand Traverse County Land Bank Authority meeting, the item was pulled late Thursday after county staff determined county commissioners and not Land Bank Authority members would be the most appropriate point of contact to review purchase terms. With the MLBA continuing to finesse the draft agreement, Scheppe says the development deal will likely come to commissioners for review sometime in late October or early November.

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**ACME TOWNSHIP PLANNING COMMISSION MEETING  
ACME TOWNSHIP HALL  
6042 Acme Road, Williamsburg MI 49690  
September 10<sup>th</sup>, 2018 7:00 p.m.**

**CALL TO ORDER WITH PLEDGE OF ALLEGIANCE at 7:04 p.m.**

**ROLL CALL: Members present:** K. Wentzloff (Chair), S. Feringa (Vice Chair), B. Balentine, D. Rosa, M. Timmins (Secretary), D. VanHouten, D. White

**Members excused:** None

**Staff present:** S. Winter, Planning & Zoning Administrator (by conference phone), V. Donn, Recording Secretary

- A. LIMITED PUBLIC COMMENT:** Opened at 7:06 pm  
Brian Kelley, 4893 Ridgecrest, stated his concerns on the Form Base Code and Community Survey. (written comments submitted).

Limited Public Comment Closed at 7:09 pm

- B. APPROVAL OF AGENDA:**

**Motion by Timmins to approve agenda as presented, supported by Balentine. Motion carried unanimously.**

- C. INQUIRY AS TO CONFLICTS OF INTEREST:** None

- D. SPECIAL PRESENTATIONS:** None

- E. CONSENT CALENDAR:**

- 1. RECEIVE AND FILE**

- a. Township Board Meeting Minutes 08.14.18
- b. Township Board Meeting Draft Minutes 09.04.18
- c. Parks and Trails Committee Meeting Draft Minutes 08.17.18

- 2. ACTION:**

- a. Adopt Planning Commission Meeting Draft Minutes 08.13.18

Feringa requested to remove under 2. ACTION a. Adopt Planning Commission Meeting Draft Minutes 8.13.18 to F. 1.

- F. ITEMS REMOVED FROM THE CONSENT CALENDAR**

- 1. Remove Planning Commission Minutes 08.13.18**

**Motion by Feringa to approve the Consent Calendar with removal of Item 2. ACTION, a. Adopt Planning Commission Meeting Draft Minutes 08.13.18, supported by Timmins. Motion carried unanimously.**

Feringa stated he was absent from the meeting so he abstained from approval of the 08.13.18 Planning Commission Meeting draft minutes.

**Motion by Timmins to approve the minutes from 2. ACTION, a. Adopt Planning Commission Meeting Draft Minutes 08.13.18, supported by Ballentine. Motion carried with Feringa abstained from motion.**

- G. CORRESPONDENCE:**

- 1. Coastal Resiliency Training Workshop – LIAA**

Wentzloff informed if anyone is interested in attending the workshop let Winter know and he will



get you registered.

**H. PUBLIC HEARINGS:** None

**I. NEW BUSINESS:**

**1. SUP 2018-03 Minor Amendment – LochenHeath Golf Course Cottages**

Jim Maitland owner of LochenVest LLC dba LochenHealth gave a brief overview of the planned development. He submitted an application to amend the SUP 98-10, which was the Planned Unit Development approval for the northern portion of the LochenHeath development and contains the majority of the golf course, amenities, and some residential lots. The application is for seven golf course cottages for members and their guests. Includes Phase I site plan approval to construct the first two cottages #1 and #3. The additional cottages will still need to come before the Planning Commission for site plan review. The location of the cottages will be between the Members' Pavilion and the gate house north of the entrance drive.

Quinn Ridley P.E. with Wade Trim showed schematics of the planned development for the first and second phases of the project. He described the retention pond that will hold the water is shallow and will look like a grass area.

The existing water and sewer system on site have the available capacity to accommodate Phase I. Additional phases of construction will require improvements to both systems. Roadway names were assigned for addressing purposes to meet Metro Fire requirements. Landscaping with species requirements of the ordinance and parking is available through existing spaces, as well as spaces included with each phase of development.

**Motion by Balentine to approve SUP 2018-03, Minor Amendment to SUP 98-10P, for the seven golf course cottages, with site plan review approval to begin construction of Phase I consisting of cottages #1 and #3, as presented in the submitted application and supporting documents, recommended by staff, and supported through a finding of fact, supported by Timmins. Motion carried unanimously.**

**2. PD 2018-01 – Windward Group Pre-Application and Review of Qualifications**

Winter did an introduction on the application that was submitted by Windward Group LLC by agent, Nate Elkins with Influence Design Forum, for a planned development pre-application review of qualifications. The applicant intends to undergo an adaptive reuse of the vacant Kmart store on US-31 into a headquarters for a company called Inphastos that is creating an automated system to construct panelized walls for residential construction. This building will provide office space, data center, and a research and development facility. This would not be a manufacturing facility it will be a location to test the systems with robots to be sure the automotive systems are working. The rest of the property would be residential mostly multi-family and commercial. The pre-application review of qualifications was performed by John Iacoangeli of Beckett & Raeder. The conceptual plan meets eight of the qualifications of a PD based § 19.3(a-e) out of nine objectives in § 19.3(f) of the ordinance.

Nate Elkins, from Influence Design Forum representing the Windward Group with Joel Reb and a representative from Inphastos, Craig Wesley. Nate did a presentation with drawings showing existing parking lot, building, landscaping and the new proposed plan. Schematics of the existing conditions, concept site plan, building use study, building height and density, circulation plans, greenspace, and concept phasing plans are included in the packet.

Craig Wesley clarified Inphastos would not have manufacturing at this site, it would be for research developing only.

The pre-application and qualifications phase are to review the concept and early stage specific details. Once the pre-application is approved, the applicant will proceed with their full application submission. The Planning Commission presented some of their concerns that they would like to

see put in the full application submission.

**Motion by Timmins to approve the pre-application for PD 2018-01 Windward Group for the redevelopment of the Kmart property located at 6455 US-31 N based on the staff review that the conceptual plan proposal meets at least the minimum five of the nine required objectives in §19.3(f), as well as all other requirements. The approved pre-application will be for the adaptive reuse of the former Kmart building into the headquarters for Inphastos to include office space, data center and a research and development facility, but prohibit manufacturing. The balance of the development will consist of a mix of uses including multiple family residential, office and commercial/retail space as presented, supported by VanHouten. Motion carried unanimously.**

Public comment from Brian Kelley stated he approved of the plan but felt there should be a discussion on possible noise that may occur and what the hours of operation would be.

**J. OLD BUSINESS:**

**1. Community Master Plan and Parks Master Plan Updates**

Winter explained the Community Master and Parks Plan questions that were discussed at the last meeting were incorporated into the survey and are included in the packet.

A poll from the commission decided to omit the short-term rental question since there was a recent public forum and the ordinance was amended. There will be a last review at the next Parks and Trails Committee meeting before sending the final version to Beckett & Raeder to upload into survey monkey. Upon completion it will be announced by putting an ad in the local newspapers for Acme residents to either complete by paper form available at the Acme Township Hall, or electronically on the township's website.

**K. PUBLIC COMMENT & OTHER PC BUSINESS**

Public Comment open at 8:54 pm

Brian Kelley stated he felt the township should keep asking the community questions on their sentiments in the survey.

Public comment closed at 8:55 pm

- 1. Zoning Administrator Report** – Shawn Winter: No report
- 2. Planning Consultant Report** – John Iacoangeli: No report
- 3. Township Board Report** – Doug White: No report
- 4. Parks & Trails Committee Report** – Marcie Timmins informed Bayside Park will remained closed until next Spring to let the grass grow. There will be a ceremony in May 2019 for the park opening. Winter informed he applied for a community growth grant to provide funding for the Acme connector trail. This would be for engineering only.

**ADJOURN: Motion to adjourn by Timmins, supported by Balentine. Meeting adjourned at 8:58**



September 10, 2018

**VIA E-MAIL**

Mr. John Iacoangeli, Principal  
Beckett & Raeder, Inc.  
535 West William, Suite 101  
Ann Arbor, MI 48013

**RE: AUGUST 2018 RESULTS  
POST-CONSTRUCTION ACME CREEK MONITORING  
GRAND TRAVERSE TOWN CENTER, ACME, MICHIGAN**

Dear Mr. Iacoangeli:

The purpose of this letter is to transmit the results of post-construction surface water monitoring of Acme Creek completed by Barr Engineering (Barr) in August 2018 on behalf of the Village at Grand Traverse, LLC (VGT) at the Grand Traverse Town Center (G TTC) site in Acme Township, Grand Traverse County, Michigan. As you are aware, post-construction monitoring activities were initiated in September 2015. This report presents the results of the fourth quarter of the third year post-construction monitoring event (Year 3/Quarter 4).

Post-construction stream sampling recommendations were outlined in the site development plan for the G TTC (Site Plan Approval for Phase I of the SUP)<sup>1</sup> and later incorporated into a site inspection, monitoring, and maintenance plan submitted to the Township in September 2015 (Monitoring Plan).<sup>2</sup> The goal of the post-construction monitoring program is to evaluate water quality in Acme Creek over time. To facilitate the monitoring program, two fixed testing locations--one at the upstream point where Acme Creek enters the property and one at the downstream point where Acme Creek leaves the site--have been established (see Figure 1). Baseline (pre-construction) water quality samples were collected from both locations on July 26, 2011.

The Monitoring Plan calls for the receiving water for the G TTC site (Acme Creek) to be monitored for dissolved oxygen concentration, water temperature, specific conductivity, pH, volatile organic compounds (VOCs), total organic carbon (TOC), e. Coli, total dissolved solids (TDS), total suspended solids (TSS), water velocity and elevation. The monitoring was performed on a monthly basis for a period of one year following the completion of construction. Monitoring is scheduled to be performed on a quarterly basis during post-

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<sup>1</sup> The Village at Grand Traverse Phase 1, Stormwater Management Recommendations, King & MacGregor Environmental, Inc., December 22, 2011

<sup>2</sup> Inspection, Monitoring and Maintenance Plan for the Storm Water Management System, Horizon Environmental Corporation, September 2015

construction years 2 through 4 and on a semi-annual basis for post-construction years 5 and beyond. This quarterly (Year 3, Quarter 4) post-construction monitoring event was completed on August 20, 2018. The results of this sampling event along with the results of the pre-construction (baseline) and prior post-construction sampling events are provided on Table 1.

### **DATA SUMMARY/EVALUATION**

Dissolved oxygen, water temperature, specific conductivity and pH were measured at both of the stream gauges using an YSI 556 multi-parameter water quality meter. The data collected at each stream gauge were compared to available water quality standards in the Part 4 Water Quality Standards of Part 31, Water Resources Protection (MCL 324.3101) of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 4). The following provides a summary of these results:

- The dissolved oxygen concentrations at both the upstream (13.4 mg/L) and downstream (13.4 mg/L) stream gauges were higher than the minimum standard of 7.0 mg/L specified under Part 4.
- The water temperature at both the upstream (53.8°F) and downstream (53.6°F) stream gauges were nearly identical. Both readings are below the maximum temperature in August specified under Part 4 for streams supporting cold water fish (68°F).
- The pH readings at both the upstream (8.72 S.U.) and downstream (8.70 S.U.) stream gauges were both within the pH range of 6.5 to 9.0 S.U specified under Part 4.

Stream samples were also collected for laboratory analyses of VOCs, TOC, TDS, TSS, e. Coli, and turbidity at both the upstream and downstream stream gauges. Laboratory data sheets are provided in Attachment I. A summary of the results compared to available water quality standards under Part 4 is provided as follows:

- VOCs were below laboratory detection limits at both the upstream and downstream gauges.
- The TDS concentrations at both the upstream (250 mg/L) and downstream (250 mg/L) stream gauges were significantly lower than the maximum TDS standard of 500 mg/L specified under Part 4.
- The upstream e. Coli concentration (40 colonies/100ml) and downstream e. Coli concentrations (36 colonies/100ml) were lower than maximum (300 colonies/100 ml) e.Coli concentration for total body contact.
- There was no significant difference in the TOC, TSS, and turbidity levels observed at the upstream and downstream locations.

Additional stream data, including water velocity and water elevation, were collected as part of this monitoring event. Stream velocities were measured using a Flo-Mate Model 2000 flowmeter. The results of the additional data collected are summarized on Table 1.


**CONCLUSIONS**

The results of this quarterly post-construction monitoring event (Year 3/Quarter 4) indicate that water quality in Acme Creek adjacent to the GTTC site meets or exceeds the Part 4 Water Quality Standards prescribed under Part 31 of the Water Resources Protection Section of NREPA (MCL 324.3101).

If you have questions or require additional information regarding this sampling event, please contact me at 616.554.3210.

Sincerely,

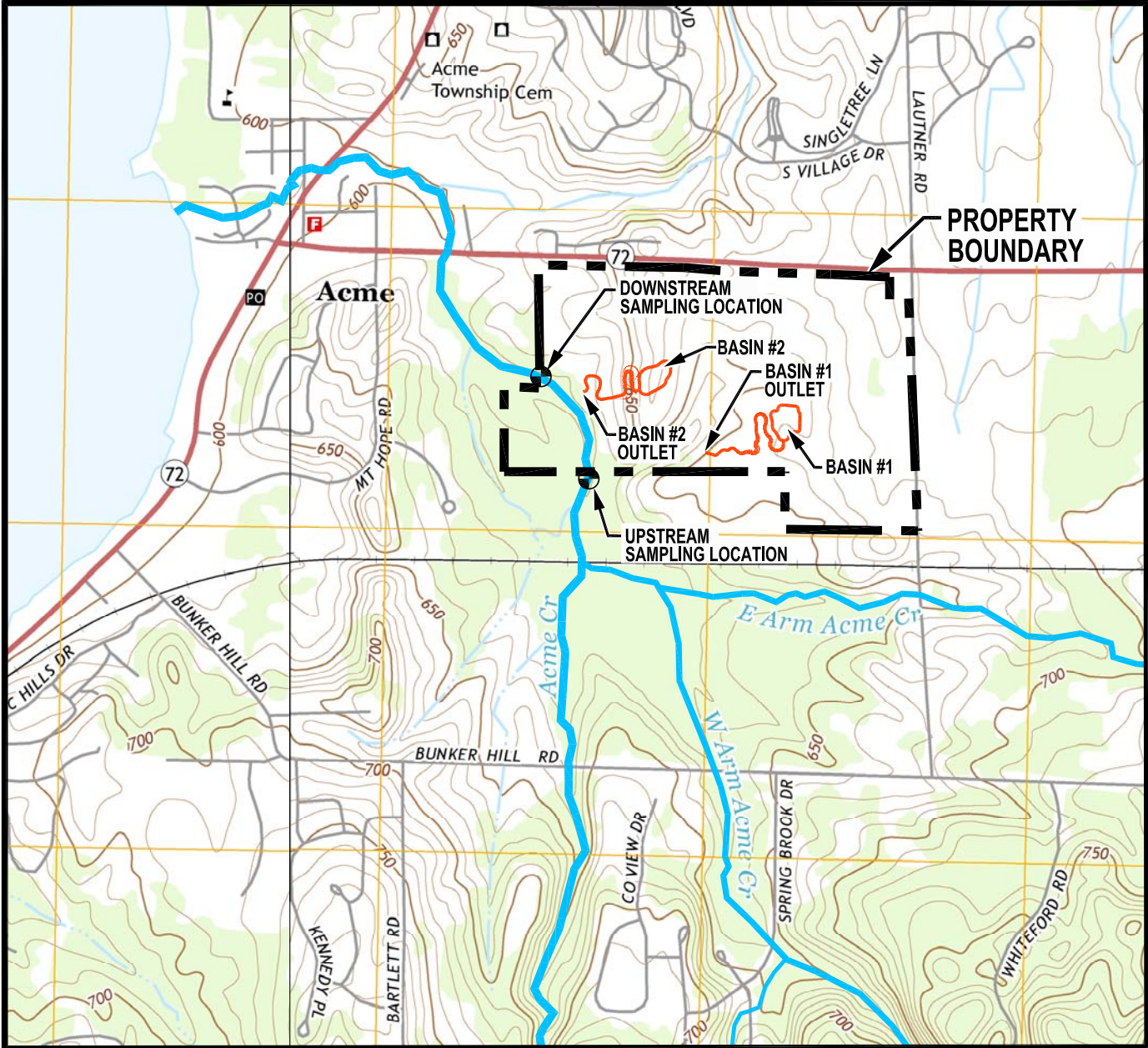
BARR ENGINEERING

A handwritten signature in black ink on a light-colored background. The signature is cursive and appears to read "Allen J. Reilly, Jr.".

Allen J. Reilly, Jr.  
Project Manager

cc: J. Zollinger, Acme Township  
S. Schooler, VGT

enclosures



TAKEN FROM 7.5 MINUTE SERIES TOPOGRAPHIC MAP  
 TRAVERSE CITY SE AND WILLIAMSBURG 2014 QUADRANGLES  
 NORTH AMERICAN VERTICAL DATUM OF 1988  
 SCALE APPROX. 1" = 1600'

LEGEND:

 - CREEK SAMPLING LOCATION

Figure 1

**SITE LOCATION MAP**  
 Village at Grand Traverse  
 Acme Township, Grand  
 Traverse County, Michigan



4771 50th Street SE  
 Grand Rapids, MI 49512

TABLE 1  
ACME CREEK MONITORING RESULTS  
GRAND TRAVERSE TOWN CENTER SITE  
ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN

| Study Parameter                  | Part 4 Water<br>Quality Standards | July 26, 2011 Baseline<br>Pre-Construction |                     | September 18, 2015<br>Post-Construction<br>(Year 1/Month 1) |            | October 13, 2015<br>Post-Construction<br>(Year 1/Month 2) |            | November 16, 2015<br>Post-Construction<br>(Year 1/Month 3) |            | December 4, 2015<br>Post-Construction<br>(Year 1/Month 4) |            | January 29, 2016<br>Post-Construction<br>(Year 1/Month 5) |            | February 18, 2016<br>Post-Construction<br>(Year 1/Month 6) |            |
|----------------------------------|-----------------------------------|--|---------------------|---|------------|---|------------|--|------------|---|------------|---|------------|--|------------|
|                                  |                                   | Upstream                                   | Downstream          | Upstream  | Downstream | Upstream  | Downstream | Upstream   | Downstream | Upstream  | Downstream | Upstream  | Downstream | Upstream   | Downstream |
| Macroinvertebrates               | NA                                | -5   |                     |   |            |   |            |  |            |   |            |   |            |  |            |
| e Coli<br>(colonies/100 ml)      | (1)                               | 100  | 72                  | 55  | 81         | 129   | 53         | 29   | 17         | 22  | 27         | 20  | 36         | 33   | 31         |
| Dissolved Oxygen<br>(mg/L)       | 7 (minimum)                       | 11.4 <sup>(2)</sup>                        | 11.6 <sup>(2)</sup> | 12.4  | 12.4       | 11.0  | 11.2       | 10.9   | 11.3       | 11.5  | 11.5       | 13.8  | 13.7       | 13.4   | 14.3       |
| Water Temperature<br>(°F)        | (3)                               | 56.1                                       | 55.6                | 49.1  | 49.0       | 50.2  | 50.9       | 46.3   | 46.0       | 42.9  | 42.8       | 39.0  | 39.0       | 36.1   | 35.8       |
| Specific Conductivity<br>(µs/cm) | NA                                | 334  | 334                 | 294   | 293        | 343   | 432        | 345  | 358        | 339   | 341        | 346   | 346        | 338  | 330        |
| pH<br>(S.U.)                     | 6.5 to 9.0                        | 8.36                                       | 8.39                | 7.70  | 6.95       | 8.24  | 8.23       | 8.81   | 8.82       | 8.21  | 8.05       | 8.03  | 8.08       | 8.05   | 7.33       |
| Volatile Organic<br>Compounds    | Various                           | (4)  | (4)                 | (4)   | (4)        | (4)   | (4)        | (4)  | (4)        | (4)   | (4)        | (4)   | (4)        | (4)  | (4)        |
| Total Organic Carbon<br>(mg/L)   | NA                                | 1.3  | 1                   | <1.0  | 1.0        | 1.6   | 1.5        | 1.6  | 1.4        | 1.4   | 1.4        | 1.4   | 1.4        | <1.0   | <1.0       |
| Total Dissolved Solids<br>(mg/L) | 500                               | 204  | 180                 | 250   | 260        | 240   | 230        | 240  | 240        | 240   | 240        | 210   | 240        | 240  | 230        |
| Total Suspended Solids<br>(mg/L) | Visual Standard                   | 11.2                                       | 4.4                 | <5.0  | <5.0       | 8   | 7          | 4  | 5          | 5   | 6          | 5   | 4          | 6  | 9          |
| Turbidity<br>(NTU)               | Visual Standard                   |  |                     | 1.99  | 1.48       | 3.06  | 3.10       | 2.3  | 1.7        | 3.0   | 2.4        | 0.93  | 0.98       | 1.52   | 1.61       |
| Water Velocity<br>(ft/sec)       | NA                                | 1.3  | 1.2                 | 0.9   | 1.6        | 1.4   | 3.2        | 3.1  | 2.8        | 1.9   | 2.0        | 1.7   | 1.8        | 1.8  | 1.6        |
| Water Elevation<br>(NAVD 88)     | NA                                | 609.97                                     | 606.04              | 610.01  | 606.11     | 610.12  | 606.17     | 610.09   | 606.22     | 610.10  | 606.23     | 610.08  | 606.23     | 610.04   | 606.13     |

- Notes:
- 1) Partial body contact maximum value 1,000 colonies per 100 ml (November 1 through April 30) and total body contact maximum value 300 colonies per 100 ml (May 1 through October 31)
  - 2) Baseline sample reported as percent saturation. Value converted to mg/L utilizing reported temperature, specific conductivity and standard barometric pressure
  - 3) Temperature varies seasonally
  - 4) EPA 8260 scan. All compounds below laboratory detection limits

TABLE 1  
ACME CREEK MONITORING RESULTS  
GRAND TRAVERSE TOWN CENTER SITE  
ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN

| Study Parameter                  | Part 4 Water<br>Quality Standards | July 26, 2011 Baseline<br>Pre-Construction |                     | March 16, 2016<br>Post-Construction<br>(Year 1/Month 7) |            | April 21, 2016<br>Post-Construction<br>(Year 1/Month 8) |            | May 26, 2016<br>Post-Construction<br>(Year 1/Month 9) |            | June 22, 2016<br>Post-Construction<br>(Year 1/Month 10) |                   | July 20, 2016<br>Post-Construction<br>(Year 1/Month 11) |                   | August 24, 2016<br>Post-Construction<br>(Year 1/Month 12) |                   |
|----------------------------------|-----------------------------------|--|---------------------|---|------------|---|------------|---|------------|---|-------------------|---|-------------------|---|-------------------|
|                                  |                                   | Upstream                                   | Downstream          | Upstream  | Downstream | Upstream  | Downstream | Upstream  | Downstream | Upstream  | Downstream        | Upstream  | Downstream        | Upstream  | Downstream        |
| Macroinvertebrates               | NA                                | -5   |                     |   |            |   |            |   |            |   |                   |   |                   |   |                   |
| e Coli<br>(colonies/100 ml)      | (1)                               | 100  | 72                  | 86  | 126        | 43  | 21         | 16  | 243        | 19  | 30 <sup>(5)</sup> | 57  | 60 <sup>(5)</sup> | 66  | 75 <sup>(5)</sup> |
| Dissolved Oxygen<br>(mg/L)       | 7 (minimum)                       | 11.4 <sup>(2)</sup>                        | 11.6 <sup>(2)</sup> | 11.4  | 11.7       | 11.3  | 11.3       | 11.8  | 12.1       | 10.9  | 10.8              | 10.1  | 9.7               | 11.2  | 11.3              |
| Water Temperature<br>(°F)        | (3)                               | 56.1                                       | 55.6                | 44.2  | 44.0       | 47.6  | 47.5       | 54  | 53.6       | 56.5  | 55.5              | 57.8  | 59.4              | 56.8  | 57.9              |
| Specific Conductivity<br>(µs/cm) | NA                                | 334  | 334                 | 482   | 534        | 345   | 324        | 234   | 326        | 422   | 433               | 219   | 220               | 284   | 287               |
| pH<br>(S.U.)                     | 6.5 to 9.0                        | 8.36                                       | 8.39                | 7.69  | 7.69       | 7.64  | 7.89       | 8.55  | 8.42       | 8.42  | 8.15              | 8.18  | 8.01              | 8.48  | 8.37              |
| Volatile Organic<br>Compounds    | Various                           | (4)  | (4)                 | (4)   | (4)        | (4)   | (4)        | (4)   | (4)        | (4)   | (4)               | (4)   | (4)               | (4)   | (4)               |
| Total Organic Carbon<br>(mg/L)   | NA                                | 1.3  | 1                   | 3.5   | 3.6        | 1.2   | 1.3        | 0.8   | 0.7        | 1.0   | 1.6               | 1.3   | 1.2               | 0.9   | 1.0               |
| Total Dissolved Solids<br>(mg/L) | 500                               | 204  | 180                 | 220   | 220        | 240   | 240        | 240   | 240        | 240   | 230               | 250   | 250               | 260   | 260               |
| Total Suspended Solids<br>(mg/L) | Visual Standard                   | 11.2                                       | 4.4                 | 20  | 33         | 7   | 4          | 2   | 4          | 4   | 6                 | 4   | 5                 | 9   | 8                 |
| Turbidity<br>(NTU)               | Visual Standard                   |  |                     | 10.4  | 12.9       | 2.0   | 2.9        | 1.0   | 3.0        | 2.8   | 2.6               | 2.6   | 2.2               | 2.2   | 2.0               |
| Water Velocity<br>(ft/sec)       | NA                                | 1.3  | 1.2                 | 3.67  | 3.04       | 3.3   | 3.1        | 2.4   | 2.0        | 2.5   | 2.2               | 2.5   | 2.1               | 2.2   | 2.3               |
| Water Elevation<br>(NAVD 88)     | NA                                | 609.97                                     | 606.04              | 610.30  | 606.44     | 610.09  | 606.17     | 610.05  | 606.11     | 610.01  | 605.65            | 610   | 605.67            | 610.01  | 605.69            |

- Notes:
- 1) Partial body contact maximum value 1,000 colonies per 100 ml (November 1 through April 30) and total body contact maximum value 300 colonies per 100 ml (May 1 through October 31)
  - 2) Baseline sample reported as percent saturation. Value converted to mg/L utilizing reported temperature, specific conductivity and standard barometric pressure
  - 3) Temperature varies seasonally
  - 4) EPA 8260 scan. All compounds below laboratory detection limits
  - 5) E coli. value reports the geometric mean of three samples collected at the downstream location (left, center, and right)



TABLE 1  
ACME CREEK MONITORING RESULTS  
GRAND TRAVERSE TOWN CENTER SITE  
ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN

| Study Parameter                  | Part 4 Water<br>Quality Standards | July 26, 2011 Baseline<br>Pre-Construction |                     | November 1, 2016<br>Post-Construction<br>(Year 2/Quarter 1) |                          | February 23, 2017<br>Post-Construction<br>(Year 2/Quarter 2) |            | May 31, 2017<br>Post-Construction<br>(Year 2/Quarter 3) |            | August 30, 2017<br>Post-Construction<br>(Year 2/Quarter 4) |            | November 13, 2017<br>Post-Construction<br>(Year 3/Quarter 1) |            | February 13, 2018<br>Post-Construction<br>(Year 3/Quarter 2) |            |
|----------------------------------|-----------------------------------|--|---------------------|---|--------------------------|--|------------|---|------------|--|------------|--|------------|--|------------|
|                                  |                                   | Upstream                                   | Downstream          | Upstream  | Downstream               | Upstream   | Downstream | Upstream  | Downstream | Upstream   | Downstream | Upstream   | Downstream | Upstream   | Downstream |
| Macroinvertebrates               | NA                                | -5   |                     |   |                          |  |            |   |            |  |            |  |            |  |            |
| e Coli<br>(colonies/100 ml)      | (1)                               | 100  | 72                  | 39  | 18 <sup>(5)</sup>        | 23   | 31         | 45  | 53         | 31   | 38         | 41   | 73         | 10   | 6          |
| Dissolved Oxygen<br>(mg/L)       | 7 (minimum)                       | 11.4 <sup>(2)</sup>                        | 11.6 <sup>(2)</sup> | 10.5  | 10.5                     | 9.9  | 9.7        | 9.4   | 10.1       | 9.6  | 9.7        | 11.8   | 11.7       | 13.8   | 14.1       |
| Water Temperature<br>(°F)        | (3)                               | 56.1                                       | 55.6                | 51.4  | 50.5                     | 43.8   | 44.0       | 50.2  | 50.0       | 53.8   | 54.1       | 43.5   | 44.2       | 36.8   | 36.8       |
| Specific Conductivity<br>(µs/cm) | NA                                | 334  | 334                 | 740   | 740                      | 330  | 353        | 474   | 497        | 209  | 208        | 306  | 359        | 355  | 324        |
| pH<br>(S.U.)                     | 6.5 to 9.0                        | 8.36                                       | 8.39                | 8.10  | 8.13                     | 8.79   | 8.58       | 7.98  | 7.96       | 8.47   | 8.46       | 7.92   | 7.27       | 7.76   | 7.88       |
| Volatile Organic<br>Compounds    | Various                           | (4)  | (4)                 | Toluene 2 <sup>(4)</sup>                                    | Toulene 3 <sup>(4)</sup> | (4)  | (4)        | (4)   | (4)        | (4)  | (4)        | (4)  | (4)        | (4)  | (4)        |
| Total Organic Carbon<br>(mg/L)   | NA                                | 1.3  | 1                   | 1.4   | 1.5                      | 1.8  | 1.8        | 1.6   | 1.7        | 0.6  | 0.5        | 0.9  | 1.3        | 18   | 25         |
| Total Dissolved Solids<br>(mg/L) | 500                               | 204  | 180                 | 240   | 240                      | 240  | 250        | 240   | 250        | 240  | 240        | 250  | 240        | 240  | 250        |
| Total Suspended Solids<br>(mg/L) | Visual Standard                   | 11.2                                       | 4.4                 | 5   | 5                        | 6  | 4          | 4   | 7          | 4  | 4          | 8  | 7          | 5  | 6          |
| Turbidity<br>(NTU)               | Visual Standard                   |  |                     | 0.3   | 1.2                      | 2.0  | 2.0        | 1.7   | 1.8        | 2.6  | 3.0        | 3.3  | 3.2        | 5.4  | 8.5        |
| Water Velocity<br>(ft/sec)       | NA                                | 1.3  | 1.2                 | 2.11  | 1.91                     | 2.31   | 2.01       | 1.78  | 2.28       | 2.4  | 2.3        | 0.87   | 0.48       | 0.86   | 0.42       |
| Water Elevation<br>(NAVD 88)     | NA                                | 609.97                                     | 606.04              | 610.11  | 605.81                   | 610.08   | 605.77     | 610.00  | 605.69     | 609.96   | 605.65     | 610.08   | 606.24     | 610.00   | 606.10     |

- Notes:
- 1) Parial body contact maximum value 1,000 colonies per 100 ml (November 1 through April 30) and total body contact maximum value 300 colonies per 100 ml (May 1 through October 31)
  - 2) Baseline sample reported as percent saturation. Value converted to mg/L utilizing reported temperature, specific conductivity and standard barometric pressure
  - 3) Temperature varies seasonally
  - 4) EPA 8260 scan. All compounds below laboratory detection limits except as noted.
  - 5) E coli. value reports the geometric mean of three samples collected at the downstream location (left, center, and right)

TABLE 1  
ACME CREEK MONITORING RESULTS  
GRAND TRAVERSE TOWN CENTER SITE  
ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN

| Study Parameter                  | Part 4 Water<br>Quality Standards | July 26, 2011 Baseline<br>Pre-Construction |                     | May 1, 2018<br>Post-Construction<br>(Year 3/Quarter 3) |            | August 20, 2018<br>Post-Construction<br>(Year 3/Quarter 4) |            |  |  |  |  |  |  |  |
|----------------------------------|-----------------------------------|--|---------------------|--|------------|--|------------|--|--|--|--|--|--|--|
|                                  |                                   | Upstream                                   | Downstream          | Upstream   | Downstream | Upstream   | Downstream |  |  |  |  |  |  |  |
| Macroinvertebrates               | NA                                | -5   |                     |  |            |  |            |  |  |  |  |  |  |  |
| e Coli<br>(colonies/100 ml)      | (1)                               | 100  | 72                  | 43   | 58         | 40   | 36         |  |  |  |  |  |  |  |
| Dissolved Oxygen<br>(mg/L)       | 7 (minimum)                       | 11.4 <sup>(2)</sup>                        | 11.6 <sup>(2)</sup> | 21.7   | 23.7       | 13.4   | 13.4       |  |  |  |  |  |  |  |
| Water Temperature<br>(°F)        | 68 <sup>(3)</sup>                 | 56.1                                       | 55.6                | 47.0   | 46.9       | 53.8   | 53.6       |  |  |  |  |  |  |  |
| Specific Conductivity<br>(µs/cm) | NA                                | 334  | 334                 | 334  | 341        | 285  | 285        |  |  |  |  |  |  |  |
| pH<br>(S.U.)                     | 6.5 to 9.0                        | 8.36                                       | 8.39                | 8.10   | 7.89       | 8.72   | 8.70       |  |  |  |  |  |  |  |
| Volatile Organic<br>Compounds    | Various                           | (4)  | (4)                 | (4)  | (4)        | (4)  | (4)        |  |  |  |  |  |  |  |
| Total Organic Carbon<br>(mg/L)   | NA                                | 1.3  | 1                   | 1.5  | 1.7        | 0.96   | 0.82       |  |  |  |  |  |  |  |
| Total Dissolved Solids<br>(mg/L) | 500                               | 204  | 180                 | 240  | 250        | 250  | 250        |  |  |  |  |  |  |  |
| Total Suspended Solids<br>(mg/L) | Visual Standard                   | 11.2                                       | 4.4                 | 4  | 4          | 6  | 5          |  |  |  |  |  |  |  |
| Turbidity<br>(NTU)               | Visual Standard                   |  |                     | 1.5  | 1.0        | 1.2  | 2.1        |  |  |  |  |  |  |  |
| Water Velocity<br>(ft/sec)       | NA                                | 1.3  | 1.2                 | 0.68   | 0.74       | 0.81   | 0.53       |  |  |  |  |  |  |  |
| Water Elevation<br>(NAVD 88)     | NA                                | 609.97                                     | 606.04              | 610.01   | 606.13     | 609.92   | 605.96     |  |  |  |  |  |  |  |

- Notes:
- 1) Partial body contact maximum value 1,000 colonies per 100 ml (November 1 through April 30) and total body contact maximum value 300 colonies per 100 ml (May 1 through October 31)
  - 2) Baseline sample reported as percent saturation. Value converted to mg/L utilizing reported temperature, specific conductivity and standard barometric pressure
  - 3) Temperature varies seasonally (August Value Shown)
  - 4) EPA 8260 scan. All compounds below laboratory detection limits except as noted.

***ATTACHMENT I***

---

***LABORATORY DATA SHEETS***





4125 Cedar Run Rd., Suite B  
 Traverse City, MI 49684  
 Phone 231-946-6767  
 Fax 231-946-8741  
 www.sosanalytical.com

COMPANY: BARR ENGINEERING

SOS PROJECT NO: 184359

NAME:

SAMPLED BY: MIKE POTTER/BARR  
ENGINEERING

PROJECT NO: UGT

WSSN:

DATE SAMPLED: 8/20/2018

WELL PERMIT:

TIME SAMPLED: 1:00 PM

TAX ID:

SAMPLE MATRIX: WASTEWATER

LOCATION: 4771 50TH ST SE

DATE RECEIVED: 8/20/2018

TIME RECEIVED: 3:00 PM

MI

COUNTY:

TWP:

**INORGANICS**

| No:                        | Analysis                             | Concentration | LOD  | Units              | Analyst | Date Completed | Drinking Water Reg Limit(MCL) |
|----------------------------|--------------------------------------|---------------|------|--------------------|---------|----------------|-------------------------------|
| SAMPLE ID: ACME DOWNSTREAM |                                      |               |      |                    |         |                |                               |
| 1                          | E.COLI SM9223-B MPN                  | 36            |      | Colonies/100 mLKMJ |         | 8/21/2018      |                               |
| 1                          | RESIDUE, FILTERABLE(TDS)/SM2540C     | 250           | 10   | mg/L (PPM)         | AD      | 8/27/2018      |                               |
| 1                          | RESIDUE, NON-FILTERABLE(TSS)/SM2540D | 5             | 1    | mg/L (PPM)         | AD      | 8/23/2018      |                               |
| 1                          | TOTAL ORGANIC CARBON EPA 415.1       | 0.82          | 0.50 | mg/L (PPM)         | FT      | 8/30/2018      |                               |
| SAMPLE ID: ACMEUPSTREAM    |                                      |               |      |                    |         |                |                               |
| 2                          | E.COLI SM9223-B MPN                  | 40            |      | Colonies/100 mLKMJ |         | 8/21/2018      |                               |
| 2                          | RESIDUE, FILTERABLE(TDS)/SM2540C     | 250           | 10   | mg/L (PPM)         | AD      | 8/27/2018      |                               |
| 2                          | RESIDUE, NON-FILTERABLE(TSS)/SM2540D | 6             | 1    | mg/L (PPM)         | AD      | 8/23/2018      |                               |
| 2                          | TOTAL ORGANIC CARBON EPA 415.1       | 0.96          | 0.50 | mg/L (PPM)         | FT      | 8/30/2018      |                               |

ND = NOT DETECTED  
 LOD = LIMIT OF DETECTION  
 SMCL = FEDERAL NON-ENFORCEABLE LIMIT  
 MCL = MAXIMUM CONTAMINANT LEVEL  
 s.u. = STANDARD pH UNITS REPORTED AT 25 C  
 DISS = DISSOLVED

APPROVED BY: Shanna Shea  
 SHANNA SHEA  
 LAB MANAGER



4125 Cedar Run Rd., Suite B  
 Traverse City, MI 49684  
 Phone 231-946-6767  
 Fax 231-946-8741  
 www.sosanalytical.com

COMPANY: BARR ENGINEERING  
 NAME:  
 PROJECT NO: UGT  
 WSSN:  
 LOCATION: 4771 50TH ST SE

SOS PROJECT NO: 184359 - 1  
 DATE SAMPLED: 8/20/2018  
 TIME SAMPLED: 1:00 PM  
 SAMPLE MATRIX: WASTEWATER  
 SAMPLE ID: ACME DOWNSTREAM

SAMPLED BY: MIKE POTTER/BARR ENGINEERING

DATE RECEIVED: 8/20/2018  
 TIME RECEIVED: 3:00 PM

**EPA 8260 VOLATILE ORGANICS**

Units= ug/L (PPB) Analyst= SW/MM Date Extracted= Date Completed= 8/25/2018 Prep Method= EPA 5030B

| Analyte                   | Concentration | LOD | Analyte                   | Concentration | LOD |
|---------------------------|---------------|-----|---------------------------|---------------|-----|
| ACETONE                   | ND            | 5   | cis-1,3-DICHLOROPROPENE   | ND            | 1   |
| BENZENE                   | ND            | 1   | trans-1,3-DICHLOROPROPENE | ND            | 1   |
| BROMOBENZENE              | ND            | 1   | DIETHYL ETHER             | ND            | 5   |
| BROMOCHLOROMETHANE        | ND            | 1   | ETHYLBENZENE              | ND            | 1   |
| BROMODICHLOROMETHANE      | ND            | 1   | IODOMETHANE               | ND            | 1   |
| BROMOFORM                 | ND            | 1   | ISOPROPYLBENZENE          | ND            | 1   |
| BROMOMETHANE              | ND            | 1   | ISOPROPYLTOLUENE          | ND            | 1   |
| n-BUTYLBENZENE            | ND            | 1   | METHYL ETHYL KETONE       | ND            | 5   |
| s-BUTYLBENZENE            | ND            | 1   | METHYL-t-BUTYL ETHER      | ND            | 5   |
| t-BUTYLBENZENE            | ND            | 1   | METHYLENE CHLORIDE        | ND            | 5   |
| CARBON DISULFIDE          | ND            | 1   | MIBK                      | ND            | 5   |
| CARBON TETRACHLORIDE      | ND            | 1   | 2-METHYLNAPHTHALENE       | ND            | 5   |
| CHLOROENZENE              | ND            | 1   | NAPHTHALENE               | ND            | 5   |
| CHLOROFORM                | ND            | 1   | n-PROPYLBENZENE           | ND            | 1   |
| CHLOROETHANE              | ND            | 1   | STYRENE                   | ND            | 1   |
| CHLOROMETHANE             | ND            | 1   | 1,1,1,2-TETRACHLOROETHANE | ND            | 1   |
| DIBROMOCHLOROMETHANE      | ND            | 1   | 1,1,2,2-TETRACHLOROETHANE | ND            | 1   |
| DIBROMOMETHANE            | ND            | 1   | TETRACHLOROETHENE         | ND            | 1   |
| 1,2-DIBROMO3CHLOROPROPANE | ND            | 5   | TOLUENE                   | ND            | 1   |
| 1,2-DIBROMOETHANE         | ND            | 1   | 1,2,3-TRICHLOROBENZENE    | ND            | 1   |
| 1,2-DICHLOROBENZENE       | ND            | 1   | 1,2,4-TRICHLOROBENZENE    | ND            | 1   |
| 1,3-DICHLOROBENZENE       | ND            | 1   | 1,1,1-TRICHLOROETHANE     | ND            | 1   |
| 1,4-DICHLOROBENZENE       | ND            | 1   | 1,1,2-TRICHLOROETHANE     | ND            | 1   |
| DICHLORODIFLUOROMETHANE   | ND            | 1   | TRICHLOROETHENE           | ND            | 1   |
| 1,1-DICHLOROETHANE        | ND            | 1   | TRICHLORFLUOROMETHANE     | ND            | 1   |
| 1,2-DICHLOROETHANE        | ND            | 1   | 1,2,3-TRICHLOROPROPANE    | ND            | 1   |
| 1,1-DICHLOROETHENE        | ND            | 1   | 1,2,4-TRIMETHYLBENZENE    | ND            | 1   |
| cis-1,2-DICHLOROETHENE    | ND            | 1   | 1,3,5-TRIMETHYLBENZENE    | ND            | 1   |
| trans-1,2-DICHLOROETHENE  | ND            | 1   | VINYL CHLORIDE            | ND            | 1   |
| 1,2-DICHLOROPROPANE       | ND            | 1   | XYLENE (TOTAL)            | ND            | 3   |

ND = NOT DETECTED  
 LOD = LIMIT OF DETECTION

APPROVED BY: *Shanna Shea*  
 SHANNA SHEA / LAB MANAGER



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COMPANY: BARR ENGINEERING  
 NAME:  
 PROJECT NO: UGT  
 WSSN:  
 LOCATION: 4771 50TH ST SE

SOS PROJECT NO: 184359 - 2  
 DATE SAMPLED: 8/20/2018  
 TIME SAMPLED: 1:30 PM  
 SAMPLE MATRIX: WASTEWATER  
 SAMPLE ID: ACMEUPSTREAM

SAMPLED BY: MIKE POTTER/BARR ENGINEERING

DATE RECEIVED: 8/20/2018  
 TIME RECEIVED: 3:00 PM

**EPA 524.2 PURGEABLE ORGANICS**

Units= ug/L (PPB) Analyst= SW/MM Date Extracted= Date Completed= 8/25/2018 Prep Method= EPA 5030B

| Analyte                   | Concentration | LOD | Analyte                   | Concentration | LOD |
|---------------------------|---------------|-----|---------------------------|---------------|-----|
| ACETONE                   | ND            | 5   | cis-1,3-DICHLOROPROPENE   | ND            | 1   |
| BENZENE                   | ND            | 1   | trans-1,3-DICHLOROPROPENE | ND            | 1   |
| BROMOBENZENE              | ND            | 1   | DIETHYL ETHER             | ND            | 5   |
| BROMOCHLOROMETHANE        | ND            | 1   | ETHYLBENZENE              | ND            | 1   |
| BROMODICHLOROMETHANE      | ND            | 1   | IODOMETHANE               | ND            | 1   |
| BROMOFORM                 | ND            | 1   | ISOPROPYLBENZENE          | ND            | 1   |
| BROMOMETHANE              | ND            | 1   | ISOPROPYLTOLUENE          | ND            | 1   |
| n-BUTYLBENZENE            | ND            | 1   | METHYL ETHYL KETONE       | ND            | 5   |
| s-BUTYLBENZENE            | ND            | 1   | METHYL-t-BUTYL ETHER      | ND            | 5   |
| t-BUTYLBENZENE            | ND            | 1   | METHYLENE CHLORIDE        | ND            | 5   |
| CARBON DISULFIDE          | ND            | 1   | MIBK                      | ND            | 5   |
| CARBON TETRACHLORIDE      | ND            | 1   | 2-METHYLNAPHTHALENE       | ND            | 5   |
| CHLOROBENZENE             | ND            | 1   | NAPHTHALENE               | ND            | 5   |
| CHLOROFORM                | ND            | 1   | n-PROPYLBENZENE           | ND            | 1   |
| CHLOROETHANE              | ND            | 1   | STYRENE                   | ND            | 1   |
| CHLOROMETHANE             | ND            | 1   | 1,1,1,2-TETRACHLOROETHANE | ND            | 1   |
| DIBROMOCHLOROMETHANE      | ND            | 1   | 1,1,2,2-TETRACHLOROETHANE | ND            | 1   |
| DIBROMOMETHANE            | ND            | 1   | TETRACHLOROETHENE         | ND            | 1   |
| 1,2-DIBROMO3CHLOROPROPANE | ND            | 5   | TOLUENE                   | ND            | 1   |
| 1,2-DIBROMOETHANE         | ND            | 1   | 1,2,3-TRICHLOROENZENE     | ND            | 1   |
| 1,2-DICHLOROENZENE        | ND            | 1   | 1,2,4-TRICHLOROENZENE     | ND            | 1   |
| 1,3-DICHLOROENZENE        | ND            | 1   | 1,1,1-TRICHLOROETHANE     | ND            | 1   |
| 1,4-DICHLOROENZENE        | ND            | 1   | 1,1,2-TRICHLOROETHANE     | ND            | 1   |
| DICHLORODIFLUOROMETHANE   | ND            | 1   | TRICHLOROETHENE           | ND            | 1   |
| 1,1-DICHLOROETHANE        | ND            | 1   | TRICHLORFLUOROMETHANE     | ND            | 1   |
| 1,2-DICHLOROETHANE        | ND            | 1   | 1,2,3-TRICHLOROPROPANE    | ND            | 1   |
| 1,1-DICHLOROETHENE        | ND            | 1   | 1,2,4-TRIMETHYLBENZENE    | ND            | 1   |
| cis-1,2-DICHLOROETHENE    | ND            | 1   | 1,3,5-TRIMETHYLBENZENE    | ND            | 1   |
| trans-1,2-DICHLOROETHENE  | ND            | 1   | VINYL CHLORIDE            | ND            | 1   |
| 1,2-DICHLOROPROPANE       | ND            | 1   | XYLENE (TOTAL)            | ND            | 3   |

ND = NOT DETECTED  
 LOD = LIMIT OF DETECTION

APPROVED BY: Shanna Shea  
 SHANNA SHEA / LAB MANAGER



# 2018 Inspection Report of Storm Water Management System

*Grand Traverse Town Center  
Acme Township, Grand Traverse County  
Michigan*

Prepared for  
The Village at Grand Traverse LLC  
C/O Jeffrey R Anderson Real Estate  
3825 Edwards Road, Suite 200  
Cincinnati, Ohio 45209

September 2018



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2018 Inspection Report of Storm Water Management System  
September 2018

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2.0 Field Activities ..... 1  
3.0 Results ..... 2  
4.0 Summary of Recommendations ..... 2

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Figure 1 Site Location Map

List of Appendices, Attachments, or Exhibits

A Inspection Photographs

## 1.0 Purpose and Scope

This document was prepared to transmit the results of the annual Storm Water Management System (SWMS) inspection completed by Barr Engineering (Barr) on August 20, 2018 on behalf of the Village at Grand Traverse, LLC (VGT) at the Grand Traverse Town Center (GTTC) site in Acme Township, Grand Traverse County, Michigan. A site location map is provided as Figure 1.

Annual post-construction inspections of the SWMS were outlined in the site inspection, monitoring, and maintenance plan submitted to the Township in September 2015 (Monitoring Plan).<sup>1</sup> The purpose of the annual SWMS inspection is to:

- Inspect swales, outflow control structures and storm water detention area for sediment accumulation;
- Inspect catch basin inlet castings, swales, outflow control structures and storm water detention areas for floatables and debris;
- Inspect swales, outflow control structures and storm water detention areas for erosion;
- Inspect storm water system components including catch basin inlet castings, swales, outflow control structures, riprap, storm water detention areas, wetlands, and emergency outflows during a wet weather event and compare to as built plans;
- Maintain records of all inspections and maintenance activities and report to VGT; and
- Maintain records of all costs for inspections, maintenance and repairs and report to VGT.

## 2.0 Field Activities

The SWMS at the GTTC site was inspected on August 20, 2018. Both the detention basins were discharging water to their respective swales via their outflow control structures during the inspection. The inspector observed all SWMS components including, detention areas, outflow control structures, swales, catch basin inlet castings, riprap, emergency outflows and wetlands by walking the SWMS areas. Photographs were taken to document the condition of specific areas.

---

<sup>1</sup> Inspection, Monitoring and Maintenance Plan for the Storm Water Management System, Horizon Environmental Corporation, September 2015

---

## 3.0 Results

The results of the inspection conducted in 2018 are described below. Photographs of certain areas are included in Appendix A.

**Catch Basin Inlets:** The catch basin inlet structures were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted. No evidence of floatables or debris was observed in the catch basins or near the catch basin inlets.

**Storm Water Detention Areas:** The storm water detention areas (Basin 1 and 2, and swale expansion areas) were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted. No evidence of sediment accumulation, floatables, debris or signs of erosion were observed in the storm water detention areas.

**Outflow Control Structures:** The outflow control structures were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted. Both Basin 1 and Basin 2 were discharging water from the ponds at the time of the inspection. No evidence of sediment accumulation, floatables, or debris were observed in the either of the basin outflow control structures or pond outlet/swale inlet structures. No evidence of erosion was observed at the pond outlet/swale inlet structures.

**Emergency Outflows:** The emergency outflows were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted.

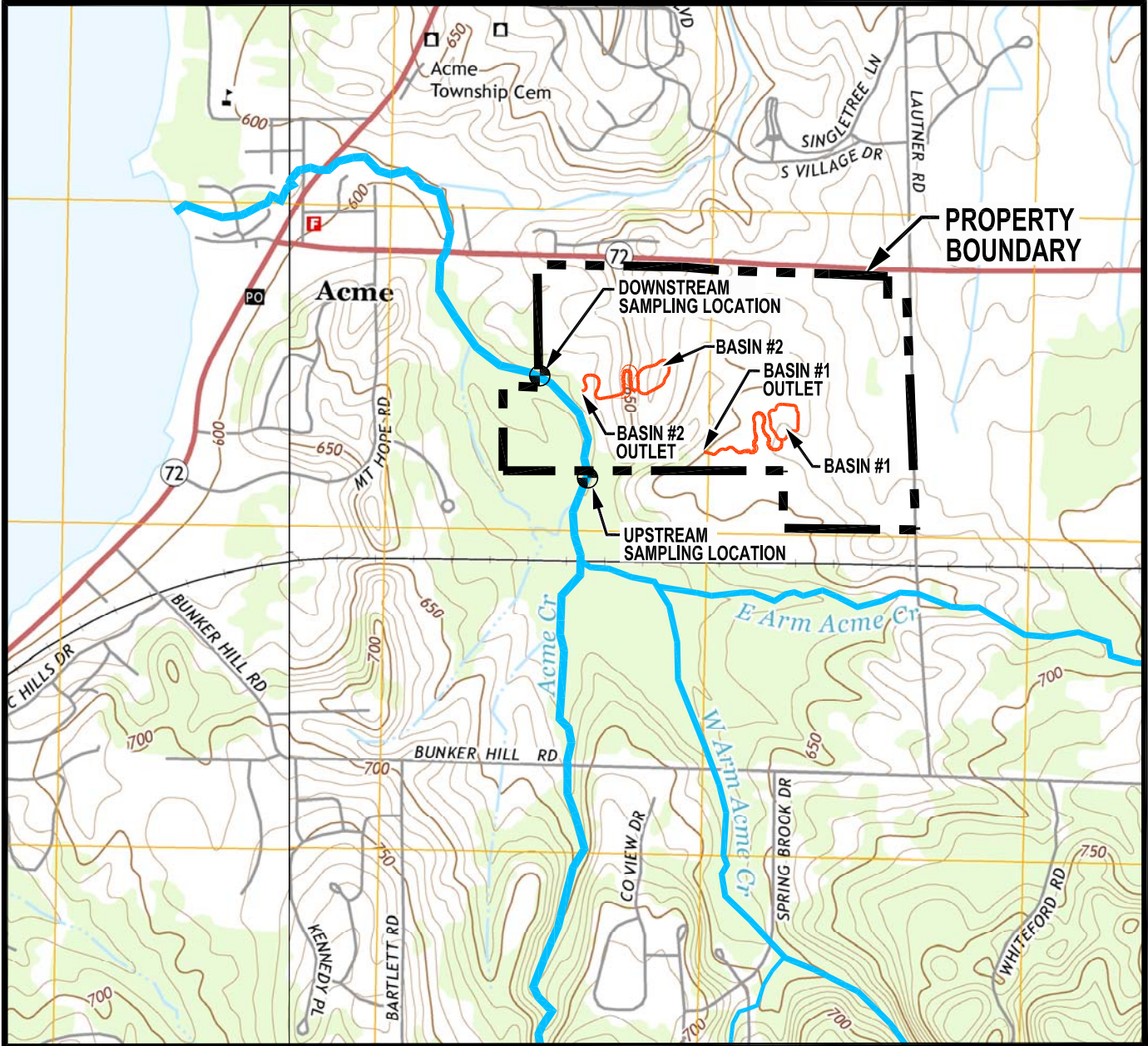
**Swales:** The swales were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted. The vegetation in both swales was well established and no evidence of sediment accumulation, floatables, or debris were observed in the either of the basin swales. No evidence of erosion was observed in either of the basin swales.

**Riprap:** The riprap (check dams and outflow aprons) associated with the SWMS were inspected and compared to the as-built plans for the SWMS, and no discrepancies were noted.

## 4.0 Summary of Recommendations

Based on the results of the 2018 SWMS inspection, no maintenance activities or repairs were identified. The next annual SWMS inspection will be completed in the summer of 2019.

## Figures



TAKEN FROM 7.5 MINUTE SERIES TOPOGRAPHIC MAP  
 TRAVERSE CITY SE AND WILLIAMSBURG 2014 QUADRANGLES  
 NORTH AMERICAN VERTICAL DATUM OF 1988  
 SCALE APPROX. 1" = 1600'

**LEGEND:**

● - CREEK SAMPLING LOCATION

Figure 1

**SITE LOCATION MAP**  
 Village at Grand Traverse  
 Acme Township, Grand  
 Traverse County, Michigan



4771 50th Street SE  
 Grand Rapids, MI 49512

## Appendix A

### Site Inspection Photographs

## Appendix A Inspection Photographs

**Grand Traverse Town Center  
Acme Township, Grand Traverse County, Michigan  
August 20, 2018**

| Photo # | Comments  |
|---------|---|
| 1       | Catch basin inlet west corridor road            |
| 2       | Basin # 1 detention pond viewing south          |
| 3       | Basin # 2 detention pond viewing north          |
| 4       | Basin # 1 outflow control structure (exterior)  |
| 5       | Basin # 1 outflow control structure (interior)  |
| 6       | Basin # 2 outflow control structure (exterior)  |
| 7       | Basin # 2 outflow control structure (interior)  |
| 8       | Basin # 1 emergency overflow                    |
| 9       | Basin # 2 emergency overflow                    |
| 10      | Basin # 1 swale inlet structure                 |
| 11      | Basin # 1 swale expansion area/riprap check dam |
| 12      | Basin # 2 swale viewing north                   |
| 13      | Basin # 1 swale outlet                          |
| 14      | Basin # 2 swale outlet                          |



Photo 1: Catch basin inlet west corridor road



Photo 2: Basin # 1 detention pond viewing south





Photo 3: Basin # 2 detention pond viewing north



Photo 4: Basin # 1 outflow control structure (exterior)

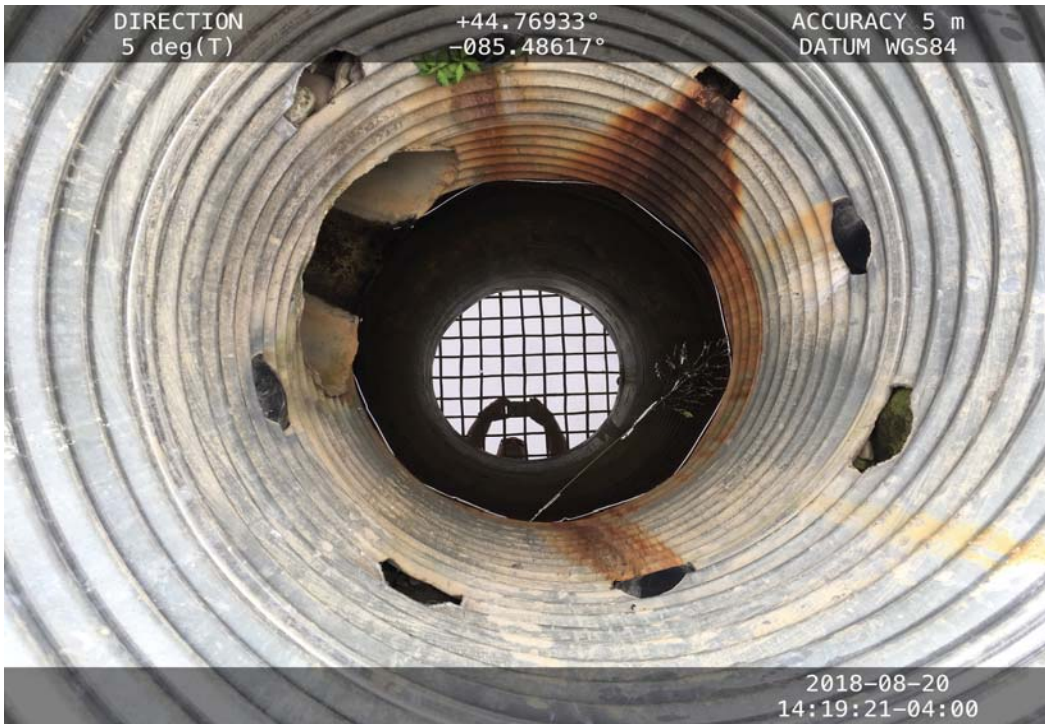


Photo 5: Basin # 1 outflow control structure (interior)



Photo 6: Basin # 2 outflow control structure (exterior)



Photo 7: Basin # 2 outflow control structure (interior)

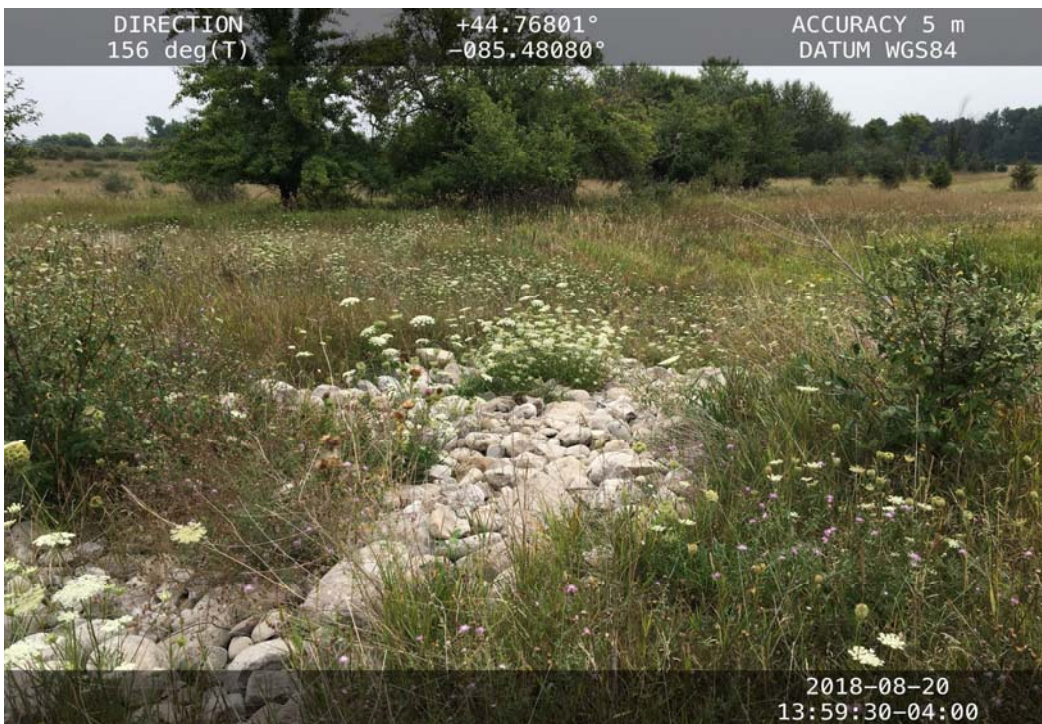


Photo 8: Basin # 1 emergency overflow



Photo 9: Basin # 2 emergency overflow



Photo 10: Basin # 1 swale inlet structure



Photo 11: Basin # 1 swale expansion area/riprap check dam



Photo 12: Basin # 2 swale viewing north



Photo 13: Basin # 1 swale outlet



Photo 14: Basin # 2 swale outlet



# Planning Review

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 | Fax: (231) 938-1510 | [www.acmetownship.org](http://www.acmetownship.org)

Date: 09.26.18

From: Shawn Winter, Planning & Zoning Administrator  
 To: Karly Wentzloff, Chairperson  
 ACME TOWNSHIP PLANNING COMMISSION  
 6042 Acme Road  
 Williamsburg, MI 49690

Project: Engle Ridge Farm Planned Development  
 8114 Saylor Rd  
 Williamsburg, MI 49690

Request: PD Pre-Application Review and Approval

Applicant: Sarah Keever, Northview 22

Parcel No.: 28-01-010-011-00

Legal Description: SW 1/4 OF SE 1/4 EXC N 82.5' OF W 330' SEC 19 T28N R9W

Owner: Kenneth & Janet Engle

## General Description

The Applicant is proposing a planned development (PD) to build a twelve 12-unit site condominium residential development with land dedicated for a future winery on the 40.54-acre parcel located at 8114 Saylor Rd (subject property). The residential units will occupy approximately 12 acres on the parcel, and the future winery will utilize 10 acres. A portion of the property will provide the necessary site improvements (roads, retention basins, utilities, etc.) and the balance will be preserved as farmland with active and grape production.

The property is zoned A-1: Agricultural which allows a residential density of five dwelling units per acre. In order to achieve the desired number of units, the Applicant is proposing to use the density transfer option in the PD ordinance. The owner of the subject property also owns a 20-acre parcel consisting of managed woodlands on Bates Rd from which the Applicant intends to transfer four development rights from this parcel to the subject property, and in turn will provide a permanent conservation easement on the Bates Rd property.

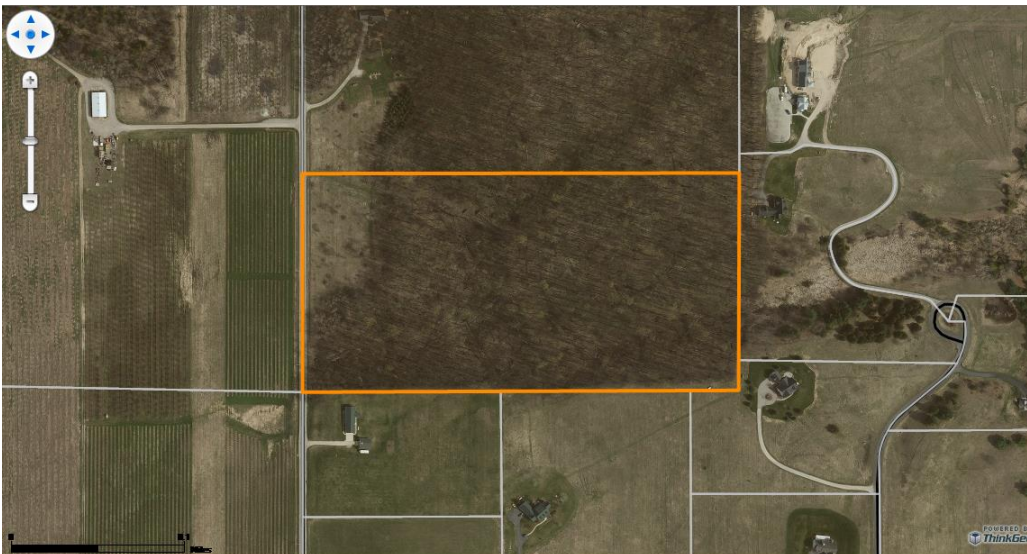
### Existing Conditions

The Saylor Rd parcel is currently in active agricultural production, consisting of grape and apple cultivation. The site consists of rolling topography through hills and valleys with panoramic views of the township, along with delineated wetlands. There is an existing house and barn on the property that will constitute one of the 12 residential units. The property to the east has already been permanently protected through the farmland protection program. The Bates Rd property, which will serve as the sending parcel for the transfer of development rights, is wooded and has been managed through timber harvesting in coordination with the Grand Traverse Conservation District and has served as an outdoor learning center since the owner's time as a teacher at Mill Creek Elementary.

Saylor Rd Property – subject property for the PD and receiving parcel:



Bates Rd – sending parcel:





## **Planned Development Process**

The Planned Development (PD) option is intended to allow, with Township approval, a private or public development which is substantially in accord with the goals and objectives of the Township Master Plan and Future Land Use Map.

Use of the PD option is to encourage flexibility in the control of land development by encouraging innovative design through an overall development plan that provides a variety of design and layout, to achieve economy and efficiency in the use of land, advance the goals of the community master plan, integrate and preserve natural resources, maximize public services and utilities, and encourage useful open spaces suited to the needs of the parcel in question.

The PD process is divided into reasonable and manageable parts:

### Part 1 – PD Pre-Application Submission and Review

Part 1 is the pre-application where the Applicant requests the use of the PD option and the Planning Commission evaluates if the request is consistent with the community goals and objectives as prescribed by the Zoning Ordinance and outlined in the Acme Township Community Master Plan.

*Part 1 is the gateway to the PD process. The Applicant is required to meet the criteria outlined in Section 19.3(a. – e.) and meet at least five out of the nine objectives outlined in Section 19.3(f) of the Zoning Ordinance. These objectives tie directly to the Acme Township Community Master Plan, the Township's goal of protecting and preserving natural resources and open space, and is the subject of this review.*

### Part 2 – Density Transfer Approval

This will be the first PD application to come before the Township that includes a density transfer option. That process is achieved through the Special Use Permit process and would follow the pre-application approval, prior to submitting the PD application.

### Part 3 – PD Plan and Application Submission

The Applicant will submit a PD application with all necessary documentation and drawings to the Township. Once the Planning & Zoning Administrator confirms the application is complete, the Planning Commission Chair will be notified, and the application will be placed on the Planning Commission for preliminary review.

### Part 4 – PD Application Preliminary Review

The Planning Commission will review the application for consistency with the requirements of the Zoning Ordinance and Community Master Plan, through which the Planning Commission will make any necessary recommendations to the proposed plan. This process includes holding a public hearing on the request, consistent with the procedures outlined in the Michigan Zoning Enabling Act. The Planning Commission will make a recommendation to approve or deny the request, either whole or in part, to the Township Board.

### Part 5 – PD Application Final Review

Upon recommendation by the Planning Commission, the Township Board will review the findings and make a determination to approve or deny the request, either whole or in part.

## Pre-Application Criteria Evaluation

| <b>APPLICANT MUST MEET ALL OF THE FOLLOWING:</b> |   |   |
|--|---|---|
| <b>Section</b>                                   | <b>Criteria</b>   | <b>Comment</b>  |
| <b>19.3(a)</b>                                   | The properties are zoned R-1, R-2, R-3, A-1, MHN, C, CF, or B-4 Districts.  | <b>Satisfied:</b> The property is zoned A-1   |
| <b>19.3(b)</b>                                   | The use of this option shall not be for the sole purpose of avoiding the applicable zoning requirements. Any permission given for any activity, building, or use not normally allowed shall result in an improvement to the public health, safety and welfare in the area affected.   | <b>Satisfied:</b> The proposed PD will allow the continued agricultural production in A-1 District create a permanent conservation district.  |
| <b>19.3(c)</b>                                   | The PD shall not be used where the same land use objectives can be carried out by the application of conventional zoning provisions or standards. Problems or constraints presented by applicable zoning provisions shall be identified in the PD application.  | <b>Satisfied:</b> The Applicant may be able to get the same number of du's through traditional land division over time on the two parcels. However, maintaining active agricultural production on the Sayler Rd property, creating a conservation easement on the Bates Rd property, and allowing the ag-related winery in conjunction with the residential development would be not be possible. |
| <b>19.3(d)</b>                                   | The PD option may be effectuated only when the proposed land use will not materially add service and facility loads beyond those considered in the Township Master Plan, and other public agency plans, unless the proponent can prove to the sole satisfaction of the Township that such added loads will be accommodated or mitigated by the proponent as part of the PD. | <b>Satisfied:</b> The only foreseeable increase in service and facility loads would be the increased traffic generated on the surrounding road network due to the residential and future winery development. There is no water or sewer service available in this area.   |
| <b>19.3(e)</b>                                   | The PD shall not be allowed solely as a means of increasing density or as a substitute for a variance request; such objectives should be pursued through the normal zoning process by seeking a zoning change or variance.  | <b>Satisfied:</b> The number of proposed du's on the site represents the balance that may be allowed between the sending and receiving parcels. The PD would further allow continued use of the land for agricultural purposes, both in terms of production and ag-related business through the future winery.  |

| APPLICANT MUST FIVE (5) OF THE FOLLOWING: |  |  |  |
|---|--|--|--|
| Section                                   | Criteria   | Applicant  | Comment  |
| 19.3(f)(1)                                | To permanently preserve open space or natural features because of their exceptional characteristics, or because they can provide a permanent transition or buffer between land uses. | Engle Ridge Farm is a small, residential neighborhood that emphasizes open space preservation. The residential lots will use approximately 12 acres, and a potential future winery/tasting room and/or farm storage building may be constructed in a designated building envelope of not more than 5 acres. The remainder of the parcel will be preserved as Farmland and Open Space. This acreage comprises hills and valleys of open space, delineated wetlands, and approximately 11 acres of vineyard and cider apple orchard. This area will be protected to preserve its natural characteristics and create a buffer between residential and commercial farming operations. The adjacent parcel to the east is permanently protected farmland as part of the Acme Township PDR program. Additionally, a request to transfer all the development rights from a twenty-acre wooded parcel on Bates Road will be made. Timber harvests have been made from this parcel with the assistance of the Grand Traverse Conservation District forester, and it has also been used as an outdoor classroom by many students from Mill Creek Elementary School. This additional twenty acres will be protected by a permanent conservation easement. | <b>Satisfied:</b> The proposed PD will provide a permanent conservation easement on the Bates Rd property, preserve agricultural operations on the Saylor Rd property, maintain the functional integrity of existing wetlands, and provide appropriate buffers to neighboring properties and uses. |

|            |  |  |   |
|------------|--|--|---|
| 19.3(f)(2) | To permanently establish land use patterns which are compatible, or which will protect existing or planned uses.   | The proposed clustering of 12 residential units on approximately 12 acres of over 62 (42+20) acres of land, along with the reservation for a future winery, with all open space to remain protected is compatible with the overall intent of a Planned Development within the A1 District. | <b>Undetermined:</b> Much debate exists between the compatibility of residential and agricultural uses. Since this PD will include active agricultural operations, spraying, operating machinery, and noise are to be expected. The same applies to the winery operation as well. It is hoped that future buyers would be aware of these potential issues, and that by utilizing GAAMPS and through the Right To Farm Act that the agricultural operator would be protected from any nuisance claims. |
| 19.3(f)(3) | To accept dedication or set aside open space areas in perpetuity.  | All open space will be protected by a Permanent Conservation Easement Agreement.   | <b>Satisfied:</b> Bates Rd property and designated locations on the Saylor Rd property will be protected through conservation easements.  |
| 19.3(f)(4) | To provide alternative uses for parcels which can provide transition buffers to residential areas.   | 10 of the proposed 12 units area located internally on the Parent Parcel and are buffered from any surrounding property. The remaining parcels are setback from neighboring parcel to the south and there is no need for alternative uses to provide transition buffers.                   | <b>Satisfied:</b> Flexible lot sizes allow siting that creates larger buffers between the development and neighboring agricultural uses. The protection of the Bates Rd property will create a permanent buffer in front of the Tobeco Creek Dr subdivision adjacent to it.   |
| 19.3(f)(5) | To promote the goals and objectives of the Township Master Plan.   | The intent of this development is to preserve over half of the total property in its current state- as a working orchard/vineyard and the remainder to be untouched which moves towards reaching the objective of the Master Plan.   | <b>Satisfied:</b> The proposed PD development is consistent with the Future Land Use Map and Cornerstones and Building Blocks of the Master Plan (see analysis below).  |
| 19.3(f)(6) | To foster the aesthetic appearance of the Township through quality building design and site development, provide trees and landscaping beyond minimum requirements; the preservation of unique and/or historic sites or structures; and the provision of open space or other desirable features of a site beyond minimum requirements. | The main objective of Engle Ridge Farm is to maintain the aesthetic appearance of the current use of the property. Each of the proposed residential units are presented as in a cluster, with the necessary road network, while the remainder of the site remains open and preserved.      | <b>Satisfied:</b> The cluster housing on smaller lots preserves active farmland which is an integral part of Acme's identity, in combination with large setbacks and preserved open space.  |

|            |   |   |  |
|------------|---|---|--|
| 19.3(f)(7) | To bring about redevelopment of sites where an orderly change of use or requirements is determined to be desirable.   | Not applicable.   | <b>Satisfied:</b> Not applicable because the property is not currently developed.  |
| 19.3(f)(8) | To promote the goals and objectives of the Acme Township Placemaking Plan and the US-31 and M-72 Business District zoning.  | Not applicable.   | <b>Satisfied:</b> The subject property is not located in the US-31/M-72 Business Zoning District.  |
| 19.3(f)(9) | To promote sustainable development especially on parcels with active farmland and orchards as defined by MCL 324.36201 (h), or on parcels that contain unique cultural, historical or natural features which should be preserved. | The proposed 12-unit residential subdivision and provision for future winery has been laid out to preserve and maintain the active vineyard and orchards that are currently on the site. The owner has a strong desire to create a low-impact residential area with a large buffer of farmland and open space in order to be respectful, supportive, and cohesive to the general surrounding land uses. | <b>Satisfied:</b> The proposed PD will maintain a significant portion of the land currently in agricultural production, protect the delineated wetlands, preserve additional open space on the subject property, and permanently preserve the 20 wooded acres on Bates Rd. |

## Assessment of the Application

### A. Consistency with Zoning Ordinance

#### A-1: Agricultural District

The Intent and Purpose of the A-1: Agricultural Zoning District is as follows:

This District is intended to preserve, enhance, and stabilize areas within the Township which are presently used predominantly for farming purposes or areas which, because of their soil, drainage, or natural flora characteristics, should be preserved for low intensity land uses. It is the further purpose of this District to promote the protection of the existing natural environment, preserve the essential characteristics and economical value of these areas as agricultural lands, provide increased market opportunities for local and regional producers by clustering supporting operations such as processing, packaging, distributing, buying, and, research and development that complement and add value to the agricultural sector, and provide opportunities for agricultural-related entrepreneurial ventures. Generally accepted agricultural and management practices which may generate noise, dust, odors, and other associated conditions may be used and are protected by the Michigan Right to Farm Act. It is explicitly the purpose of this zone to preserve a suitable long term working environment for farming operations while minimizing conflicts between land uses. It is the further purpose of this District to promote the protection of the existing natural environment, and to preserve the essential characteristics and economical value of these areas as agricultural lands.

*(Acme Township Zoning Ordinance, p. 56)*

The proposed PD plan aims to continue the existing agricultural practices on the Saylor Rd property through this development. The future winery will provide additional opportunity for agricultural-related entrepreneurial ventures. Combining residential and agricultural uses has the potential to create use conflicts. Often these occur when residential development slowly creeps into active agricultural land. However, there are cases in our region where this has worked successfully, most notably at Chateau Chantal on Old Mission Peninsula. That development consists of active grape production, a winery with tasting room and bed and breakfast, with residential units throughout the property. One would hope that when a potential buyer considers the impact from the uses within the development at the time of purchase.

#### Planned Development Ordinance

The proposed PD meets the minimum criteria to qualify for a full planned development application under the applicable standards of the Acme Township Zoning Ordinance.

### **B. Consistency with Master Plan**

#### Goals and Objectives

The Acme Township Community Master Plan (2014) lists the following Cornerstones and Building blocks related to agriculture in the community:

**Cornerstone:** Support the continuation of agricultural operations and preservation of farmland.

#### **Building Blocks:**

1. Continue the Purchase of Development Rights (PDR) program.
2. Re-evaluate the agricultural zoning district and other agriculture-related zoning ordinance provisions to determine if modifications should be made to provide greater flexibility and uses with the district.
3. In concert with the agricultural community, determine and map the location of airsheds within the Township. Further, incorporate provisions in the zoning ordinance to minimize their disturbance in areas zoned for agriculture.
4. Work with other Grand Traverse communities to promote and encourage other agricultural opportunities that are based on local food and fruit production.
5. Support regional food processing, production and distribution initiatives that provide added job growth and economic development for the Township and region.

*(Acme Township Community Master Plan, p. 56)*

The proposed PD plan will be exercising the Transfer of Development Rights (TDR) option in ordinance to protect the twenty (20) acre Bates Rd property in perpetuity. Although different than the PDR program in a number of ways, similar objectives can be achieved through both. Furthermore, the proposed PD plan will allow the continued fruit production on the Saylor Rd property, and the potential future winery will create additional agricultural-related economic opportunities while maintaining the intent and purpose of the A-1 zoning district.

#### Future Land Use Map

The Future Land Use Map in the Acme Township Community Master Plan lists both the Sayler Rd and Bates Rd properties as “Agriculture”. According to the plan, this category is

“The Agricultural category comprises land that is under active agricultural use and that is resistant to demographic and economic pressures that make other agricultural land likely for future development. Agricultural land is usually not served by public sewer or water supply and is generally distant from the high-density areas of the Township which is planned for and accommodated south of M-72. The terrain of existing agricultural lands consists of gently rolling hills and level fields interspersed occasionally with small forest areas. Land uses adjacent to the streams and wetlands of Yuba Creek should use sound environmental stewardship and ecological practices in order to conserve natural resources and protect highly sensitive ecosystems as well as ground- and surface water. Acme Township’s farmlands contribute substantially to the local and regional economy, open space, and natural resource base of the community, and so this category also encourages the establishment of linkages and corridors for wildlife habitat.

A major objective of this land use category is to create a long-term business environment for agriculture in Acme Township. This category also aims to ensure that agriculture contributes to the character of Acme Township; contributes to Acme Township’s and Grand Traverse County’s economies, now and in the future; and prevents the loss of agricultural lands by encouraging the use of PDR and TDR programs and other means.

The intended uses in this category include, but are not limited to: farms under active cultivation; farmsteads and accessory structures; agriculture-related industries; agriculture-based enterprises; nurseries and greenhouses; and other agriculture-friendly forms of development. Land uses in the Agricultural areas should comport with the policies and actions outlined in the Cornerstone entitled, “Support the Continuation of Agricultural Operations and Preservation of Farmland.” Residential development should use conservation designs through cluster housing, open-space development, or planned unit development. The Township contemplates that residential developments must work around extant agricultural uses, and in some circumstances the current density of 1 dwelling unit per 5 acres should be lowered to 1 dwelling unit per 2 or 2.5 units if cluster and/or open space (farmland) subdivisions are used. The PDR-eligibility map is overlain on the Future Land Use Map (Figure 20) in order to qualify for state funding.”

*(Acme Township Community Master Plan, 2014, p. 69-70)*

The proposed PD plan will allow for the desired continuation of agriculture operations, provide permanent conservation of a wooded property that may serve as a wildlife corridor, allow for agriculture-based enterprises through the winery, and utilization of the TDR option to provide cluster housing as prescribed by this future land use category.

### **Summary**

The review of the pre-application indicates that the application does meet a minimum five (5) of the nine (9) criteria established as a benchmark to allow a PD. The only applicable standard deemed undetermined is §19.3(f)(2) which aims to permanently establish land use patterns which are compatible, or which will protect existing or planned uses. The compatibility of residential and agricultural uses is up to interpretation but has worked well in other locations in our region.

The PD option and TDR tool will allow a more meaningful development pattern than standard land division. Under the latter scenario the property could be split into five (5) acre lots for residential development, but with little additional value. This route would not allow the preservation of the Bates Rd property through TDR, the conservation and continued operation of the agricultural operations on the Sayler Rd property and would prohibit the agriculture-related venture through the future winery. Furthermore, the PD option's flexibility in minimum lot size affords this balance by not requiring a five (5) acre minimum. We see this type of residential development in the A-1 district with Tobeco Creek Dr. A visit to this development will reveal a nice residential subdivision, but no agricultural value to speak of. Another example is the Belle Vern subdivision off of Lautner Rd, which looks to be less successful. The six (6), 5-acre lots created through land division have remained on the market and undeveloped for a number of years now.

There is a discrepancy between the number of lots that the Applicant has proposed and what the Township deems allowable based on our records and density definition. Under §3.2, the definition of density is as follows:

**Density:** The number of dwelling units developed or to be developed per *net* acre of land (*emphasis added*).

The difference between net and gross acreage often results from the area occupied by road right-of-way (ROW). Both the Sayler Rd and Bates Rd parcels extend to the centerlines of the respective roads and therefore will have a net acreage less than their gross. For Sayler Rd, the Applicant has a gross acreage of 42.37 and a net acreage of 42.19. The Township records indicate a gross acreage of 40.54 and a net acreage of 38.63, which would only allow seven (7) dwelling units based on a density of 1 du/5 acres. The Bates Rd parcel is recorded at the Township with a gross acreage of 20. Once the ROW is subtracted, the net acreage will be less than 20 and will then max out at three (3) dwelling units. The discrepancy between our records and the Applicant's may result in a total of ten (10) dwelling units on the property instead of twelve (12) as proposed. The Applicant is currently having boundary surveys performed for both properties to clarify this discrepancy.

### **Suggested Motion for Consideration**

Motion to approve the pre-application for PD 2018-02 Engle Ridge Farm located at 8114 Sayler Rd for a residential site condo development consisting of ten to twelve residential lots, to be determined by a boundary survey, a future phase with a winery, and continued agricultural operations, based on the materials submitted by the Applicant and recommended by Township staff.





**PLANNED DEVELOPMENT**  
**Pre-Application Submission and Review of Qualifications**

Township of Acme, Grand Traverse County, Michigan

6042 Acme Road, Williamsburg, MI 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: [www.acmetownship.org](http://www.acmetownship.org)

Zoning Administrator: Shawn Winter Email: [swinter@acmetownship.org](mailto:swinter@acmetownship.org)

**OWNER INFORMATION** (please type or print clearly)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email Address: \_\_\_\_\_

**APPLICANT INFORMATION** (please type or print clearly)

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Email Address: \_\_\_\_\_

**PROPERTY INFORMATION** (please type or print clearly)

Address: \_\_\_\_\_

Parcel Number: \_\_\_\_\_ Current Zoning: \_\_\_\_\_

If this project is one phase of a larger development and/or property subject to an **existing/previous Site Plan Review, Special Use Permit, or Variance**, what is/are the applicable permit number(s)?:

\_\_\_\_\_  
\_\_\_\_\_

**Proposed Use/Change to Property:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**Estimated Start and Completion Dates of Each Phase:** \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

## **PRE-APPLICATION SUBMISSION DOCUMENTS**

### **Criteria of Qualification**

All Planned Development applications shall include a written narrative demonstrating how the project meets the following criteria:

- Properties are zoned R-1, R-2, R-3, A-1, MHN, C, CF, or B-4 Districts.
- The use of this option shall not be for the sole purpose of avoiding the applicable zoning requirements. Any permission given for any activity, building, or use not normally allowed shall result in an improvement to the public health, safety and welfare in the area affected.
- The Planned Development shall not be used where the same land use objectives can be carried out by the application of conventional zoning provisions or standards. Problems or constraints presented by applicable zoning provisions shall be identified in the Planned Development application.
- The Planned Development option may be effectuated only when the proposed land use will not materially add service and facility loads beyond those considered in the Township Master Plan, and other public agency plans, unless the proponent can prove to the sole satisfaction of the Township that such added loads will be accommodated or mitigated by the proponent as part of the Planned Development.
- The Planned Development shall not be allowed solely as a means of increasing density or as a substitute for a variance; such objectives should be pursued through the normal zoning process by seeking a zoning change or variance.
- The Planned Development must meet, at a minimum, five (5) of the following nine (9) objectives of the Township. If the Planned Development involves a density transfer it shall include Item 9 in addition to its five (5) objectives.
  1. To permanently preserve open space or natural features because of their exceptional characteristics, or because they can provide a permanent transition or buffer between land uses.
  2. To permanently establish land use patterns which are compatible or which will protect existing or planned uses.
  3. To accept dedication or set aside open space areas in perpetuity.
  4. To provide alternative uses for parcels which can provided transition buffers to residential areas.
  5. To promote the goals and objectives of the Township Master Plan.

6. To foster the aesthetic appearance of the Township through quality building design and site development, provide trees and landscaping beyond minimum requirements; the preservation of unique and/or historic sites or structures; and the provision of open space or other desirable features of a site beyond minimum requirements.
7. To bring about redevelopment of sites where an orderly change of use or requirements is determined to be desirable.
8. To promote the goals and objectives of the Acme Township Placemaking Plan and the US-31/M-72 Business District zoning.
9. To promote sustainable development especially on parcels with active farmlands and orchards as defined by MCL 324.36201(h), or on parcels that contain unique cultural, historical or natural features which should be preserved.

### **Schematic Land Use Plan**

Drawings containing enough detail to demonstrate the following:

- Location of land use areas
- Role of open space
- Streets providing access to the site, along with pedestrian and vehicular circulation with the site
- Dwelling unit density and types
- Building or floor areas contemplated, as applicable

The applicant is encouraged to elaborate on these elements in the written narrative.

### **Natural Features Plan**

A plan to protect natural features, or preservation of open space or greenbelts. The areas of preservation may be noted on the schematic land use plan, and described in the written narrative.

### **Storm Water Management Plan**

A storm water management plan incorporating low impact development (LID) water quality technologies. Examples include, but are not limited to rain gardens, rooftop gardens, vegetated swales, cisterns, permeable pavers, porous pavers, porous pavement, filtered storm water technologies.

### **Proof of Property Ownership**

Provide proof of ownership for the parcel(s) included in the Planned Development application. If applicant is not the current property owner, also provide written permission to act as agent on the property owner's behalf.

**PLANNING COMMISSION REVIEW**

Based on the documentation presented, the Planning Commission shall make a preliminary determination about whether a parcel(s) and project qualifies for the Planned Development under the Criteria for Qualifications in §19.3 of the Acme Township Zoning Ordinance.

If approved, the applicant may then continue to prepare a Planned Development plan in accordance with §19.7.2 Submission of Planned Development Plan and Application Materials of the Acme Township Zoning Ordinance from which a final determination will be made. **PLEASE NOTE: an approved preliminary request for qualification does not guarantee a final Planned Development approval.**

**FEES AND ESCROW POLICY ACKNOWLEDGEMENT**

No fee or escrow policy acknowledgement is necessary at the time of a Planned Development pre-application submission and review of qualifications. If preliminarily approved, the applicant will submit a Planned Development fee consistent with the Acme Township Fee Schedule, along with a completed and signed escrow policy acknowledgement form and initial escrow fee deposit at the time of the submission of Planned Development Plan and Application Materials.

**AFFIDAVIT**

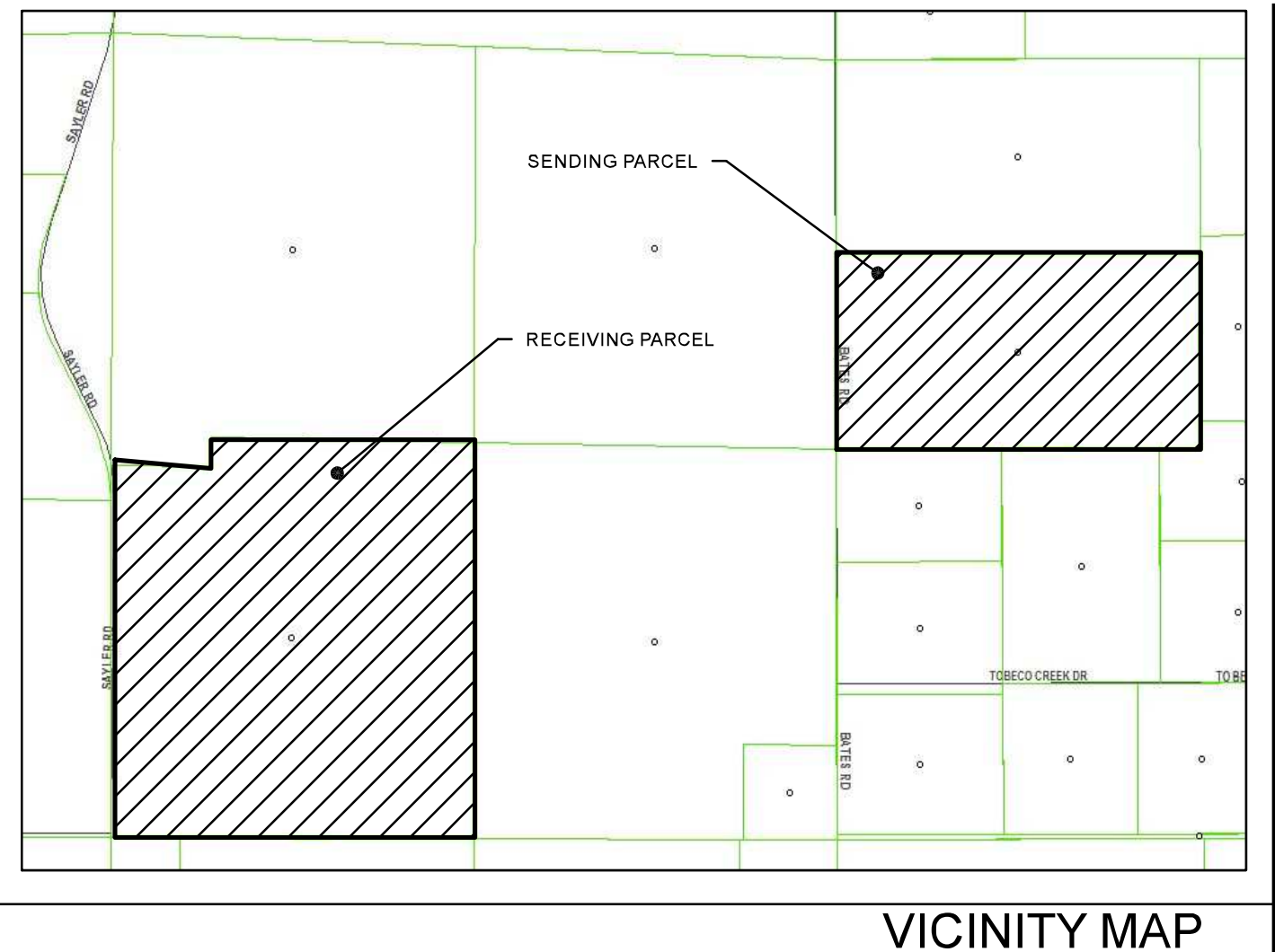
The undersigned affirms that he/she is the Kenneth Engle (owner, agent, lessee, or other interested party) involved in this petition and that the foregoing answers, statements and information are in all respects true and, to the best of his/her knowledge, correct. By making this application, the undersigned grants all officials, staff and consultants of Acme Township access to the subject property as required and appropriate to assess site conditions in support of a determination as to the suitability of the proposed project and/or current or future Planned Development and Zoning Ordinance compliance.

Signed:  Date: 9-12-2018

Print Name: Kenneth L Engle

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**NOTES - FOR TOWNSHIP USE ONLY**



This property is located at 8114 Saylor Road and has an existing house constructed in 2015. It is zoned A-1 and located in the Farmland Preservation Zone. In 2008, a Special Use Permit for a winery and bed and breakfast was granted by Acme Township. A 4.3 acre vineyard was planted, and retention basins and a service drive were constructed. The winery was never constructed due to a downturn in the general economy. Beginning in 2014, the first of over twenty varieties of cider apples on seven acres were planted.

Jan and Ken Engle are transitioning out of active farming. Unlike the rest of their farmland, this parcel is not encumbered by a conservation easement, and to date even with inquiries being made, there has been no interest in purchasing the development rights. There are potential buyers interested in the vineyard and cider apples if the price did not include the value of potential development. Because of the panoramic views of East Grand Traverse Bay, the value of potential home sites is out of proportion compared to the revenue generated by the vineyard and cider apple orchard. Because it is located in the A-1 district, lot size by right is five acres. A certificate of survey is being prepared which shows this parcel is greater than forty acres which then calculates (8) five-acre lots.

Parcel ID: 28-01-011-004-00 is a twenty acre managed woodlot on Bates Road also owned by Jan and Ken Engle. When Jan was teaching kindergarten at Mill Creek Elementary School, she initiated a science unit where kindergarten students and parents visited the woods Fall and Spring. Believing it is better for the community to leave this twenty acre woodlot in an undeveloped natural state, Jan and Ken are proposing to transfer all four development rights from parcel 28-01-011-004-00 to parcel 2801-010-011-00 and place a permanent conservation easement on this twenty acres.

A Planned Development will maximize open space and reduce the interface between residential use on parcel 28-01-010-011-00 and the adjoining commercial farming operations. By reducing residential lot size to about an acre instead of five acres as allowed in the A-1 district, eighty percent of this project will remain in open space protected by a donated permanent conservation easement. Because the vineyard and cider apple orchard will have common instead of fragmented ownership, they can continue to be easily operated as an agricultural use in the A-1 district. The delineated wetland and areas of steep hills will stay permanently undeveloped and natural in common ownership. Parcel boundaries will be mostly preserved common space used for agriculture or natural areas. The lots are proposed for the higher, well drained ground on the west side of this parcel east of the vineyard. Because of the natural slope, most houses will not be visible from Saylor Road.

**PROJECT NARRATIVE**

**AREAS:**

42.37 acres (GROSS)  
42.19 acres (NET)

**FUTURE WINERY (PHASE 2):** 10 acres  
**DEDICATED OPEN SPACE:** 17.5 acres

**12 RESIDENTIAL UNITS:**

**SETBACKS:**  
FRONT: 35'  
SIDE: 10'  
REAR: 25'  
(SETBACKS LISTED ARE MINIMUM, AS BUILDING ENVELOPES WILL BE DEFINED TO CONTROL VIEW SHEDS.)  
MINIMUM LOT WIDTH: 120'

**DENSITY TRANSFER:**

| Receiving Parcel:           | Sending Parcel:  |
|-----------------------------|------------------|
| Address: 8114 Saylor Rd     | Bates Rd         |
| Parcel ID: 28-01-010-011-00 | 28-01-011-004-00 |
| Area: 42.37 acres           | 20 acres         |
| Min. Lot Size: 5 Acres      | 5 acres          |
| DU's: 8                     | 4                |

**PARCEL INFORMATION**

## Planned Development Criteria:

- a. The PD must meet, as a minimum, five (5) of the following nine (9) objectives of the Township. If the PD involves a density transfer it shall include objective f(9) in addition to its five (5) objectives.
1. To permanently preserve open space or natural features because of their exceptional characteristics, or because they can provide a permanent transition or buffer between land uses.
    - *Engle Ridge Farm is a small, residential neighborhood that emphasizes open space preservation. The residential lots will use approximately 12 acres, and a potential future winery/tasting room and/or farm storage building may be constructed in a designated building envelope of not more than 5 acres. The remainder of the parcel will be preserved as Farmland and Open Space. This acreage comprises hills and valleys of open space, delineated wetlands, and approximately 11 acres of vineyard and cider apple orchard. This area will be protected to preserve its natural characteristics and create a buffer between residential and commercial farming operations. The adjacent parcel to the east is permanently protected farmland as part of the Acme Township PDR program. Additionally, a request to transfer all the development rights from a twenty-acre wooded parcel on Bates Road will be made. Timber harvests have been made from this parcel with the assistance of the Grand Traverse Conservation District forester, and it has also been used as an outdoor classroom by many students from Mill Creek Elementary School. This additional twenty acres will be protected by a permanent conservation easement.*
  2. To permanently establish land use patterns which are compatible or which will protect existing or planned uses.
    - *The proposed clustering of 12 residential units on approximately 12 acres of over 62 (42+20) acres of land, along with the reservation for a future winery, with all open space to remain protected is compatible with the overall intent of a Planned Development within the A1 District.*
  3. To accept dedication or set aside open space areas in perpetuity.
    - *All open space will be protected by a Permanent Conservation Easement Agreement.*
  4. To provide alternative uses for parcels which can provide transition buffers to residential areas.
    - *10 of the proposed 12 units area located internally on the Parent Parcel and are buffered from any surrounding property. The remaining parcels are setback from neighboring parcel to the south and there is no need for alternative uses to provide transition buffers.*

5. To promote the goals and objectives of the Township Master Plan.
  - *The intent of this development is to preserve over half of the total property in its current state- as a working orchard/vineyard and the remainder to be untouched which moves towards reaching the objective of the Master Plan.*
6. To foster the aesthetic appearance of the Township through quality building design and site development, provide trees and landscaping beyond minimum requirements; the preservation of unique and/or historic sites or structures; and the provision of open space or other desirable features of a site beyond minimum requirements.
  - *The main objective of Engle Ridge Farm is to maintain the aesthetic appearance of the current use of the property. Each of the proposed residential units are presented as in a cluster, with the necessary road network, while the remainder of the site remains open and preserved.*
7. To bring about redevelopment of sites where an orderly change of use or requirements is determined to be desirable.
  - *Not applicable.*
8. To promote the goals and objectives of the Acme Township Placemaking Plan and the US-31 and M-72 Business District zoning.
  - *Not applicable.*
9. To promote sustainable development especially on parcels with active farmland and orchards as defined by MCL 324.36201 (h), or on parcels that contain unique cultural, historical or natural features which should be preserved.
  - *The proposed 12-unit residential subdivision and provision for future winery has been laid out to preserve and maintain the active vineyard and orchards that are currently on the site. The owner has a strong desire to create a low-impact residential area with a large buffer of farmland and open space in order to be respectful, supportive, and cohesive to the general surrounding land uses.*

## Acme Township Master Plan Update

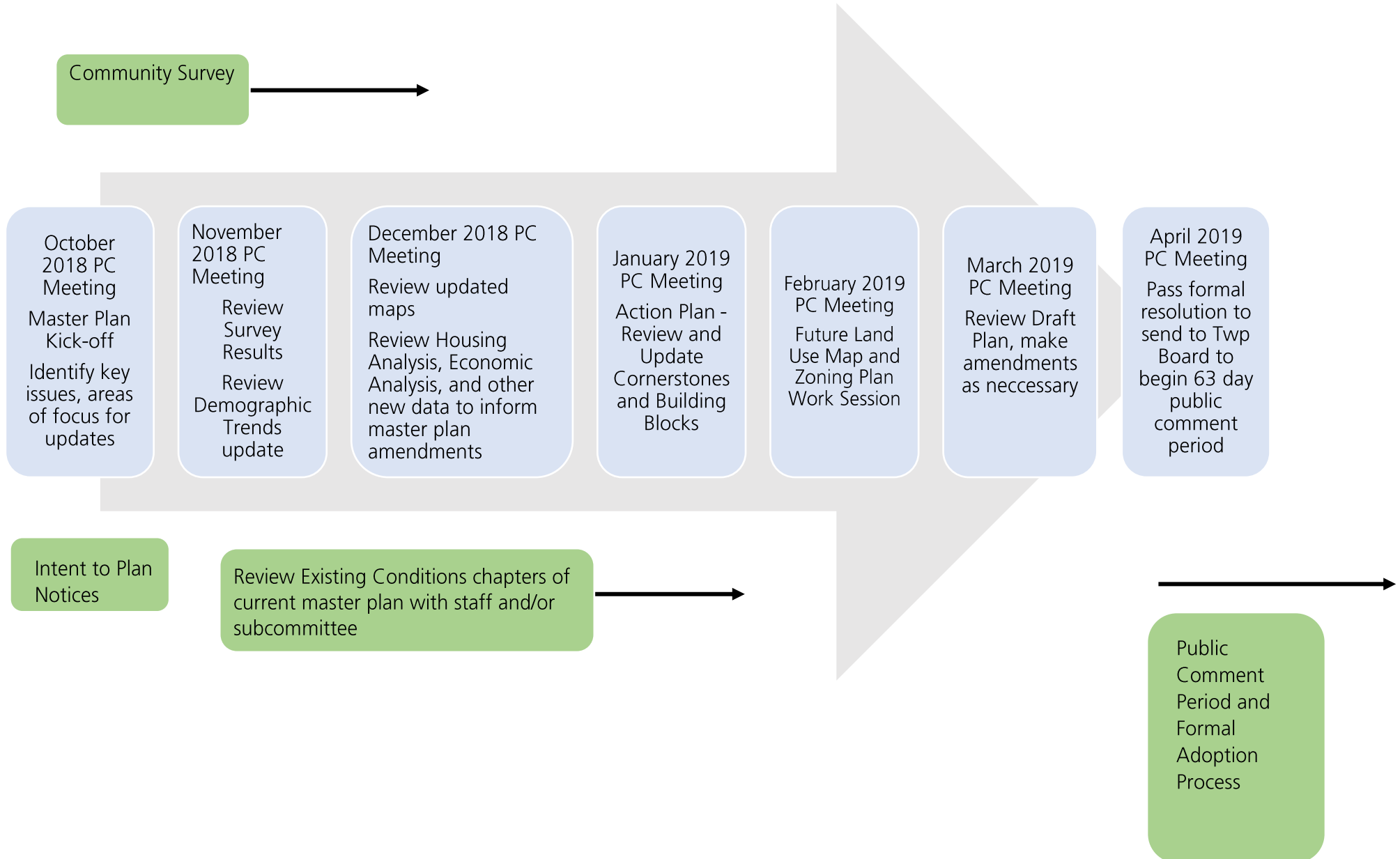
October 8, 2018

We have reviewed the 2014 Master Plan and have identified some areas for updates. Items for consideration to be updated include:

1. Overall minor refresh of the document design
2. Regional Context
  - a. Plan Snapshot (serves as executive summary)
  - b. Land Use Categories table (if necessary)
3. Context
  - a. Updated with new census data and new proprietary data sources (Esri Business Analyst, UrbanFootprint)
    - i. Demographics
    - ii. Dashboard
    - iii. Housing
    - iv. Education
    - v. Income
    - vi. Businesses
    - vii. A few demographic maps if any interesting socio-economic patterns emerge
4. Natural and Cultural Resources
  - a. Adding solar analysis maps/findings in text
  - b. Creating prime farmland map
5. Open Space and Recreation
  - a. Updated map from Park & Recreation Plan update
  - b. Updated text from Park & Recreation Plan update
6. Community Facilities
  - a. Any new developments in the Township?
7. Economic Development
  - a. Adding RRC best practices
  - b. Redevelopment site mapping
  - c. Updating placemaking text
8. Preferred Future
  - a. Update text, graphs, and maps based upon new community survey results
  - b. Community cornerstones update – what has been successfully completed, what still needs to be done, what do we prioritize?
9. Community Framework
  - a. Map and text – what is still relevant?
  - b. Future Land Use – what is still relevant?
  - c. Growth and Investment areas – what is still relevant?
  - d. Zoning Plan – new zoning map and updated text
10. Implementation and Action
  - a. Action Plan map and text – what has been successfully completed, what still needs to be done, what do we prioritize?



# ACME TOWNSHIP PROPOSED MASTER PLAN SCHEDULE



# Acme Township Master Plan Update

## Planning Commission Notes

*October 8, 2018*

What has changed in the Township in the past 5 years?

1. Meijer built, that area is possibly going into Trust
2. Kmart closed
3. Tiny house planned development approved – microflats - 20 acres at 4240 M-72
4. Numerous new retail and commercial closings
  - a. Overall, openings seemed to have out-paced closings
5. Zoning amendments
  - a. Adopted police power short term rental ordinance and related zoning amendments
  - b. Solar farm ordinance
  - c. Form based code adopted
  - d. Medical marijuana ordinance
  - e. Planned development ordinance adopted
  - f. Provisions for temporary outdoor sales
  - g. Shawn is working on a complete rewrite of the zoning ordinance based on the 2013 adopted master plan. Any changes to the master plan should be reflected as possible in the new zoning ordinance
6. A site plan review committee was established
7. Flintfields Horse park (home of GT Equestrian Festival) has changed hands
8. RV park – phase 3 is complete, more planned
9. CIP is in process-almost complete – this is the first for the Township
10. Many improvements in trails and parks (see recreation draft plan for detailed inventory)
  - a. Bayside park important community asset
11. 3 new roundabouts have been constructed
12. Acme Creek restoration project – led by the Tribe
13. Bunker Hill reconstruction
14. Wintergreen park – 20 acre parcel acquired by GTRLC
  - a. New trails, autumn olive control

What should this master plan update focus on?

1. Original Acme plat – this could be developed as a traditional neighborhood, mixed use walkable development
  - a. Currently zoned commercial and single family
2. Bertha Vos (closed elementary school) opportunity to serve as a community asset – whether the school reopens or it is converted into a community center. Owned by TCAPS.
3. Refocus on mixed use development options
4. Township owned assets: opportunity for a new Township Hall – either at current location or elsewhere. New fire station is needed, maybe an Acme Branch of the Traverse Area District Library network.
5. Limited active recreation opportunities in the township

6. Currently no public water available in the commercial area. County sewer exists throughout much of the commercial district. Public water is a higher priority than sanitary sewer expansion. Water is a limiting factor on new development
7. Stormwater ordinance needs to be updated
  - a. Current one is adopted from GT County, very long and clunky to use. Some green infrastructure standards have been integrated into FBC
8. Huge housing shortage in the township.
  - a. Look at a PILOT ordinance
  - b. Barriers to workforce housing:
    - i. Septic and well in much of the residential areas
    - ii. Time required to get a develop approved.
9. Township may be interested in RRC certification through MEDC. Will need to discuss further with Board.