



ACME TOWNSHIP PLANNING COMMISSION MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
December 11th, 2017 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. None
- 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. Township Board Meeting Draft Minutes 11/14/17
 - b. Parks and Trails Committee Meeting Draft Minutes 11/17/17
 2. **ACTION:**
 - a. Adopt Planning Commission Minutes 11/13/17
- F. ITEMS REMOVED FROM THE CONSENT CALENDAR**
1. _____
 2. _____
- G. CORRESPONDENCE:**
1. None
- H. PUBLIC HEARINGS:**
1. None
- I. NEW BUSINESS:**
1. Planned Development 2016-01 – Dan Kelly
 2. Zoning Ordinance Amendment 046 – Solar Energy Farms
 3. Zoning Ordinance Amendment 047 – Hoxsie Rezone Request
 4. Zoning Ordinance Amendment 048 – Short-Term Rentals
 5. Adopt 2018 Regular Planning Commission and Site Plan Review Committee Meeting Schedules
- J. OLD BUSINESS:**
1. Capital Improvements Plan
- 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:



ACME TOWNSHIP PLANNING COMMISSION MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
December 11th, 2017 7:00 p.m.

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE: 7:01 p.m.

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

Members excused: none

Staff present: S. Winter, Planning & Zoning Administrator, J. Iacoangeli, Planning Consultant (by conference call), V. Donn, Recording Secretary

A. LIMITED PUBLIC COMMENT: None

B. APPROVAL OF AGENDA:

Winter requested the Adopt 2018 Regular Planning Commission and Site Plan Review Committee Meeting Schedules I-5 under New Business, be moved to I-1 since there will be items on the agenda that will have public hearings scheduled.

Motion by Timmins to approve the agenda with a change in New Business to move item I-5 to I-1, supported by Balentine. Motion carried unanimously.

C. INQUIRY AS TO CONFLICTS OF INTEREST: None

D. SPECIAL PRESENTATIONS:

1. None

E. CONSENT CALENDAR:

1. RECEIVE AND FILE

a. Township Board Meeting Draft Minutes 11/14/17

b. Parks and Trails Committee Meeting Draft Minutes 11/17/17

2. ACTION:

a. Adopt Planning Commission Minutes 11/13/17

Motion by Timmins to approve the consent calendar items 1. a & b with the removal of Action 2-a. Adopt Planning Commission Minutes 11/13/17, supported by Feringa. Motion carried unanimously.

F. ITEMS REMOVED FROM THE CONSENT CALENDAR

1. a. Planning Commission Minutes 11/13/17

The word Agenda needs to be added under B. motion for Approval of Agenda.

Motion by Rosa to modify the motion for approval of the agenda under B. Planning Commission Minutes 11/13/17, supported by Balentine. Motion carried with Feringa abstained from motion.

G. CORRESPONDENCE:

1. None

H. PUBLIC HEARINGS:

1. None

I. NEW BUSINESS:

1. **Adopt 2018 Regular Planning Commission and Site Plan Review Committee Meeting**

Schedules

Motion by Rosa to adopt the 2018 Regular Planning Commission and Site Plan Review Committee Schedule, supported by Balentine. Motion carried unanimously.

2. Planned Development 2016-01 – Dan Kelly

Nathan Elkins of Influence Design Forum in Traverse City presented a planned Development application on behalf of Dan Kelly for the property along M-72. Since the last PC meeting additional property has been purchased changing the original plan as previously presented. The development would consist of commercial businesses, multi and single-family homes. An overview was given of the various dimensions of housing, parking, roads, walk ways, bike trail access, water features, landscaping, storm water usage and the infiltration system. The project will be completed in phases depending on the market as the housing is sold. Dan Kelly stated the housing will be built as sold and the project will be done in phases. Each phase will not begin until the last one is near completion.

John Iacoangeli stated if the proposed planned is approved, the applicant would come before the Planning Commission for site plan review for each phase of construction. He recommended the next step would be to go to public hearing at the next PC meeting.

Motion by Timmins to set a Public Hearing for January 8, 2018 PC Meeting to discuss PD 2016-01, Support by Balentine. Motion carried unanimously.

3. Zoning Ordinance Amendment 046 – Solar Energy Farm

Winter informed he has been contacted by five different Solar Companies regarding Solar Energy Farms in the township. A draft of a zoning ordinance amendment was presented for consideration by the Planning Commission.

Tim Jones with Atwell, LLC a company in Southfield, MI that works with solar energy, was in attendance and offered information on questions from the board.

Motion by Rosa, to set a public hearing at the January 8, 2018 PC meeting to consider Zoning Ordinance Amendment 046 to allow and regulate ground-mounted solar energy farms through a special use permit in selected zoning districts, supported by Timmins. Motion carried unanimously.

4. Zoning Ordinance Amendment 047 – Hoxsie Rezone Request

An application has been submitted by Dennis and Judy Hoxsie, 6620 E. M-72, to rezone approximately ten acres of one of their parcels from A-1 Agricultural District to B-4, Material Processing and Warehousing District. The parcel to be rezoned is located along S. Bates Rd, south of the Hoxsie's current residence.

Motion by Balentine to set a public hearing at the January 8, 2018 PC meeting to consider Zoning Ordinance Amendment 047 for the application request to rezone approximately ten acres of land from A-1 to B-4 along S. Bates Rd. on the parcel owned by Dennis and Judy Hoxsie, supported by White. Motion carried unanimously.

5. Zoning Ordinance Amendment 048 – Short-Term Rentals

Winter reported the Board adopted the Short-Term Rentals Ordinance at the November meeting with revisions. He pointed out some questions regarding the changes that need to be considered. The Corridor Shoreline as commercial, vacation homes as uses by right in the C, CF, CS, B-3 districts in single-family homes, and the definition for Industrial Zoning District to account for the B-4 district that was part of the Business Zoning Districts. It was suggested to have a public hearing at the next PC meeting on these changes.

Motion by Timmins to set a public hearing at the January 8, 2018 Planning Commission meeting to consider Zoning Ordinance Amendment 048 to make the necessary changes to account for short-term rentals as presented in the

Acme Township Short-Term Rental Ordinance, supported by VanHouten. Motion carried unanimously.

J. OLD BUSINESS:

1. Capital Improvements Plan: Winter and Feringa gave a brief update on the process. They will have a document for the January Planning Commission meeting.

K. PUBLIC COMMENT & OTHER PC BUSINESS Open at 9:20 pm

Samuel Rosinski, 6100 Lincoln Rd. asked about the Marihuana Ordinance if it was possible to modify the amendment to change the amount of plants that can be grown on a parcel.

Wentzloff stated any changes to the amendment need to be taken to the board for approval.

Public Comment closed at 9:35 pm

1. Zoning Administrator Report – Shawn Winter: The Board adopted the license fees for short-term and Marihuana applicants. The Fire station is having the annual Santa event this Friday at 7:00 pm
2. Planning Consultant Report – John Iacoangeli: None
3. Township Board Report – Doug White: None
4. Parks & Trails Committee Report – Marcie Timmins: Hoping to get out bids for the parks. Trees will be planted in the Spring.

ADJOURN: Motion to adjourn by Timmins, supported by Balentine. Meeting adjourned at 9:38



MEMORANDUM

Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

To: Acme Township Planning Commission
 From: Shawn Winter, Planning & Zoning Administrator
 CC: Jeff Jocks, Counsel; John Iacoangeli, Planning Consultant
 Date: December 4, 2017
 Re: December 11, 2017 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 PRESENTATION**
1. None
- E. CONSENT CALENDAR:**
1. **RECEIVE AND FILE:**
 a. Township Board Meeting Draft Minutes 11/14/17
 b. Parks & Trails Committee Meeting Draft Minutes 11/17/17
2. **ACTION:**
 a. Approve Draft Planning Commission Minutes 11/13/17
- Motion to adopt: _____ Support: _____
- F. ITEMS TO BE REMOVED FROM THE CONSENT CALENDAR**
1. _____
 2. _____
- G. CORRESPONDENCE:**
1. None
- H. PUBLIC HEARINGS:**
1. None
- I. NEW BUSINESS:**
1. **Planned Development 2016-01 Dan Kelly**
 Nate Elkins of Influence Design Forum (IDF) has submitted a Planned Development application on behalf of Dan Kelly for a mixed used development with condominium resort microflats for the Williamsburg Dinner Theater and surrounding properties. This project

came before the Planning Commission on March 13, 2017 where IDF presented the conceptual plan. It was determined at that meeting that the pre-application met the standards and criteria of qualifications to be considered as a planned development. Unlike the conceptual plan presented in March, this is the formal application for the proposed development presented in much greater detail.

If the proposed planned development is to be approved, the Applicant would still come before the Planning Commission for site plan review for each phase of construction. It is at that time that even greater detail will be presented and reviewed, such as storm water calculations, individual components, and consistency with the approved planned development conditions.

John Iacoangeli has performed the review included in your packet and will be on hand to present his findings and answer any questions. IDF will also be in attendance to present an overview of the proposed planned development and answer questions as well.

2. Zoning Ordinance Amendment 046 – Solar Energy Farms

Included in this month's packet is a draft zoning ordinance amendment to allow and regulate solar energy farms. These developments typically consist of ground mounted photovoltaic panels occupying a number of acres for the commercial generation of solar energy, typically for sale to an electric power company. This ordinance does not specifically regulate personal solar panels for on-site consumption and use, but treats them as an accessory use as has been the case.

The Planning Commission was presented with the concept at the May 8, 2017 meeting after I was contacted by Cypress Creek Renewables who was interested in what we do and do not allow. Included in that meeting was a precedent example of zoning language from North Carolina. The Planning Commission was not opposed to the idea, but did express doubt on whether they would be economically viable in our area. Since the May meeting I have been contacted by several other companies with similar inquiries, and even had a meeting with one. I learned that one reason solar has become so attractive in the last year since the cost of constructing the photovoltaic panels is now approximately 1/10 of what it used to cost. Ultimately, though the economic viability of such operations should be determined by the marketplace.

What the Planning Commission is being asked to consider is whether such a use is appropriate for Acme Township, and if the regulations presented in the draft zoning ordinance amendment language effectively protect the health, safety and welfare of the community. Counsel and I reviewed the existing language in the Zoning Ordinance and do not feel that in its current state would allow for ground-mounted solar energy farms. This omission from the Zoning Ordinance is not believed to be in direct opposition to the existence and operation of the use, but rather a result of being written at a time when this technology was not widely available. The draft zoning ordinance amendment attempts to provide a means in which to regulate the use in select districts through a special use permit. A couple different ordinances were reviewed from throughout the State of Michigan and were very similar in nature, and it was from these ordinances that this one was modeled after.

To help visualize what a solar energy farm may look like, I have included an overview in the packet created by SUN₂O Partners LLC. It illustrates some precedent examples, background into the growing field of commercial solar energy and a brief bio on the two founders.

Suggested Motion for Consideration:

Motion to set a public hearing at the regularly scheduled Planning Commission meeting on January 8, 2018 to consider Zoning Ordinance Amendment 046 that would allow and regulate ground-mounted solar energy farms through a special use permit in select zoning districts.

3. Zoning Ordinance Amendment 047 – Hoxsie Rezone Request

An application has been submitted by Dennis and Judy Hoxsie to rezone approximately ten (10) acres of one of their parcels from A-1: Agricultural District to B-4: Material Processing and Warehousing District. The subject parcel is located at 6620 E M-72 and contains the Hoxsie Farm Market and orchards. The portion of the parcel to be rezoned is located along S Bates Rd, south of the Hoxsie's current residence. A staff report has been included in this packet that overviews and analyzes the request.

Suggested Motion for Consideration:

Motion to set a public hearing for the regularly scheduled January 8, 2018 Planning Commission meeting to consider Zoning Ordinance Amendment 047 for the application request to rezone approximately ten (10) acres of land from A-1 to B-4 along S Bates Rd on the parcel owned by Dennis and Judy Hoxsie.

4. Zoning Ordinance Amendment 048 – Short-Term Rentals

The Board adopted the Short-Term Rental (STR) Ordinance (2017-01) at their November 14, 2017 meeting. Zoning Ordinance Amendment 048 makes the necessary changes to the Zoning Ordinance to accommodate the uses allowed by the STR Ordinance.

The zoning ordinance amendment draft begins with deletion of "Business Zoning Districts" and "Lodging House" definitions and the addition of "Commercial Zoning Districts", "Industrial Zoning District", "Short-Term Rental", "Tourist Home", and "Vacation Home" definitions. The STR Ordinance allows for tourist homes in all districts. The draft zoning ordinance amendment indicates this by listing them as a use allowed by right in each district. Vacation homes were limited in the STR Ordinance to single-family homes in the commercial districts and the agricultural district by right. For this reason, the "Business Zoning Districts" is being deleted. For one, we no longer have the B-1S, B-1P and B-2 zoning districts. In its place is the definition for "Commercial Zoning Districts" which includes the C, CF, CS and B-3 districts. This creates a few questions for consideration:

- a. Does the Planning Commission want to consider CS Corridor Shoreline as commercial?
 - The draft indicates so, but there are no commercial uses listed as allowed in the regulating table under CS.
 - If t yes, that may cause the purchase of the remaining single-family homes along the shoreline to be used as vacation rentals, which seems contrary to the Township's long-range plan to turn all the bay shore into parkland.
- b. How will this affect the three-story condo building next to Gilroy (MDOT) Park?
 - I believe the Resort operates short-term rentals out of that location. It certainly isn't single-family whether CS is deemed to be commercial or not. The Shores Condominiums behind the Osarios have been determined to not be a concern since they are part of the Grand Traverse Resort and Spa. I don't believe the condo building in question was ever built as part of the Resort with this intended purpose.

The draft zoning ordinance amendment goes on to list vacation homes as uses by right in the C, CF, CS, B-3 districts in single-family homes. This may need to be modified to remove

CS if the Planning Commission determines the district is not to be a commercial zoning district, as defined. It also adds the use by right in the A-1 district, but without the condition that they operate in a single-family home. Both tourist homes and vacation homes state that a permit is required from Acme Township. The draft zoning ordinance amendment further adds a definition for "Industrial Zoning District" to account for the B-4 district that was part of the "Business Zoning Districts" definition that is proposed for deletion.

Any changes agreed upon by the Planning Commission will be incorporated into the draft.

Suggested Motion for Consideration:

Motion to set a public hearing at the regularly scheduled Planning Commission meeting on January 8, 2018 to consider Zoning Ordinance Amendment 048 to make the necessary changes to account for short-term rentals as presented in the Acme Township Short-Term Rental Ordinance.

5. Adopt 2018 Regular Planning Commission and Site Plan Review Committee Meeting Schedules

A proposed regular meeting schedule for 2018 has been included in the packet. The Planning Commission follows the standard schedule of the second Monday of the month, and the Site Plan Review Committee follows the standard fourth Monday of the month with the exception of December which has been moved to the third Monday.

Suggested Motion For Consideration:

Motion to adopt the proposed 2018 Regular Planning Commission and Site Plan Review Committee Meeting Schedules as presented.

J. OLD BUSINESS:

1. Capital Improvements Plan

Steve Feringa, Trustee Jean Aukerman, Treasurer Amy Jenema, and myself met on November 17, 2017 to discuss the Capital Improvements Plan. Aukerman and Jenema went over the work they have done thus far. Their intent is to not burden the Planning Commission with this process and as such have made strides at laying out what is called for in the goals and objectives of the community master plan, what has been accomplished to date, what has been started, and what still needs to be done. I had to excuse myself from the meeting early and missed much of the discussion on what needs to be done moving forward. Steve Feringa may be able to supplement the Planning Commission with additional feedback from that meeting.

K. PUBLIC COMMENT & OTHER PC BUSINESS:

1. Public Comment:

Open:

Close:

2. Zoning Administrator Report: Shawn Winter

• **Permits** (since November 13, 2017)

➤ Land Use Permits – 3

- LUP 2017-52 New Home, 9177 Bayridge
- LUP 2017-53 Demolition, 7425 Deepwater Point
- LUP 2017-54 Demolition, 7081 Deepwater Point

➤ Sign Permits – 1

- SIGN 2017-10 Temporary, Acme Dentistry, 4480 Mt. Hope Rd

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:



DRAFT MINUTES

**ACME TOWNSHIP REGULAR BOARD MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
Tuesday, November 14, 7:00 p.m.**

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE at 7:00 p.m.

Members present: J. Aukerman, C. Dye, A. Jenema, D. Nelson, P. Scott, D. White, J. Zollinger.

Members excused: none

Staff present: S. Winter, Planning & Zoning Administrator, J. Jocks, Legal Counsel, V. Donn, Recording Secretary

A. LIMITED PUBLIC COMMENT:

Virginia Tegel, 4810 Bartlett approves short-term rentals in the township

B. APPROVAL OF AGENDA:

Zollinger requested to add a supervisor report to the agenda under E. Reports Item I

Motion by Nelson to approve agenda with this addition, seconded by White. Motion carried unanimously.

C. APPROVAL OF BOARD MINUTES: Regular: 10/03/17 & Special: 10/19/17

Dye requested a correction made to the Special 10/19/17 minutes changing the time from 8:38 pm to 8:38 am.

Motion by White for approval of Board and Special minutes with time correction, seconded by Aukerman. Motion carried unanimously.

D. INQUIRY AS TO CONFLICTS OF INTEREST: None

E. REPORTS

- a. Clerk – Dye:** Reported financial statements are completed. She was contacted by MTA (Michigan Township Association) to do an article in February on the township for their magazine. Acme Township was selected because they are having their annual convention at the Grand Traverse Resort in April.
- b. Parks - Jenema:** The committee is working on park signs and rules. Signs will be made for the parks to have them all uniformed. They want the Board to keep in mind using the small building at north Bayside Park for non-motorized rentals. This could be an option for additional revenue to use for maintenance and repairs to the parks.
- c. Legal Counsel – J. Jocks:** Working on zoning ordinances.
- d. Sheriff – Brian Potter:** Back from medical leave. Reported there has been an increase of traffic crashes in the township from previous years. He will initiate more police presence around the area to try in reducing these incidents. Starting the first of December, the parking ordinance will go into effect. It will be unlawful to park on maintained county roads and shoulders from 12 – 8 am. He is encouraging people not to park in the road keeping them clear for snow plows and emergency vehicles.
- e. County -Carol Crawford:** Reported on the negotiations for the county budget looking for approval after the public hearing tomorrow. Also on the agenda approval for the Brownfield project at the end of Boardman and 8th street. Vacant county executive positions have been now been filled.
- f. Roads –Jason Gillman:** No report
- g. Farmland Update-Laura Regan:** No report

DRAFT MINUTES

- h. GTMESA November report:** in packet
- i. Supervisor Report:** Zollinger gave an update on two projects. Sterling Contracting has started with the sewer pipe installation and Engineers are assessing the township pumps. One of the pumps have a restrictor plate and is being checked to see if it can be removed to increase the pressure. They are evaluating the system to get an overall cost for improvements.

F. SPECIAL PRESENTATIONS:

- ## 1. 2016-17 Audit – Gabridge & Co.

Richard Neihardt with Gabridge & Co. reviewed with the Board the financial report for the year ending June 2017.

Motion by Jenema to accept the audit, seconded by Nelson. Motion carried unanimously.

G. CONSENT CALENDAR:

1. RECEIVE AND FILE:

- a. Treasurer's Report**
- b. Clerk's Revenue/Expenditure Report and Balance sheet**
- c. Draft unapproved meeting minutes**
 - 1. Planning Commission/MEETING CANCELLED FOR OCTOBER**
 - 2. Parks and Trails meeting 10/20/17**

2. APPROVAL:

- a. Accounts Payable Prepaid of \$105,059.91 and Current to be approved of \$6,955.94
(Recommend approval: Clerk, C. Dye)**

H. ITEMS REMOVED FROM THE CONSENT CALENDAR:

1. None

Motion by Nelson to approve Consent Calendar, seconded by Scott. Roll Call motion carried unanimously.

I. CORRESPONDENCE:

1. G. Lapointe, 6375 Plum Dr. Email date 10/11/17 Re: Medical Marihuana
2. D. High, 8934 Crockett Rd. Email dated 11/4/17 Re: Short term rentals
3. M. High, 8934 Crockett Rd. Email Re: Short term rentals
4. M. Gall, 8948 Crockett Rd., Email dated 10/17/17 Re: Vacation rentals

J. PUBLIC HEARING: None

K. NEW BUSINESS:

- ## 1. SAD Funding: Three requests in Hand

Wild Juniper with 29 parcels, Spring Brook with 65 parcels and Scenic Hills with 95 parcels. Due to funding needed for other critical projects the board has decided to add these requests to the Capital Improvement Plan for later consideration.

- ## **2. Resolution #R2017-36 to Wave Penalty For Not Filing Property Transfer**

Motion by Jenema to approve Resolution #R2017-36 to Wave Penalty For Not Filing Property Transfer, seconded by Aukerman. Roll Call motion carried unanimously.

- 3. Resolution #R2017-37 to Move Funds from 401 Saylor Park Boat Launch into 208 Parks since the boat launch is completed. This \$682.45 can be used for maintenance.**

Motion by Nelson, to approve Resolution #R2017-37 movement of funds from Fund 401 to 208 Parks, seconded by Jenema. Roll Call motion carried unanimously.

DRAFT MINUTES

4. Charter contract agreement 2018

Motion by Aukerman to approve Charter contract agreement for 2018, seconded by White. Motion carried unanimously.

5. Trails Easement Agreement

Winter reviewed the easement agreement to secure for non-motorized trails and an easement with the owners of Holiday Inn Express. Jocks will make any necessary language revisions needed to the agreement before it is implemented.

Motion by Jenema to approve model agreement with revisions made by Jocks, seconded by Scott. Motion carried unanimously.

Motion by Nelson to approve easement agreement with Holiday Inn Express, seconded by Aukerman. Motion carried unanimously.

6. Capital Improvements Plan Draft Summary

Jenema gave a presentation on the capital improvements plan (CIP) workshop hosted by the Michigan Association of Planning. She went over the procedures presented at the workshop to develop a plan. The process involves identifying goals and objectives, prioritizing projects, and identifying costs to put in a master plan. Jenema suggested a team be appointed to start the project. A committee was formalize consisting of Winter, Jenema, Feringa and Aukerman. They are to work on a strategy to bring to the December board meeting.

7. Gilroy Roadside Park Recommendation

An MDOT survey shows it is an easement owned by the State and can't be deeded to the Township. It was recommended by Jenema to offer a partnership with the State, but not to take on any operation of the park.

Motion by Aukerman not to take over operations of Gilroy Roadside Park, seconded by Jenema. Motion carried unanimously.

L. OLD BUSINESS:

1. Short-Term Rental Ordinance

Zollinger recapped the conversation from the previous board meeting before discussion was tabled. Board then continued to discuss the 5-acre requirement for a Vacation Home, reviewed the occupancy and concluded the following;

The board decided on additional revisions to the Short-Term Rental Ordinance.

- Change the present ordinance for Tourist Home in all zones by removing 2.1 E-3 name in window of tourist home.
- Add sentence under Tourist Home section 2.3, the owner shall be the local agent.
- Vacation Home rentals in the Agriculture district, occupancy changed to 2 plus 4.
- Vacation Home rentals in Commercial district single family homes only, occupancy changed to 2 plus 4.
- No Vacation rentals in residential districts.
- Under definition of Occupants striking children under 5.

Motion by Jenema to approve the Short-Term rental Ordinance with modifications as stated, seconded by Nelson. Roll call motion carried by vote 6 in favor (Aukerman, Dye, Jenema, Nelson, Zollinger and Scott) opposed by one (White).

Motion made by Scott to change the renewal date under section 4.3 Application to December 31, 2017 for the 2018 year. Seconded by Jenema. Motion carried unanimously.

DRAFT MINUTES

2. Medical Marihuana Licensing Ordinance Amendment

Jocks explained the process involved for applying for a license and how the lottery selection will be handled.

Changes to the Ordinance were made:

- Under 4. Definitions (M) Qualifying Patient, should read definition of qualified patient found in the Medical Marihuana Act. Omit the words Primary Caregiver.
- Under 11. License Application should read, if a Provisioning Center, describe all locations in the premises where the sale or transfer to a patient shall take place.

Motion by Nelson to approve Medical Marihuana Licensing Ordinance Amendment with changes as stated, seconded by Dye. Roll call motion carried by vote 6 in favor (Aukerman, Dye, Jenema, Nelson, Zollinger and White) opposed by one (Scott).

3. Correction of Resolution 2017-30 to new resolution number to #R2017-34

Motion by Nelson to change resolution #R2017-30 to #R2017-34, seconded by Jenema. Roll call motion carried unanimously.

PUBLIC COMMENT & OTHER BUSINESS THAT MAY COME BEFORE THE BOARD: None

ADJOURN at 9:37 pm. Motion by Scott, seconded by Jenema.

ACME TOWNSHIP PARKS & TRAILS MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
November 17th, 2017 8:30 a.m.

Call to order: 8:35

ROLL CALL:

Committee:	X	Feringa	X	Heflin	x	Heffner	x	Jenema
	X	Smith	X	Timmins	x	Wentzloff		
Advisory:	X	Heinert/Krogulecki	X	Kushman/Clark				
Staff:	X	Winter						

A. PUBLIC COMMENT: None

B. APPROVAL OF AGENDA: Timmins, 2nd. By Heffner. Motion to approve the agenda. Motion carries

C. INQUIRY AS TO CONFLICTS OF INTEREST: None

D. CORRESPONDENCE: none

E. ACTION:

1. Approve Parks & Trails Minutes 11/20/2017 - Motion by Timmins 2nds Wentzloff to approve the minutes with the correction of Kohlmann and Valley city signs. Motion carries.

F. OLD BUSINESS:

1. **Bayside Park Updates- Krogulecki-** Update from Kevin Paperwork from the state was delayed due to glitch with park boundaries. It has been worked out with the help of Jay, Jeff and Tamara at the state. Everything is now set to begin.
Helsel's tree service will work on clearing trees for the new parking area. Discussed new parking lot boundary. Trees are flagged for easy identification.
Shell gas station parking lot encroaches on park land. Worked it out with Shell to change where Shell piles their snow, so as to not upset any of the parks landscaping.
Discussed rebuild and drainage of the old section of the parking lot.
Discussed Shores beach lane, the boundary lines. Talked about the traffic patterns at the light at US 31& US72.
Kevin believes that the parking lot will be started in spring, with tree removal this winter.
Heffner asked about the time frame.
Kevin believes it will take about a month to finish the parking lot. As the parking lot is being worked on other projects will be started simultaneously.
Tart trail will be 10' asphalt with a 2' gravel shoulder. Berming will be a bit limited due to need for a larger stormwater basin. Amy talked about limiting some berms due to visibility of the water.
Berming will be on the other side of the trail (away from road)
Discussed how berming won't cut the sound from the road.
The trail is only about 4- 5' from the right of way, berms may impede in the right away, Kevin questioned what MDOT would allow.
Heffner asked about plantings.
Winter and Kevin talked about the possibility of that, but that MDOT could ask us to rip them out if they want, if anything is planted in the right of way. Also how close the plants would be to the road and the salt and snow that would be pushed on the plants in the winter.
Kevin recommended grasses in that area. Jenema, talked about annuals, but that, that would be

labor intensive and the garden club or some other club would have to take responsibility. Discussion continued.

Proposed plants on the plan are not set in stone so they may change as the project moves forward, they are all native plants.

Kevin went over the play structures, nothing has really changed. 2 sun.shade structures. Bike racks, people liked how many bikes they held. Kevin believes that most of the furniture and bike racks will be purchased directly by the township for cost effectiveness.

Went over areas of landscape restoration. Went over the stormwater in the park, storm drains and permeable pavement in the parking lot, and the maintenance involved in the parking lot. Back parking lot, Kevin went over “no mow” areas. Keeping large trees around parking lot, designed the parking lot to keep the big trees. Evergreens will be planted in islands in the parking area. No mow areas will have a ground cover that will function best in the environment it is planted.

Feringa discussed sharing the no mow areas with the maintenance staff to ensure there is no accidental mowing. Kevin talked about needing to develop a maintenance plan to deal with the new planted areas in the park. Takes a little more maintenance than dealing with turf.

a. *Updated Playground & Shade Structure Details*

b. *Landscape Restoration & Updated Irrigation Plans-* working with Spartan irrigation, they laid out the plan, will have irrigation in all the turf areas.

Heffner asked about rain sensors, to curb added run off.

Kevin said sensors are not a problem and they are pretty standard nowadays, control boxes will be by the well and future gazebo, the panel will be screened with evergreens. Wentzloff talked about needing constant water to get turf to establish.

Kevin talked about bring in 4-6 inches of soil, and using hydor seed with a straw blanket to protect from the wind.

Heffner asked about construction schedule.

Kevin said plans are ready, but won't have an actual start date until we go to bid.

Waiting on the State for approval to go to bid, plans go to the board first to pick companies then it goes through the state for final approval. Jenema asked if it's a 3-4 month project. Kevin believes that it is closer to 4 months, a lot can happen concurrently.

c. *Electrical & Lighting Plans-* Discussed rerouting of electrical, discussed lighting, 11 lights total to illuminate key areas of the parking lot and trail. All tall lights are in the plan, due to park hours lights will be turned off shortly after dusk, they are on a programmable timer. May work with Michigan lighting systems, the materials for the lamp post will be the same as the other features in the park.

Wentzloff asked about ballard lighting along the main loop to keep the view shed. Discussed where lower lighting would be a better fit.

Discussed placement of all the lights in conjunction with features within the park.

4 lights around main walking circle

4 lights in the parking area

2 lights down near the down near the south end,

1 light near the cross walk

2. Trail Updates

a. *Yuba Park Natural Area-* Zollinger, Winter, Nels Veliquette met with Jacob from the Land Conservancy, to look at trail connections. LaPointe, Heffner and Steve Lagerquist met earlier and walked to possible scenarios. The blue trail(on map) is preferred due to vegetation density and slope.

Heffner asked who would be doing the main trail work. Winter responded it would be the Land Conservancy's Americorp workers.

South end of park there is a step trail, they would like to reconnect it to make a whole

loop. Pg4, explored options of cutting through Veliquette property, Veliquette wonders if the option to purchase the back 5 acres (by the land conservancy) or if it would be an easement. Work continues, will schedule with Americorp volunteers once we know the definite trail path.

Discussed trail building volunteers.

- b. *Wintergreen Woods (GTRLC property adjacent to Saylor Park)*- Winter, got an email from Jake about the campground that the conservancy purchased. Jake would like to know if the township has plans for trails, so the to park can plan in conjunction with each other . Discussion followed. Jenema will take the idea to the board about the idea of planning trails through Saylor park and working with the conservancy.
- c. *Sewer Project (Four Mile to Three Mile)* - construction did start and the trail is closed for the project. Winter didn't think it would start until spring but it started in fall, right now the detour uses the sidewalks in East Bay, but they are not plowed in the winter. Zollinger is having Jeff Jocks look into the liability issue, if we smooth the trail out before the asphalt is laid down so people can still ride on it. Hoping we can find a solution for winter trail users. Working with Beth Friend at East Bay to find options. Bunker Hill to 5 mile, just waiting for DTE to give the go ahead to reopen, it is all paved. Trails are now 10' wide.
- d. *TVC2CHX Options (north of Bayside Park)*
- e. *Trail Easement Agreement Language* - Discussed the easement with the Samaritas, Jeff is going over the language one more time before passing it on to John DeMarsh, hope to do that by December.

Easement through Holiday Inn property, The Holiday Inn board voted for the easement through their property. TART paid for the legal fees and the cost of drawings and legal description that Wellsfargo required before they would move forward with the easement. Once it all goes through maybe able to start looking at engineering plans. Have \$15k from the 2% grant to pay for engineering for the trail. TC trail from Traverse going North. The shores is not an option so other options were discussed.

Motion by Heffner 2nd. By Hefflin to go with Option B. Motion carries

Jenema asked about getting an updated plan to take to the board. Clark asked about sidewalks, Winter said new business would have to put in sidewalks, but the township has no plans as of now.

Clark talked about the village of Elk Rapids, there is a dedicated group of individuals that refuse to give up. The village of Elk Rapids would still like to connect to Maple Bay and they are doing fundraisers to raise the preliminary designs money.

Fishermans Island has agreed to match the 100k that Charlevoix is raising to create trails through the State park, it would connect the Lake to Lake trail, outside of Charlevoix, near Bell Bay Rd.

Discussed more of the trail from Maple Bay and Nels Veliquette working with farmers to pick the trail route.

3. Park System Signage

- a. Kiosk Signs (rules, information, etc.)-Winter presented some examples that were sent from Jacob at the land conservancy, just as examples for the committee to think about. Discussion followed about easy sign design, and ability to replace parts and pieces when needed.
- b. Monument Signs (Valley City, Signplicity)

4. Park Rules (no action) Tabled

Heffner asked about the generator at the pump station at Bunker Hill, Jenema said a permanent generator will be going in there.

G. NEW BUSINESS: none

- H. PUBLIC COMMENT** Jenema talked about starting the capital improvement project. Winter shared that Eagle Eye drone photo came out to capture images of Bayside park, they will come back in the spring to do it again.

ADJOURN: Motion to adjourn Timmins 2nd. By Wentzloff. Motion carries 10:40



**ACME TOWNSHIP PLANNING COMMISSION MEETING
ACME TOWNSHIP HALL
6042 Acme Road, Williamsburg MI 49690
November 13th, 2017 7:00 p.m.**

CALL TO ORDER WITH PLEDGE OF ALLEGIANCE

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

Members excused: S. Feringa (Vice Chair)

Staff present: S. Winter, Planning & Zoning Administrator, V. Donn, Recording Secretary

A. LIMITED PUBLIC COMMENT: Opened at 7:03, no public comment, closed at 7:04

B. APPROVAL OF AGENDA: Wentzloff requested to flip Item I, New Business with Item J, Old Business

Motion by Timmins, supported by Balentine to approve flipping Item I to Old Business with Item J to New Business. 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 09/05/17
- b.** Township Board Meeting Draft Minutes 10/03/17
- c.** Township Board Special Meeting Draft Minutes 10/19/17
- d.** Parks and Trails Committee Meeting Minutes 08/18/17
- e.** Parks and Trails Committee Meeting Minutes 09/15/17
- f.** Parks and Trails Committee Meeting Draft Minutes 10/20/17
- g.** August 2017 Results: Post-Construction Acme Creek Monitoring, Grand Traverse Town Center, Acme, Michigan

2. ACTION:

- a.** Adopt Planning Commission Minutes 09/11/17

Motion by Rosa to approve Consent Calendar, Receive and File and Action as presented, supported by Timmins. Motion carried unanimously

F. ITEMS REMOVED FROM THE CONSENT CALENDAR:

- 1.** None

G. CORRESPONDENCE:

- 1.** None

H. PUBLIC HEARINGS:

- 1.** None

I. OLD BUSINESS:

- 1.** Medical Marihuana Facilities – Board Update

Winter gave an update from the October 3 board meeting. The Board adopted an amended version of Zoning Ordinance Amendment 045 related to the location and number of licenses for each type of medical marihuana facility. The changes now reflect:

- Agriculture District
 - (2) Grower licenses
 - (2) Processor licenses
- B-4 Material Processing and Warehousing District
 - (3) Grower licenses
 - (3) Processor licenses
 - (3) Provisioning Center licenses
 - (3) Secure Transporter licenses
 - (3) Safety Compliance Facility licenses
- Corridor Commercial District
 - (1) Provisioning Center license

The Board also adopted the licensing police power ordinance for medical marihuana facilities. The application process and procedures for handling applications will be discussed at the November Board meeting.

2. Short-Term Rentals – Board Update

Winter gave a brief update of the results from the October Board meeting. The use of vacation homes in the residential districts and the addition in version 5 of requiring a minimum lot size of five (5) acres in residential districts were addressed. The topic is on the agenda for the November Board meeting for further considerations.

J. NEW BUSINESS:

1. Capital Improvements Plan

Board member Jean Aukerman gave a presentation of the capital improvements plan (CIP) workshop hosted by the Michigan Association of Planning that she attended. Jean went over the details on how the Township will need to begin working on the plan. The process involves identifying projects that advance the goals and objectives in the master plan(s), prioritizing projects, identifying costs, and programming the projects over a six-year timeline. This process will help the Township maximize its limited resources, while satisfying statutory requirements. The plan will be discussed at the November Board meeting to begin the process.

K. PUBLIC COMMENT & OTHER PC BUSINESS

Public Comment Opened at 7:55

Samuel Rosinski, 6100 E. Lincoln Rd, inquired on medical marihuana applications and licenses for the Township. He supports the Medical Marihuana Ordinances.

1. Zoning Administrator Report – Shawn Winter: Working on the Zoning ordinance with Jeff Jocks and John Iacoangeli.
2. Planning Consultant Report – John Iacoangeli -none
3. Township Board Report – Doug White -none
4. Parks & Trails Committee Report – Marcie Timmins: Meeting scheduled for Friday, November 17.

ADJOURN: Motion to adjourn by Timmins, supported by Balentine. Meeting adjourned at 8:06.

planning review

Date: 12.06.2017

From: John Iacoangeli
To: Karly Wentzloff, Chairperson
ACME TOWNSHIP PLANNING COMMISSION
6042 Acme Road
Traverse City, MI 49690

Project: Kelly's Restaurant LLC
4240 East M-72
PD 2016-01

Request: Preliminary Approval for a Planned Development

Applicant: Kelly's Restaurant LLC
4240 East M-72
Williamsburg, MI 49690

Parcel Address: 4240 East M-72

Parcel Number: 28-01-102-014-01 (4.58 Acres)
28-01-102-010-00 (8.47 Acres)
28-01-102-011-00 (2.34 Acres)

General Description:

The Applicant is resubmitting an application for a Planned Development based on comments received during a preliminary review in November 2016 and March 2017. The proposed concept plan envisions a retail/residential mixed use development with frontage on M-72 consistent with the Corridor Commercial (C) zoning designation and a series of resort-style neighborhoods within the interior of the site on property zoned Mixed Housing Neighborhood (MHN). The overall site is 20.40 acres in size and the CC zoning consists of 7.31 acres and the MHN zoning comprises 13.17 acres.

The property in 2003 was zoned B-2 (Commercial) and currently is zoned C (Corridor Commercial) and MHN (Mixed Housing Neighborhood). The Applicant is proposing to use the Township's Planned Development provision to develop this project.

The subject property has been the recipient of several special use permits, including:

SUP 1-9-84-1	Movie Theater
SUP 6-4-84-1	Minor Amendment to reduce the number of screens from 3 to 2.
SUP 2003-01P	Convert the theater to a banquet facility and add new commercial kitchen.
SUP 2004-4P	Minor Amendment to amend landscaping
SUP 2006-04P	Minor Amendment to allow outdoor events.

If the PD is approved these SUP's will no longer apply to the property.

The proposed development will be served by public sewer and water provided through an agreement from the Grand Traverse Band.

Land Use and Zoning Allocation

The Applicant is proposing through the PD process to reallocate the underlying zoning to slightly increase the C-Corridor Commercial and decrease the MHN -Mixed Neighborhood Housing.

Based on the information provided on the plans the commercial buildings will have a lot coverage of 15% and floor area ratio (FAR) of .87, which indicates that the proposed commercial development is not dense and suburban in character. The proposed housing unit density is well within the limits of the ordinance. The MHN allows up to twelve (12) dwellings per acre and the proposed development ranges from 6.08 units per acre in the MHN district and 8.83 units per acre in the C district. The lower density in the MHN is a result of the Applicant desiring to maintain and work within the existing tree cover.

Land Use	Commercial	Office	Housing
C (Corrdior Commercial)	38,300	16,200	50 (8.83)
MHN (Mixed Housing Neighborhodd			76 (6.08)
Total	38,300	16,200	126

Zoning Category	Existing	Proposed	Total
C (Corridor Commercial)	5.00	5.66	18.17
MHN (Mixed Housing Neighborhodd	13.17	12.51	18.17

Planned Development Process:

The Planned Development (PD) option is intended to allow, with Township approval, 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 use of 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 is the pre-application process where the Applicant requests the use of the PD provisions and the Planning Commission evaluates if the request is consistent with community goals and objectives as outlined in the zoning ordinance provision.

Part 1 is the gateway to the PD process. The Applicant is required to meet 5 out of 9 community objectives in order for the pre-application to be considered. These objectives tie directly to the Community Master Plan and the Township's goal of protecting and preserving natural resources and open space. The Pre-Application was approved at the March 13, 2017 Planning Commission meeting.

Part 2 commences once the pre-application is approved. This includes the submission of a full application package which includes a detailed narrative and site design. If the Planning Commission finds that the application is consistent with the intent of the ordinance and community master plan it schedules a public hearing.

(After the public hearing, the Planning Commission shall report its findings and recommendation to the Board. The Planning Commission shall review the proposed PD plan and make a determination about the proposal's qualification for the PD option and for adherence to the following objectives and requirements:

1. The proposed PD adheres to the conditions for qualification of the PD option and promotes the land use goals and objectives of the Township.
2. All applicable provisions of the PD ordinance shall be met. If any provision of this ordinance shall be in conflict with the provisions of any other section of this chapter, the provisions of the ordinance shall apply to the lands embraced within a PD area.
3. There will be at the time of development, an acceptable means of disposing of sanitary sewage and of supplying the development with water and the road network, storm water drainage system, and other public infrastructure and services are satisfactory.

Part 3 commences with the approval of application and this allows the Applicant to build the project in one phase or multiple phases, subject to a submission and approval of a site plan(s).

Preliminary Application Evaluation

Criteria	Response
Land use areas represented by the zoning districts listed as A-1, R-1, R-2, R-3, B1S, B-2, B-3, and B-4 of this Ordinance.	The subject properties are zoned C-Commercial Corridor and MHN – Mixed Housing Neighborhood.
Vehicular circulation including major drives and location of vehicular access including cross sections of public streets or private places.	The proposed development maintains the existing two curb cuts on M-72. In addition, the plans indicate two stub streets with the adjacent Grand Traverse Town Center property. Sheet 16 delineates the circulation system classification within the oriject. Sheets 19 through 22 show the street cross sections within the proposed development. All cross sections show sidewalks.

Transition treatment, including minimum building setbacks to land adjoining the PD and between different land use areas within the PD.	The proposed development is a walkable neighborhood where the different uses are in close proximity to one another. The largest buffer area is along the Acme Creek corridor where the combination of setback from the creek and the wetlands. Setback from the creek is 50 feet and the wetland setback is 25 feet. In some locations the setbacks exceed 100 feet. Sheets 4, 5 and 6 illustrate the various setbacks and boundaries.
The general location of nonresidential buildings and parking areas, estimated floor areas, building coverage and number of stories or height.	Sheet 8 include information on building type, number of floors, and housing density.
The general location of residential unit types and densities and lot sizes by area.	Sheet 8 include information on building type, number of floors, and housing density.
Location of all wetlands, water and watercourses, proposed water detention areas and depth to groundwater.	Sheet 5 notes the location of ecologically sensitive areas including delineated wetland boundaries. Sheet 23 addresses the storm water collection system, location of ponds and utilization of rain gardens. Although not required as part of this phase, the Township Engineer has been asked to perform a general review of the proposed stormwater network. The Applicant has been briefed, and is well aware, of the water quality issues associated with Acme Creek. It has been recommended that prior to implementation and during construction that water quality samples be undertaken periodically in the same fashion as GTTC.
The boundaries of open space areas that are to be preserved or reserved and an indication of the proposed ownership.	Sheet 7 provides a framework where open space within the development will occur. Sheet 24 illustrates the location of park and open space within the development. All open space is within the boundaries of the development.
A schematic landscape treatment plan for open space areas, streets and border/transition areas to adjoining properties.	Sheets 19 through 22 illustrate the landscape treatment along internal streets and Sheet 24 notes the open space provided within the site, much of which is provided through the preservation of the existing tree cover, and setbacks from Acme Creek and delineated wetlands.

<p>A preliminary grading plan, showing the extent of grading and delineating any areas, which are not to be graded or disturbed.</p>	<p>Sheet 23 provides the stormwater plan for the site which shows the proposed topography for the site. However, a grading plan which addresses this specific criteria is not provided.</p>
<p>A public or private water distribution, storm and sanitary sewer plan.</p>	<p>Sheet 25 illustrates the location of water lines and the sanitary sewer collection system.</p>
<p>Elevations of the proposed buildings using durable and traditional building materials shall be used. Materials such as exterior insulation finish system (EIFS), fluted concrete masonry units, concrete panels, panel brick, and scored concrete masonry unit block are not considered durable and traditional building materials.</p>	<p>Sheets 10 through 15 show proposed building elevations. Materials appear to be traditional; wood, metal, brick and stone. Detailed construction plans will be reviewed to ensure that non-traditional materials are not used.</p>
<p>A written statement explaining in detail the full intent of the applicant, showing dwelling units types or uses contemplated and resultant population, floor area, parking and supporting documentation, including the intended schedule of development.</p>	<p>Sheet 27 denotes the phasing plan for the development which is proposed in four stages. Phase 1 would be the housing units along Acme Creek along the southern portion of the property.</p>
<p>A market study, traffic impact study, and /or environmental impact assessment, if requested by the Planning Commission or Board of Trustees.</p>	<p>The proposed development was included in the regional network assessment as part of the GTTC traffic study. Improvements to M-72 and Lautner Road where based on full build-out of GTTC so there should not be a problem with capacity. Based on the EPA Mixed-Use Traffic model the development will result in 6,922 daily trip ends consisting for home-based work trips, home-based other related trips, and non home-based trips. The AM Peak traffic is estimated at 249 trips and the PM Peak has a trip generation of 739. As a result of this assessment a full traffic study doesn't appear to be warranted. However, this is predicated on revised build-out plans for GTTC. If the revised plans for GTTC result in less commercial development than originally approved than there should be added capacity within the traffic network. The housing market has been assessed by Networks Northwest through a regional Target Market Assessment. Based on these</p>

	finding there is demand for both year-round single family and multifamily housing. It should be noted that some of the proposed housing is targeted for seasonal residents.
A pattern book or design guidelines manual if requested by the Planning Commission or Board of Trustees.	This is a decision the Planning Commission can make. However, the elevations presented in the plans provides a reasonable insight to the design intent of the development.

Assessment of the Application

The application and submission materials address the criteria outlined in the ordinance for the "Submittal of the PD Plan and Application Materials."

Findings

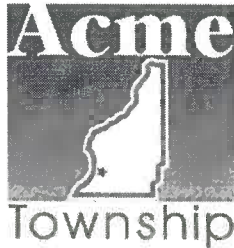
The application is sufficiently complete to schedule a public hearing. The plans provided a comprehensive framework to provide the Planning Commission and the public enough information to evaluate the appropriateness of the project. In advance of the public hearing the following information needs to be submitted:

1. A grading plan that illustrates areas within the property that will be disturbed (graded) and areas that will not be disturbed. Approximate amounts of disturbed material should be included in the plan or plan narrative.
2. A narrative how the Applicant will approach water quality monitoring of Acme Creek.
3. Submission of discussions and recommendations from MDOT on traffic related concerns.
4. Documentation supporting the extension of water from GTB to the property.

Recommendation

It is recommended that the Planning Commission schedule a public hearing on the application.

Application Number: PD 2016-01



PLANNED DEVELOPMENT APPLICATION

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

Planning & Zoning Administrator: Shawn Winter Email: swinter@acmetownship.org

OWNER INFORMATION (please type or print clearly)

Name: KELLY RESTAURANTS LLC Phone: 231-938-3663

Mailing Address: 4230 M-72 EAST HIGHWAY

City: WILLIAMSBURG State: MI Zip: 49690

Email Address: info@cateringbykellys.com

APPLICANT INFORMATION (please type or print clearly)

Name: INFLUENCE DESIGN FORUM LLC Phone: 231-944-4114

Mailing Address: 120 E. FRONT ST. 2ND FLR. LOFT PO BOX 1507

City: TRAVERSE CITY State: MI Zip: 49684

Email Address: nate@influencedesignforum.com

PROJECT INFORMATION (please type or print clearly)

Name of Project: PUD Application

Address: 4230 M-72 EAST HIGHWAY

Parcel Number(s): SEE PLANS Current Zoning: SEE PLANS

Existing Site Plan Reviews, Special Use Permits, or Variances: NO

Proposed Use/Change to Property: SEE PLANS

Estimated Start and Completion Dates of Each Phase: SEE PLANS

Planning Commission Criteria of Qualifications Approval Date: _____

APPLICATION SUBMISSION**Format Requirements**

All applications, reports and drawings shall meet the following requirements upon submission:

	One paper copy and one digital copy of complete application materials
	Drawings provided in AutoCad™, Microstation, or similar site civil/architectural drawing format requested by the Planning Commission
	Drawings scaled to not less than one 1 inch equals 100 feet (unless otherwise allowed by Township)
	All other graphics and exhibits, text or tabular information submitted in Adobe Acrobat™ "pdf" Format

Plan Element Requirements

A proposed PD application shall contain the following elements:

Met	Planned Development Plan Elements
	1. Boundary survey of exact acreage prepared by a registered land surveyor or civil engineer
	2. Topographic map of entire project area at a maximum two-foot contour interval. Includes major stands of trees, bodies of water, wetlands, unbuildable areas
	3. A proposed development showing the following, but not limited to:
	a. Land use area zoning districts
	b. Vehicular circulation, major drives, vehicular access, cross sections of public and private streets
	c. Transition treatment, including minimum building setbacks to adjacent land and between land use areas within planned development
	d. General location of nonresidential buildings and parking areas, estimated floor areas, building coverage and number of stories/heights
	e. General location of residential unit types, densities, and lot sizes by area
	f. General location of LID storm water management technologies
	g. Location of all wetlands, water and watercourses, proposed water detention areas and depth to ground water
	h. Boundaries of open space areas that are to be preserved or reserved and an indication of property ownership
	i. Schematic landscape treatment plan for open space, streets, and border/transition areas adjoining properties
	j. Preliminary grading plan, showing extent of grading and delineating any areas which are not to be graded or disturbed
	k. Public or private water distribution, storm, and sanitary sewer plan
	l. Elevations of proposed buildings using durable and traditional materials
	m. Written narrative explaining in detail the full intent of the project, showing dwelling unit types or uses contemplated, resultant population, floor area, parking and supporting documentation, intended schedule of development
	4. Market study, traffic impact study, and/or environmental impact assessment (if requested by the Planning Commission or Township Board)
	5. Pattern book or design guidelines manual (if requested by the Planning Commission or Township Board)

Agency Requirements

Documentation from the following regulatory agencies is required to determine if the proposed PD project appears likely to meet their permit requirements to promote public health, safety, and welfare.

	Grand Traverse County Health Department (well and septic)
	Grand Traverse County Department of Public Works (sewer)
	Grand Traverse Band of Ottawa & Chippewa Indians (water)
	Grand Traverse County Soil Erosion and Sediment Control Department (soil erosion)
	Grand Traverse Metro Fire Department (emergency services)
	Grand Traverse County Sheriff's Department (public safety)
	Grand Traverse County Road Commission (new roads, county road driveways)
	Michigan Department of Transportation (driveways, projects along US-31 and M-72)
	Michigan Department of Environmental Quality (wetlands)

PLANNING COMMISSION REVIEW

Once the application is determined to be complete, the Planning Commission will review the proposed PD project's qualifications for a PD option and adherence to the following objectives and requirements:

1. The proposed PD adheres to the conditions for qualification of the PD option and promotes the land use goals and objectives of the Township.
2. All applicable provisions of the PD Article shall be met. If any provision of the Article shall be in conflict with the provisions of any other section of the Article, the provisions of Section 19.7 Acme Township Zoning Ordinance shall apply to the lands embraced within the PD area.
3. There will be at the time of development, an acceptable means of disposing of sanitary sewage and of supplying the development with water and the road network, storm water drainage system, and other public infrastructure and services are satisfactory.

Following the preliminary review, the Planning Commission will set a public hearing on the proposed PD plan and will give notice as specified in Section 9.1.2(c) Acme Township Zoning Ordinance.

After completion of the review and public hearing, the Planning Commission will report its findings and recommendation to the Township Board for final approval.

TOWNSHIP BOARD APPROVAL

Upon recommendation from the Planning Commission, the Township Board will review all findings and make a final determination as to approve the PD project or not. If approved, then the PD project may proceed forward in accordance with the requirements of Section 19.7.4 and 19.8 of the Acme Township Zoning Ordinance.

FEES AND ESCROW POLICY ACKNOWLEDGEMENT

At the time of application, the applicant will submit the PD application fee according to the Acme Township Schedule of Fees. Additionally, the applicant must sign an Escrow Policy Acknowledgement and submit an initial escrow deposit as determined by the Township.

Application Number: PD 2016-01

AFFIDAVIT

The undersigned affirms that he/she is the OWNER (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: Dan Kelly Date: 11/28/17
Print Name: DAN KELLY

NOTES - FOR TOWNSHIP USE ONLY

Date Received: 11/28/17 Fee Tendered: \$1,000.00
Escrow Amount: \$2,500.00 Project No. (T&A): 080 (for billing)
Date of Preliminary Planning Commission Review: 12/11/17
Date of Public Hearing: _____
Date of Public Hearing Notice: _____
Date of Planning Commission Recommendation: _____
Recommended to Township Board for Approval: **YES** **NO**



Planned Unit Development Site Plan & Application

Kelly Restaurant's LLC 4240 E M-72

influence
design
forum
LLC.

iDF



Studio Profile

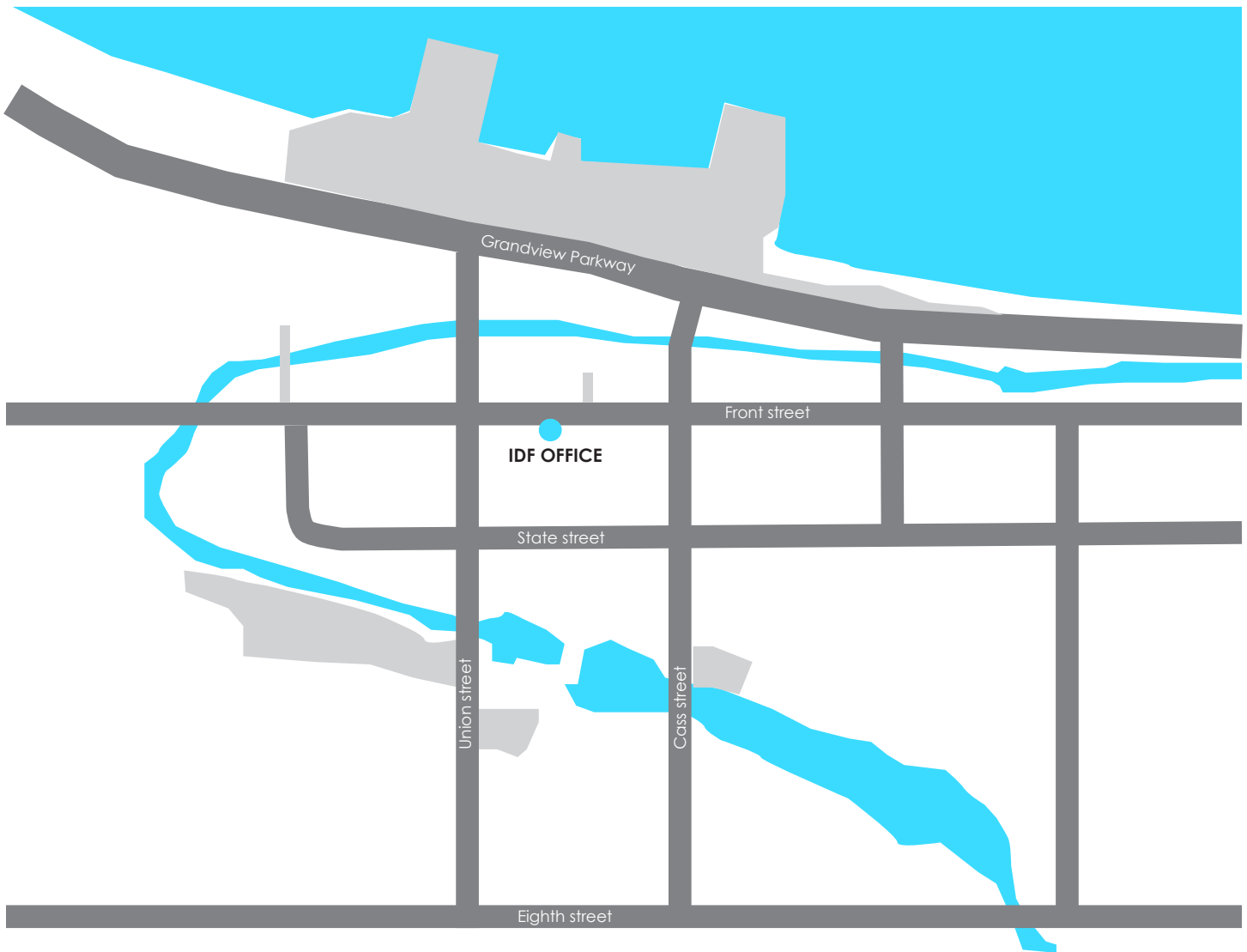
BACKGROUND

Based in Traverse City Michigan and available worldwide – Influence Design Forum (IDF) is a collaboration of professionals exploring the seams that make up the ecological and social context of landscape, art, pop culture, and the built environment.

We work at many different spatial scales - We design public spaces, prepare cities for the future, celebrate rural landscapes, inject art into the landscape, design dwellings and insert creativity to retail and storefronts, explore intimate spaces, and imagine new possibilities by testing design ideas.

Our unconventional project teams bring our clients together with a diverse group of designers, planners, artists, scientists, engineers, and policy makers to problem solve, innovate, and research new ideas for the future. Part think-tank, part creative agency, we like to think of ourselves as visionaries who think systematically how design works - From the importance of building a strong identity to support a brand to understanding social behaviors of public spaces to the workplace and back home again, transportation, rural landscapes, and entire neighborhoods.

Contact



Nathan G. Elkins, ASLA

Influence Design Forum LLC
120 E. Front St., 2nd Flr. Loft
P.O. Box 1507
Traverse City, MI 49685

nate@influencedesignforum.com
(231) 944.4114



www.influencedesignforum.com

studio

120 East Front St.
2nd Floor Loft
PO Box 1507
Traverse City MI 49685
(231) 944.4114

**influence
design
forum**
LLC

November 28, 2017

Acme Township
Shawn Winter, Planning & Zoning Administrator
6042 Acme Rd.
Williamsburg, MI 49690

**RE: Planned Unit Development Site Plan & Application for Kelly Restaurant's LLC, 4240 M-72
East Highway, Williamsburg, MI 49690**

Dear Shawn,

Influence Design Forum (IDF) is pleased to submit a full PUD application on behalf of Dan Kelly and Kelly Restaurant's. Please find attached the application form, site plan, plan elements, studies, and permitting agency reviews.

We are excited and look forward to collaborating with the Township.

Sincerely,
INFLUENCE DESIGN FORUM

A handwritten signature in black ink, appearing to read 'N. Elkins', followed by a horizontal line and a period.

Nathan G. Elkins, ASLA
Studio Director

cc. Dan Kelly
John Iacoangeli, Planning Commission Chair



GT County Public Works

Permitting Agency Review

1. RESPONSE FROM COUNTY DPW
2. SEWER & WATER STUDY



**GRAND TRAVERSE COUNTY
DEPARTMENT OF PUBLIC WORKS**

PUBLIC SERVICE BUILDING
2650 LAFRANIER ROAD
TRAVERSE CITY, MI 49686-8972
(231) 995-6039 • FAX (231) 929-7226

November 30, 2017

Nate Elkins, IDF
120 East Front Street
Traverse City, Michigan 49686

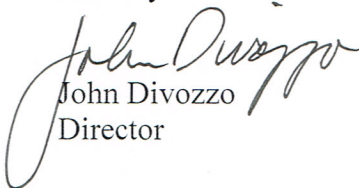
Re: 4230 M-72 Development

Dear Nate:

The DPW has performed a preliminary review of the proposed utility needs for the PUD and mixed-use development plan in Acme Township. Based upon information provided, the DPW is confident that capacity exists in the sewer system to support this development.

Please contact our office if you have any questions, comments, or concerns.

Thank you.


John Divozzo
Director



RECYCLED PAPER



February 20, 2017

RE: Sewer and Water Demand Estimate, Proposed PUD, Acme Township, Michigan

The purpose of this preliminary study is to determine initial water and sewer demand estimates for a new mixed use PUD proposed in Acme Township. The development proposes various commercial, office and residential uses.

The demand basis for this initial water and sewer study is based on the PUD concept prepared by IDF Studios along with a chart indicating the anticipated uses and density of the overall development. These documents include PUD Concept Alternative 2, Dated January 1, 2017 and the development analysis spreadsheet dated January 27, 2017.

The flow estimates are based on utilizing Table 1 of the Acme Township Schedule of Residential Equivalents, dated March, 2016. This approach defines one residential equivalent unit (REU) as approximately 200 gallons per day. This is slightly lower than the typical 300 gallons per day that has historically been the standard, however, this appears to fit this development plan very well due to the large number of smaller single family units and the fact that most fixtures utilized in today's construction generate much lower flows than the historical fixtures that were utilized.

The flow estimates are based on the provided data included in The development analysis spreadsheet prepared by IDF studios. The spreadsheet breaks the anticipated uses down into three categories. These include Commercial, Residential and Office spaces. At this point there are no defined uses in the commercial and office space components of this development so as the project is built out the uses may alter and changes the sewer and water demands based on the specific uses that are proposed for each building.

Based on the size and location of the project, we have removed 6,000 square feet from the overall building area anticipated for the commercial and office uses to include three restaurants. As noted, above, the residential units proposed in this development are 1 and two bedroom units. Utilizing the value of 200 GPD for each of these residential units will help provide for some buffer if more intense uses are proposed in the commercial and office space component of this development. Utilizing, the REU values outlined in the Acme Township Table 1, Schedule of Residential Equivalents we have come up with the following water and sewer estimates for this conceptual mixed use PUD. The table below outlines the estimated daily sewer and water demand for this development based on the three anticipated uses in this project.

Residential Uses

Total Residential Units Proposed = 156, single and two bedroom units.

Estimated daily flow based on 1 REU = 200 GPD = 156 REU * 200 GPD/REU = 31,200 GPD

Commercial and Office Uses

Total anticipated area of commercial and office space = 57,400 sq.ft

Remove 6,000 sq.ft for restaurant space = 51,400 sq.ft.

Estimated daily flow based on Acme Township Table 1 = 1REU + 0.50 REU per 1,000 sq.ft.

Estimated daily flow = (1REU + 0.50*51.4 sq.ft) = 26.7 REU*200 GPD/REU = 5,340 GPD

Restaurant Uses

Total Seats Proposed = 180, 60 each per restaurant

Estimated daily flow based on 0.125 REU per seat

Estimated Daily Flow = 180 seats*0.125 REU/seat = 22.5 REU * 200 GPD/REU = 4,500 GPD

Total estimated daily flows for the Conceptual PUD = 41,040 GPD



GTBOC Indians

Permitting Agency Review

1. TRIBAL COUNCIL ACTION & APPROVAL OF CONNECTION TO WATERMAIN



**The Grand Traverse Band of
Ottawa and Chippewa Indians**

2605 N. West Bay Shore Drive • Peshawbestown, MI 49682-9275 • (231) 534-7750

Certification of Tribal Council Action
Regular Session of September 20, 2017

**I hereby certify as the Tribal Council Secretary that the foregoing
Motion was Approved and Adopted at the Regular Session of the
Grand Traverse Band of Ottawa & Chippewa Indians Tribal Council**

Williamsburg Conference Center Water Service

Motion made by Tribal Council Member Shomin and Supported by Tribal Council Member Wilson to approve the water connection between Tribal Community Water System and Mr. Dan Kelly, located at 4230 M-72 East, to be paid in full by Mr. Dan Kelly.

6-FOR; 0-AGAINST; 0-ABSENT; 0-ABSTAINING
Motion Carries



Jane A. Rohl, GTB Tribal Council Secretary

CC: Ron Anderson; Joe Huhn

TRIBAL COUNCIL AGENDA REQUEST

The Grand Traverse Band of Ottawa and Chippewa Indians

This Original agenda request must have all original materials pertaining to it attached.

Agenda Topic/Title: Williamsburg Conference Center Water Service

Requested/Presented by: Ron Anderson and Joe Huhn

If required, all signed documents will be returned the above individual who is responsible to complete with the appropriate offices at GTB-OCI.

☒ Regular Session ☒ Special Session ☐ Emergency Session

Date: 9/20/2017 Date: Date:

Placement on Agenda:

☐ Unfinished Business ☐ New Business ☐ Closed Session

Action Requested:

☒ Approval by Motion ☐ Information Only
☐ Resolution Approval # ☐ Other (please specify)

Was a Work Session held for this Agenda Request? (date) May 23rd, 2017 No

Do you have a past resolution: X No ☐ Yes, (please attach)

Do you have a past motion: X No ☐ Yes, (please attach)

Rationale/Explanation: (use second sheet as needed for clarification and attach all appropriate materials prior to submission to the Tribal Manager's Office.

Purpose: Requesting approval to allow Dan Kelly to connect to the Tribal Community Water System in Acme Twp. by extending the water main from the VGT site to his location at 4230 M-72 East. See Attached for further detail.

Outcome Requested: Motion to Approve a water connection between the Tribal Community Water System and Dan Kelly located at 4230 M-72 East to be paid in full by Mr. Dan Kelly.

☒ Attached signed legal review form ☒ Attached signed CFO review form ☐ Legal/CFO review not applicable

Signatures: Program Director: Date: 9-11-17

Supervisor: Date: 9-11-17

Division Manager: Date: 9/11/17

Please ensure that ALL proper and correct documents are attached prior to obtaining the TM signatures.

Tribal Manager: Date: 9-11-2017

Signature of TM needed before this Agenda Request can be added to the TC Agenda

Tribal Council Directive Issued:

It is the directive of the Tribal Council that any topics that have not been included on the POSTED agenda must be brought to the attention of the Tribal Council PRIOR to the meeting. This information must be presented in written form. Please note that the agenda is posted one (1) week prior to Regular & Special sessions, and completed agenda items are due at 10:00 a.m. to the Tribal Manager Office 9 days before each session. Please plan accordingly.

rev 9/07 - MP 1/11 - 5/11 TMO 4/12 TMO 5/12 TMO 2/15 TMO

GTB Forms\Tribal Council\ Tribal Council Agenda Request Form

GRAND TRAVERSE BAND LEGAL DEPARTMENT REVIEW APPROVAL FORM

Date: 8/18/2017
Presented By: Joe Huhn
Department: Public Works

Resolution Number(s):

Document Title(s)/Subject Matter:
Dan Kelly Water main extension
4240 M-72 East Acme Michigan

☒ The above document(s) have been reviewed by the GTB Legal Dept. and are approved for signature &/or further action.

☐ The above document(s) have been reviewed by the GTB Legal Dept. and are NOT approved. Reason:

Reviewed by: John Pelsky

John Pelsky Sept. 11, 2017
Signature Date

Please note: Approval of Documents Does NOT Guarantee Approval by Tribal Council

Rev: 12-04

Do Not Separate Form

GRAND TRAVERSE BAND CFO GRANT REVIEW APPROVAL FORM (MATCH GRANTS)

Date: 8/18/2017
Presented By: Joe Huhn
Department: Public Works

Grant Number(s):

Grant Title(s)/Subject Matter:
Dan Kelly water main extension Acme, MI

☒ The above document(s) have been reviewed by the CFO and are approved for signature &/or further action.

Dollar Amount Requested: 0

☐ The above document(s) have been reviewed by the CFO and are NOT approved. Reason:

Reviewed by: Rebecca L. Woods

Rebecca L. Woods 9/14/17
Signature Date

Please note: Approval of Documents Does NOT Guarantee Approval by Tribal Council

Rev: 12-04

* will Dan Kelly be in competition with our development.

Memorandum

To: Tribal Manager, Tribal Council, Ron Anderson
From: Joseph R. Huhn
Date: 8/18/2017
Re: Water service for Williamsburg Banquet and Conference Center

In 2014 Dan Kelly of the Williamsburg Banquet and Conference Center located at 4230 M-72 East in Acme, MI. had requested water service to his property. At that time, Mr. Kelly had intended on allowing a new Oryana grocery store to locate at this location. Plans had apparently changed and Oryana did not move to this site.

On March 23rd, 2017, I received another call from Mr. Kelly regarding water service for his property in Acme. Mr. Kelly is currently proposing the construction of 120 residential units and up to 30 commercial buildings. The estimated water usage for his proposed development is 41,000 gallons per day. On March 31st, 2017, Mr. Kelly emailed me an official request to service his property with the Tribal community water system (email attached).

To service this development an extension will need to be installed from its existing location going west approximately 1,600 feet. This extension includes the 1,600 feet of 12" water main, two valves and three fire hydrants. The estimated cost to install this infrastructure is \$90,000. Mr. Kelly would be responsible for the full cost of construction, engineering and inspections.

On May 23rd, 2017 Ron Anderson and I had a working session with Tribal Council which Dan Kelly also attended. During the meeting Dan had explained his plans to Council for the development. There was some discussion about the possibility of him receiving credit for the cost of the water main extension. On May 24th, 2017 I met with Dan Kelly again and informed him that there would be no credit for connections from the extension of the water main to his property.

An Income analysis from this project is listed below:

Connections fees: 150 units X \$1,700/unit = \$255,000

Base Rate Income: \$18.15/month base rate x 12 months x 150 units = \$32,670/year

Usage Rate Income: \$2.00/1,000 gallons x 41,000 gallons/day x 365 days = \$29,930/year

Yearly Expenses: Electricity \$2,800 + Chlorine \$326 + Labor \$800 + Depreciation \$3,600 = \$7,526

Total Income minus Expenses: \$62,600 - \$7,526 = \$55,074 + Connection fees of \$255,000

August 18, 2017

Based on the well capacity of our existing system and the current usage, the Tribal Community Water System is capable of supplying the requested flow to this proposed development. It is my recommendation that we allow Mr. Kelly to connect to our system thru the extending of a water main to his property.

If you have any further questions or concerns regarding this issue please call or email me at the number below.

Thanks

Joe Huhn
joe.huhn@gtbindians.com 231-499-4235

Huhn, Joe

From: Catering by Kelly <info@cateringbykellys.com>
Sent: Friday, March 31, 2017 11:30 AM
To: Huhn, Joe
Subject: Water Hook Up
Attachments: Water Demand Estimate.pdf; presentation_pre-app_pc.pdf

Kelly Restaurants, L.L.C

4240 M 72 East
Williamsburg, MI 49690

Phone (231) 938-3663
Cell Phone (231) 342-4550

March 31, 2017

Grand Traverse Band of Ottawa & Chippewa Indians
Mr. Joe Huhn
Joe.huhn@gtbindians.com

Dear Joe,

This is a formal request for your consideration of hooking up to the tribal water supply. As discussed, attached is our preliminary Planned Development Submittal which was approved by the Acme Planning Commission on March 13, 2017. Also attached is an Engineered Water Demand Estimate.

I am asking the tribe to run a water main down M-72 to the Stained Glass Company property, approximately 1600 feet.

We anticipate 120 residential and 30-40 commercial hook-ups. Using \$1700 as a hook-up fee, the calculation more than pays for the extension.

Please consider this request and let me know if the Tribal Council would like to have me formally present my development ideas.

Much Appreciated,
Dan Kelly
Owner, Kelly Restaurants, L.L.C



February 20, 2017

RE: Sewer and Water Demand Estimate, Proposed PUD, Acme Township, Michigan

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Estimated daily flow = $(1\text{REU} + 0.50 * 51.4 \text{ sq.ft}) = 26.7 \text{ REU} * 200 \text{ GPD/REU} = 5,340 \text{ GPD}$

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Total Seats Proposed = 180, 60 each per restaurant

Estimated daily flow based on 0.125 REU per seat

Estimated Daily Flow = $180 \text{ seats} * 0.125 \text{ REU/seat} = 22.5 \text{ REU} * 200 \text{ GPD/REU} = 4,500 \text{ GPD}$

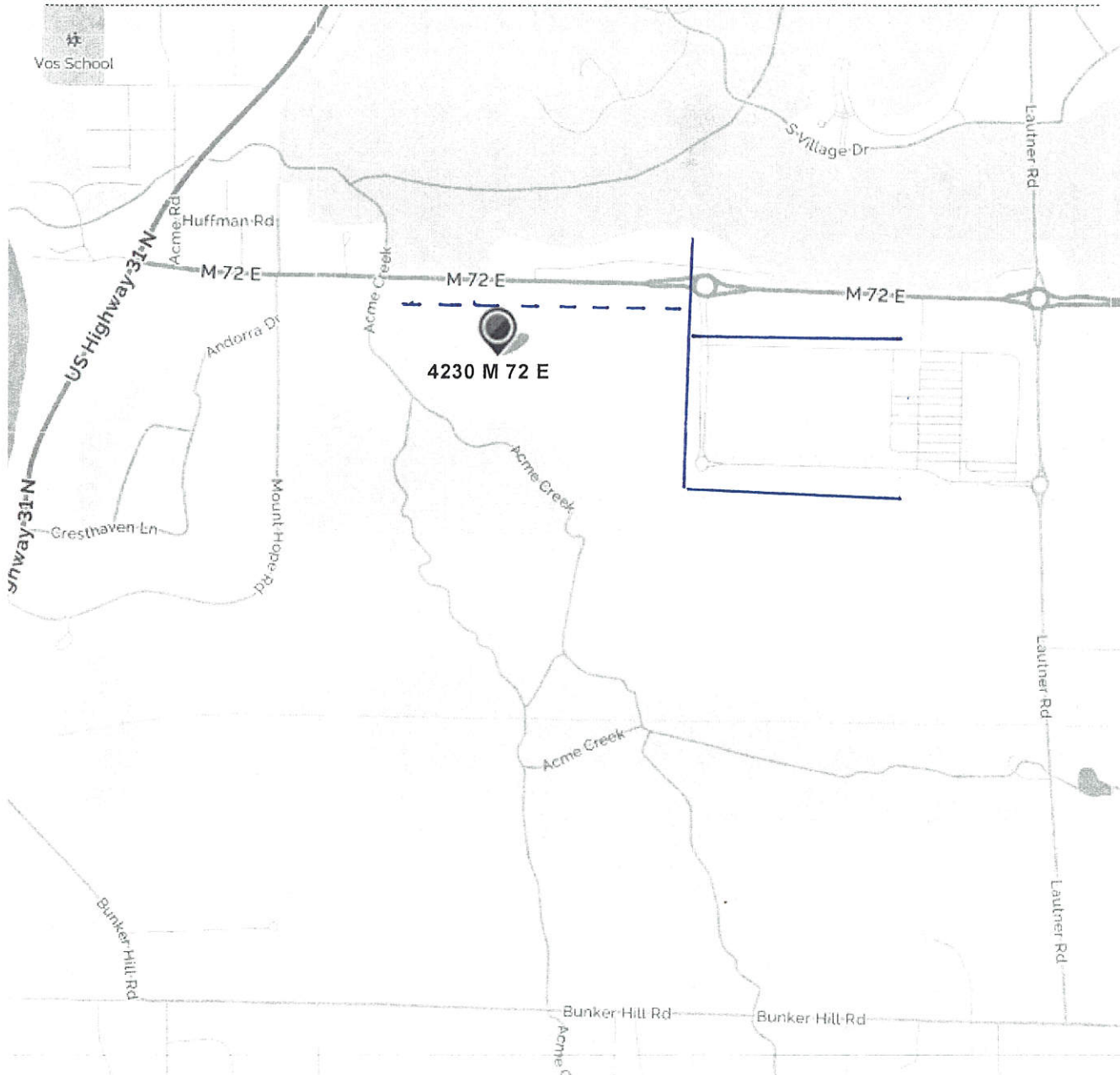
Total estimated daily flows for the Conceptual PUD = 41,040 GPD

Search Results for "4230 M 72 E, Williamsburg, MI 49690-9309"

mapquest

page 1 of 1

1. 4230 M 72 E
4230 M 72 E,
Williamsburg, MI 49690-9309





GT County SESC

Permitting Agency Review

1. PRELIMINARY SITE PLAN REVIEW
2. RESPONSE FROM SESC OFFICE
3. PRELIMINARY STORMWATER RUNOFF CALCULATIONS

SEDIMENTATION CONTROL PROGRAM
400 BOARDMAN AVE.
TRAVERSE CITY, MICHIGAN 49684
PHONE: (231) 995-6042 FAX: (231) 922-4636

PRELIMINARY REVIEW

PERMIT APPLICATION

PART 91, SOIL EROSION & SEDIMENTATION CONTROL, OF ACT 451 OF 1994,
AS AMENDED GTC SOIL EROSION

ALL APPLICATION ITEMS MUST BE COMPLETED

Permit #:
Date Applied:
Expiration:
Receipt #:

APPLICANT: Owner ☐ Developer ☐ Contractor ☐ Engineer ☐ Other ☒

Name:	INFLUENCE DESIGN FORUM LLC			Email:	nate@influencedesignforum.com
Address:	120 E FRONT ST 2ND FLR LOFT			Phone:	231-944-4114
City:	TRAVERSE CITY	State:	MI	Zip:	49684
Address: <input type="text"/>					

SITE LOCATION INFORMATION: NOTE - TWO COMPLETE SET OF PLANS MUST BE ATTACHED

Township:	ACME	Section:		Town:		Range:		Subdivision:		Lot #:	
Address:	4230 M-72 EAST HIGHWAY						City:	WILLIAMSBURG			
State:	MI	Zip:	49690	Property Tax #:							

PROPOSED EARTH CHANGE:

Type of Change:	Size of Earth Change:
MDEQ Permit # (If Applicable):	Permit Fee: \$
Excavation Start Date:	Date to be Completed:

***Make Checks Payable to GTC**

REASON FOR PERMIT:

SOM PA 451, PART 91 REQUIREMENTS

GTC SESC REQUIREMENTS

<input checked="" type="checkbox"/> Within 500' of Lake or Stream *Estimated Distance to lake or Stream: _____ Name of Water Body: <u>ACME CREEK</u>	<input checked="" type="checkbox"/> Commercial Site
<input checked="" type="checkbox"/> Acreage (Soil Disturbance of 1 Acre or More) *Must be completed	<input checked="" type="checkbox"/> Within 100' of Protected Wetlands
	<input type="checkbox"/> Slopes of 10% or Greater
	<input type="checkbox"/> Heavy Clay Soils
	<input checked="" type="checkbox"/> Township Required / Development Required
	<input type="checkbox"/> Drain Easement on Site / Within a Drainage District

PARTIES RESPONSIBLE FOR EARTH CHANGE

PROPERTY OWNER of Record (Include Warranty Deed for properties purchased less than 3 months ago)

Name :	KELLY RESTAURANTS LLC	Email:	info@cateringbykellys.com
Mailing Address:	4230 M-72 EAST HIGHWAY		Phone: 231-938-3663
City:	WILLIAMSBURG	State:	MI
		Zip:	49690
		Cell Phone:	

Person "On-Site" Responsible for Earth Change:	Email:
Company Name:	Phone:
Mailing Address:	
City:	State:
Zip:	Cell Phone:

I (we) affirm that the above information is accurate and that I (we) will conduct the above described earth change in accordance with Part 91, Soil Erosion & Sedimentation Control, of the Natural Resource and Environmental Protection Act, Act 451 of the Public Acts of 1994, and/or the 2003 Grand Traverse County Soil Erosion Ordinance, its corresponding rules, applicable local ordinances and the agreements accompanying this application, and that I (we) have been notified and understand that the aforementioned ordinances are more restrictive than Part 91 of the N.R.E.P.A..

Owner's Signature:	Print Name: DAN KELLY	Date: 11/29/17
Designated Agent's Signature:	Print Name: NATE ELKINS	Date: 11/29/17

*** The Landowner is responsible for the maintenance of all permanent SESC measures.** **Designated Agent must have a written statement from landowner authorizing him/her to secure a permit in the landowner's name.

COMMENCEMENT OF WORK PRIOR TO RECEIVING THE APPROVED PERMIT is a municipal or state civil infraction that may subject you to a fine of not more than \$2,500.00. Knowingly violating the Soil Erosion and Sedimentation Control Act, of 1994 PA 451, as amended or knowingly making a false statement on the permit application or a soil erosion or sedimentation control plan may subject you to a civil fine of not more than \$10,000.00 for each day of the violation. In addition, knowingly violating section 9112 or 9117, relating to a determination that the work undertaken does not conform to a permit or plan or adversely affects adjacent land or waters, may be responsible for a civil fine of not less than \$2,500.00 nor more than \$25,000.00 for each day of the violation.

PERMIT PROCEDURES

In accordance with Part 91 of Act 451 of 1994, as amended, and/or the GTC Ordinance #25 of 2003 and their corresponding General Rules, the undersigned herewith makes application for a permit to undertake a proposed earth change. Permit requirements will be as follows:

1. A person proposing to undertake an earth change shall submit an application for a state prescribed permit to the appropriate enforcing agency. In land development, the application shall be submitted by the landowner or their designated agent (a person who has written authorization from the landowner to sign the application and secure a permit in the landowner's name), whoever is responsible for the earth change.
2. The application shall be accompanied by a soil erosion and sedimentation control plan and any other document with the appropriate enforcing agency may require.
3. The soil erosion and sedimentation control plan shall be reviewed and approved by a person designated by the county or local enforcing agency who is trained and experienced in soil erosion and sedimentation control techniques.
4. The appropriate enforcing agency shall approve, disapprove or require modification of an application for an earth change permit within 30 calendar days following receipt of the application. Notification of disapproval shall be made by certified mail with the reasons for disapproval and conditions required for approval.
5. A state prescribed application form shall be provided to the applicant by the county or local enforcing agency.
6. A state prescribed permit shall be used by each county for local enforcing agency and shall include any additional provisions that may be required by the county or local enforcing agency. The permit shall be available on the site of the earth change for inspection.
7. Upon a determination that an applicant has met all the requirements of Part 91 and the promulgated rules, and the local ordinance, if applicable, the appropriate enforcing agency shall issue a permit for the proposed earth change.
8. An "authorized public agency" is exempt from obtaining a permit from a county or local enforcing agency, but shall notify the county or local enforcing agency of each proposed earth change.
9. When an earth change is under the jurisdiction of 2 or more local or county enforcing agencies, the person must obtain coverage in each jurisdiction, unless there is an interlocal agreement.

Checklist for Permit Applications

- ☐ Fill in all blanks including emails and phone numbers
 - A name must be in “Person Responsible for Earth Change”
 - “Same as Above” is not acceptable
 - ☐ Type of Change must be specific and include all aspects of the project
 - For example: New House must also include deck, garage, septic, pool
 - ☐ Size of Earth Change must include all disturbed areas, not just the footprint of the project
 - ☐ Excavation Start Date and Date to be Completed must be the same as the starting and ending dates on the construction schedule
 - ☐ Stamp construction schedule on the site plan – all blanks must be filled, N/A can be used for items that are not applicable
 - ☐ Property Tax Number must be listed.
 - ☐ Reason for Permit:
 - Distance to water must be indicated. If it is not within 500 ft of a body of water, do not check the box. Write in the body of water and the distance.
- Check all applicable boxes
- ☐ Property Owner must be filled out completely. If property was purchased within past – months, a warranty deed is needed as proof of ownership.
 - ☐ Owner’s signature is required. If there is a designated agent, a designated agent’s letter, signed by the owner is required. It can be sent by email if the applicant does not have it, but the permit will not be issued without it.
 - ☐ Commercial sites need to have a Maintenance Agreement. It can be filled out later, but the permit will not be issued without it.
 - ☐ Two (2) copies of the site plan are required.
 - ☐ Additional fees may be charged after the Inspector reviews the site plan:
 - Surety may be required which is refunded when the site is stabilized
 - ☐ The permit fee covers three (3) inspections. Any additional inspections due to compliance, sensitivity or requests from the applicant/owner will be charged \$55.00



November 10th, 2017

IDF
Mr. Nate Elkins
Traverse City, MI

RE: Preliminary Storm Water Runoff Estimates, Acme PUD, Acme Township, Michigan

Dear Mr. Elkins,

Per your request M2E has taken an initial stab at developing preliminary storm water retention volumes for the proposed PUD in Acme Township, Grand Traverse County, Michigan. Enclosed please find preliminary storm water runoff calculations for the various districts that you have broken out for the PUD. In general, the districts that you have created make sense and will help develop a reasonable preliminary basis of design for the estimated storm water retention requirements on this site. When final calculations are developed, a few of the areas that you have broken out separately will likely end up being combined through a storm sewer network based on the existing topography of the site and current drainage patterns.

Based on the size of each district that you have broken out, we have utilized the Rational Method to determine the preliminary storm water volume requirements for each district. With the exception of district MU01 the storm water volume calculations are based on providing storage for the 25-year developed condition storm event less the pre-existing 2-year rainfall event for each district. This method is generally accepted for new construction based on the current county storm water runoff control ordinance and state guidelines. This approach assumes that each of these districts will have an available overflow route to a natural drainage course which in this case is Acme creek. The overflow would only take place during large rain events and the discharge rate would mimic the pre-existing site conditions within each drainage district. This assumption is typically allowable for a site with a natural overflow route to a creek or lake but will require approval from both the county and MDEQ. This will also require that the design be based on Best Management Practices to help control any additional sediment discharge off this site and only discharge pre-treated storm water through a combination of bio-swales and storm water controls that the MDEQ and local storm water authority will approve.

Due to the topography and existing conditions, the storm water volume requirements that have been developed for District MU01 are based on providing storage for the 100 year rain event with no outlet. The soils in this area of the site are also noted to be more loamy and do not appear to be well drained. It may be possible to create an outlet for this district, which is highly recommended however, the volume required for this district will not change due to the fact that this area is currently land locked and does not appear to have a direct discharge point. As the project moves forward, further site reconnaissance is recommended to verify certain assumptions in this evaluation and possibly uncover additional information that is not shown in the existing survey or is not evident until becoming more familiar with the drainage patterns on the property.

Along with these preliminary calculations, I have reviewed available soils information for this property published by the USDA and NRCS. Note, this information is general and is not always completely accurate. Unlike the very heavy soils to the east of this site, in general, the soils based on the available mapping data are loamy sands with a reasonable infiltration capacity. For the majority of the site, the USDA mapping information also indicates that although the upper soil horizons are well drained loamy sands as you get further below grade the soils begin to get heavier and become more poorly drained. This lends itself well to your proposed shallow storm water retention concept however, this approach will require a great deal of storm water conveyance design, BMP's and innovative storm water controls to incorporate this type of this system into the project. The USDA mapping indicates that the existing developed area on the northeast corner of the site has much heavier soils than the remaining areas of the property.

Currently, the storm water calculations developed for all of the proposed districts do not include any credit or reduction in volume due to the infiltration capacity of the soils. I believe that if we can prove the infiltration capacity of the existing soils, this can help reduce the overall sizing of the storm water retention facilities. Soil borings will need to be completed on this site to verify the soils if we plan to utilize infiltration as a means to reduce the total storm water volume required on this site. Along with soil borings, percolation or infiltration testing would also need to be completed.

Many areas of this site are already developed. It appears that there are currently two release points that allow for overflows to Acme Creek from past development that has taken place on these properties. Before moving forward with final storm water design calculations, research on the past construction documents for these developed areas should be done to determine what existing release rates have been historically allowed from these areas. Even if there is not a direct pipe overflow, due to the topography most of the areas on this site have an existing release that is directed towards Acme Creek.

Your goal to maintain Low profile storm retention basins in the areas shown may be achievable but this will require a great deal of engineering analysis of flow through the storm water treatment train. Innovative storm water techniques and BMP's will become important and will require progressive and innovative storm water design calculations to ensure a quality design. In your initial master plan you are proposing this technology which I believe will be a good thing to help create a productive storm water control plan that will meet both local and state standards and requirements.

The following pages indicate the preliminary estimates for storm water volume requirements for each of the districts that have been evaluated. Also included are pages from the USDA NRCS soil survey that are pertinent to this property.

Please review the enclosed information and give me a call or write back to discuss any questions.

Sincerely,

M2E, LLC

A handwritten signature in blue ink, appearing to read "Ryan A. Cox".

Ryan A. Cox, PE
Civil Engineer

INFILTRATION BASIN DESIGN

Drainage District MU01

Modified Rational Method, 100-year Developed

Project: Kelly - Acme

Project #: 2017-165

100-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	99,370	2.281	2.167	
Building(s) roof	0.95	32,300	0.742	0.704	
Concrete	0.95	31,791	0.730	0.693	
Other impervious	0.90	0	0.000	0.000	
Open	0.20	29,945	0.687	0.137	
Total		193,406	4.440	3.702	0.83

Infiltration Parameters					
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr		
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr		
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.		

100-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	6.29	3.702	23.29	0.00	13,973
15	5.48	3.702	20.29	0.00	18,260
20	4.67	3.702	17.29	0.00	20,748
30	3.76	3.702	13.92	0.00	25,058
40	3.06	3.702	11.33	0.00	27,190
45	2.85	3.702	10.55	0.00	28,490
50	2.67	3.702	9.89	0.00	29,656
60	2.39	3.702	8.85	0.00	31,856
75	2.02	3.702	7.48	0.00	33,655
90	1.78	3.702	6.59	0.00	35,588
105	1.61	3.702	5.96	0.00	37,554
120	1.48	3.702	5.48	0.00	39,453
180	1.08	3.702	4.00	0.00	43,185
240	0.86	3.702	3.18	0.00	45,851
300	0.72	3.702	2.67	0.00	47,983
360	0.64	3.702	2.37	0.00	51,182
420	0.56	3.702	2.07	0.00	52,248
480	0.51	3.702	1.89	0.00	54,381
540	0.46	3.702	1.70	0.00	55,181
600	0.43	3.702	1.59	0.00	57,313
720	0.37	3.702	1.37	0.00	59,179
1080	0.27	3.702	1.00	0.00	64,777
1440	0.21	3.702	0.78	0.00	67,688

◀ PEAK

Required Volume

Volume Required = peak storage volume = **67688.336 c.f.**

Note: There is approximately 50,000 c.f. of storage in existing basin.

INFILTRATION BASIN DESIGN

Drainage District MU02

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	10,897	0.250	0.238	
Building(s) roof	0.95	12,000	0.275	0.262	
Concrete	0.95	6,530	0.150	0.142	
Other impervious	0.90	768	0.018	0.016	
Open	0.15	30,353	0.697	0.105	
Total		60,548	1.390	0.762	0.55

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	0.762	3.67	0.00	2,204
15	4.20	0.762	3.20	0.00	2,881
20	3.58	0.762	2.73	0.00	3,274
30	2.88	0.762	2.20	0.00	3,951
40	2.34	0.762	1.78	0.00	4,280
45	2.18	0.762	1.66	0.00	4,486
50	2.05	0.762	1.56	0.00	4,687
60	1.83	0.762	1.39	0.00	5,021
75	1.55	0.762	1.18	0.00	5,316
90	1.36	0.762	1.04	0.00	5,597
105	1.23	0.762	0.94	0.00	5,906
120	1.13	0.762	0.86	0.00	6,201
180	0.83	0.762	0.63	0.00	6,832
240	0.66	0.762	0.50	0.00	7,244
300	0.56	0.762	0.43	0.00	7,683
360	0.49	0.762	0.37	0.00	8,067
420	0.43	0.762	0.33	0.00	8,259
480	0.39	0.762	0.30	0.00	8,561
540	0.35	0.762	0.27	0.00	8,643
600	0.33	0.762	0.25	0.00	9,054
720	0.28	0.762	0.21	0.00	9,219
1080	0.20	0.762	0.15	0.00	9,878
1440	0.16	0.762	0.12	0.00	10,668
Max. Storage Volume (w/ infiltration)					10,668 c.f.

◀ PEAK

2-year Undeveloped Condition

Sub-District	C	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Open	0.15	60,548	1.390	0.209	
Existing Impervious	0.95	0	0.000	0.000	
Total		60,548	1.390	0.209	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 420 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

10,248 c.f.

INFILTRATION BASIN DESIGN

Drainage District R01

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	11,281	0.259	0.246	
Building(s) roof	0.95	7,168	0.165	0.156	
Concrete	0.95	5,429	0.125	0.118	
Other impervious	0.90	0	0.000	0.000	
Open	0.15	28,394	0.652	0.098	
Total		52,272	1.200	0.619	0.52

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	0.619	2.98	0.00	1,789
15	4.20	0.619	2.60	0.00	2,338
20	3.58	0.619	2.21	0.00	2,657
30	2.88	0.619	1.78	0.00	3,206
40	2.34	0.619	1.45	0.00	3,474
45	2.18	0.619	1.35	0.00	3,641
50	2.05	0.619	1.27	0.00	3,804
60	1.83	0.619	1.13	0.00	4,075
75	1.55	0.619	0.96	0.00	4,314
90	1.36	0.619	0.84	0.00	4,542
105	1.23	0.619	0.76	0.00	4,793
120	1.13	0.619	0.70	0.00	5,032
180	0.83	0.619	0.51	0.00	5,545
240	0.66	0.619	0.41	0.00	5,879
300	0.56	0.619	0.35	0.00	6,235
360	0.49	0.619	0.30	0.00	6,547
420	0.43	0.619	0.27	0.00	6,702
480	0.39	0.619	0.24	0.00	6,947
540	0.35	0.619	0.22	0.00	7,014
600	0.33	0.619	0.20	0.00	7,348
720	0.28	0.619	0.17	0.00	7,482
1080	0.20	0.619	0.12	0.00	8,016
1440	0.16	0.619	0.10	0.00	8,657
Max. Storage Volume (w/ infiltration)				8,657	◀ PEAK c.f.

2-year Undeveloped Condition

Sub-District	C	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Open	0.15	52,272	1.200	0.180	
Existing Impervious	0.95	0	0.000	0.000	
Total		52,272	1.200	0.180	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 363 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

8,295 c.f.

INFILTRATION BASIN DESIGN

Drainage District R02

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	3,740	0.086	0.082	
Building(s) roof	0.95	21,896	0.503	0.478	
Concrete	0.95	17,091	0.392	0.373	
Other impervious	0.90	8,602	0.197	0.178	
Open	0.15	83,707	1.922	0.288	
Total		135,036	3.100	1.398	0.45

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	1.398	6.74	0.00	4,042
15	4.20	1.398	5.87	0.00	5,284
20	3.58	1.398	5.00	0.00	6,005
30	2.88	1.398	4.03	0.00	7,246
40	2.34	1.398	3.27	0.00	7,850
45	2.18	1.398	3.05	0.00	8,227
50	2.05	1.398	2.87	0.00	8,597
60	1.83	1.398	2.56	0.00	9,209
75	1.55	1.398	2.17	0.00	9,750
90	1.36	1.398	1.90	0.00	10,265
105	1.23	1.398	1.72	0.00	10,832
120	1.13	1.398	1.58	0.00	11,373
180	0.83	1.398	1.16	0.00	12,530
240	0.66	1.398	0.92	0.00	13,285
300	0.56	1.398	0.78	0.00	14,090
360	0.49	1.398	0.68	0.00	14,794
420	0.43	1.398	0.60	0.00	15,147
480	0.39	1.398	0.55	0.00	15,700
540	0.35	1.398	0.49	0.00	15,851
600	0.33	1.398	0.46	0.00	16,606
720	0.28	1.398	0.39	0.00	16,908
1080	0.20	1.398	0.28	0.00	18,116
1440	0.16	1.398	0.23	0.00	19,565
Max. Storage Volume (w/ infiltration)				19,565	◀ PEAK c.f.

2-year Undeveloped Condition

Sub-District	C	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Open	0.15	135,036	3.100	0.465	
Existing Impervious	0.95	0	0.000	0.000	
Total		135,036	3.100	0.465	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 937 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

18,627 c.f.

INFILTRATION BASIN DESIGN

Drainage District R03

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	3,864	0.089	0.084	
Building(s) roof	0.95	12,240	0.281	0.267	
Concrete	0.95	7,381	0.169	0.161	
Other impervious	0.90	3,162	0.073	0.065	
Open	0.15	44,356	1.018	0.153	
Total		71,003	1.630	0.730	0.45

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	0.730	3.52	0.00	2,112
15	4.20	0.730	3.07	0.00	2,760
20	3.58	0.730	2.61	0.00	3,137
30	2.88	0.730	2.10	0.00	3,786
40	2.34	0.730	1.71	0.00	4,101
45	2.18	0.730	1.59	0.00	4,298
50	2.05	0.730	1.50	0.00	4,491
60	1.83	0.730	1.34	0.00	4,811
75	1.55	0.730	1.13	0.00	5,094
90	1.36	0.730	0.99	0.00	5,363
105	1.23	0.730	0.90	0.00	5,659
120	1.13	0.730	0.83	0.00	5,941
180	0.83	0.730	0.61	0.00	6,546
240	0.66	0.730	0.48	0.00	6,940
300	0.56	0.730	0.41	0.00	7,361
360	0.49	0.730	0.36	0.00	7,729
420	0.43	0.730	0.31	0.00	7,913
480	0.39	0.730	0.28	0.00	8,202
540	0.35	0.730	0.26	0.00	8,281
600	0.33	0.730	0.24	0.00	8,675
720	0.28	0.730	0.20	0.00	8,833
1080	0.20	0.730	0.15	0.00	9,464
1440	0.16	0.730	0.12	0.00	10,221
Max. Storage Volume (w/ infiltration)					10,221 c.f.

◀ PEAK
c.f.

2-year Undeveloped Condition

Sub-District	C	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Open	0.15	71,003	1.630	0.245	
Existing Impervious	0.95	0	0.000	0.000	
Total		71,003	1.630	0.245	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 493 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

9,728 c.f.

INFILTRATION BASIN DESIGN

Drainage District R04

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C"	Area		Weighted	Weighted
	Factor	(s.f.)	(acres)	Area (CxA)	"C"
Pavement	0.95	16,821	0.386	0.367	
Building(s) roof	0.95	8,400	0.193	0.183	
Concrete	0.95	6,050	0.139	0.132	
Other impervious	0.90	8,730	0.200	0.180	
Open	0.15	117,686	2.702	0.405	
Total		157,687	3.620	1.268	0.35

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	1.268	6.11	0.00	3,666
15	4.20	1.268	5.32	0.00	4,792
20	3.58	1.268	4.54	0.00	5,446
30	2.88	1.268	3.65	0.00	6,571
40	2.34	1.268	2.97	0.00	7,119
45	2.18	1.268	2.76	0.00	7,461
50	2.05	1.268	2.60	0.00	7,796
60	1.83	1.268	2.32	0.00	8,351
75	1.55	1.268	1.96	0.00	8,842
90	1.36	1.268	1.72	0.00	9,309
105	1.23	1.268	1.56	0.00	9,823
120	1.13	1.268	1.43	0.00	10,313
180	0.83	1.268	1.05	0.00	11,363
240	0.66	1.268	0.84	0.00	12,047
300	0.56	1.268	0.71	0.00	12,778
360	0.49	1.268	0.62	0.00	13,416
420	0.43	1.268	0.55	0.00	13,736
480	0.39	1.268	0.49	0.00	14,238
540	0.35	1.268	0.44	0.00	14,375
600	0.33	1.268	0.42	0.00	15,059
720	0.28	1.268	0.35	0.00	15,333
1080	0.20	1.268	0.25	0.00	16,428
1440	0.16	1.268	0.21	0.00	17,743
Max. Storage Volume (w/ infiltration)					17,743 c.f.

◀ PEAK

c.f.

2-year Undeveloped Condition

Sub-District	C	Area		Weighted	Weighted
		(s.f.)	(acres)	Area (CxA)	"C"
Open	0.15	157,687	3.620	0.543	
Existing Impervious	0.95	0	0.000	0.000	
Total		157,687	3.620	0.543	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 1095 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

16,648 c.f.

INFILTRATION BASIN DESIGN

Drainage District R05

Modified Rational Method, 25-year Developed vs. 2-year Undeveloped

Project: Kelly - Acme, Michigan

Project #: 2017-165

25-year Developed Condition

Sub-District	"C" Factor	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Pavement	0.95	14,215	0.326	0.310	
Building(s) roof	0.95	7,200	0.165	0.157	
Concrete	0.95	6,652	0.153	0.145	
Other impervious	0.90	11,156	0.256	0.230	
Open	0.15	86,665	1.990	0.298	
Total		125,888	2.890	1.141	0.39

Infiltration Parameters			
Measured/Assumed Infiltration Rate of Soil	=	0.00	in/hr
Calculated Infiltration Rate (0.50 safety factor)	=	0.00	in/hr
Area of Basin Provided (measured at 1/2 Depth)	=	0.00	s.f.

25-year storm IDF table with "CA" and Infiltration applied					
Duration (min.)	Intensity (in/hr)	Weighted Area (acres)	Peak Runoff (cfs)	Infiltration Rate (cfs)	Required Storage (c.f.)
10	4.82	1.141	5.50	0.00	3,300
15	4.20	1.141	4.79	0.00	4,313
20	3.58	1.141	4.08	0.00	4,902
30	2.88	1.141	3.29	0.00	5,915
40	2.34	1.141	2.67	0.00	6,408
45	2.18	1.141	2.49	0.00	6,716
50	2.05	1.141	2.34	0.00	7,017
60	1.83	1.141	2.09	0.00	7,517
75	1.55	1.141	1.77	0.00	7,959
90	1.36	1.141	1.55	0.00	8,380
105	1.23	1.141	1.40	0.00	8,842
120	1.13	1.141	1.29	0.00	9,284
180	0.83	1.141	0.95	0.00	10,228
240	0.66	1.141	0.75	0.00	10,844
300	0.56	1.141	0.64	0.00	11,502
360	0.49	1.141	0.56	0.00	12,077
420	0.43	1.141	0.49	0.00	12,364
480	0.39	1.141	0.45	0.00	12,816
540	0.35	1.141	0.40	0.00	12,939
600	0.33	1.141	0.38	0.00	13,556
720	0.28	1.141	0.32	0.00	13,802
1080	0.20	1.141	0.23	0.00	14,788
1440	0.16	1.141	0.18	0.00	15,971

Max. Storage Volume (w/ infiltration) 15,971 c.f.

2-year Undeveloped Condition

Sub-District	C	Area (s.f.)	Area (acres)	Weighted Area (CxA)	Weighted "C"
Open	0.15	125,888	2.890	0.434	
Existing Impervious	0.95	0	0.000	0.000	
Total		125,888	2.890	0.434	0.15

Duration = 15 min. (matches duration at peak volume of 25-yr dev.)
 Intensity = 2.24 in/hr (2-year storm for above duration)
 Volume = 874 c.f. (Q = CIA)

Required Volume

Vol. Required = 25-yr developed minus the 2-yr undeveloped =

15,097 c.f.



United States
Department of
Agriculture

NRCS

Natural
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A product of the National
Cooperative Soil Survey,
a joint effort of the United
States Department of
Agriculture and other
Federal agencies, State
agencies including the
Agricultural Experiment
Stations, and local
participants

Custom Soil Resource Report for **Grand Traverse County, Michigan**



November 9, 2017

Custom Soil Resource Report Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AsA	Au Gres-Saugatuck sands, 0 to 2 percent slopes	0.5	0.7%
EyB	Emmet sandy loam, 2 to 6 percent slopes	3.4	5.4%
EyC	Emmet sandy loam, 6 to 12 percent slopes	6.1	9.6%
EyC2	Emmet sandy loam, 6 to 12 percent slopes, moderately eroded	0.8	1.3%
EyD	Emmet sandy loam, 12 to 18 percent slopes	1.9	3.0%
EyE2	Emmet sandy loam, 18 to 25 percent slopes, moderately eroded	0.3	0.4%
EyF	Emmet sandy loam, 25 to 45 percent slopes	0.2	0.4%
GxA	Guelph-Nester loams, 0 to 2 percent slopes	14.0	22.0%
GxB2	Guelph-Nester loams, 2 to 6 percent slopes, moderately eroded	0.8	1.2%
IsA	Iosco-Ogemaw loamy sands, 0 to 2 percent slopes	0.4	0.6%
KaA	Kalkaska loamy sand, 0 to 2 percent slopes	10.3	16.1%
KaA2	Kalkaska loamy sand, 0 to 2 percent slopes, moderately eroded	3.1	4.9%
KaC	Kalkaska loamy sand, 6 to 12 percent slopes	2.3	3.6%
KaD	Kalkaska loamy sand, 12 to 18 percent slopes	4.9	7.6%
KsB	Karlin sandy loams, 2 to 6 percent slopes	3.6	5.6%
Lu	Carlisle muck, 0 to 2 percent slopes, cool	5.7	9.0%
Ru	Roscommon mucky loamy sand	1.2	1.9%
Tp	Tonkey-Hettinger-Pickford loams, overwash	1.9	3.0%
WdC	Wind eroded land, sloping	2.3	3.7%
Totals for Area of Interest		63.7	100.0%

Custom Soil Resource Report

Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits cemented with ortstein

Typical profile

H1 - 0 to 2 inches: sand

H2 - 2 to 12 inches: sand

H3 - 12 to 26 inches: sand

H4 - 26 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: About 12 inches to ortstein

Natural drainage class: Somewhat poorly drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 5.95 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4w

Hydrologic Soil Group: B/D

Hydric soil rating: No

Minor Components

Roscommon

Percent of map unit: 5 percent

Landform: Depressions on lake plains, depressions on outwash plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: Yes

EyB—Emmet sandy loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 6c3f

Elevation: 600 to 1,400 feet

Mean annual precipitation: 27 to 32 inches

Mean annual air temperature: 41 to 45 degrees F

Frost-free period: 90 to 140 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Emmet and similar soils: 90 percent

Minor components: 10 percent

Custom Soil Resource Report

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Emmet

Setting

Landform: Moraines, till plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: 24 to 50 inches of loamy material over calcareous loamy till

Typical profile

H1 - 0 to 8 inches: sandy loam

H2 - 8 to 30 inches: sandy loam

H3 - 30 to 38 inches: sandy clay loam

H4 - 38 to 60 inches: sandy loam

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Leelanau

Percent of map unit: 10 percent

Landform: Moraines

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

EyC—Emmet sandy loam, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 6c3h

Elevation: 600 to 1,400 feet

Custom Soil Resource Report

Mean annual precipitation: 27 to 32 inches
Mean annual air temperature: 41 to 45 degrees F
Frost-free period: 90 to 140 days
Farmland classification: Farmland of local importance

Map Unit Composition

Emmet and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Emmet

Setting

Landform: Moraines, till plains
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest
Down-slope shape: Linear
Across-slope shape: Linear, convex
Parent material: 24 to 50 inches of loamy material over calcareous loamy till

Typical profile

H1 - 0 to 8 inches: sandy loam
H2 - 8 to 30 inches: sandy loam
H3 - 30 to 38 inches: sandy clay loam
H4 - 38 to 60 inches: sandy loam

Properties and qualities

Slope: 6 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Leelanau

Percent of map unit: 10 percent
Landform: Moraines
Landform position (two-dimensional): Shoulder, backslope, footslope, toeslope, summit
Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest
Down-slope shape: Linear

Across-slope shape: Linear, convex

Hydric soil rating: No

EyC2—Emmet sandy loam, 6 to 12 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 6c3j

Elevation: 600 to 1,400 feet

Mean annual precipitation: 27 to 32 inches

Mean annual air temperature: 41 to 45 degrees F

Frost-free period: 90 to 140 days

Farmland classification: Farmland of local importance

Map Unit Composition

Emmet, moderately eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Emmet, Moderately Eroded

Setting

Landform: Moraines, till plains

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluvial, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Linear

Across-slope shape: Linear, convex

Parent material: 24 to 50 inches of loamy material over calcareous loamy till

Typical profile

H1 - 0 to 8 inches: sandy loam

H2 - 8 to 30 inches: sandy loam

H3 - 30 to 38 inches: sandy clay loam

H4 - 38 to 60 inches: sandy loam

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Properties and qualities

Slope: 12 to 18 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Leelanau

Percent of map unit: 5 percent
Landform: Moraines
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Concave, convex
Hydric soil rating: No

East lake

Percent of map unit: 5 percent
Landform: Beach ridges, lake terraces, outwash plains, moraines
Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope
Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Concave, convex
Hydric soil rating: No

EyE2—Emmet sandy loam, 18 to 25 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 6c3n
Elevation: 600 to 1,400 feet
Mean annual precipitation: 27 to 32 inches
Mean annual air temperature: 41 to 45 degrees F

Custom Soil Resource Report

Frost-free period: 90 to 150 days

Farmland classification: Not prime farmland

Map Unit Composition

Emmet, moderately eroded, and similar soils: 90 percent

Minor components: 10 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Emmet, Moderately Eroded

Setting

Landform: Moraines, till plains

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Convex, linear

Across-slope shape: Concave, convex

Parent material: 24 to 50 inches of loamy material over calcareous loamy till

Typical profile

H1 - 0 to 8 inches: sandy loam

H2 - 8 to 30 inches: sandy loam

H3 - 30 to 38 inches: sandy clay loam

H4 - 38 to 60 inches: sandy loam

Properties and qualities

Slope: 18 to 25 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Leelanau

Percent of map unit: 5 percent

Landform: Moraines

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Convex, linear

Across-slope shape: Concave, convex

Hydric soil rating: No

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e

Hydrologic Soil Group: B

Hydric soil rating: No

Minor Components

Leelanau

Percent of map unit: 5 percent

Landform: Moraines

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Convex, linear

Across-slope shape: Concave, convex

Hydric soil rating: No

East lake

Percent of map unit: 5 percent

Landform: Beach ridges, lake terraces, outwash plains, moraines

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluvium, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Convex, linear

Across-slope shape: Concave, convex

Hydric soil rating: No

GxA—Guelph-Nester loams, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 6c43

Elevation: 600 to 1,400 feet

Mean annual precipitation: 27 to 32 inches

Mean annual air temperature: 41 to 46 degrees F

Frost-free period: 100 to 140 days

Farmland classification: All areas are prime farmland

Map Unit Composition

Guelph and similar soils: 60 percent

Custom Soil Resource Report

Nester and similar soils: 40 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Guelph

Setting

Landform: Moraines, till plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Loamy till

Typical profile

H1 - 0 to 6 inches: loam

H2 - 6 to 21 inches: clay loam

H3 - 21 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2s

Hydrologic Soil Group: C

Hydric soil rating: No

Description of Nester

Setting

Landform: Moraines

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: 20 to 36 inches of loamy and clayey material over calcareous loamy and clayey till

Typical profile

H1 - 0 to 8 inches: loam

H2 - 8 to 14 inches: silty clay loam

H3 - 14 to 28 inches: clay loam

H4 - 28 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Runoff class: High

Custom Soil Resource Report

H3 - 20 to 26 inches: loamy sand

H4 - 26 to 60 inches: sandy clay loam

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: About 10 inches to ortstein

Natural drainage class: Somewhat poorly drained

Runoff class: Low

Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.57 in/hr)

Depth to water table: About 6 to 18 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 20 percent

Available water storage in profile: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: B/D

Hydric soil rating: No

KaA—Kalkaska loamy sand, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: 6c4n

Elevation: 600 to 1,900 feet

Mean annual precipitation: 27 to 34 inches

Mean annual air temperature: 39 to 46 degrees F

Frost-free period: 70 to 150 days

Farmland classification: Not prime farmland

Map Unit Composition

Kalkaska and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kalkaska

Setting

Landform: Outwash plains, moraines

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits

Typical profile

H1 - 0 to 6 inches: loamy sand

H2 - 6 to 8 inches: sand

H3 - 8 to 36 inches: sand

H4 - 36 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

East lake

Percent of map unit: 5 percent
Landform: Beach ridges, lake terraces, outwash plains
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

KaA2—Kalkaska loamy sand, 0 to 2 percent slopes, moderately eroded

Map Unit Setting

National map unit symbol: 6c4p
Elevation: 600 to 1,900 feet
Mean annual precipitation: 27 to 34 inches
Mean annual air temperature: 39 to 46 degrees F
Frost-free period: 70 to 150 days
Farmland classification: Not prime farmland

Map Unit Composition

Kalkaska, moderately eroded, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kalkaska, Moderately Eroded

Setting

Landform: Outwash plains, moraines
Landform position (three-dimensional): Rise
Down-slope shape: Linear
Across-slope shape: Linear

Custom Soil Resource Report

Parent material: Sandy glaciofluvial deposits

Typical profile

H1 - 0 to 6 inches: loamy sand

H2 - 6 to 8 inches: sand

H3 - 8 to 36 inches: sand

H4 - 36 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 4s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

East lake

Percent of map unit: 5 percent

Landform: Beach ridges, lake terraces, outwash plains

Landform position (three-dimensional): Rise

Down-slope shape: Linear

Across-slope shape: Linear

Hydric soil rating: No

KaC—Kalkaska loamy sand, 6 to 12 percent slopes

Map Unit Setting

National map unit symbol: 6c4s

Elevation: 600 to 1,900 feet

Mean annual precipitation: 27 to 34 inches

Mean annual air temperature: 39 to 46 degrees F

Frost-free period: 70 to 150 days

Farmland classification: Not prime farmland

Map Unit Composition

Kalkaska and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kalkaska

Setting

Landform: Outwash plains, moraines

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluve, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Linear

Across-slope shape: Linear, convex

Parent material: Sandy glaciofluvial deposits

Typical profile

H1 - 0 to 6 inches: loamy sand

H2 - 6 to 8 inches: sand

H3 - 8 to 36 inches: sand

H4 - 36 to 60 inches: sand

Properties and qualities

Slope: 6 to 12 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Somewhat excessively drained

Runoff class: Very low

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: A

Hydric soil rating: No

Minor Components

East lake

Percent of map unit: 5 percent

Landform: Beach ridges, lake terraces, outwash plains

Landform position (two-dimensional): Summit, shoulder, backslope, footslope, toeslope

Landform position (three-dimensional): Interfluve, head slope, nose slope, side slope, base slope, crest

Down-slope shape: Linear

Across-slope shape: Linear, convex

Hydric soil rating: No

Hydric soil rating: Yes

Ru—Roscommon mucky loamy sand

Map Unit Setting

National map unit symbol: 6c7w

Elevation: 600 to 1,500 feet

Mean annual precipitation: 22 to 35 inches

Mean annual air temperature: 39 to 46 degrees F

Frost-free period: 70 to 140 days

Farmland classification: Farmland of local importance

Map Unit Composition

Roscommon and similar soils: 95 percent

Minor components: 5 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Roscommon

Setting

Landform: Depressions on lake plains, depressions on outwash plains

Landform position (three-dimensional): Talf

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Sandy glaciofluvial deposits

Typical profile

H1 - 0 to 3 inches: mucky loamy sand

H2 - 3 to 60 inches: sand

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum in profile: 10 percent

Available water storage in profile: Low (about 4.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w

Hydrologic Soil Group: A/D

Hydric soil rating: Yes

Custom Soil Resource Report

H3 - 20 to 60 inches: silty clay

Properties and qualities

Slope: 0 to 2 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Poorly drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)

Depth to water table: About 0 inches

Frequency of flooding: None

Frequency of ponding: Frequent

Calcium carbonate, maximum in profile: 30 percent

Available water storage in profile: Moderate (about 7.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 5w

Hydrologic Soil Group: D

Hydric soil rating: Yes

WdC—Wind eroded land, sloping

Map Unit Composition

Wind eroded land: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.



GT Metro Fire Department

Permitting Agency Review

1. FIRE & EMERGENCY SERVICES SITE PLAN REVIEW
2. PLAN REVIEW FROM FIRE DEPARTMENT



GRAND TRAVERSE METRO FIRE DEPARTMENT

FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 947-3000 Fax: (231) 947-8728 ~ Website: www.gtmetrofire.org Email: Info@gtmetrofire.org

SITE PLAN REVIEW APPLICATION

DATE: 11/14/17 (FOR OFFICE USE ONLY) ID# _____

APPLICANT/ COMPANY NAME: INFLUENCE DESIGN FORUM LLC

CONTACT PERSON: NATE ELKINS

ADDRESS: 120 E. FRONT ST. 2ND FLR LOFT

CITY: TRAVERSE CITY STATE: MI ZIP: 49684

PHONE NUMBERS: BUSINESS _____ CELL 231-944-4114

EMAIL: NATE@INFLUENCEDESIGNFORUM.COM

DEVELOPMENT/ BUSINESS NAME: KELLY RESTAURANTS

SITE ADDRESS: 4230 M-72 EAST TOWNSHIP: ACME

CITY: WILLIAMSBURG STATE: MI ZIP: 49690

SPECIFIC USE OF BUILDING: MIXED-USE DEVELOPMENT

BUILDING SIZE (LxWxH): SEE PLANS NUMBER of STORIES: SEE PLANS

CONSTRUCTION TYPE TBD SITE SERVICED BY GTB MUNICIPAL WATER YES NO

Complete civil engineering drawings shall be submitted with this application including the following:


Plans drawn to scale showing property boundaries, building locations, topography, water supply main sizes and hydrant locations, all roads/designated fire lanes/ property access/egress points with dimensions and turning radius, building construction type, use group and presence of automatic fire protection systems.

Site Plan Review -available in district only (Acme, East Bay & Garfield Twps.)

\$75.00 Includes 2 reviews

Additional reviews charged at \$75.00 per hour, minimum charge 1 hour

**** All fees shall be paid before permit can be issued, requests for inspections, or approvals for occupancy.**

APPLICANT SIGNATURE: 



GRAND TRAVERSE METRO FIRE DEPARTMENT

FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: info@gtfire.org

SITE PLAN REVIEW RECORD

ID # P-1192-5865-M6338

DATE: 11/30/17

PROJECT NAME: Kelly Mixed-Use Development

PROJECT ADDRESS: 4230 M-72 East

TOWNSHIP: Acme

APPLICANT NAME: Nate Elkins

APPLICANT COMPANY: Influence Design Forum LLC

APPLICANT ADDRESS: 120 E. Front St. 2nd Floor Loft

APPLICANT CITY: Traverse City STATE: MI ZIP: 49684

APPLICANT PHONE # 231-944-4114 FAX #

REVIEW FEE: **\$75.00**

Reviewed By: Brian Belcher Assistant Chief/ Fire Marshal

This review is based solely on the materials submitted for review and does not encompass any outstanding information. Compliance with all applicable code provisions is required and is the responsibility of the permit holder. Items not listed on the review do not negate any requirements of the code nor the compliance with same. Inspection requests must be made a minimum of 48 hours prior to needed inspection. This plan review is based on the 2012 International Fire Code, as adopted.



GRAND TRAVERSE METRO FIRE DEPARTMENT

FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: info@gtfire.org

SITE PLAN REVIEW

ID # P-1192-5865-M6338

DATE: 11/30/17

1. 503.2.1 Dimensions.

Fire apparatus access roads shall have an unobstructed width of not less than 20 feet (6096 mm), exclusive of shoulders, except for approved security gates in accordance with Section 503.6, and an unobstructed vertical clearance of not less than 13 feet 6 inches (4115 mm).

2. 503.2.2 Authority.

The fire code official shall have the authority to require or permit modifications to the required access widths where they are inadequate for fire or rescue operations or where necessary to meet the public safety objectives of the jurisdiction.

-Provide a minimum of 15 feet width at the East and West entrances to the complex where the parallel parking begins. Plans indicate a width of only 12 feet.

3. 503.2.3 Surface.

Fire apparatus access roads shall be designed and maintained to support the imposed loads of fire apparatus and shall be surfaced so as to provide all-weather driving capabilities.

-Plans indicate grass pavers on the fire apparatus access roads and the fire lanes that access the housing units. Grass pavers are not a maintainable surface and therefore are not allowed fire apparatus access roads and fire lanes.

4. 503.2.5 Dead ends.

Dead-end fire apparatus access roads in excess of 150 feet (45 720 mm) in length shall be provided with an approved area for turning around fire apparatus.

-Provide a turnaround or a connector fire department access road for the center housing units.

5. 503.1.1 Buildings and facilities.

Approved fire apparatus access roads shall be provided for every facility, building or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet (45 720 mm) of all portions of the facility and all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building or facility.

-Plans indicate homes that have access that exceeds the 150 foot requirement. Provide access that meets the above requirement.



GRAND TRAVERSE METRO FIRE DEPARTMENT

FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: Info@gtfire.org

6. D105.1 Where required.

Where the vertical distance between the grade plane and the highest roof surface exceeds 30 feet (9144 mm), approved aerial fire apparatus access roads shall be provided. For purposes of this section, the highest roof surface shall be determined by measurement to the eave of a pitched roof, the intersection of the roof to the exterior wall, or the top of parapet walls, whichever is greater.

7. D105.2 Width.

Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 feet (7925 mm), exclusive of shoulders, in the immediate vicinity of the building or portion thereof.

8. D105.3 Proximity to building.

At least one of the required access routes meeting this condition shall be located within a minimum of 15 feet (4572 mm) and a maximum of 30 feet (9144 mm) from the building, and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

9. D105.4 Obstructions.

Overhead utility and power lines shall not be located over the aerial fire apparatus access road or between the aerial fire apparatus road and the building. Other obstructions shall be permitted to be placed with the approval of the fire code official.

-Aerial access may be required for any building exceeding 30 feet. Provide building heights. Plans indicate what may be aerial access, locations and dimensions are not clear.

10. 507.5.1 Where required.

Where a portion of the facility or building hereafter constructed or moved into or within the jurisdiction is more than 400 feet (122 m) from a hydrant on a fire apparatus access road, as measured by an approved route around the exterior of the facility or building, on-site fire hydrants and mains shall be provided where required by the fire code official.

-Additional fire hydrants may be required for commercial buildings in parking lot areas and also on the two way street for the East housing area.

11. 507.5.4 Obstruction.

Unobstructed access to fire hydrants shall be maintained at all times. The fire department shall not be deterred or hindered from gaining immediate access to fire protection equipment or fire hydrants.



GRAND TRAVERSE METRO FIRE DEPARTMENT

FIRE PREVENTION BUREAU

897 Parsons Road ~ Traverse City, MI 49686
Phone: (231) 922-2077 Fax: (231) 922-4918 ~ Website: www.gtfire.org Email: Info@gtfire.org

12. 507.5.5 Clear space around hydrants.

A 3-foot (914 mm) clear space shall be maintained around the circumference of fire hydrants, except as otherwise required or approved.

13. 507.5.6 Physical protection.

Where fire hydrants are subject to impact by a motor vehicle, guard posts or other approved means shall comply with Section 312.

- Fire hydrants cannot be obstructed by parking and bicycle racks as indicated on the plans. Install hydrants according to the criteria in 507.5.4, 507.5.5, and 507.5.6.

14. 505.1 Address identification.

New and existing buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background. Address numbers shall be Arabic numbers or alphabetical letters. Numbers shall not be spelled out. Each character shall be not less than 4 inches (102 mm) high with a minimum stroke width of 1/2 inch (12.7 mm). Where required by the fire code official, address identification shall be provided in additional approved locations to facilitate emergency response. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure. Address identification shall be maintained.

- Provide the address for each building on the street side of the building according to the above criteria.

15. 505.2 Street or road signs.

Streets and roads shall be identified with approved signs. Temporary signs shall be installed at each street intersection when construction of new roadways allows passage by vehicles. Signs shall be of an approved size, weather resistant and be maintained until replaced by permanent signs.

16. 507.3 Fire flow.

Fire flow requirements for buildings or portions of buildings and facilities shall be determined by an approved method.

-The very minimum fire flow required is 1500 gallons per minute. This amount could be greater based on building size and construction type.

17. 3312.1 When required.

An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.



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18. 3310.1 Required access.

Approved vehicle access for fire fighting shall be provided to all construction or demolition sites. Vehicle access shall be provided to within 100 feet (30 480 mm) of temporary or permanent fire department connections. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting vehicle loading under all weather conditions. Vehicle access shall be maintained until permanent fire apparatus access roads are available.

Resubmit updated drawings.



MDOT

Permitting Agency Review

1. RESPONSE FROM MDOT

From: Wiest, Jeremy (MDOT) WiestJ@michigan.gov 
Subject: RE: KELLY_acme twp pud submittal_sewer demand
Date: November 7, 2017 at 3:37 PM
To: IDF (Nate Elkins) nate@influencedesignforum.com
Cc: Burzynski, Steve (MDOT) BurzynskiS@michigan.gov, Liptak, Rick (MDOT) LiptakR@michigan.gov

WJ

Nathan,

I appreciate the opportunity to review the development concepts prior to them getting too far along in the process.

To start MDOT does not have any plans to do any sort of work in this area, not even in our 5-year plan. I do know that the Tribe has talked about doing work to the Acme Creek culvert that crosses under M-72. And with that they may continue the 5 lane section from the intersection east to the roundabout, but don't quote me on any of that as I'm speaking for the Tribe. The only thing that I'm sure about is that MDOT doesn't have any planned work in this location.

Looking at the provided sight plan I do have some concerns with the spacing between the existing driveways (M-72 Auto Wash and Northern Michigan Veterinary Hospital) and the proposed development driveways. We would like to see more interconnection with the properties that are not part of this development to reduce the number of driveways out onto M-72.

If you have any questions please let me know.

Thanks!

Jeremy

Jeremy R Wiest, P.E.

Permit Engineer

Michigan Department of Transportation

Traverse City Transportation Service Center

2084 US-31 South, Suite B

Traverse City, MI 49685

Phone: 231-941-1986

From: IDF (Nate Elkins) [<mailto:nate@influencedesignforum.com>]

Sent: Tuesday, November 7, 2017 12:29 PM

To: Wiest, Jeremy (MDOT) <WiestJ@michigan.gov>

Subject: KELLY_acme twp pud submittal_sewer demand

Dear Mr. Wiest,

We are preparing a PUD / mixed-use development plan submittal for our client Dan Kelly in Acme Township. The project is located at 4230 M-72 East (property currently has the Williamsburg Events Center, Catering By Kelly's commercial kitchen, a private home, and 2 other commercial buildings).

I understand its early on in the planning process and Mr. Kelly has not even been approved for the PUD by the Township, but I would like to begin the conversation prior to submittal so we can be better prepared to address the Acme Township Planning Commission. We currently show one concept that would require drivers to exit right-only and use the new round-a-bouts to return westbound. We also show (2) possible street connections to the VGT property to the east to improve future access management.

It is also my understanding that MDOT has current plans to make changes to the road (widening and new sidewalks) adjacent to the property so it will be important to coordinate those proposed improvements.

The submittal for the PUD will be going in the week of Thanksgiving and it would be much appreciated if we could arrange a time to discuss Mr. Kelly's project prior to then.

Please call or email me directly with any questions - All the Best,

Nathan Elkins, ASLA / Studio Director / IDF / Research, Planning & Design / 120 East Front Street, 2nd Floor Loft / Downtown Traverse City, Michigan / www.influencedesignforum.com / (231) 944-4114

Influence Design Forum (IDF) Studio is a multidisciplinary collective of professionals exploring the seams that make up the outdoor spaces we inhabit everyday - through an ecological and social context exploring the landscape, art, culture and the built environment. Our Studio brings together a diverse group of designers, planners, artists, scientists, engineers and policy makers to problem solve, innovate and research new ideas for the future.

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From: Wiest, Jeremy (MDOT) WiestJ@michigan.gov
Subject: RE: KELLY_acme twp pud submittal_sewer demand
Date: November 8, 2017 at 11:46 AM
To: IDF (Nate Elkins) nate@influencedesignforum.com
Cc: Burzynski, Steve (MDOT) BurzynskiS@michigan.gov, Liptak, Rick (MDOT) LiptakR@michigan.gov

WJ

Nate,

As I mentioned during our phone conversation it would be in the developers best interest to have a Traffic Impact Study completed. By having this completed it would tell if there is a need for any improvement to the M-72 roadway. As I mentioned there are concerns with the number of driveways and the spacing between them. Along with the lefts into the sight given the number of driveways in a short stretch. Something else that we didn't discuss is the impact of having access to and from the VGT property.

If you have any other questions/concerns please let me know.

Thanks!

Jeremy

Jeremy R Wiest, P.E.
Permit Engineer
Michigan Department of Transportation
Traverse City Transportation Service Center
2084 US-31 South, Suite B
Traverse City, MI 49685
Phone: 231-941-1986

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Sent: Tuesday, November 7, 2017 3:37 PM
To: 'IDF (Nate Elkins)' <nate@influencedesignforum.com>
Cc: Burzynski, Steve (MDOT) <BurzynskiS@michigan.gov>; Liptak, Rick (MDOT) <LiptakR@michigan.gov>
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Nathan Elkins, ASLA / Studio Director / IDF / Research, Planning & Design / 120 East Front Street, 2nd Floor Loft / Downtown Traverse City, Michigan / www.influencedesignforum.com / (231) 944-4114

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MDEQ

Permitting Agency Review

1. PRE-APPLICATION REVIEW
2. RESPONSE FROM MDEQ
3. COPIES OF (2) SOIL SAMPLING LOCATIONS & REPORTS FROM GFA

Pre-Application Meeting Request Part 301 (Inland Lakes and Streams), Part 303 (Wetlands Protection)

version 1.5

(Submission #: HN9-QDAA-SF38S, revision 1)

Thank you for your submission!

Your submission has successfully been submitted. A confirmation message has been issued to you at nate@influencedesignforum.com. We recommend that you retain a copy of your receipt for this transaction by using the [Print Receipt](#) function.

RECEIPT

Submission #	HN9-QDAA-SF38S
Submitted on	11/29/2017 4:06 PM
Fee	\$100.00
Amount Paid	\$0.00
<hr/>	
Amount Due	\$100.00
⚠ Your submission will not be processed until paid in full.	



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
CADILLAC



C. HEIDI GRETHUR
DIRECTOR

December 6, 2017

Dan Kelly
4240 M-72 East Highway
Williamsburg, MI 49690

Dear Dan Kelly:

SUBJECT: Preapplication Meeting
Michigan Department of Environmental Quality (MDEQ)
Submission Number HN9-QDAA-SF38S

This letter is a follow-up to our November 30th, preapplication meeting regarding the proposed project in Williamsburg, Grand Traverse County. The purpose of a preapplication meeting is to provide you with information that will clarify the permit process, answer preliminary questions about your specific project in order to avoid delays at a later date, and to determine, if possible, the need for wetland or inland lakes and streams permits.

During this meeting we reviewed the need to obtain a permit under Part 301, Inland Lakes and Streams; Part 303, Wetlands Protection, and Part 31 Water Resources, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). The review was based on discussion of the proposed project and/or draft permit application, the proposed site, and potential modifications to the project discussed during our meeting.

Based on the information provided with the draft project plans reviewed on site and in our office, including your delineation of wetlands on the proposed project site, the MDEQ's Water Resources Division (WRD) has determined that a permit is required under Part 301, Part 303 and Part 31, of the NREPA. Please reference the submission number at the top of this letter when submitting a permit application for this project.

This determination is based on the project plan prepared by Nate Elkins of IDF, along with other information discussed at the time of this meeting only. Provided that the proposed project and location are not altered, this determination is binding on the MDEQ for a period of two years from the date of this meeting.

During the review of the project site, the MDEQ's Water Resources Division (WRD) made the following findings regarding the need for a permit under Part 301, Part 303, and Part 31 of the NREPA:

- ☒ A permit is required for the project as proposed.
- ☐ A permit is not required for the project as proposed.
- ☐ It cannot be determined whether a permit is required given the information presented at this time.

During the review of the proposed project, the WRD noted activities that, as currently designed, would require authorization under:

Floodplain Regulatory Authority found in Part 31, Water Resources Protection, of the NREPA.

Section 404 of the federal Clean Water Act and/or the federal Rivers and Harbors Act from the United States Army Corps of Engineers.

During the meeting, we also discussed a number of issues related to the project, including the following:

- Information on completing an application form.
- Possible alternative design options to minimize project effects on aquatic resources, *specifically* the placement and orientation of storm water management structures and the conversion of retention structures that are currently in place.
- Potential adverse effects to aquatic resources on the site that may result from the proposed project, *specifically* the conversion of the storm water retention pond near M-72.
- Potential floodplain effects. We recommend that you discuss this issue further with the WRD District Floodplain Engineer, Susan Conradson.

Please note that this is not a permit. The WRD cannot indicate during a preapplication meeting whether or not a permit will be issued. The WRD cannot make a decision regarding a permit until it has considered all of the information provided in the final permit application, and, in some instances, has also considered comments received in response to a public notice of the project. Therefore, the WRD cannot legally tell you whether the project will be permitted in advance of a permit application being submitted and reviewed.

The MDEQ submission number assigned to this project is HN9-QDAA-SF38S. Please keep a record of this submission number and use it when submitting a final application or otherwise corresponding with our office on this project.

We appreciate the opportunity to meet with you or your representative to address these concerns. We have established a submission for this project, and the information submitted to date will be used to facilitate processing of the final application. If you should have follow-up questions before then, please contact me at 231-429-5244; SchockN@michigan.gov; or MDEQ, WRD, Cadillac District Office, 120 West Chapin Street, Cadillac, MI, 49601-2158.

Sincerely,

Neil Schock

Neil Schock
Water Resources Division



VEGETATION - Use scientific names of plants

Sampling Point: 1

Tree Stratum					Plot Size (30')		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Fraxinus nigra</i>					40	Y	FACW	
2	<i>Populus balsamifera</i>					20	Y	FACW	
3	<i>Populus balsamifera</i>					10	N	FACW	
4	<i>Quercus alba</i>					5	N	FACU	
5									
6									
7									
8									
9									
10									
						75	= Total Cover		

Sapling/Shrub Stratum					Plot Size (10')		Absolute % Cover	Dominant Species	Indicator Status
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
						0	= Total Cover		

Herb Stratum					Plot Size (5')		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Carex vulpinoidea</i>					40	Y	OBL	
2	<i>Onoclea sensibilis</i>					20	Y	FACW	
3	<i>Equisetum fluviatile</i>					10	N	OBL	
4	<i>Toxicodendron radicans</i>					10	N	FAC	
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
						80	= Total Cover		

Woody Vine Stratum					Plot Size (10')		Absolute % Cover	Dominant Species	Indicator Status
1									
2									
3									
4									
5									
						0	= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	15	38
Sapling/Shrub Stratum	0	0
Herb Stratum	16	40
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across all Strata: 4 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	50	x 1 =	50
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column totals	155 (A)		280 (B)

Prevalence Index = B/A = 1.81

Hydrophytic Vegetation Indicators:

 Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ Prevalence index is ≤3.0*

 Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

 Problematic hydrophytic vegetation* (explain)

*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: 17237 Acme Creek City/County: GRAND TRAVERS Sampling Date: 6/30/2017
 Applicant/Owner: Dan Kelly State: MI Sampling Point: 2
 Investigator(s): JON J ARLETH PE, PS #1245 Section, Township, Range: SEC 2, T27N, R10W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave
 Slope (%): 20-Oct Lat.: N44 46' 13" Long.: W85 29' 27" Datum: WGS84
 Soil Map Unit Name: KaC—Kalkaska loamy sand NWI Classification: N/A
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)
 Are vegetation , soil , or hydrology significantly disturbed? Are "normal
 Are vegetation , soil , or hydrology naturally problematic? circumstances" present? Yes
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>N</u>	Is the sampled area within a wetland? <u>N</u>
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	
Remarks: (Explain alternative procedures here or in a separate report.)	
PALUSTRINE FORESTED WETLAND WITH A MIX OF DECIDUOUS AND CONIFERIOUS TREES WITH A SATURATED WATER REGIME.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)		Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Water table present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> Saturation present? Yes <u> </u> No <u>X</u> Depth (inches): <u> </u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



VEGETATION - Use scientific names of plants

Sampling Point: 2

Tree Stratum					50/20 Thresholds		
Plot Size (30')	Absolute % Cover	Dominant Species	Indicator Status		20%	50%	
1 <i>Malus</i>	40	Y	FACU	Tree Stratum	20	50	
2 <i>Acer rubrum</i>	20	Y	FACU	Sapling/Shrub Stratum	2	5	
3 <i>Fraxinus nigra</i>	20	Y	FACW	Herb Stratum	8	20	
4 <i>Pinus strobus</i>	20	Y	FACU	Woody Vine Stratum	0	0	
5				Dominance Test Worksheet			
6				Number of Dominant Species that are OBL, FACW, or FAC: <u>3</u> (A)			
7				Total Number of Dominant Species Across all Strata: <u>8</u> (B)			
8				Percent of Dominant Species that are OBL, FACW, or FAC: <u>37.50%</u> (A/B)			
9				Prevalence Index Worksheet			
10				Total % Cover of:			
	100 = Total Cover			OBL species <u>0</u> x 1 = <u>0</u>			
				FACW species <u>30</u> x 2 = <u>60</u>			
				FAC species <u>20</u> x 3 = <u>60</u>			
				FACU species <u>100</u> x 4 = <u>400</u>			
				UPL species <u>0</u> x 5 = <u>0</u>			
				Column totals <u>150</u> (A) <u>520</u> (B)			
				Prevalence Index = B/A = <u>3.47</u>			
				Hydrophytic Vegetation Indicators:			
				<input type="checkbox"/> Rapid test for hydrophytic vegetation			
				<input type="checkbox"/> Dominance test is >50%			
				<input type="checkbox"/> Prevalence index is ≤3.0*			
				<input type="checkbox"/> Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)			
				<input type="checkbox"/> Problematic hydrophytic vegetation* (explain)			
				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic			
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				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
				Woody vines - All woody vines greater than 3.28 ft in height.			
				Hydrophytic vegetation present? <u>N</u>			
Remarks: (Include photo numbers here or on a separate sheet)							



SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-14"	10YR 4/4	100					SANDY LOAM	
14-27"	10YR 5/3	100					LOAMY SAND	
27-39"	10YR 5/3	90	5YR 5/8	10			LOAMY SAND	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:



SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-11"	2.5YR 2.5 1	100					LOAMY CLAY	HIGH ORGANIC
11-24"	2.5Y 4 2	100					LOAMY SAND	
24-27"	7.5YR 2.5 1	100					SANDY PEAT	HIGH ORGANIC
27-30"	2.5Y 4 2	100					LOAMY SAND	
30-38"	7.5YR 2.5 1	100					SANDY PEAT	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Histisol (A1) | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> (LRR K, L) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |
| <input type="checkbox"/> Sandy Redox (S5) | |
| <input type="checkbox"/> Stripped Matrix (S6) | |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | |

Indicators for Problematic Hydric Soils:

- ☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- ☐ Coast Prairie Redox (A16) (LRR K, L, R)
- ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- ☐ Dark Surface (S7) (LRR K, L)
- ☐ Polyvalue Below Surface (S8) (LRR K, L)
- ☐ Thin Dark Surface (S9) (LRR K, L)
- ☐ Iron-Manganese Masses (F12) (LRR K, L, R)
- ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
- ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- ☐ Red Parent Material (TF2)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? ☒ Y

Remarks:



CORRESPONDENCE FROM TOWNSHIP

1. PARKING CALCULATIONS
2. LETTER, DATED OCTOBER 2, 2017 REGARDING SHORT-TERM RENTALS

Use	Units / ft ²	Required	Use Total
Detached Flats	76	2 / unit	152
Commercial	46,300	4/1000 ft ²	185
Office	17,900	3/1000 ft ²	54
Multifamily	46	1.5 / unit	69
Total			460

SCENARIO 1

Use	Area; #	Base	Spaces	Total
Office	17,900	1,000	3	54
Flats ("lodging")	76	per unit	2	152
Total				206
Shared Parking Function				1.7
Shared Total				121
Use	Area; #	Base	Spaces	Total
Commercial	46,300	1,000	4	185
Multifamily	46	per unit	1.5	69
Total				254
Shared Parking Function				1.2
Shared Total				212
Total				333

SCENARIO 2

Use	Area; #	Base	Spaces	Total
Commercial	46,300	1,000	4	185
Flats ("lodging")	76	per unit	2	152
Total				337
Shared Parking Function				1.3
Shared Total				259
Use	Area; #	Base	Spaces	Total
Office	17,900	1,000	3	54
Multifamily	46	per unit	1.5	69
Total				123
Shared Parking Function				1.4
Shared Total				88
Total				347

SCENARIO 3

Use	Area; #	Base	Spaces	Total
Commercial	46,300	1,000	4	185
Office	17,900	1,000	3	54
Total				239
Shared Parking Function				1.2
Shared Total				199
Use	Area; #	Base	Spaces	Total

Flats ("lodging")	76	per unit	2	152
Multifamily	46	per unit	1.5	69
Total				221
Shared Parking Function				0
Shared Total				221
Total				420



Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

October 2, 2017

Dan Kelly
4240 E M-72
Williamsburg, MI 49690

RE: short-term rentals

Mr. Kelly,

I have spoken with our township counsel who agreed with me that your proposed development at the property where your catering facility exists and adjacent parcels will not be jeopardized by any ruling the Township Board takes on short-term rentals. The zoning of your property and the Planned Development approval you are seeking will allow your proposal to operate as a mixed-use development where individual, detached units may be condominiumized for residential or short-term rental use. These short-term rentals will not require a permit if allowed under the Planned Development approval.

Please note that this opinion does not guarantee final approval of the project by the Planning Commission or Township Board.

Shawn Winter

Planning & Zoning Administrator – Acme Township

swinter@acmetownship.org

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120 E. Front St.
2nd Floor Loft
P.O. Box 1507
Traverse City, MI 49685
(231) 944.4114

www.influencedesignforum.com

PLANNED UNIT DEVELOPMENT SITE PLAN & APPLICATION

KELLY RESTAURANTS LLC

OWNER

KELLY RESTAURANTS
4230 M-72 EAST HIGHWAY
WILLIAMSBURG, MI 49690

(231) 938-3663
(231) 342-4550

PLANNER

INFLUENCE DESIGN FORUM, LLC
PO BOX 1507
120 EAST FRONT ST. 2ND FLR. LOFT
TRAVERSE CITY, MI 49685

(231) 944-4114
www.influencedesignforum.com

CIVIL ENGINEER

M2E, LLC
1230 PENINSULA CT.
TRAVERSE CITY, MI 49686

(231) 218-0590

PUBLIC AGENCIES & UTILITIES

UTILITY AGENCIES

CONSUMERS ENERGY Telephone: 231.929.6242	CHARTER COMMUNICATIONS Telephone: 231.929.7012
DTE ENERGY Telephone: 231.592.3244	AT&T MICHIGAN Telephone: 231.941.2707

PUBLIC AGENCIES

ACME TOWNSHIP ZONING ADMINISTRATOR Telephone: 231.938.1350	GRAND TRAVERSE COUNTY SOIL EROSION Telephone: 231.995.6042
--	--

GRAND TRAVERSE COUNTY
CONSTRUCTION CODE
Telephone: 231.995.6049

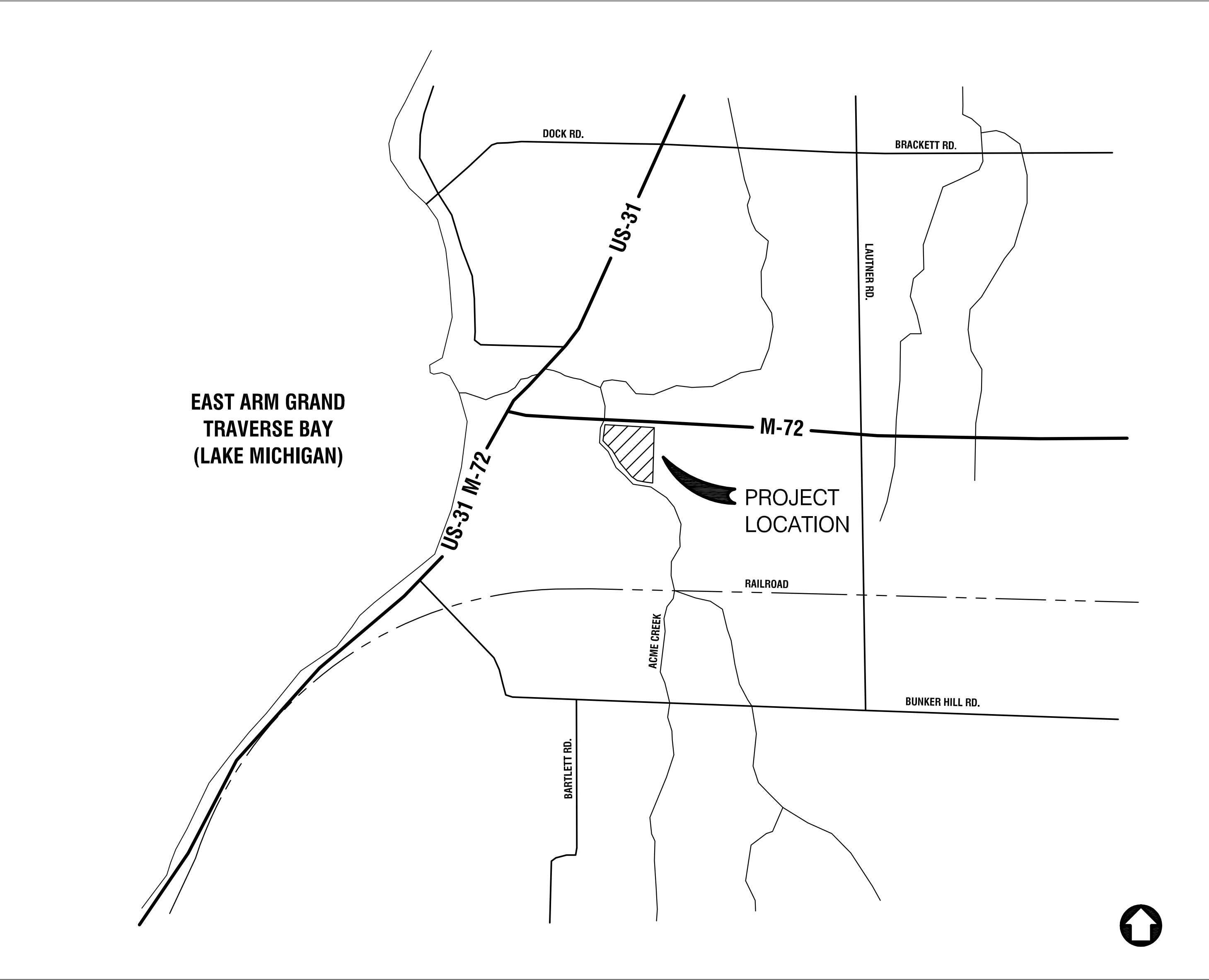
EMERGENCY SERVICES

EMERGENCY CALLS 911	FIRE DEPARTMENTS Emergency Service: 911
EMERGENCY AMBULANCE SERVICE 911	Grand Traverse Metro Fire Department Telephone: 231.947.3000
POLICE AGENCIES Emergency Service: 911	MISS DIG 811 Emergency Service Telephone: 1.800.482.7171
Grand Traverse County Sheriff: Telephone: 231.995.5000	
Michigan State Police: Telephone: 231.946.4646	

INFLUENCE DESIGN FORUM COMMISSION / JOB NO. 2017101.01

LOCATION MAP

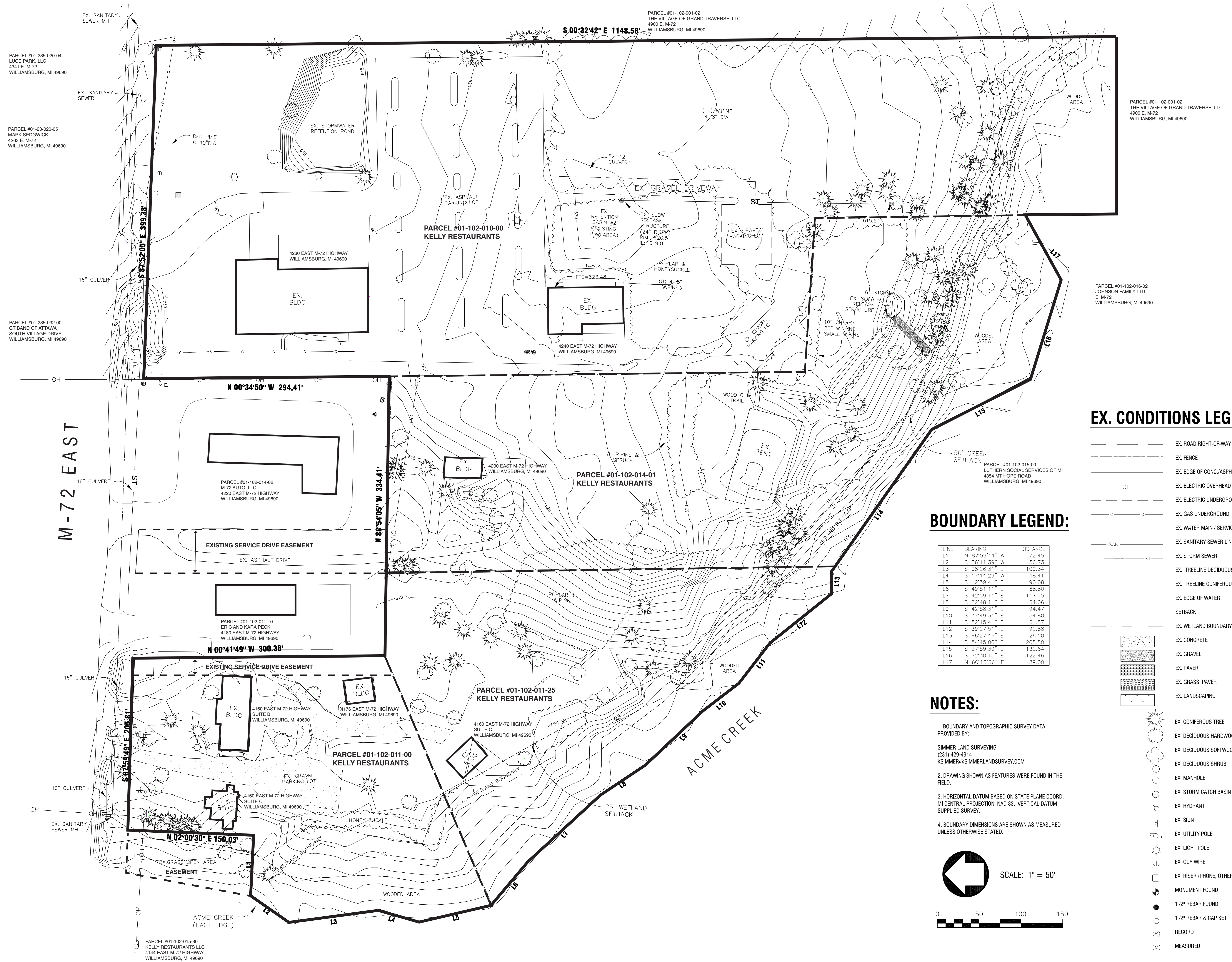
ACME TOWNSHIP, GRAND TRAVERSE COUNTY, MICHIGAN



ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION

SHEET INDEX

DRAWING NO.	SHEET DESCRIPTION
C	COVER
S1	EXISTING CONDITIONS PLAN
S2	EXISTING CONDITIONS: ZONING DISTRICT OVERLAY
S3	EXISTING CONDITIONS: PROPOSED CHANGE IN LAND USE
S4	EXISTING CONDITIONS: LOCATION OF BUSINESSES
S5	EXISTING CONDITIONS: ECOLOGICALLY SENSITIVE AREAS
S6	EXISTING CONDITIONS: FOREST COVER TYPES
S7	OVERALL SITE PLAN
S8	NEIGHBORHOOD PLAN
S9	MODELING STUDY: CAMERA LOCATION ID MAP
S10	MODELING STUDY: CAMERA 1
S11	MODELING STUDY: CAMERA 2
S12	MODELING STUDY: CAMERA 3
S13	MODELING STUDY: CAMERA 4
S14	MODELING STUDY: CAMERA 5
S15	MODELING STUDY: CAMERA 6
S16	CIRCULATION PLAN
S17	PARKING MANAGEMENT PLAN
S18	CROSS-SECTION STUDY: SECTION ID MAP
S19	CROSS-SECTION STUDY: SECTION A - MAIN STREET
S20	CROSS-SECTION STUDY: SECTION B - SECONDARY OR COLLECTOR STREET
S21	CROSS-SECTION STUDY: SECTION C - TERTIARY OR LOCAL STREET
S22	CROSS-SECTION STUDY: SECTION D - TERTIARY OR LOCAL ONE-WAY STREET
S23	STORMWATER MANAGEMENT PLAN
S24	PARK AND OPEN SPACE PLAN
S25	PRELIMINARY UTILITY PLAN
S26	FIRE & EMERGENCY ACCESS PLAN
S27	PHASING PLAN
C-S7	FIRE & EMERGENCY SERVICES SITE PLAN REVIEW PLAN SET



EX. CONDITIONS LEGEND:

- EX. ROAD RIGHT-OF-WAY
- EX. FENCE
- EX. EDGE OF CONC./ASPHALT
- EX. ELECTRIC OVERHEAD
- EX. ELECTRIC UNDERGROUND
- EX. GAS UNDERGROUND
- EX. WATER MAIN / SERVICE LINE
- EX. SANITARY SEWER LINE
- EX. STORM SEWER
- EX. TREELINE DECIDUOUS
- EX. TREELINE CONIFEROUS
- EX. EDGE OF WATER
- SETBACK
- EX. WETLAND BOUNDARY

- EX. CONCRETE
- EX. GRAVEL
- EX. PAVER
- EX. GRASS PAVER
- EX. LANDSCAPING

- EX. CONIFEROUS TREE
- EX. DECIDUOUS HARDWOOD TREE
- EX. DECIDUOUS SOFTWOOD TREE
- EX. DECIDUOUS SHRUB
- EX. MANHOLE
- EX. STORM CATCH BASIN
- EX. HYDRANT
- EX. SIGN
- EX. UTILITY POLE
- EX. LIGHT POLE
- EX. GUY WIRE
- EX. RISER (PHONE, OTHER)
- MONUMENT FOUND
- 1/2" REBAR FOUND
- 1/2" REBAR & CAP SET
- RECORD
- MEASURED

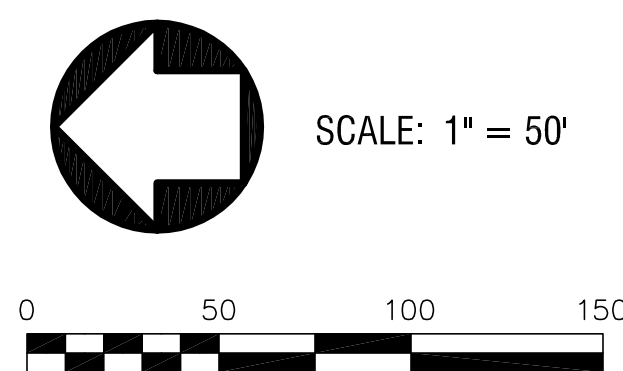
BOUNDARY LEGEND:

LINE	BEARING	DISTANCE
L1	N 87°59'11" W	72.45'
L2	S 38°11'39" W	56.73'
L3	S 08°26'31" E	109.34'
L4	S 17°14'29" W	48.41'
L5	S 12°39'41" E	90.08'
L6	S 49°51'11" E	68.80'
L7	S 42°59'11" E	117.95'
L8	S 32°48'11" E	64.06'
L9	S 42°58'31" E	94.47'
L10	S 37°49'31" E	54.80'
L11	S 52°15'41" E	61.87'
L12	S 39°27'51" E	92.88'
L13	S 86°27'46" E	26.10'
L14	S 54°45'00" E	208.80'
L15	S 27°59'39" E	132.64'
L16	S 72°30'15" E	122.46'
L17	N 60°16'36" E	89.00'

NOTES:

- BOUNDARY AND TOPOGRAPHIC SURVEY DATA PROVIDED BY:

SIMMER LAND SURVEYING
(231) 429-4914
KSIMMER@SIMMERLANDSURVEY.COM
- DRAWING SHOWN AS FEATURES WERE FOUND IN THE FIELD.
- HORIZONTAL DATUM BASED ON STATE PLANE COORD. MI CENTRAL PROJECTION, NAD 83. VERTICAL DATUM SUPPLIED SURVEY.
- BOUNDARY DIMENSIONS ARE SHOWN AS MEASURED UNLESS OTHERWISE STATED.



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influence design forum LLC

studio

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2nd Floor Loft
P.O. Box 1507
Traverse City, MI 49685
(231) 944.4114

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CIVIL ENGINEER CONSULTANT

REGISTRATION SEAL

ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION

PROJECT

PLANNED UNIT DEVELOPMENT

CLIENT

KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL:

PROJECT MGR.:

DESIGNED BY:

DRAWN BY:

CHECKED BY:

COMMISSION / JOB NO.:

NGE

NGE

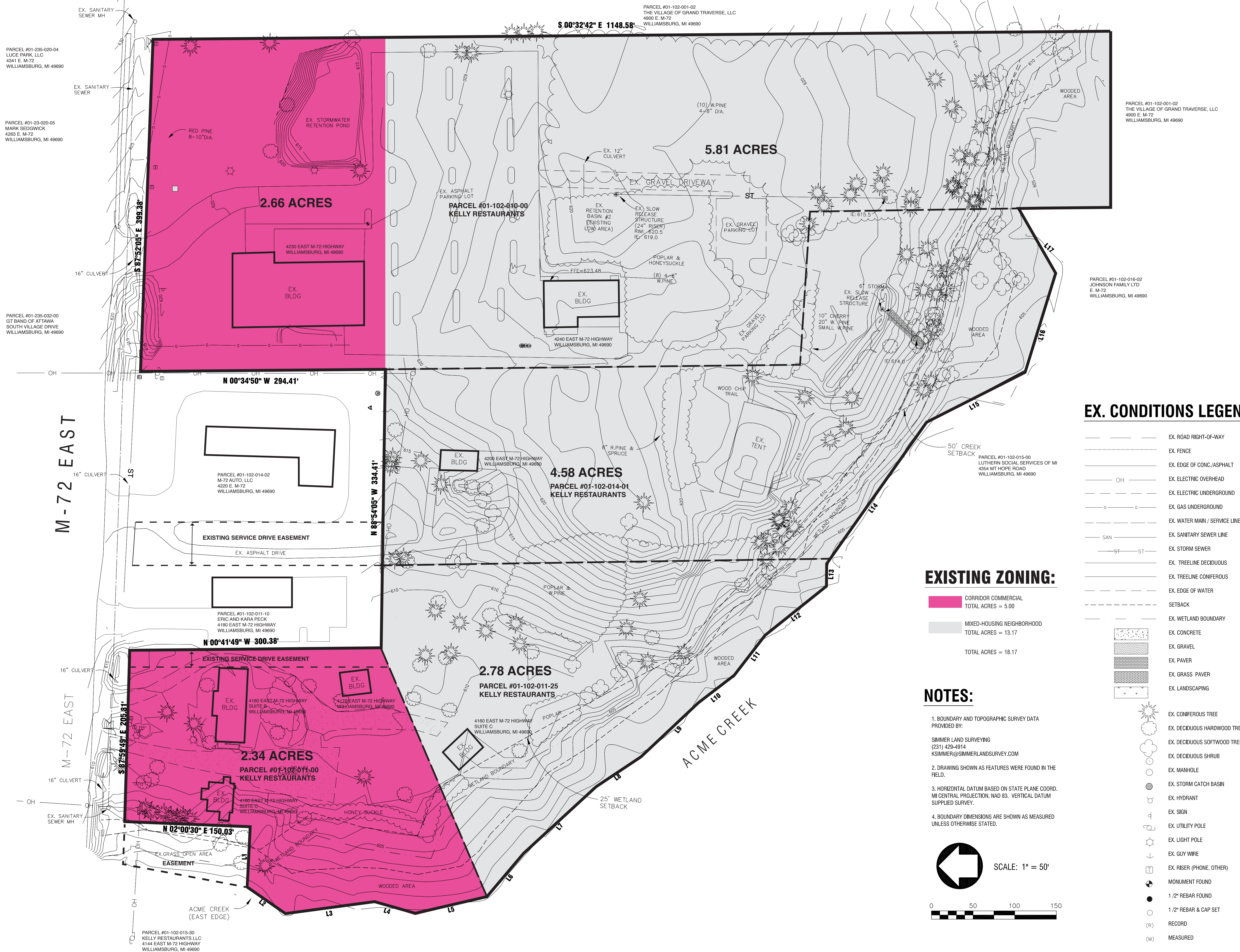
2017101.01

DRAWING TITLE

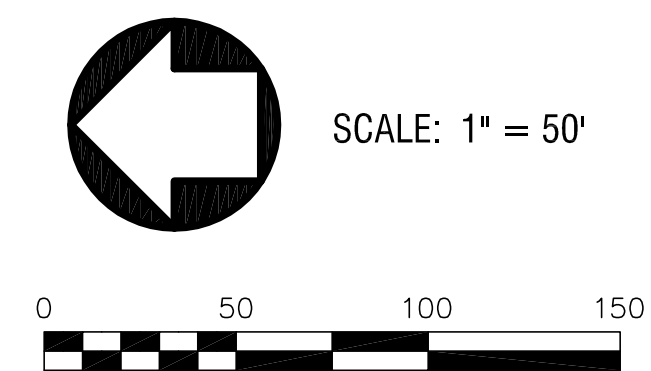
EXISTING CONDITIONS PLAN

S.1

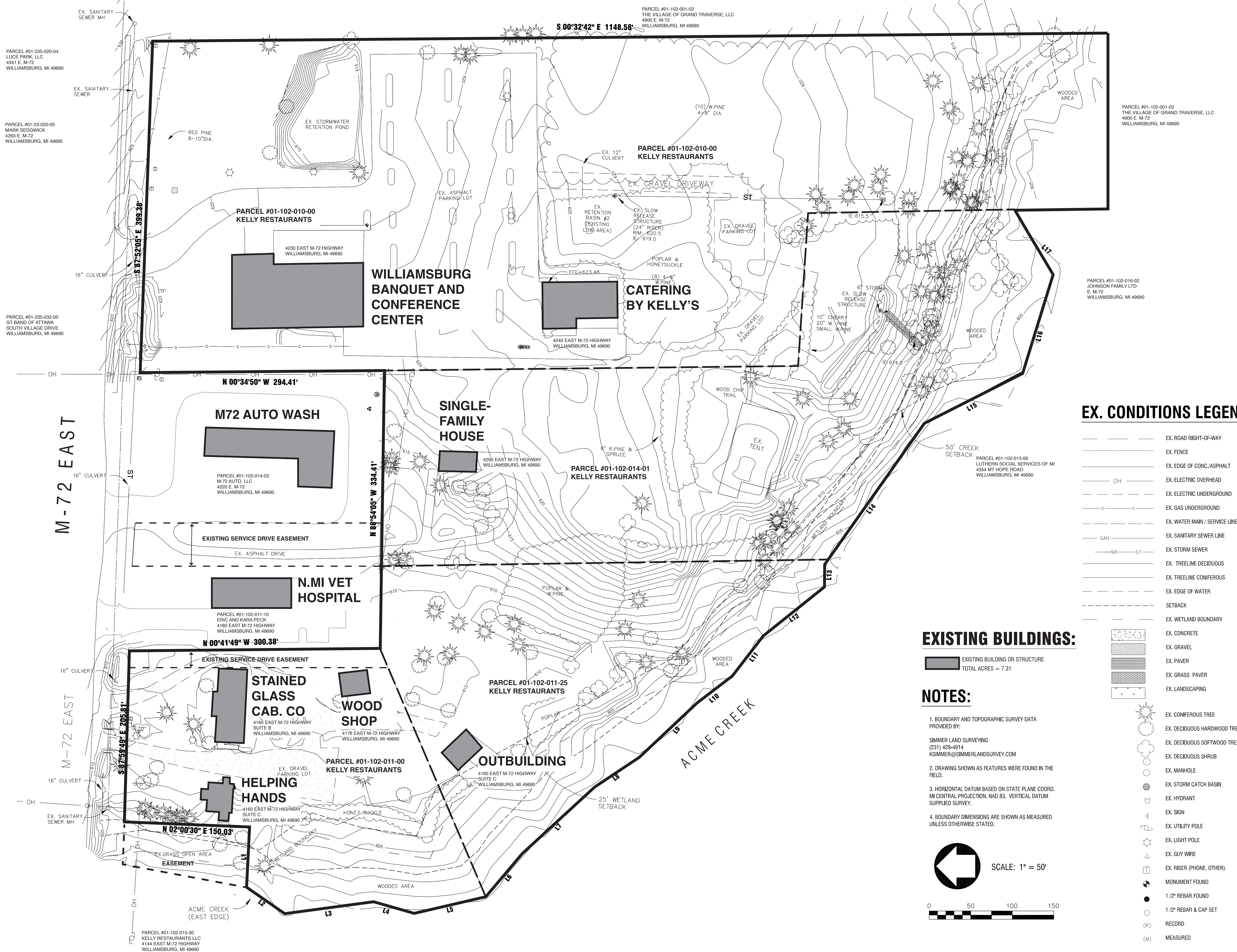
S.2



S.3



S.4



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PLANNED UNIT DEVELOPMENT

KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690







EXISTING CONDITIONS PLAN

Ecologically Sensitive Areas

S.5



ECOLOGICALLY SENSITIVE AREAS:

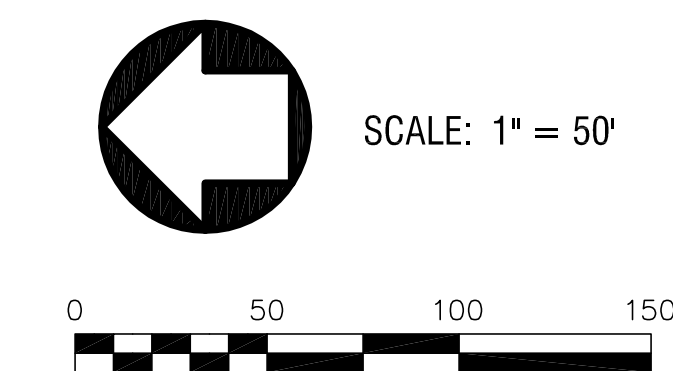
-  ACME CREEK
 DELINEATED WETLAND
 PROPERTY BOUNDARY
 WETLAND BOUNDARY
 50' CREEK SETBACK
 25' WETLAND SETBACK

100-YEAR FLOOD PLAIN APPROX. 5' ABOVE ORDINARY HIGH WATER MARK PER MDEQ

NOTES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY DATA PROVIDED BY:

SIMMER LAND SURVEYING
(231) 429-4914
KSIMMER@SIMMERLANDSURVEY.COM
2. DRAWING SHOWN AS FEATURES WERE FOUND IN THE FIELD.
3. HORIZONTAL DATUM BASED ON STATE PLANE COORD. MI CENTRAL PROJECTION, NAD 83. VERTICAL DATUM SUPPLIED SURVEY.
4. BOUNDARY DIMENSIONS ARE SHOWN AS MEASURED UNLESS OTHERWISE STATED.



- | | |
|--|-------------------------------|
| | EX. ROAD RIGHT-OF-WAY |
| | EX. FENCE |
| | EX. EDGE OF CONC./ASPHALT |
| | EX. ELECTRIC OVERHEAD |
| | EX. ELECTRIC UNDERGROUND |
| | EX. GAS UNDERGROUND |
| | EX. WATER MAIN / SERVICE LINE |
| | EX. SANITARY SEWER LINE |
| | EX. STORM SEWER |
| | EX. TREELINE DECIDUOUS |
| | EX. TREELINE CONIFEROUS |
| | EX. EDGE OF WATER |
| | SETBACK |
| | EX. WETLAND BOUNDARY |
| | EX. CONCRETE |
| | EX. GRAVEL |
| | EX. PAVER |
| | EX. GRASS PAVER |
| | EX. LANDSCAPING |
| | EX. CONIFEROUS TREE |
| | EX. DECIDUOUS HARDWOOD TREE |
| | EX. DECIDUOUS SOFTWOOD TREE |
| | EX. DECIDUOUS SHRUB |
| | EX. MANHOLE |
| | EX. STORM CATCH BASIN |
| | EX. HYDRANT |
| | EX. SIGN |
| | EX. UTILITY POLE |
| | EX. LIGHT POLE |
| | EX. GUY WIRE |
| | EX. RISER (PHONE, OTHER) |
| | MONUMENT FOUND |
| | 1 / 2" REBAR FOUND |
| | 1 / 2" REBAR & CAP SET |
| | RECORD |
| | MEASURED |

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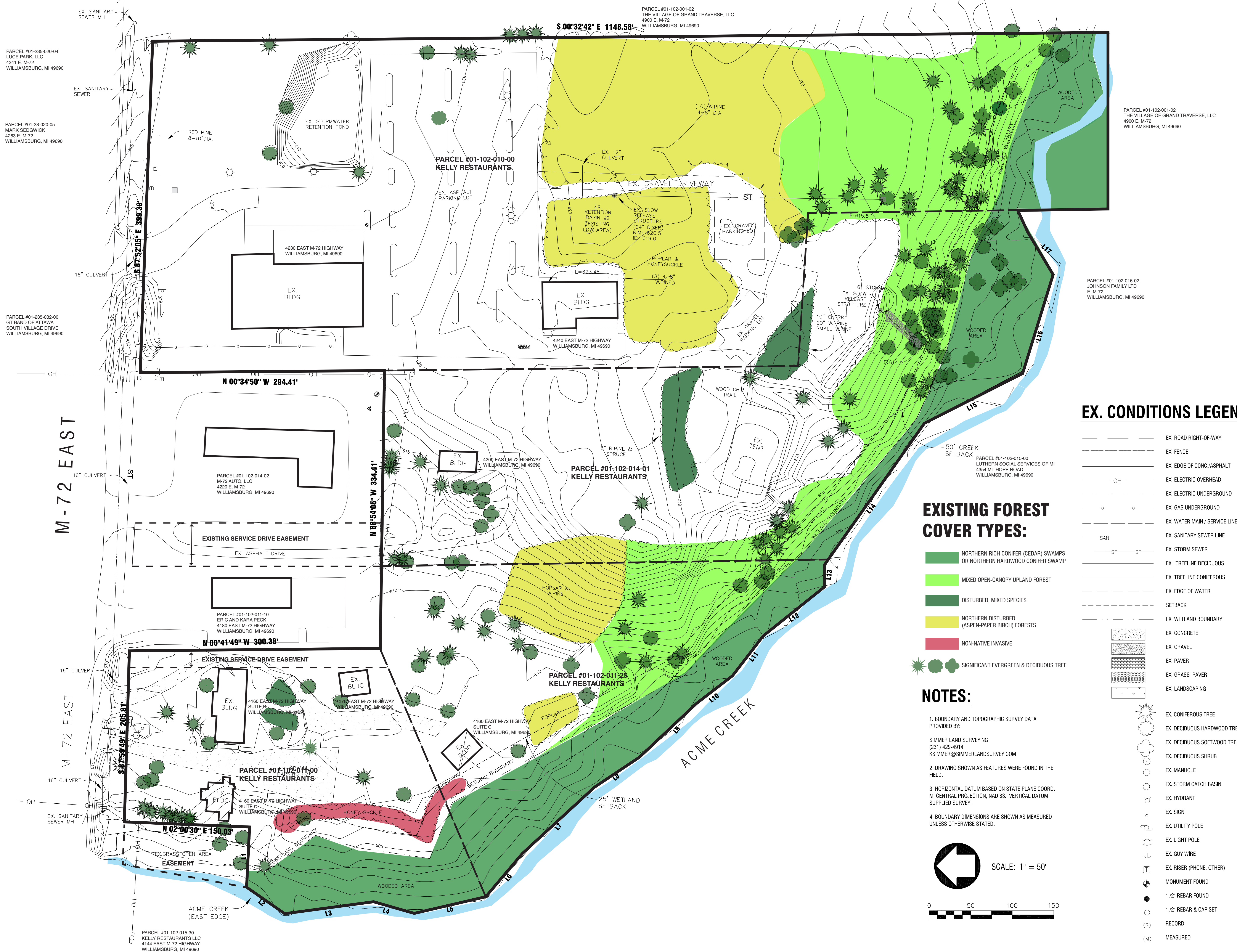
PLANNED UNIT DEVELOPMENT

PRINCIPAL:	NGE
PROJECT MGR.:	
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	
COMMISSION / JOB NO.:	2017101.01

EXISTING CONDITIONS PLAN

Forest Cover Types

S.6



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REGISTRATION SEAL

PROJECT

CLIENT

KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL:	NGE
PROJECT MGR.:	
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	
COMMISSION / JOB NO.:	2017101.01

DRAWING TITLE

SITE PLAN

S.7



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ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION

PLANNED UNIT DEVELOPMENT

PRINCIPAL:	NGE
PROJECT MGR.:	
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	
COMMISSION / JOB NO.:	2017101.0

S.7



USE BY FLOOR	SFT	# OF RES. UNITS
1st Flr. Condominium	2000 SFT	> 2
Walkout		
2nd Flr. Condominium	2000 SFT	
3rd Flr. Condominium	2000 SFT	2
TOTAL RES. UNITS		50

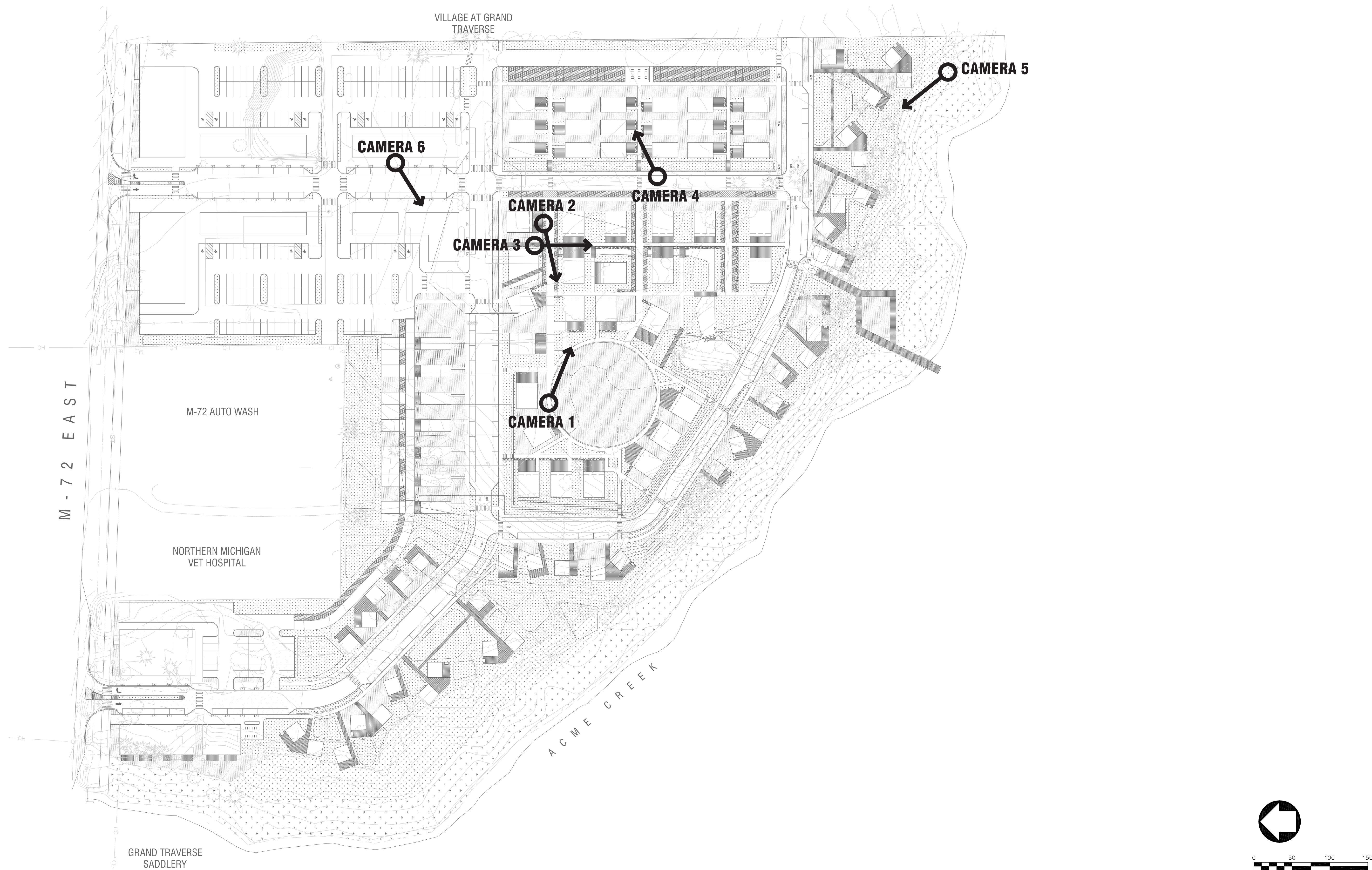
PROJECT

CLIENT
KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL:	NGE
PROJECT MGR.:	
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	
COMMISSION / JOB NO.:	2017101.01

S.8





PRINCIPAL	NGE
PROJECT MANAGER	
DESIGNED BY	NGE
DRAWN BY	
CHECKED BY	
COMMISSION / JOB NO.	2017101.01

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11-28-17	PUD APPLICATION













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REGISTRATION SEAL

[illegible]

PROJECT

PLANNED UNIT DEVELOPMENT

CLIENT
KELLY RESTAURANTS

4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL:	NGE
PROJECT MGR.:	

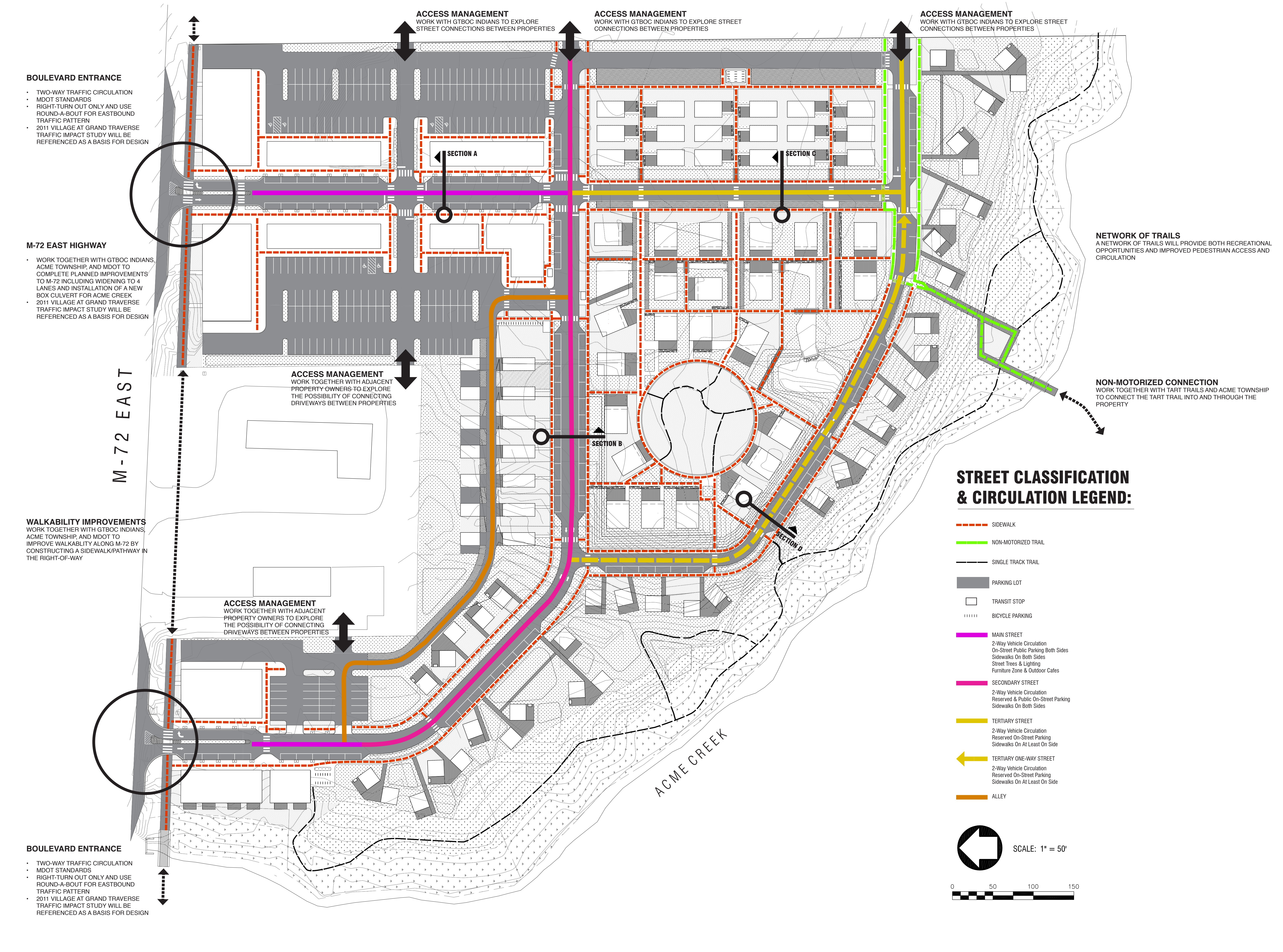
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	

COMMISSION / JOB NO.: 201710101

DRAWING TITLE

CIRCULATION PLAN

S.16



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2nd Floor Loft
P.O. Box 1507
Traverse City, MI 49685
(231) 944.4114

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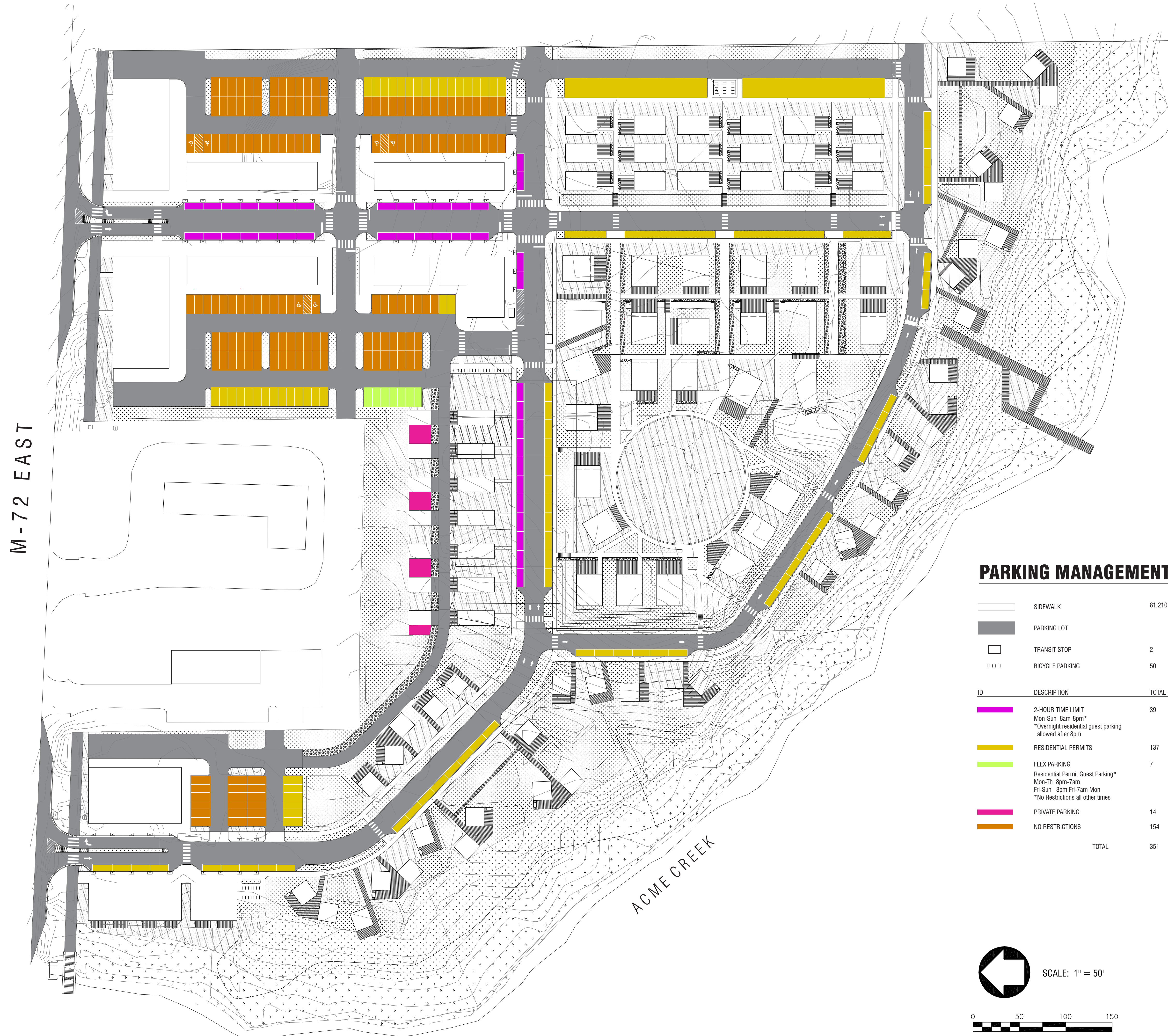
ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION

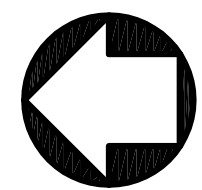
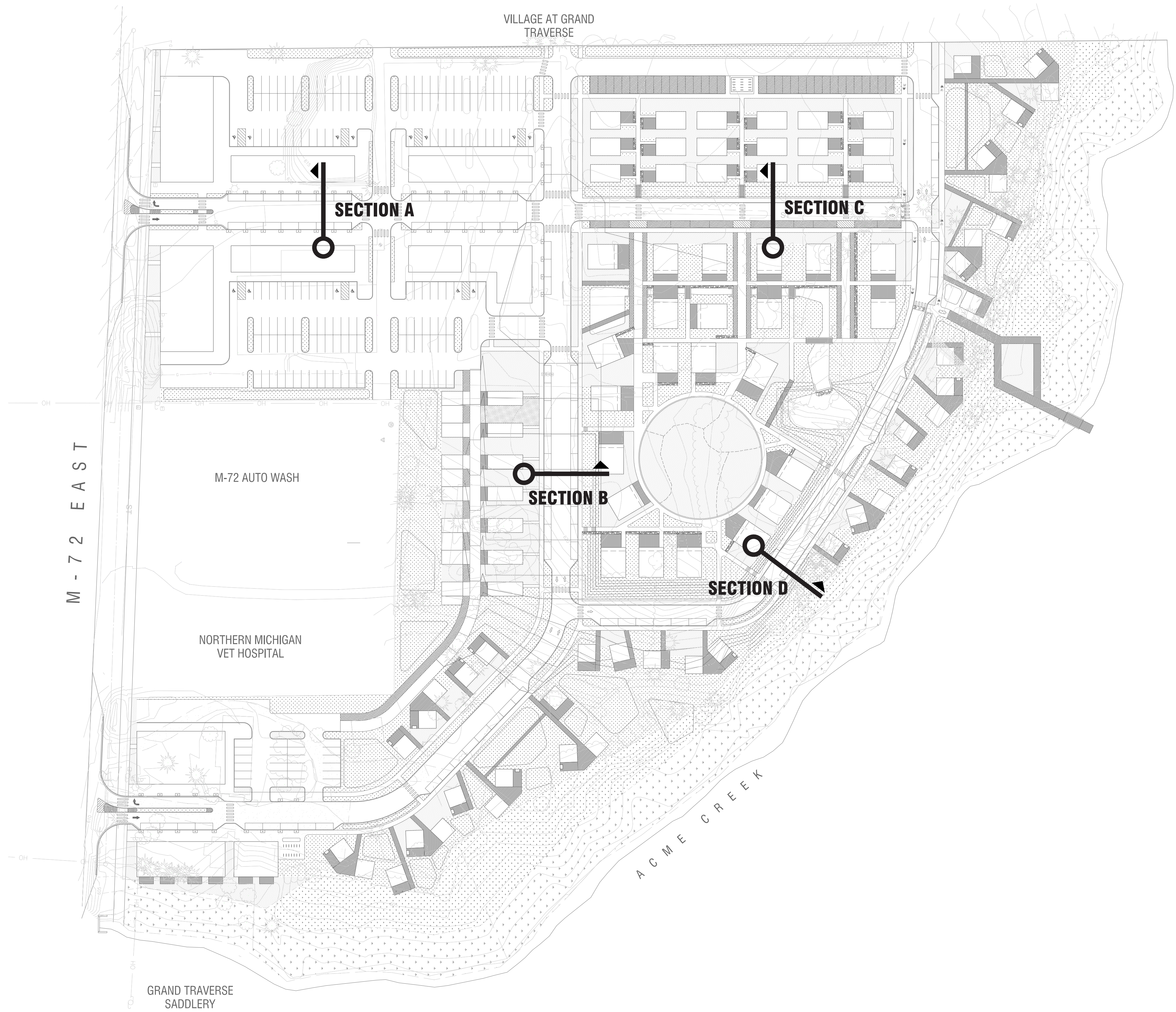
PLANNED UNIT DEVELOPMENT

KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL:	NGE
PROJECT MGR.:	
DESIGNED BY:	NGE
DRAWN BY:	
CHECKED BY:	
COMMISSION / JOB NO.:	2017101.0

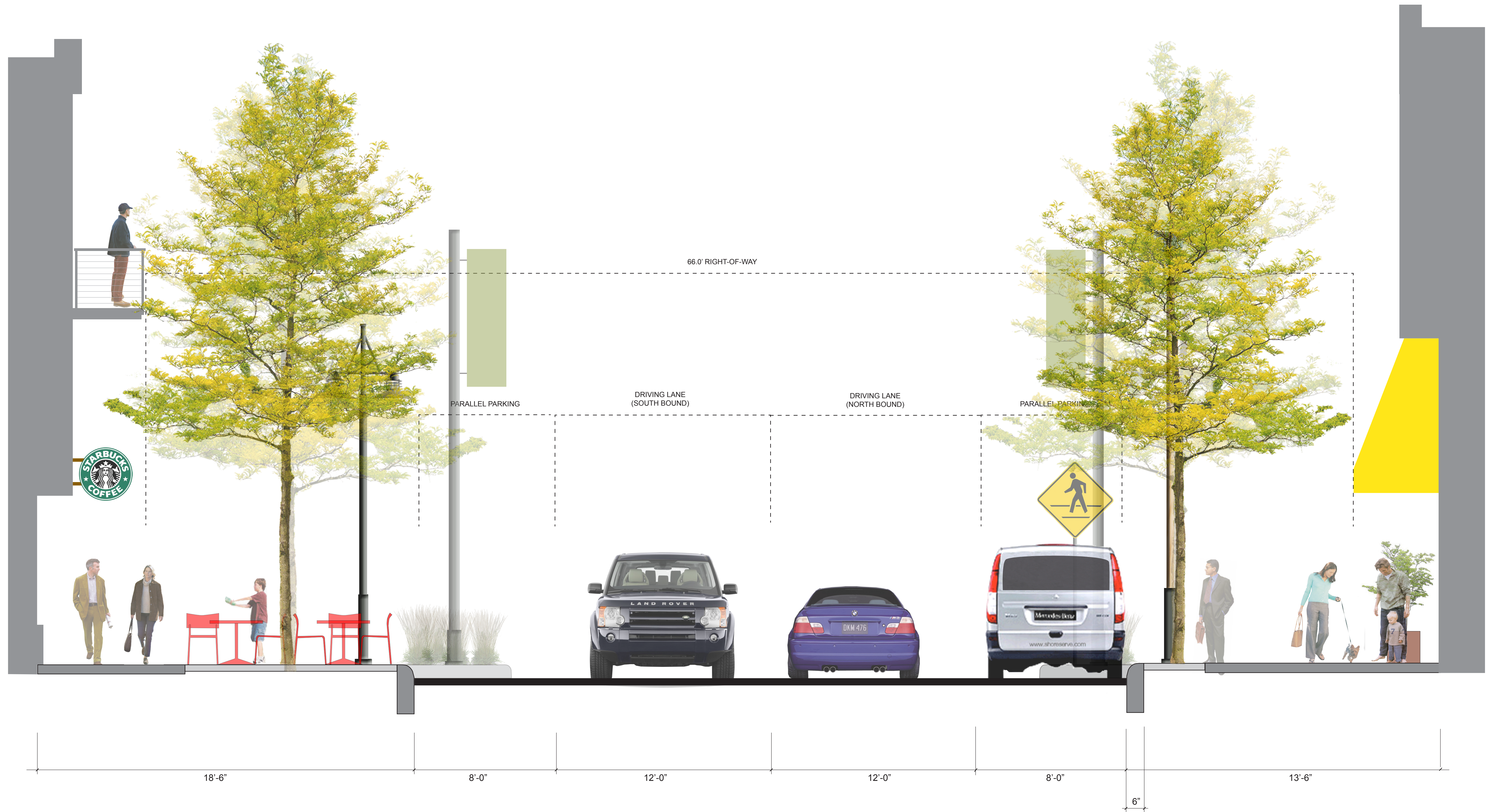
PARKING MANAGEMENT PLAN

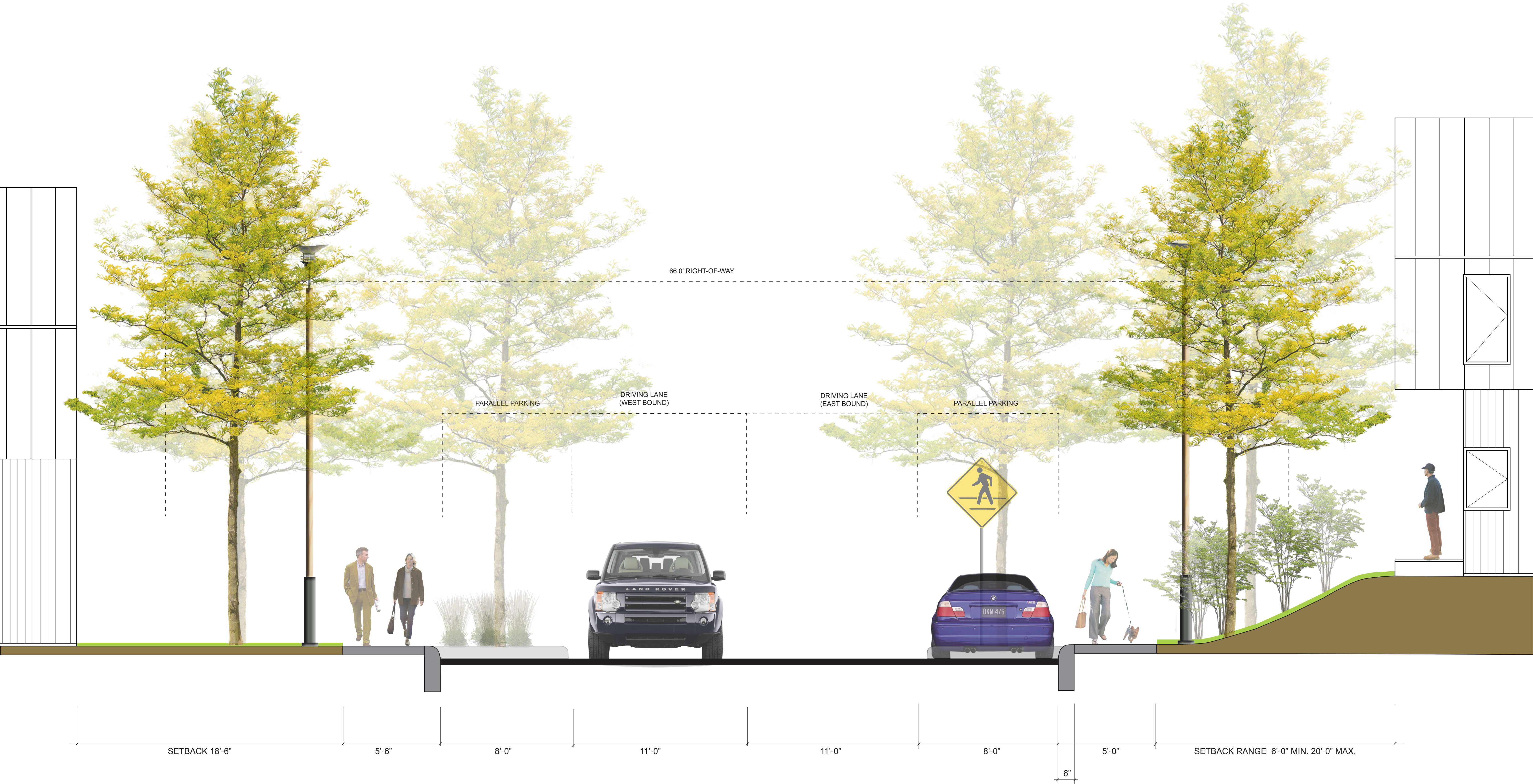


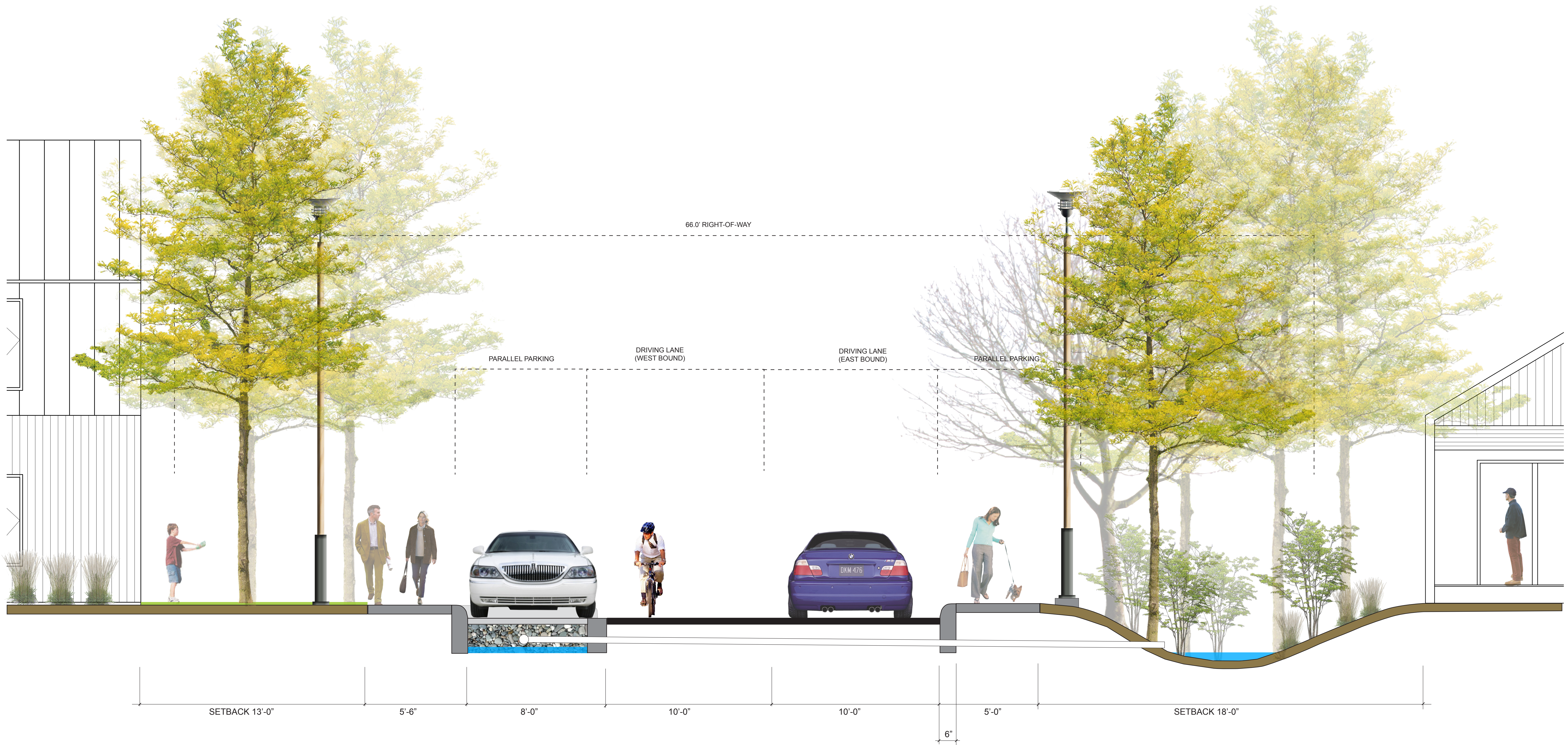


PRINCIPAL	NGE
PROJECT MANAGER	
DESIGNED BY	NGE
DRAWN BY	
CHECKED BY	
COMMISSION / JOB NO.	2017101.01

ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION







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DRAWING TITLE

RESIDENTIAL NEIGHBORHOOD - CROSS SECTION STUDY

SECTION C

TERTIARY OR LOCAL STREET

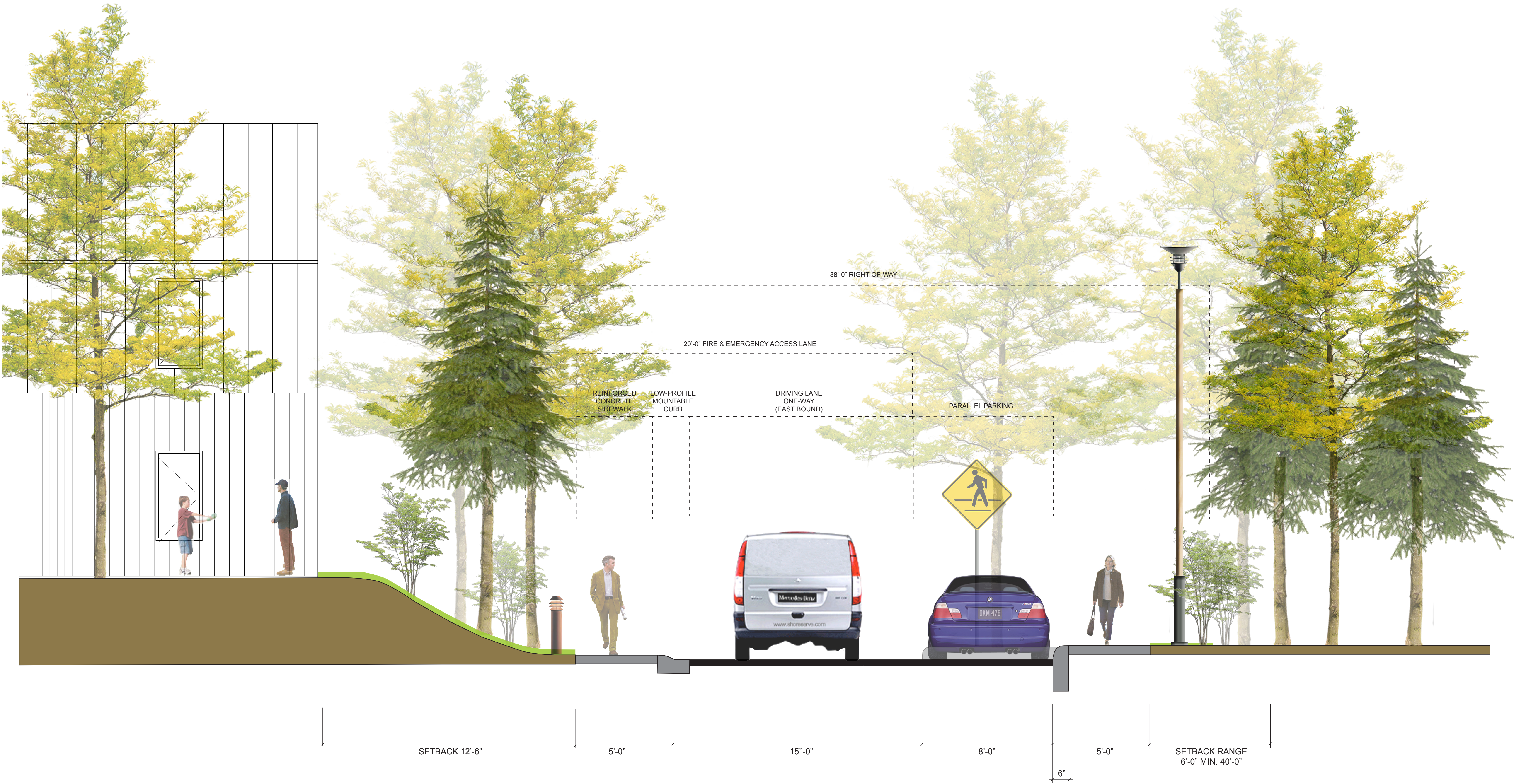
PROJECT

**PLANNED UNIT
DEVELOPMENT**

CLIENT
KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL	NGE
PROJECT MANAGER	
DESIGNED BY	NGE
DRAWN BY	
CHECKED BY	
COMMISSION / JOB NO.	2017101.01

ISSUE DATE	DESCRIPTION
11-28-17	PUD APPLICATION



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DRAWING TITLE
RESIDENTIAL NEIGHBORHOOD - CROSS SECTION STUDY

SECTION D

TERTIARY OR LOCAL ONE-WAY STREET

PROJECT
**PLANNED UNIT
DEVELOPMENT**

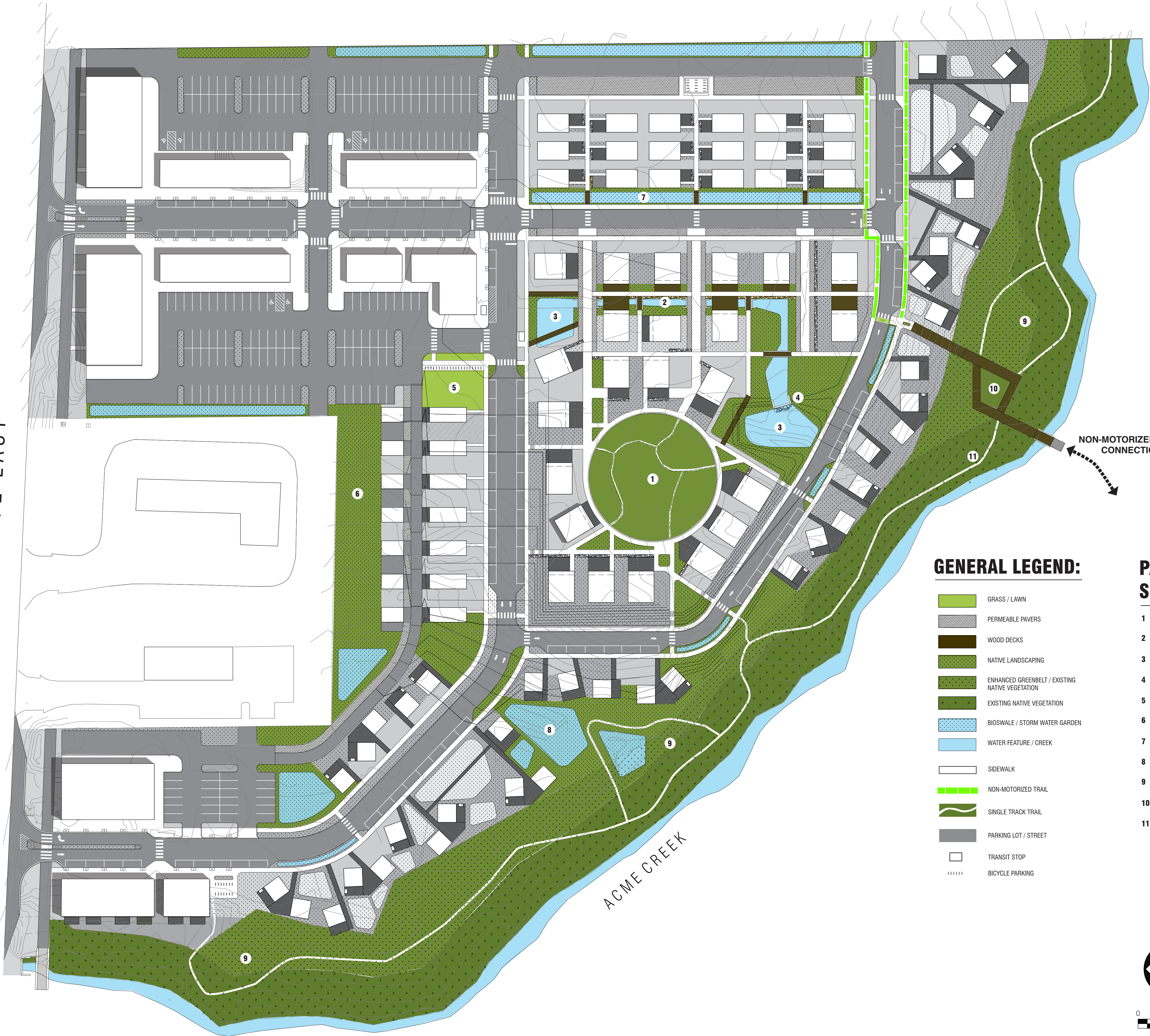
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M-72 EAST

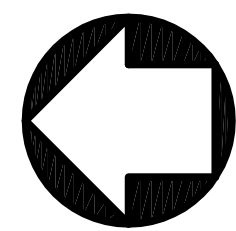


GENERAL LEGEND:

- GRASS / LAWN
- PERMEABLE PAVERS
- WOOD DECKS
- NATIVE LANDSCAPING
- ENHANCED GREENBELT / EXISTING NATIVE VEGETATION
- EXISTING NATIVE VEGETATION
- BIOSWALE / STORM WATER GARDEN
- WATER FEATURE / CREEK
- SIDEWALK
- NON-MOTORIZED TRAIL
- SINGLE TRACK TRAIL
- PARKING LOT / STREET
- TRANSIT STOP
- BICYCLE PARKING

PARK & OPEN SPACE LEGEND:

- 1 WOODED PARK
- 2 MAN-MADE CREEK
- 3 MAN-MADE PONDS
- 4 WATERFALL
- 5 TENT LAWN
- 6 WOODED BUFFER
- 7 BIOSWALE
- 8 STORM WATER GARDEN
- 9 WOODED
- 10 BOARDWALK
- 11 SINGLE-TRACK TRAIL



SCALE: 1" = 50'



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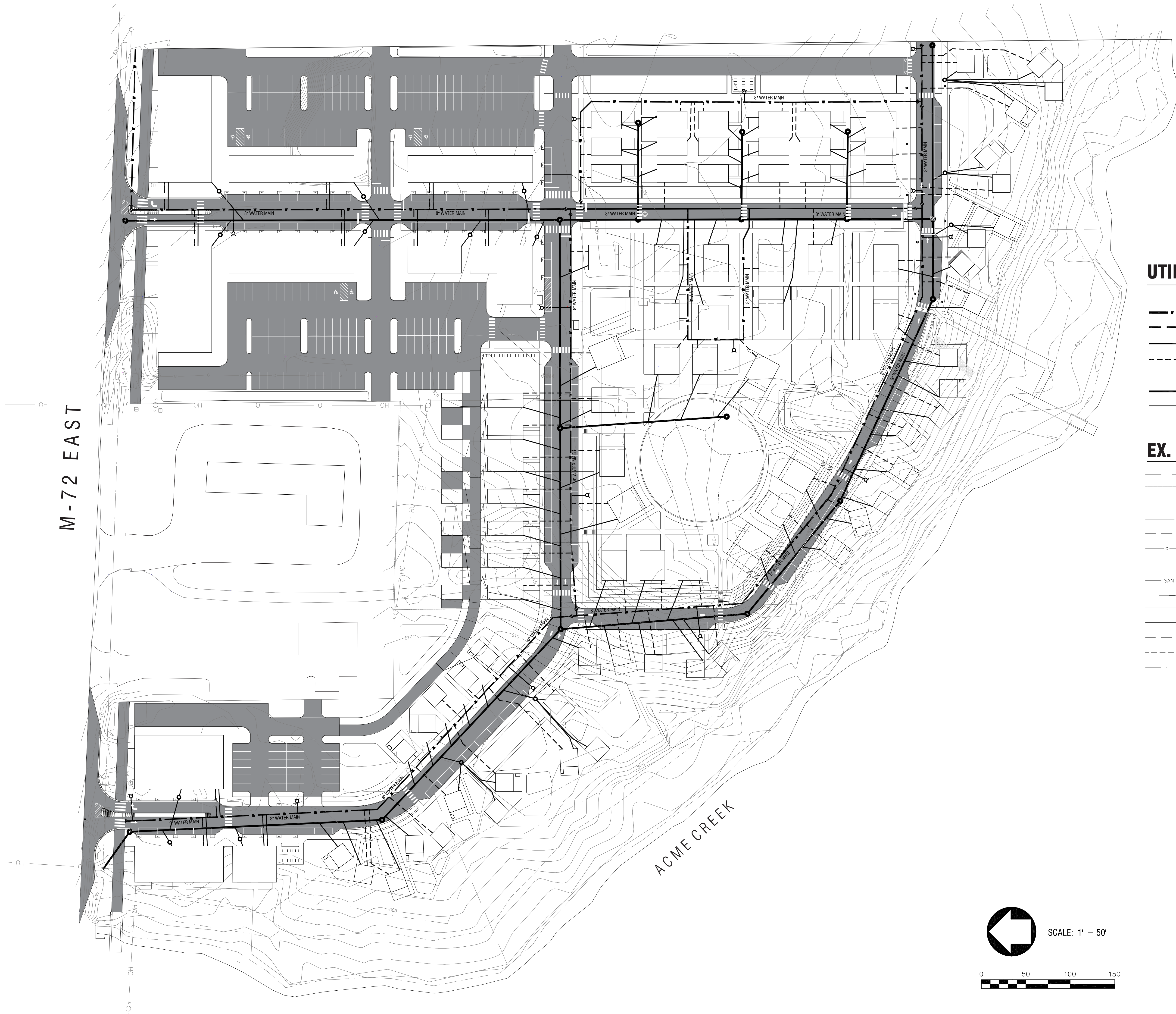
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PARK & OPEN SPACE PLAN

S.24

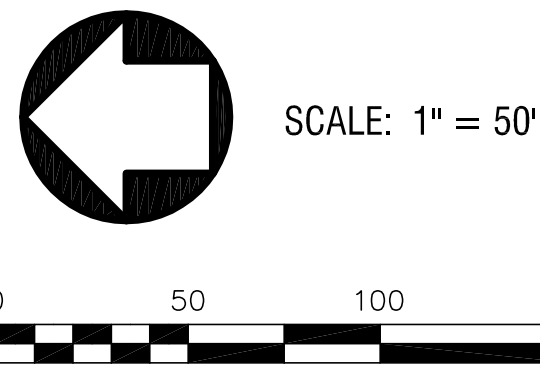


UTILITY PLAN LEGEND:

- HYDRANT
- 8" WATERMAIN
- 2" COMMERCIAL WATER SERVICE
- 4" COMMERCIAL FIRE SERVICE
- 1" DOMESTIC WATER SERVICE
- MANHOLE
- 8" SEWER MAIN
- 6" SEWER LEAD

EX. CONDITIONS LEGEND:

- EX. ROAD RIGHT-OF-WAY
- EX. FENCE
- EX. EDGE OF CONC./ASPHALT
- EX. ELECTRIC OVERHEAD
- EX. ELECTRIC UNDERGROUND
- EX. GAS UNDERGROUND
- EX. WATER MAIN / SERVICE LINE
- EX. SANITARY SEWER LINE
- EX. STORM SEWER
- EX. TREELINE DECIDUOUS
- EX. TREELINE CONIFEROUS
- EX. EDGE OF WATER
- SETBACK
- EX. WETLAND BOUNDARY
- EX. CONCRETE
- EX. GRAVEL
- EX. PAVER
- EX. GRASS PAVER
- EX. LANDSCAPING
- EX. CONIFEROUS TREE
- EX. DECIDUOUS HARDWOOD TREE
- EX. DECIDUOUS SOFTWOOD TREE
- EX. DECIDUOUS SHRUB
- EX. MANHOLE
- EX. STORM CATCH BASIN
- EX. HYDRANT
- EX. SIGN
- EX. UTILITY POLE
- EX. LIGHT POLE
- EX. GUY WIRE
- EX. RISER (PHONE, OTHER)
- MONUMENT FOUND
- 1/2" REBAR FOUND
- 1/2" REBAR & CAP SET
- RECORD
- MEASURED



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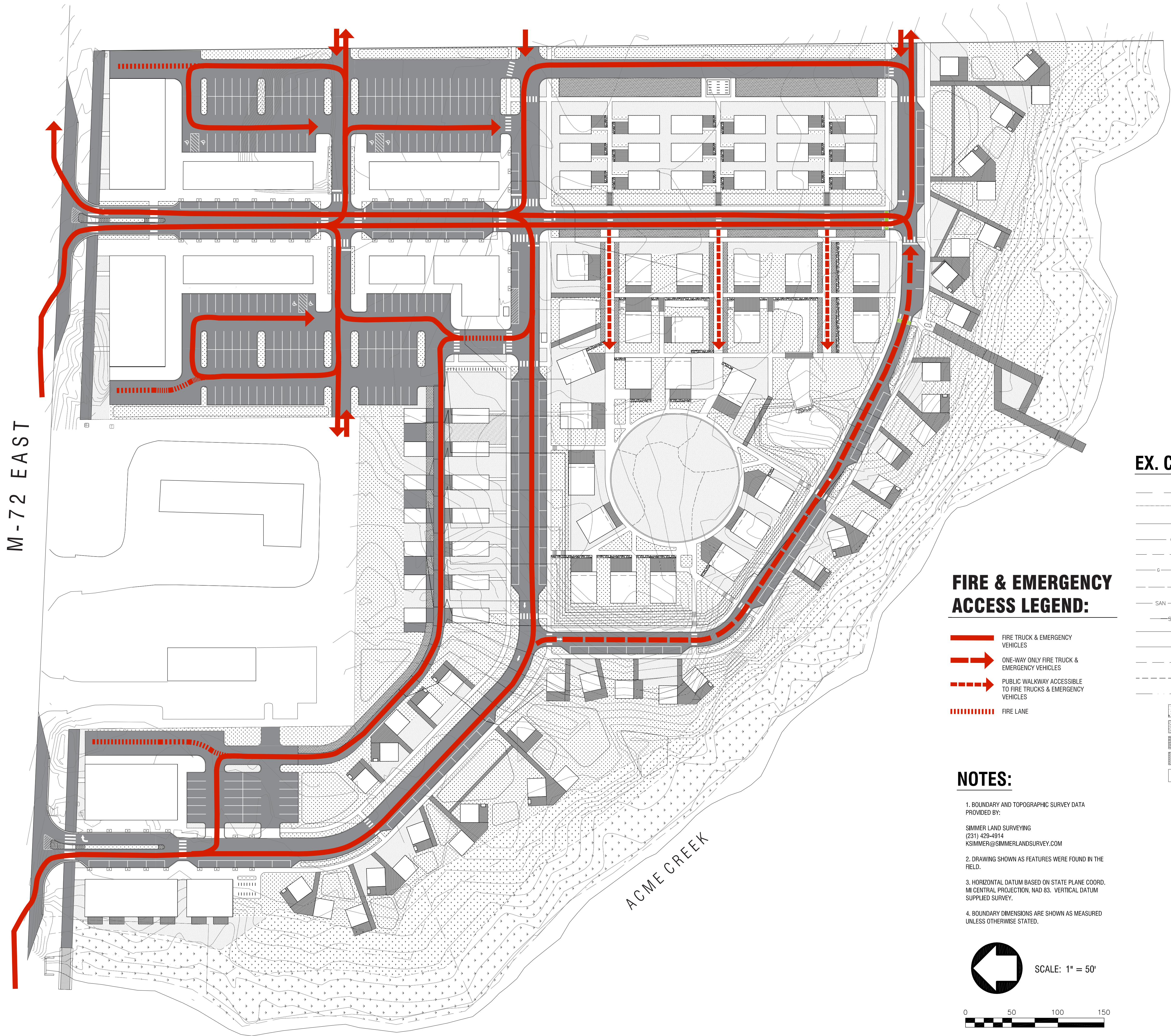
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PRELIMINARY UTILITY PLAN

S.25



M-72 EAST

ACME CREEK

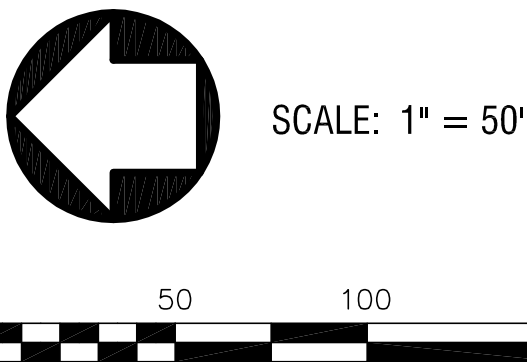
FIRE & EMERGENCY ACCESS LEGEND:

- FIRE TRUCK & EMERGENCY VEHICLES
- ONE-WAY ONLY FIRE TRUCK & EMERGENCY VEHICLES
- PUBLIC WALKWAY ACCESSIBLE TO FIRE TRUCKS & EMERGENCY VEHICLES
- FIRE LANE

NOTES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY DATA PROVIDED BY:

SIMMER LAND SURVEYING
(231) 429-4914
KSIMMER@SIMMERLANDSURVEY.COM
2. DRAWING SHOWN AS FEATURES WERE FOUND IN THE FIELD.
3. HORIZONTAL DATUM BASED ON STATE PLANE COORD. MI CENTRAL PROJECTION, NAD 83. VERTICAL DATUM SUPPLIED SURVEY.
4. BOUNDARY DIMENSIONS ARE SHOWN AS MEASURED UNLESS OTHERWISE STATED.



EX. CONDITIONS LEGEND:

- EX. ROAD RIGHT-OF-WAY
- EX. FENCE
- EX. EDGE OF CONC./ASPHALT
- EX. ELECTRIC OVERHEAD
- EX. ELECTRIC UNDERGROUND
- EX. GAS UNDERGROUND
- EX. WATER MAIN / SERVICE LINE
- EX. SANITARY SEWER LINE
- EX. STORM SEWER
- EX. TREELINE DECIDUOUS
- EX. TREELINE CONIFEROUS
- EX. EDGE OF WATER
- SETBACK
- EX. WETLAND BOUNDARY
- EX. CONCRETE
- EX. GRAVEL
- EX. PAVER
- EX. GRASS PAVER
- EX. LANDSCAPING
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DEVELOPMENT

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FIRE & EMERGENCY ACCESS PLAN

S.26

1. COMPLETE CONSTRUCTION OF PARKING LOTS
2. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
3. BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD II.
4. COMPLETE RESTORATION AND LIMITED LANDSCAPING.



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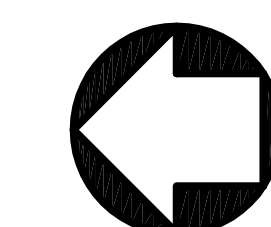
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2. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
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4. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PLANNED UNIT DEVELOPMENT

CLIENT
KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PHASING PLAN

S.27



SCALE: 1" = 50'



PHASE 1

1. COMPLETE SITE PREPARATION & DEMOLITION FOR ENTIRE DEVELOPMENT.
2. EXISTING BUILDINGS 1,2,3 AND 4 REMAIN.
3. COMPLETE EARTHWORK & ROUGH GRADING FOR ENTIRE DEVELOPMENT.
4. COMPLETE CONSTRUCTION OF STORMWATER GARDENS AND OTHER CONTROLS.
5. COMPLETE ALL UNDERGROUNDING FOR MAIN UTILITY RUNS INCLUDING WATER MAIN, SEWER, GAS, ELECTRIC, AND COMMUNICATIONS.
6. COMPLETE CONSTRUCTION OF STREETS AND LIMITED SIDEWALK.
7. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE C1-C2
8. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PHASE 2

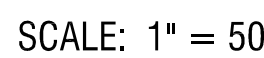
1. COMPLETE DEMOLITION OF BUILDINGS 1 AND 2. EXISTING BUILDINGS 3 AND 4 REMAIN.
2. COMPLETE EARTHWORK & ROUGH GRADING FOR ENTIRE DEVELOPMENT.
3. COMPLETE CONSTRUCTION OF STORMWATER GARDENS AND OTHER CONTROLS.
4. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
5. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE A
6. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PHASE 3

1. COMPLETE CONSTRUCTION OF PARKING LOTS
2. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
3. BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD I
4. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE B
5. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE C
6. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PHASE 4

1. COMPLETE CONSTRUCTION OF PARKING LOTS
2. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
3. BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD II.
4. COMPLETE RESTORATION AND LIMITED LANDSCAPING.



PLANNED UNIT DEVELOPMENT

CUEN

KELLY RESTAURANTS
4230 M-72 EAST HWY.
WILLIAMSBURG, MI 49690

PRINCIPAL: _____ NG

PROJECT MGR.:

DESIGNED BY: NG

DRAWN BY:

CHECKED BY: _____

DRAWING TITLE

PHASING PLAN



PHASING SEQUENCE

PHASE 1

1. COMPLETE SITE PREPARATION & DEMOLITION FOR ENTIRE DEVELOPMENT.
2. EXISTING BUILDINGS 1,2,3 AND 4 REMAIN.
3. COMPLETE EARTHWORK & ROUGH GRADING FOR ENTIRE DEVELOPMENT.
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1. COMPLETE DEMOLITION OF BUILDINGS 1 AND 2. EXISTING BUILDINGS 3 AND 4 REMAIN.
2. COMPLETE EARTHWORK & ROUGH GRADING FOR ENTIRE DEVELOPMENT.
3. COMPLETE CONSTRUCTION OF STORMWATER GARDENS AND OTHER CONTROLS.
4. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
5. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE A
6. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PHASE 3

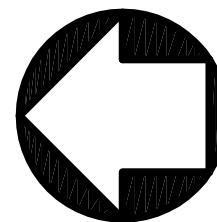
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3. BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD I
4. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE B
5. BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE D
6. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

PHASE 4

1. COMPLETE CONSTRUCTION OF PARKING LOTS
2. COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
3. BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD II.
4. COMPLETE RESTORATION AND LIMITED LANDSCAPING.

GENERAL LEGEND:

- EXISTING BUILDINGS
- GRASS / LAWN
- PERMEABLE PAVERS
- WOOD DECKS
- NATIVE LANDSCAPING
- ENHANCED GREENBELT / EXISTING NATIVE VEGETATION
- EXISTING NATIVE VEGETATION
- BIOSWALE / STORM WATER GARDEN
- WATER FEATURE / CREEK
- SIDEWALK
- STONE WALL
- SINGLE TRACK TRAIL
- PARKING LOT / STREET
- TRANSIT STOP
- BICYCLE PARKING



SCALE: 1" = 50'



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CONSULTANT

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PRINCIPAL: NGE

PROJECT MGR: NGE

DESIGNED BY: NGE

DRAWN BY:

CHECKED BY:

COMMISSION / JOB NO.: 2017101.01

DRAWING TITLE

PHASING PLAN

S.27

M-72 EAST



PHASE 4
MIXED-USE
NEIGHBORHOOD II

GENERAL LEGEND:

- EXISTING BUILDINGS
- GRASS / LAWN
- PERMEABLE PAVERS
- WOOD DECKS
- NATIVE LANDSCAPING
- ENHANCED GREENBELT / EXISTING NATIVE VEGETATION
- EXISTING NATIVE VEGETATION
- BIOSWALE / STORM WATER GARDEN
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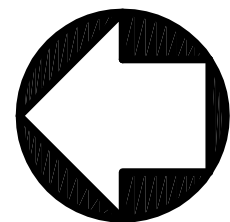
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 - COMPLETE CONSTRUCTION OF STREETS AND LIMITED SIDEWALK.
 - BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE C1-C2
 - COMPLETE RESTORATION AND LIMITED LANDSCAPING.

- PHASE 2**
- COMPLETE DEMOLITION OF BUILDINGS 1 AND 2. EXISTING BUILDINGS 3 AND 4 REMAIN.
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 - COMPLETE CONSTRUCTION OF STORMWATER GARDENS AND OTHER CONTROLS.
 - COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
 - BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE A
 - COMPLETE RESTORATION AND LIMITED LANDSCAPING.

- PHASE 3**
- COMPLETE CONSTRUCTION OF PARKING LOTS
 - COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
 - BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD I
 - BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE B
 - BEGIN CONSTRUCTION OF SINGLE FAMILY DWELLING TYPE D
 - COMPLETE RESTORATION AND LIMITED LANDSCAPING.

- PHASE 4**
- COMPLETE CONSTRUCTION OF PARKING LOTS
 - COMPLETE CONSTRUCTION OF LIMITED SIDEWALK.
 - BEGIN CONSTRUCTION OF MIXED-USE NEIGHBORHOOD II.
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SCALE: 1" = 50'



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PHASING PLAN

S.27



Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

Acme Township Zoning Ordinance Amendment 046

SOLAR ENERGY FARMS

1. Add the following definition under §3.2 Definitions:

“Solar Energy Farms: A utility-scale commercial facility that converts sunlight into electricity, whether by photovoltaics, concentrating solar thermal devices or any other various experimental solar technologies for the primary purpose of wholesale or retail sales of generated electricity off-site. Solar Energy Farms do not include small scale solar panels or technologies installed at individual residential or commercial locations (e.g. roof or ground mounted solar panels) that are used exclusively for private purposes and not utilized for any commercial resale of any energy, except for the sale of surplus electrical energy back to the electric grid. These installations are permitted as “Accessory Use” defined under Section 3.2.”

2. The use “solar energy farms” shall be added at the following sections:

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.10 B-3 District: Planned Shopping Center,
Subsection 6.10.3 Uses Authorized By Special Use Permit:
x. “Solar Energy Farms”

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.11 B-4 District: Material Processing and Warehousing,
Subsection 6.11.3 Uses Authorized By Special Use Permit:
h. “Solar Energy Farms”

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.12 A-1: Agricultural District,
Subsection 6.12.3 Uses Authorized By Special Use Permit:
aa. “Solar Energy Farms”

3. Article IX shall be amended to add Section 9.28 in its entirety as presented below:

9.28 SOLAR ENERGY FARMS

9.28.1 INTENT AND PURPOSE:

To allow and promote the use of solar energy within the Township as a clean alternative energy source and to provide associated placement, land development, installation and construction regulations for solar energy farm facilities subject to reasonable conditions that will protect the public health, safety and welfare. These regulations establish the minimum requirements for solar energy farm facilities, while promoting a renewable energy source in a safe, effective and efficient manner.

9.28.2 **STANDARDS:**

- a. **Minimum Lot Size:** There is no minimum lot size. Each solar energy farm is permitted as a use authorized by special use permit which review will consider its compatibility with the surrounding area.
- b. **Height Restrictions:** All photovoltaic solar panels and support structures located in a solar energy farm shall be restricted to a maximum height of sixteen (16) feet when orientated at maximum tilt.
- c. **Setbacks:** All photovoltaic solar panels and support structures associated with such facilities (excluding perimeter fencing) shall be setback a minimum of twenty (20) feet from a side or rear property line and a minimum of fifty (50) feet from the front property line along a street right-of-way. If the right-of-way exists as an easement, the fifty (50) foot setback shall be measured from the edge of the easement. Any additional setback requirements in this Ordinance that exceed this requirement shall be adhered to, including but not limited to setbacks from streams, lakes, and wetlands.
- d. **Maximum Lot Coverage:** maximum lot coverage restrictions shall not apply to the photovoltaic solar panels. Any other regulated structures on the parcel are subject to the maximum lot coverage restrictions of the underlying zoning district.
- e. **Safety/Access:** A security fence (height and material to be proposed and reviewed/approved through the special use permit approval process) shall be placed around the perimeter of the solar energy farm and electrical equipment. Knox boxes and keys shall be provided at locked entrances for security personnel access.
- f. **Noise:** No solar energy farm shall exceed sixty (60) dBA as measured at the property line.
- g. **Glare:** Solar energy farm facilities shall be located or placed so that concentrated solar glare shall not be directed toward or onto nearby properties or right-of-ways at any time of the day.
- h. **Landscaping:** The special use permit application for a solar energy farm shall include a proposed landscaping and screening/buffering plan prepared by a licensed landscape architect. This plan will be reviewed through the special use permit approval process to assure that the proposed facility is appropriately landscaped in relation to adjacent land uses and road right-of-ways. The use of berms and evergreen plantings along property lines adjacent to residential land uses and districts is strongly encouraged. Trees shall be a minimum of four (4) feet tall at time of planting, shall remain in good condition for the life of the solar energy farm, and shall adhere to the native plant species requirements of this Ordinance.
- i. **Local, State, and Federal Permits:** Solar energy farms shall be required to obtain all necessary permits and licensing from Acme Township, Grand Traverse County, State of Michigan, and U.S. Government as applicable prior to construction and

shall maintain any necessary approvals as required by the respective jurisdictions or agencies.

- j. **Electrical Interconnections:** All electrical interconnections or distribution lines shall comply with all applicable codes and standard commercial large-scale utility requirements. Use of above ground transmission lines shall be prohibited within the site.

9.28.3 ADDITIONAL SPECIAL USE CRITERIA:

In addition to the site plan review criteria in Article VIII and special use permit criteria in Article IX, the applicant shall address the following topics in the application for a solar energy farm facility:

- a. **Project Description and Rationale:** Identify the typed, size, rated power output, performance, safety and noise characteristics of the system including the transmission line/grid connection for the project. Identify the project construction time frame, project life, development phases (and potential future expansions) and likely markets for the generated energy.
- b. **Analysis of On-Site Traffic:** Estimated construction jobs and estimated permanent job associated with the development.
- c. **Visual Impacts:** Graphically demonstrate the visual impact of the project using photos or renditions of the project with consideration given to setbacks and proposed landscaping.
- d. **Environmental Analysis:** Identify impacts on surface and ground water quality and any impacts to established natural or constructed drainage features in the area.
- e. **Waste:** Identify any solid or hazardous waste generated by the project.
- f. **Lighting:** Provide photometric plans showing all lighting within the facility. No light may adversely affect adjacent parcels. All lighting shall conform to the requirements of Section 7.8 and must be shielded from adjoining parcels. Light poles are restricted to a maximum height of eighteen (18) feet.
- g. **Transportation Plan:** Provide a proposed access plan during construction and operational phases. Show proposed project service road ingress and egress locations onto adjacent roadways and the layout of facility service road system. Due to infrequent access following construction, it is not required to pave or curb solar energy farm access drives. It shall be required to pave and curb any driveways and parking lots used for occupied offices that are located on site.
- h. **Public Safety:** Identify emergency and normal shutdown procedures. Identify potential hazards to adjacent properties, public right-of-ways and to the general public that may be created.
- i. **Sound Limitations:** Identify noise levels at the property lines of the project when completed and operational.

j. Telecommunications Interference: Identify any electromagnetic fields and communications interference that may be generated.

k. Life of the Project and Final Reclamation: Describe the decommissioning and final reclamation plan after the anticipated useful life or abandonment/termination of the project. This includes supplying evidence of an agreement with the underlying property owner that ensures proper removal of all equipment and restoration of the site within six (6) months of decommissioning or abandonment of the project. To ensure proper removal of the project upon abandonment/termination, a bond, letter of credit or cash surety shall be:

1. In an amount approved by the Township Board to be no less than the estimated cost of removal and may include a provision for inflationary cost adjustments;
2. Based on an estimate prepared by the engineer for the applicant, subject to approval of the Township Board;
3. Provided to the Township prior to the issuance of a land use permit;
4. Used in the event the owner of the project or the underlying property owner fails to remove or repair any defective, abandoned or terminated project. The Township, in addition to any other remedy under this Ordinance, may pursue legal action to abate the violation by seeking to remove the project and recover any and all costs, including attorney fees.

l. Township Review: Because of the ever-changing technical capabilities of photovoltaic solar panels and of new technology in general, the Township Planning Commission and Board of Trustees shall have the authority to review and consider alternatives in both the dimensional and physical requirements contained in this section as part of the special use permit approval process.



Acme Township Solar Opportunity

Sun2o Partners, LLC

Notice to Recipient – Confidential

These materials have been prepared by one or more subsidiaries of Sun2o Partners for the client or potential client whom such materials are provided (the “Company”) to in connection with an actual or potential mandate or engagement and may not be used or relied upon for any purpose other than as specifically contemplated by a written agreement with us. These materials are based on information provided by or on behalf of the Company and/or other potential transaction participants, from public sources or otherwise reviewed by us. We assume no responsibility for independent investigation or verification of such information and have relied on such information being complete and accurate in all material respects. To the extent such information includes estimates and forecasts of future financial performance prepared by or reviewed with the managements of the Company and/or other potential transaction participants or obtained from public sources or our internal forecasts, we have assumed that such estimates and forecasts have been reasonably prepared on bases reflecting the best currently available estimates and judgements. No representation or warranty, express or implied, is made as to the accuracy or completeness of such information and nothing contained herein is, or shall be relied upon as, a representation, whether as to the past, the present or the future. These materials were designed for the use by specific persons familiar with the business and affairs of the Company and are being furnished and should be considered only in connection with other information, or written, being provide by us in connection herewith. These materials are not intended to provide the sole basis for evaluating, and should not be considered a recommendation with respect to, any transaction or other matter. These materials do not constitute an offer or solicitation to sell or purchase any securities. These materials are for discussion purposes only and are subject to our review and assessment from a legal, compliance, accounting policy, engineering, financial and risk perspective, as appropriate, following our discussion with the Company. We assume no obligation to update or otherwise revise these materials. These materials have not been prepared with a view toward public disclosure, are intended for the benefit and use of the Company, and may not be reproduced disseminated, quotes or referred to, in whole or in part, without our prior written consent. These materials may not reflect information known to other professionals in other business areas of Sun2o Partners and its affiliates.

Sun2o Partners does not provide investment, legal, compliance, tax or accounting advice. Accordingly, any statements herein as to financial or legal matters were neither written nor intended by us to be used and cannot be used by any taxpayer for the purpose of avoiding tax penalties that may be imposed on such taxpayer. If any person uses or refers to any such tax statement in promoting, marketing or recommending a partnership or other entity, investment plan or arrangement to any taxpayer, then the statement expressed herein is being delivered to support the promotion or marketing of the transaction or matter addressed and the recipient should seek advice based on its particular circumstances from an independent tax advisor. Likewise, any statements herein as to engineering matters was neither written nor intended to be used by any individual for the purpose of constructing any physical structures. If any person uses or refers to any such engineering advice, then the recipient should seek advice based on its particular circumstances from an independent engineering advisor.

Executive Summary

- Sun2o Partners is engaged in land acquisition throughout Michigan for the purpose of developing small utility scale solar projects
- Rapid solar cost decline, over 75% since 2009, and ongoing Michigan utility policy revisions are driving a growing solar market throughout Michigan
- Sun2o is working with townships throughout Michigan who have, or are actively drafting, ordinances to include commercial solar projects
- Sun2o has identified potential project locations in Acme Township that could be ideal for solar development
- Solar is not suited for every location and Sun2o aims to work actively with local officials to determine siting criteria that align local goals with required solar attributes
- A solar project could create value for Acme Township including: maximizing property values, property tax revenue, local economic stimulation and demonstrated commitment to clean energy
- With an experienced project team in place, Sun2o is well-positioned to maximize the benefits to all stakeholders

Solar in Acme Township

- Sun2o working to evaluate opportunities for solar development in Acme Twp.
- Identified opportunity would be up to 2MWac in capacity and sell energy to Consumers Energy as a Qualifying Facility
 - 2MWac requires ~20 acres of space
- Solar siting criteria and zoning are key to successful project development
- Opening opportunities for the development of solar will create value for the township and numerous residents
- Solar projects create clean renewable energy with no noise disturbance and limited visual impact



PV Array Aerial View Example

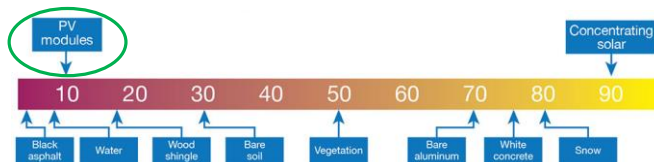


The above installation is ~3MW dc and occupies ~18 acres of land owned by Grand Valley State University

PV Array Street View Example

Overview

- Maximum array height of about 8 feet and native trees/hedges can be planted on project edge
- Solar panels have minimal light reflection to ensure maximum power absorption
 - Texturing and anti-reflective coatings are applied to silicon cell surface to minimize glare
- Chart below shows albedo (% of light reflected from surface) of various materials as published by the FAA
 - Please note proposed project will be using PV modules, not Concentrating Solar



Source: https://www.faa.gov/airports/environmental/policy_guidance/media/airport-solar-guide-print.pdf

Pictures



Sun₂O Leadership



Victor Stolt-Nielsen Holten
Co-Founder / Managing Partner

Prior to co-founding Sun₂O Partners, Victor worked in the Generation Development organization of Constellation Energy.

While there Victor was part of the project team for over 350 MW of executed wind developments and numerous medium to large scale solar developments. Victor also worked at 8 Rivers Capital where he was responsible for assisting with new fossil-fuel development opportunities and examining potential new technology opportunities

Graduated from the Sanford School of Public Policy of Duke University with A.B. in Public Policy

Email: Victor@sun2o.com

Office: 203-292-1883 x 101



Corey Kupersmith
Co-Founder / Managing Partner

Prior to co-founding Sun₂O Partners, Corey worked in the Energy & Power Investment Banking Group at Bank of America Merrill Lynch.

While at BofA Merrill, Corey worked on the valuation and financing of over 300MW of solar assets, the valuation and sale of 405MW of wind generation assets and ENGIE's sale of its 10,000MW U.S. merchant generation portfolio for \$4.5B. Previously Corey also worked at the middle market private equity company Longroad Asset Management

Graduated cum laude from the Georgetown University McDonough School of Business with a B.S. in Finance

Email: Corey@sun2o.com

Office: 203-292-1883 x 102



Thank You!



Planning and Zoning Staff Report

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

To: Acme Township Planning Commission
From: Shawn Winter, Zoning Administrator
Cc: Jeff Jocks, Counsel
Date: December 4, 2017
Re: Zoning Ordinance Amendment 047 – Hoxsie Farm Rezoning Application

Applicant/Owner: Dennis & Judy Hoxsie (Property Owners under Orchard Hill Farms LLC)
6578 E M-72
Williamsburg, MI 49690

Parcel Address: 6620 E M-72, Williamsburg, MI 49690

Parcel Number: 28-01-002-001-20

Legal Description: NW 1/4 OF NE 1/4 EXC W 408.86' OF N 503.82' ALSO EX COM N 1/4 CNR TH E 408.86' TH S 52.99' TO POB TH E 166.51' TH S 15' TH S 659.87' TH W 633.86' TH N 225' TH E 408.86' TH N 450.83' TO POB SEC 6 T27N R9W

Current Zoning: A-1: Agricultural District

Summary and Recommendation:

The Applicant/Owner is seeking a rezoning of approximately ten (10) acres of the parcel along S Bates Rd from A-1: Agricultural District to B-4: Material Processing and Warehousing in order to allow the operation of a wholesale material landscaping business. It is recommended that the ten (10) acres be rezoned to B-4: Material Processing and Warehousing District.

Subject Property:



- Request to rezone ten (10) acres from A-1 to B-4 (purple)
- Located on the southwest corner of existing parcel
- Approximately 680 ft (north-south) x 640 ft (east-west)

Analysis:

The Applicant is interested in selling his property to a party that wishes to use the area proposed for the rezoning as a wholesale landscaping materials operation. This is not a use allowed under the current A-1: Agricultural District, but would be allowed by-right in the B-4: Material Processing and Warehousing District under §6.11.2(e). The purchasing party intends to continue operating the farm market and orchard until the fruit trees reach maturation in 5-8 years, and as such wishes to maintain the current zoning to prevent creating a non-conformity. Additionally, the purchasing party intends to buy the adjacent Hoxsie property containing the house and agricultural buildings for his personal residence and to support the agricultural operations.

The Future Land Use Map designates this portion of the subject parcel as Rural Residential and Purchase of Development Rights (PDR) Eligible. The Acme Township Community Master Plan defines Rural Residential as:

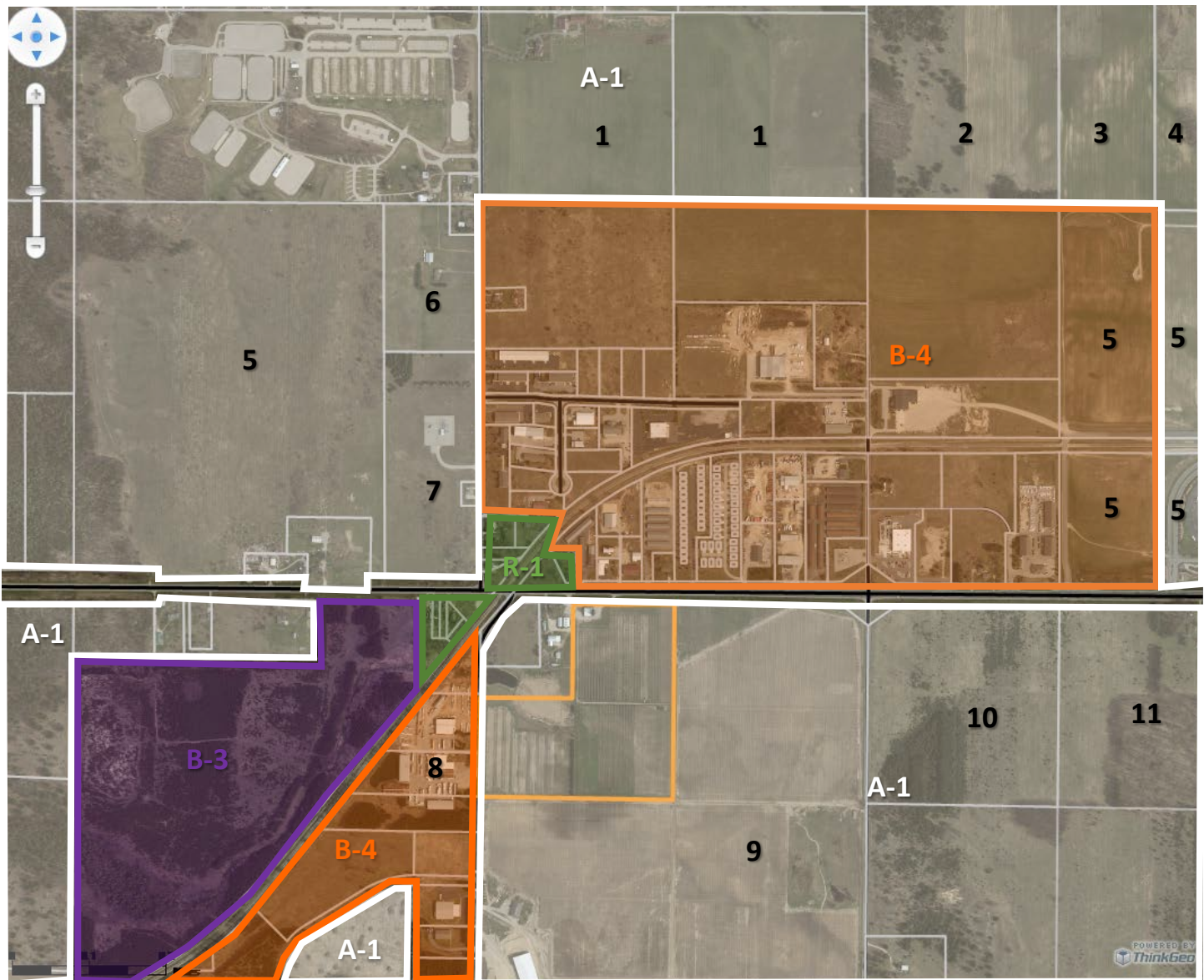
The rural residential category encompasses areas in Acme Township with special natural features that shall be preserved in the environmentally significant areas as identified on the Future Land Use Map. This category also encompasses those areas of rolling hills and open spaces that were formerly agricultural or are in a transitional state from agriculture to residential and complementary uses. The density is generally low to medium, with single-family houses built on large-scale parcels. The land features in this category include level fields, gently rolling hills, steep slopes, thick woodlands, wetlands, creeks, and streams. In all new residential construction, conservation-development designs shall be used to retain the vegetation, natural features, and open space existing on the developed sites. 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 surfacewater.

The objectives of this category are to provide limited and low density residential development in the rural areas of the Township where sensitive ecosystems and special natural land features such as steep slopes, creeks and streams are prevalent. However, conservation-development designs will be strongly encouraged to prevent sprawling development that undermines the integrity of open space and agricultural uses, and appropriate buffers should be planned to minimize the impact on existing agricultural uses. Another important objective is to encourage responsible stewardship among landowners in the development of the land so that the natural features are preserved to the fullest extent, especially in the areas with highly sensitive ecosystems and where special natural features abound, through the use of cluster housing, open-space development, and planned-unit development.

In the areas with highly sensitive natural features and ecosystems, the Township shall insist on conservation development in order to protect the most sensitive land by clustering housing on the least sensitive land. Land uses in the Rural Residential areas should comport with the policies and actions of the Cornerstones.

Although designated as Rural Residential in the Future Land Use Map, this request merits consideration. Prior discussions have occurred about expanding the B-4 District due to the limited number of undeveloped parcels in the district and the interest expressed by parties wishing to establish businesses of light industrial character, but without available options. This is even before the Board adopted the Acme Township Medical Marihuana Facilities Licensing Ordinance which has placed even greater demand on the district. The options to expand the district for additional light industrial uses are somewhat limited. To the east is Tribal sovereign land, the north is land that is currently in agricultural production, to the west across N Bates Rd is a parcel owned by Consumer's Power used as a substation and due west of that parcel is another parcel that is Tribal sovereign land,

and to the south is land zoned A-1 used primarily by MI Local Hops for their hops production. The land on the southeast corner of the intersection of M-72 and Bates Rd does not seem desirable or suitable for residential use due to its proximity along the busy M-72 right-of-way, industrial zoned land to the north and west, and the high-intensity agricultural operation (MI Local Hops) to the south and east. Staff recommends the Planning Commission consider changing the designation of the southeast corner of M-72 and Bates Rd from Rural Residential to Light Industrial on the Future Land Use Map during the next master plan updated process. Furthermore, the subject property was recently appraised as part of the PDR evaluation process and was determined not to be a viable candidate for the program. The rezoning request would be adjacent to other B-4 designated parcels on the other side of S Bates Rd and would not create a spot-zoning scenario. The map below illustrates the surrounding zoning designations and uses:



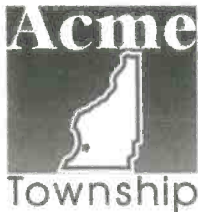
No.	Land Use	No.	Land Use
1	Agriculture	7	Electric Power Substation
2	Agriculture	8	Industrial Lumber Yard
3	Agriculture	9	Agriculture
4	Agriculture	10	Undeveloped
5	Tribal Sovereign Land	11	Undeveloped
6	Horse Show		

Recommendation:

Staff recommends approval of the zoning designation change request to rezone approximately ten (10) acres of land from A-1 to B-4 on the east side of S Bates Rd, pending a public hearing to be set at the regularly scheduled Planning Commission meeting in January.

Suggested Motion for Consideration:

Motion to set a public hearing for the regularly scheduled January 8, 2018 Planning Commission meeting to consider Zoning Ordinance Amendment 047 for the application request to rezone approximately ten (10) acres of land from A-1 to B-4 along S Bates Rd on the parcel owned by Dennis and Judy Hoxsie.



ACME TOWNSHIP
Grand Traverse County, Michigan
Petition for Zoning Change

Owner/Applicant Information: (please type or print clearly)

Name: Dennis & Judy Hoxsie Telephone: 231-620-2962 cell
Mailing Address: 6578 M-72 East, Williamsburg, MI 49690
E-Mail Address: dandj.hoxsie@gmail.com

A. Required Information (attach additional pages as needed):

1. Property Address/Location 6578 M-72 East
South Side of M-72, East of South Bates Road
2. Parcel Number:
28-01-002-001-20
3. Proof of current property ownership. If applicant is not the current property owner, also provide written and signed permission for applicant to act as agent of, and complete contact information for, the current property owner.
4. Sealed survey and legal description for property proposed for rezoning
5. State the current zoning designation, proposed zoning designation and why you are petitioning for and believe that the property should be rezoned
6. Describe the natural features and characteristics of the property
7. Describe the existing land use on the property and on all immediately surrounding properties
8. State whether deed restrictions exist on the property. If so, provide documentation. Discuss how they do or would affect the use of the property

B. Submission Requirements (additional items may be requested depending on circumstances):

1. Signed original copy of this application form
2. Signed original copy of Fee Escrow Policy Acknowledgment
3. Initial fee as required by Acme Township Ordinance #2004-01, Schedule of Fees
4. PDF files for all application materials and attachments
5. CAD and/or GIS shapefiles for area proposed for rezoning
6. If you have prepared any oversized site plans or other documents, provide 17 copies of each

- C. Affidavit:** The undersigned affirms that he/she is the Dennis Hoxsie (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 special use permit and zoning ordinance compliance.

Signed: [Signature]

Date: 11-27-17

Township/Official Use Only

Application No.: Amd 047 Parcel ID #: 28-01-002-001-20 Date Rec'd: 11/27/17

Acme Township

Petition for Zoning Change

Required Information

Additional page

4. Legal Description. 28-01-002-001-20

NW ¼ OF NE ¼ EXC W 408.86' OF N 503.82' ALSO EX COM ¼ CNR TH E 408.86' TH S 52.99' TO POB TH E 166.51' TH S 15' TH S 659.87' TH W 633.86' TH N 225' TH E 408.86' TH N 450.83' TO POB SEC 6 T27N R9W.

5. Current Zoning 28-01-002-001-20. Agricultural. Proposed Zoning B-4 On South West 10 Acres

Our farm is currently for sale and it has become apparent that other uses in addition to agriculture are necessary to make the purchase of the property feasible. We are currently negotiating with a prospective buyer who would like to continue the agricultural operation but add a wholesale landscape material business to the property. A zoning change to B-4 on the South west 10 acres adjacent to South Bates Road would make it possible to operate a wholesale landscape business and still allow agricultural operations to take place on the remaining acreage.

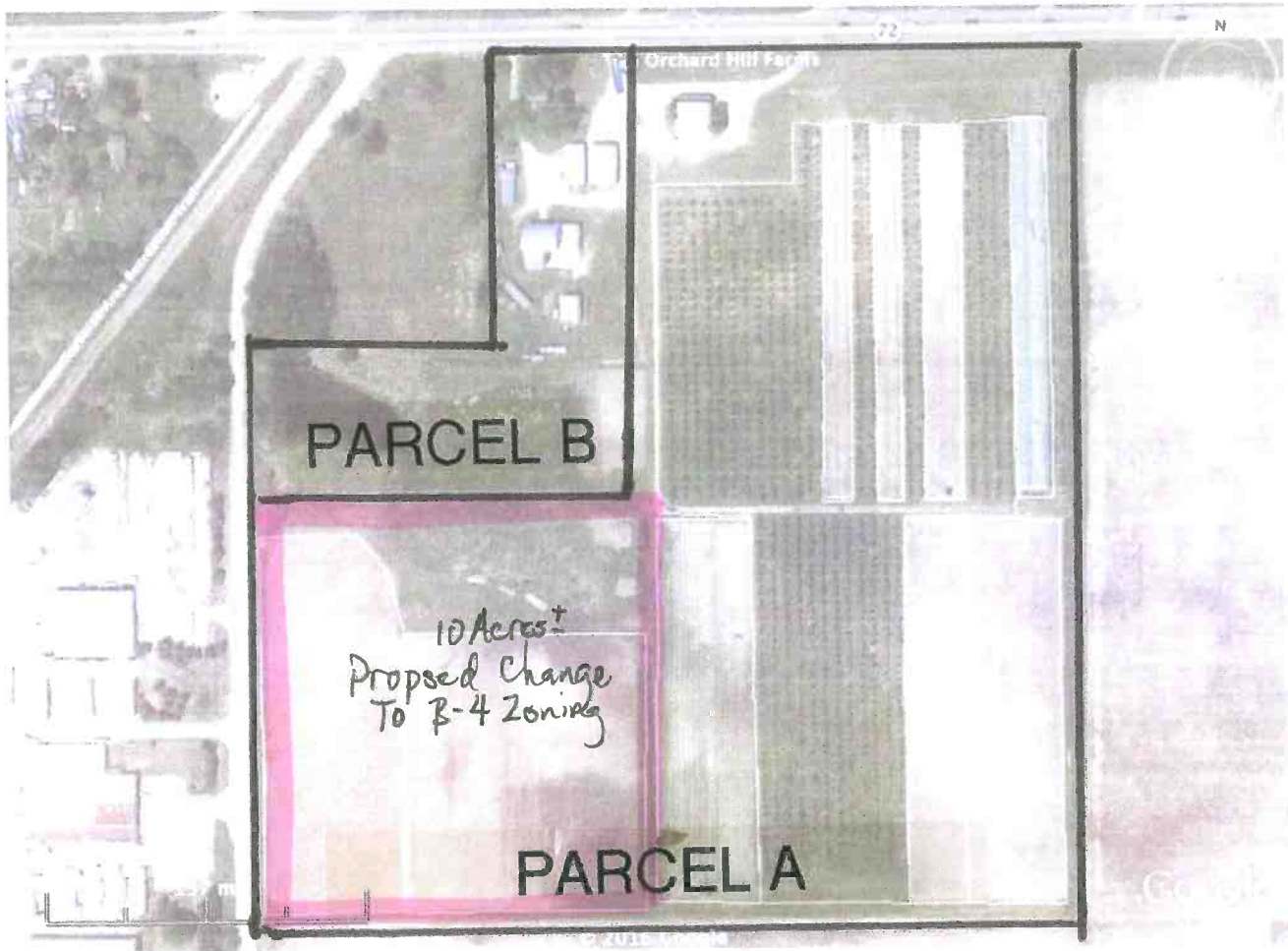
The property proposed for the zoning change is bordered to the West by B-4 zoning. The property to the South and East are zoned agricultural and to the North is Residential

6. The property is flat to gently rolling and is currently being used for pumpkin, squash and gourd production.

7. Surrounding uses. North, Storage/warehousing, East and South, agricultural (MI Local Hops), West, wholesale lumber yard, (Amerhardt)

Farm Location Information

OVERVIEW



ACME TOWNSHIP

Zoning Districts

Data Source: Acme Township

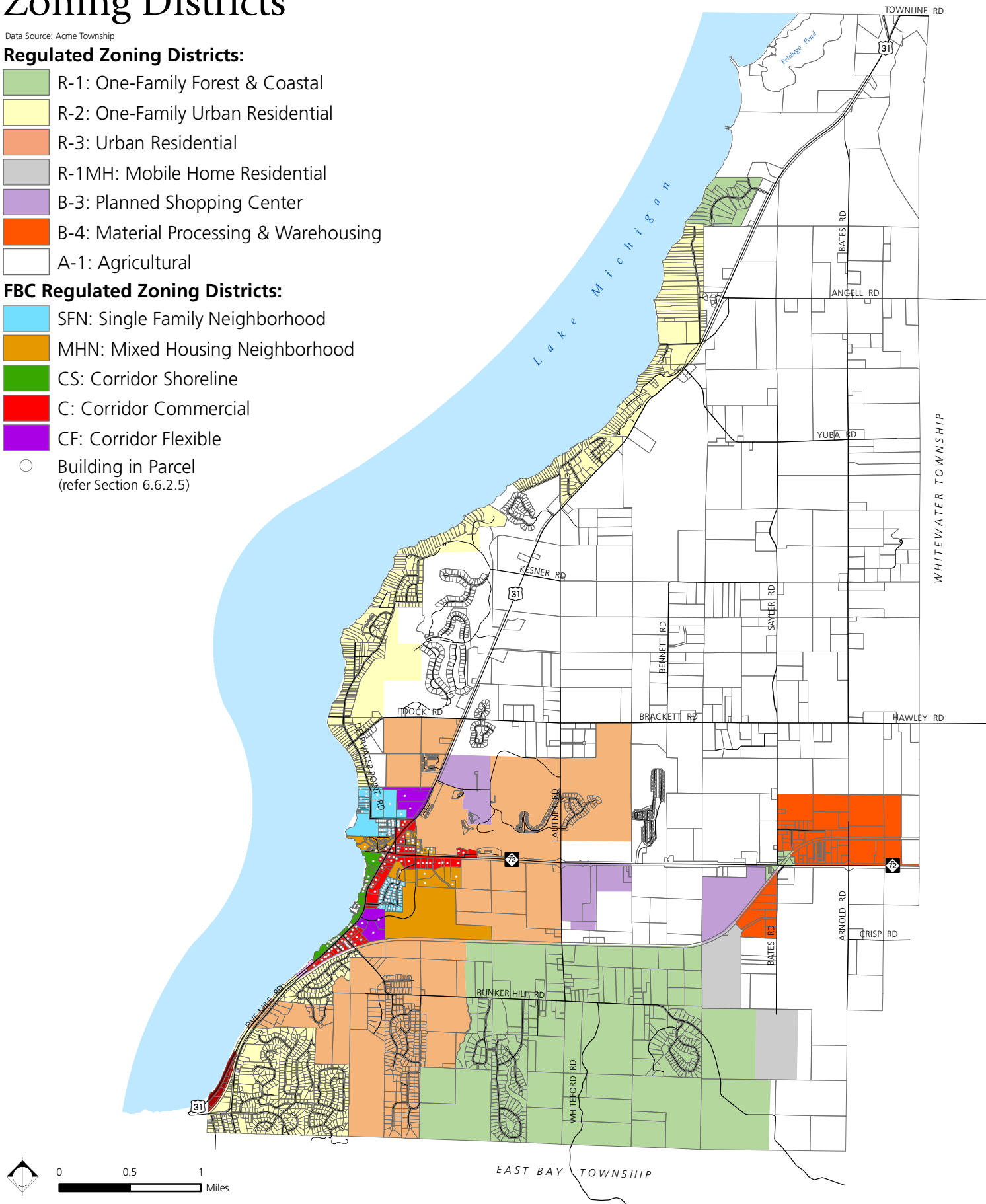
Regulated Zoning Districts:

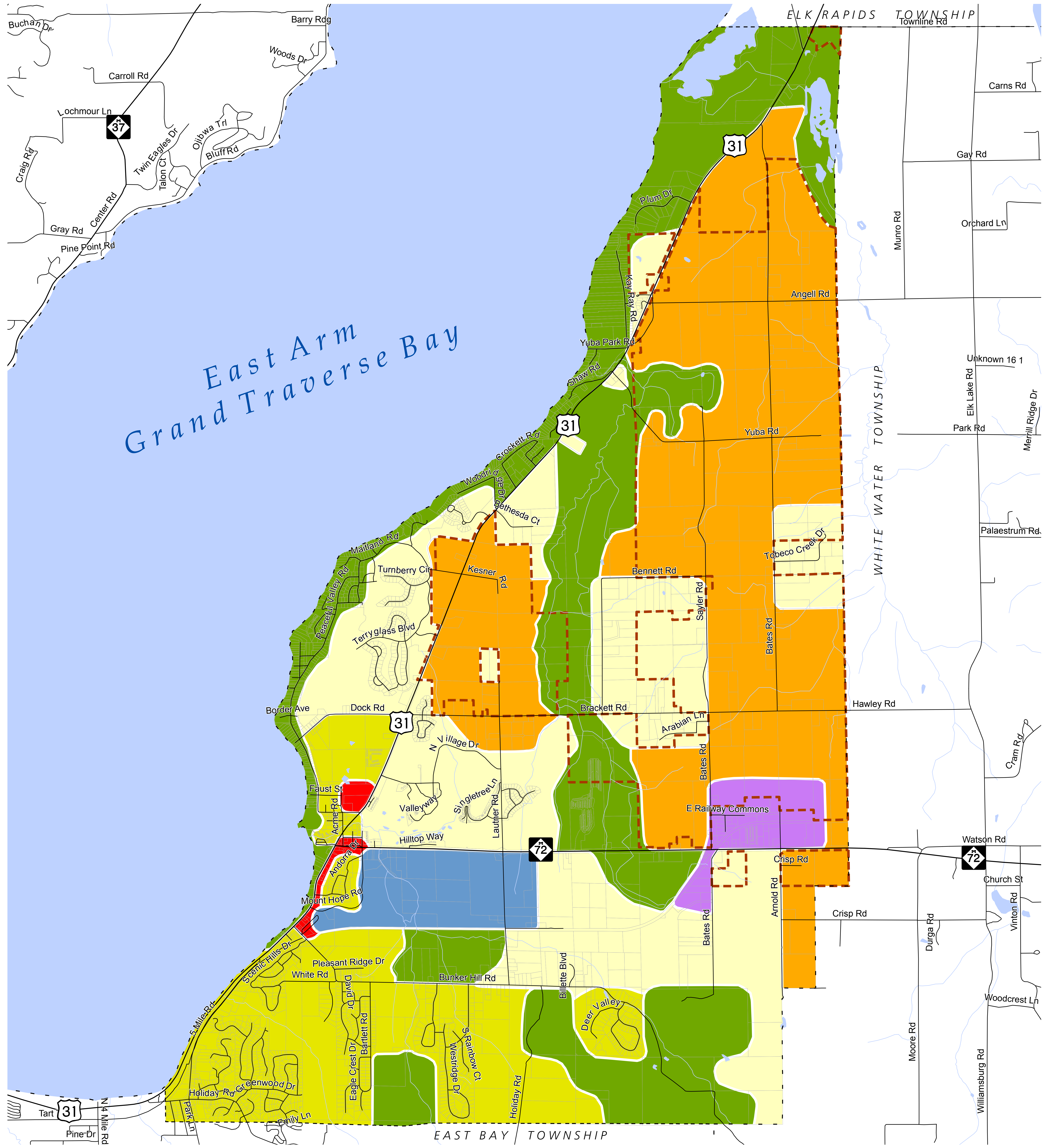
- R-1: One-Family Forest & Coastal
- R-2: One-Family Urban Residential
- R-3: Urban Residential
- R-1MH: Mobile Home Residential
- B-3: Planned Shopping Center
- B-4: Material Processing & Warehousing
- A-1: Agricultural

FBC Regulated Zoning Districts:

- SFN: Single Family Neighborhood
- MHN: Mixed Housing Neighborhood
- CS: Corridor Shoreline
- C: Corridor Commercial
- CF: Corridor Flexible

- Building in Parcel
(refer Section 6.6.2.5)





Acme Township

Future Land Use

Data Sources: Michigan Geographic Data Library, Grand Traverse County Equalization

- Agriculture
- Commercial / Business
- Industrial
- Recreation / Conservation
- Residential - Rural
- Residential - Urban
- Town Center
- PDR Eligible Areas

- Township Boundary
- Road





Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

Acme Township Zoning Ordinance Amendment 048

SHORT-TERM RENTALS

1. The following definitions shall be deleted under §3.2 Definitions:

“Business Zoning Districts: Means the B-1S, B-1P, B-2, B-3 and B-4 Zoning Districts, as defined by this Ordinance.”

“Lodging House: A building in which three or more rooms are rented and in which no table board is furnished”

2. The following definitions shall be added under §3.2 Definitions:

“Commercial Zoning Districts: Means the C (Corridor Commercial), CF (Corridor Flex), CS (Corridor Shoreline) and B-3 (Planned Shopping Center) Zoning Districts, as defined by this Ordinance.

“Industrial Zoning District: Means the B-4 (Material Processing and Warehousing) Zoning District, as defined by this Ordinance.”

“Short-Term Rental: The commercial use of renting a dwelling unit, or portion thereof, for a period of time less than thirty-one (31) consecutive calendar days. This does not include approved bed and breakfast establishments, hotels/motels, tenant housing, or campgrounds.”

“Tourist Home: A short-term rental operation in which a portion of a dwelling unit is rented out where the owner of the property resides full-time in the dwelling unit and is primarily present at the time of occupation.”

“Vacation Home: A short-term rental operation in which the entire dwelling unit is rented out without the property owner residing at the dwelling unit at the time of occupation.”

3. The use “Tourist Homes” shall be added at the following sections:

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.2 R-1 District: One-Family Forest and Coastal District,
Subsection 6.2.2 Uses Permitted By Right:

q. “Tourist Homes

1. All tourist home operations require a license issued by Acme Township.”

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.5 R-1MH District: Manufactured Home Residential,
Subsection 6.5.2 Uses Permitted By Right:

e. "Tourist Homes

1. All tourist home operations require a permit issued by Acme Township."

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.6 Acme Township US-31/M-72 Business District,
Subsection 6.6.4 Land Use Table,

Sub subsection 6.6.4.1 Regulated Uses

b. "Tourist Homes. By right in the SFN (Single Family Neighborhood), MHN (Mixed Housing Neighborhood), CS (Corridor Shoreline), C (Corridor Commercial), and CF (Corridor Flex) districts

1. All tourist home operations require a license issued by Acme Township."

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.10 B-3 District: Planned Shopping Center,
Subsection 6.10.2 Uses Permitted By Right:

y. "Tourist Homes

1. All tourist home operations require a license issued by Acme Township"

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.11 B-4 District: Material Processing and Warehousing District,
Subsection 6.11.2 Uses Permitted By Right:

j. "Tourist Homes

- i. All tourist home operations require a license issued by Acme Township"

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.12 A-1: Agricultural District,
Subsection 6.12.2 Uses Permitted By Right,

b. Non-Agricultural Uses Listed Below,

13. "Tourist Homes

- a. All tourist home operations require a license issued by Acme Township"

4. The use "Vacation Homes" shall be added at the following sections:

Article VI: Zoning Districts, Map and Schedule of Regulations,
Section 6.6 Acme Township US-31/M-72 Business District,
Subsection 6.6.4 Land Use Table,
Sub subsection 6.6.4.1 Regulated Uses

c. "Vacation Homes. Authorized by right in the C (Corridor Commercial) and CF (Corridor Flex) districts

1. All vacation home operations require a license issued by Acme Township.
2. Vacation homes shall only be operated in single-family dwellings."

Article VI: Zoning Districts, Map and Schedule of Regulations,

Section 6.10 B-3 District: Planned Shopping Center,

Subsection 6.10.2 Uses Permitted By Right:

z. "Vacation Homes

1. All vacation home operations require a license issued by Acme Township
2. Vacation homes shall only be operated in single-family dwellings."

Article VI: Zoning Districts, Map and Schedule of Regulations,

Section 6.12 A-1: Agricultural District,

Subsection 6.12.2 Uses Permitted By Right,

b. Non-Agricultural Uses Listed Below,

14. "Vacation Homes

- a. All vacation home operations require a license issued by Acme Township"

5. The following use shall be deleted from the Parking Space Requirements in Section 7.5.3(c)(11):

"tourist home"



Planning and Zoning

6042 Acme Road | Williamsburg, MI | 49690

Phone: (231) 938-1350 Fax: (231) 938-1510 Web: www.acmetownship.org

PLANNING COMMISSION **2018 Regular Meeting Schedule**

The Planning Commission meets the second Monday of each month at 7:00 pm.
The Site Plan Review Committee meets the fourth Monday of each month at 7:00 pm.*

Acme Township Hall
6042 Acme Rd
Williamsburg, MI 49690

Planning Commission	Site Plan Review Committee
January 8	January 22
February 12	February 26
March 12	March 26
April 9	April 23
May 14	May 28
June 11	June 25
July 9	July 23
August 13	August 27
September 10	September 24
October 8	October 22
November 12	November 26
December 10	December 17**

* Time subject to change based on committee member availability.

** Date moved to third Monday due to the holiday.

If you are planning to attend and require any special assistance, please notify Cathy Dye, Township Clerk, within 24 hours of the meeting at (231) 938-1350 or cdye@acmetownship.org

For planning and zoning questions please contact Shawn Winter, Planning and Zoning Administrator, at (231) 938-1350 or swinter@acmetownship.org