

"REVISED"

AGENDA

Cascade Charter Township Planning Commission

Monday, August 21, 2017

7:00 pm

Cascade Library Wisner Center

2870 Jacksmith Ave. SE

- ARTICLE 1. Call the meeting to order
Record the attendance**
- ARTICLE 2. Pledge of Allegiance to the flag**
- ARTICLE 3. Approve the current Agenda**
- ARTICLE 4. Approve the Minutes of the August 7, 2017 meeting**
- ARTICLE 5. Acknowledge visitors and those wishing to speak to non-agenda items.
(Comments are limited to five minutes per speaker.)**
- ARTICLE 6. Case # 16-3341 Oak Harbor Preserve
Public Hearing
Property Address: 7901 48th, 7735 48th & 4580 Little Harbor
Requested Action: The Applicant is requesting to rezone approximately 40 acres to P.U.D. to allow for 31 Site Condominium units.**
- ARTICLE 7. Case # 17-3390 East Imports
Public Hearing
Property Address: 6095, 6115, 6143 28th St SE & 6120 Charlevoix Woods Ct.
Requested Action: The applicant is requesting preliminary plan approval to expand PUD 67 (East Imports) for a new parking lot at 6120 Charlevoix Woods Ct.**
- ARTICLE 8. Any other business**
- ARTICLE 9. Adjournment**

Meeting Format

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

MINUTES
Cascade Charter Township
Planning Commission
Monday, August 7, 2017
7:00 P.M.

ARTICLE 1. Vice Chairman Sperla called the meeting to order at 7:00 P.M.
Members Present: Johnson, Katsma, Lewis, Mead, Pennington, Rissi, Robinson, Williams
Members Absent: Williams
Others Present: Community Development Director, Steve Peterson and those listed on the sign in sheet.

ARTICLE 2. Pledge of Allegiance.

ARTICLE 3. Approve the current Agenda.

Motion was made by Member Robinson to approve the Agenda. Supported by Member Pennington. Motion carried 9 to 0.

ARTICLE 4. Approve the Minutes of the July 17, 2017 Meeting.

Motion was made by Member Mead to approve the Minutes as written. Supported by Member Robinson. Motion carried 9 to 0.

ARTICLE 5. Acknowledge visitors and those wishing to speak to non-agenda items.

No visitors who were present wished to speak about non-agenda items.

**ARTICLE 6. Case #16-3309 Reibel PUD-Redwood
Property Address: 6370 28th Street SE**

Requested Action: To consider approval of preliminary P.U.D. amendment to include 61 new apartments.

Director Peterson stated that the Applicant is requesting approval of a Preliminary P.U.D. amendment in order to construct a 60-unit apartment complex and one manager unit. The original project allowed for the area behind Pizza Hut, Macatawa Bank and Culvers to be developed into a mix of office, restaurant and retail. That portion of the project has never been done. They are now asking to modify the PUD to allow the multifamily development.

This project came up for Public Hearing in August of 2016. At that time, the Board tabled their decision until the Township Engineer approved the plan.

The Township Engineer has approved the plan and staff is now looking for the Board's decision.

Director Peterson recommends the Board approve the amended plan to include the apartments. If approved, staff will prepare the P.U.D. Ordinance for the Board's review and recommendation to the Township Board.

Vice Chairman Sperla asked the Applicant to come forward with any comments.

Ms. Kellie McIver came forward to give a brief overview of the project to refresh the Board's memory of the project because it had been several months since it had come before them.

Motion was made by Member Mead to approve the amended plan to include the new apartments and that Staff proceed with the preparation of the P.U.D. ordinance amendment. Supported by Member Lewis. Motion carried 9-0.

ARTICLE 7.

Case #17-3391 Town Center Inn & Suites

Property Address: 4834 & 4888 Town Center Drive S.E.

Requested Action: The Applicant is requesting site plan approval for two new hotels at 4850 and 4888 Town Center Drive.

Director Peterson stated that Applicant is requesting site plan approval in order to construct two hotels. Marriott Town Place Suites (102 rooms) and Holiday Inn Express and Suites (114 rooms).

This is the same developer who is building the new hotels next to Meijer. The same hotels will be for this project.

Meadowbrooke allows for the following:

1. hotels as a permitted use and two principal structures on the same property, provided that it is directly related to the principle use or enterprise on the lot. (Both are full service hotels.)
2. structures to be 45 feet tall with the allowance for one hotel to be 70 feet tall. (The Marriott is 41.6 feet tall and the Holiday Inn Express is 40 feet tall to the roof line.)
3. screening walls to be an additional 15 feet tall. (Marriott will have screening up to an additional 15 feet. Holiday Inn Express will have an additional 5 feet.)

This project has also taken advantage of a ZBA interpretation that permits side yard buffers to be as small as 10 feet. It will also have some reduced setbacks due to the wetlands on the property.

Currently, the property consists of two separate properties, which will be combined into one piece to avoid the need to make adjustments for interior setbacks. With the approval of the neighboring mixed use project, this developer has agreed to install 7' wide sidewalks along his frontage in order to connect to the sidewalk for the mixed use project.

The site has been designed to meet the storm water ordinance and has been reviewed and approved by the Township Engineer and the Township Fire Department. A maintenance agreement will be required. The Gerald R. Ford Airport staff has been made aware of the project and has indicated only the need for construction permits. The Meadowbrooke Review Board has also reviewed and approved the project.

Director Peterson recommends approval of the site plan with the following conditions:

1. Compliance with the Township Engineer's report;
2. Record the storm water maintenance agreement prior to a building permit being issued; and
3. Combine the property within the next 30 days.

Vice Chairman Sperla asked the Applicant to come forward with any comments.

Mr. Dave Ziolkowski came forward on behalf of Applicant to simply answer any questions posed by the Board.

Discussion followed mostly concerning the type of hotels, signage, and timeline to build them.

Motion was made by Member Robinson to approve the site plan with Director Peterson's conditions listed above. Supported by Member Rissi. Motion carried 9-0.

ARTICLE 8. Case # 17-3392 Freedom Reins Farm

Property Address: 8585 52nd Street S.E.

Requested Action: The Applicant is requesting to develop 13 detached single family site condominium projects.

Director Peterson stated that Applicant is requesting a Sketch Plan Review in order to develop a new subdivision on approximately 43 acres for a Site Condominium project called Freedom Reins. This subdivision would consist of 13 single-family site condo units. The property is zoned ARC, and is Master Planned as Suburban Residential.

The Applicant has drawn a sketch plan showing how the property could be developed with 13 lots using 50% open space with a minimum of 50,000 sq. ft. per lot. The Applicant is attempting to do this subdivision "by-right" and therefore does not need to rezone the property. Applicant has stated they will demonstrate how they meet the subdivision ordinance as the project proceeds.

The development will be served by wells and septic. They will need approval from the KCHD. The project is inside the utility service boundary, but is miles away from any existing sewer/water lines. The Township Engineer would need to approve the storm water plan.

The open space that is being provided is mainly located along the rear of the property adjacent to I-96. The development will be utilizing private streets. Developer will need to comply with the private street ordinance, as well as the KCRC for the names of the streets. The location of the curb cut will also need to be approved by the KCRC. No sidewalks are planned for the project, and will not connect to any planned or future pathways.

Since the Applicant has yet to submit all of the required information for preliminary tentative approval, we are reviewing this as a sketch plan only. Once all of the required information is submitted, it will be scheduled for preliminary tentative approval.

Vice Chairman Sperla asked if the Applicant would like to come forward.

Mr. Jim Morgan came forward on behalf of Applicant and gave a brief overall summarization of the development and how important it was to them to preserve the open space, which includes woods and a creek.

A short discussion followed concerning mostly of size, price range, and whether it would be lot and/or specs.

No action was required by the Board at this time.

ARTICLE 9.

Case #17-3395 Remark Real Estate P.U.D. Rezoning

Property Address: 5039 28th Street S.E.

Requested Action: The Applicant is requesting to rezone the property to a Planned Unit Development to allow two separate buildings.

Director Peterson stated that the Applicant is requesting Basic Plan Review in order to develop the site into two separate restaurants. Currently, an occupied iHOP and an unoccupied Don Julio restaurant are on the site. They would like to maintain the iHOP portion of the building and remove the Don Julio portion of the building to accommodate a new Wendy's restaurant.

The site was originally developed in 2002 and allowed for one large building that could meet our requirements and allow for two restaurant sites. The proposal now would allow two small restaurants on their own parcel. This change would require several exemptions from the ordinance requirements, which seems to be driven by the need to have a drive-thru.

The site has adequate parking for the two proposed restaurants. A total of 162 parking spaces are planned and 81 would be required. The total sizes of the buildings are roughly the same as it was when it was one building. The purchase agreement includes a shared parking agreement, although it is a little unclear if it includes all of the parking on the property. This should be clarified.

The Township held a meeting with the property owners in the area to see what type of interest they had in making Northern Drive a public road. The DDA has it on their plan to asset with traffic flow in the area. The plan would include a connection and extension of

Starr Street to make this happen. If the plan were to move forward, Director Peterson would insist on an agreement that they participate in a SAD for the extension and conversion of the road to connect to Starr Street and become public. Also, shown on the plan is an additional curb cut to Northern Drive with a right in only movement. This would also require an exception. The plan also shows a new sidewalk along Northern Industrial Drive.

The new plan does not meet some of the underlying zoning regulations. These deviations from the ordinance are:

1. Parcel Size: iHOP is (1.24 acres), Wendys (1.63 acres) – a minimum of 3 acres is required under the ordinance.
2. Setbacks: proposed 55 foot front setback for Wendy's from Northern Industrial Drive – 100 foot front setback is required under the ordinance.
3. Signs – proposed 20 feet – 25 feet is required under the ordinance.
4. Curb Cut - proposed 50 feet – 150 feet is required under the ordinance.

Storm water will need to be reviewed the Township Engineer to be sure it is in compliance.

Director Peterson recommends the following before this proceeds to Preliminary Development Plan Review (Public Hearing):

1. Elimination of the new curb cut;
2. Have the Applicant provide the required site plan information;
3. Approval from the Township Engineer for storm water;
4. Provide a sign plan.
5. Clarify shared parking to include all of the parking on the property.
6. Agree to participate in a SAD for the extension and conversion of the road to connect to Starr Street and become public.

Vice Chairman Sperla asked if the Applicant would like to come forward.

Mr. Brian Sinnott came forward on behalf of Applicant to give a summary of the project and address and concerns the Board may have.

Extensive discussions followed concerning mostly the large difference in the curb cut. The difference between what is proposed and what is required is 100 feet, which is significant. The problem is that it cannot be any longer than 50 feet because of the layout and design, At 50 feet, there could be backups leading into the street because of the volume of cars to the restaurants.

Mr. Doug Poland came forward to explain how important it was to keep that curb cut and why it could not be eliminated. He did not feel any backups would occur because both restaurants had different busy times. A concern for them was the route cars would

need to go to get to and from the drive-thru and exiting of other diners. Without that curb cut, cars would need to circle the building nearly twice, which they feel is inconvenient for the patrons and the business.

No action was required at this time by the Board, however, it was suggested that Applicant try to come up with alternative for the curb cut or lengthen it before this is set for public hearing.

ARTICLE 10. Any other business

Next meeting will be August 21, 2017

ARTICLE 11. Adjournment.

Motion was made by Member Mead to adjourn. Supported by Member Williams. Motion carried 9 to 0. The meeting was adjourned at 8:15 p.m.

Respectfully submitted,
Scott Rissi, Secretary

STAFF REPORT

TO: Cascade Charter Township Planning Commission
FROM: Steve Peterson, Planning Director
REPORT DATE: August 7, 2017
MEETING DATE: August 21, 2017
CASE: #16-3341/ Oak Harbor Preserve

GENERAL INFORMATION

- A. Applicant: Koetje Builders and Developers
547 Baldwin
Jenison MI 49428
Telephone: 457-3450
Fax: 457-7566
- B. Status of Applicant: Owner
- C. General Location: The property is located on the north side of 48th St between Little Harbor and Buttrick Ave.
- D. Requested Action: Rezone approximately 40 Acres to PUD to allow for 31 Site Condominium units.
- E. Existing Zoning on Subject Parcels: R1, Residential
- F. Zoning on Adjoining Parcels: R1, Residential
- G. Parcel Size: Approximately 40 acres
- H. Existing Land Use on Subject Parcel: Vacant
- I. Adjacent Area Land Uses:
North - I-96
East - Residential
South - Residential
West - Residential

STAFF ANALYSIS

- A. The applicant is requesting Preliminary Plan Approval in order to rezone approximately 40 acres for a Site Condominium Planned Unit Development called Oak Harbor Preserve. This rezoning request is for 31 single-family site condo units.
- B. The applicant introduced this project to us in November of 2016. At that meeting we gave the applicant the following items to complete before the public hearing could be scheduled.
 - 1. Review and approval by KCRC for street names and drive locations.
 - 2. Provide some analysis/evaluation of the impact on neighboring wells and possible protected plant species on the property.
 - 3. Plans indicating the private roads meet our design standards.
 - 4. Approval from the Township Engineer.
 - 5. Provide a detailed plan that is acceptable to the KCHD to address the concerns from the August 31, 2016 review.
 - 6. Stake the rear property line behind the homes on Little Harbor Dr.
- C. The property is zoned R1, single-family, and is Master Planned the same.
- D. The applicant has drawn a plan showing how the property could be developed with 31 lots using 50% open space with a minimum of 21,000 sq ft per lot. This plan meets our subdivision ordinance for density.
- E. The applicant is seeking PUD rezoning in order to increase the minimum lot size to achieve a better design for the subdivision. The proposed plan provides for 29% of the developable acreage to be left as open space and a minimum lot size of 25,000 sq.ft with an average lot size of 27,085. Basically they are asking to reduce the amount of open space from 50% to 29 % in exchange for increasing the minum lot size to 25,200 sq ft.
- F. The development will be served by wells and septic. The applicant has a report from the KCHD date August 31, 2016. In it they found some levels of arsenic in the ground water. As such the KCHD is requiring certain provisions to deal with the arsenic.
- G. The open space that is being provided is mainly located along the perimeter of the project.
- H. The development will be utilizing private streets. The location of the curb cuts off from 48th and Buttrick will have been approved by the KCRC.
- I. They will be paving the short section of Buttrick Ave north of 48th St. This is a public road and will need to meet KCRC standards.
- J. We had previously approved this project in 2006 and awarded several extensions. However, the applicant never initiated the project so it has expires. They essentially would like to have the same project approved once again. Because it has expired they need to go through the entire approval process again.

- K. This project includes some of the property that was considered for the 48th St sand mine in 1998. Some neighbors expressed concern for their wells and possible protected plant species on the property. The applicant has provided some documentation that these issues have been evaluated and taken into account for their project.
- L. A neighbor at 4445 Whitneyville Ave has worked out a private easement to his property across the project. That easement should be shown on the plans.
- M. The Township Engineer has approved storm water plan prior to the public hearing.
- N. No sidewalks are planned for the project, and would not connect to any planned or future pathways.

Standards

Section 16.03 of the Zoning Ordinance requires that a Planned Unit Development must demonstrate that:

Standard	Staff Comment
Granting of the Planned Unit Development rezoning will result in a recognizable and substantial benefit to the ultimate users of the project and to the community, where such benefit would otherwise be unfeasible or unlikely to be achieved.	Property has already been rezoned before for the same project. The residential use is being developed at the allowed density.
In relation to underlying zoning, the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment	The density of the use is consistent with zoning and the master plan.
The proposed development shall be compatible with the General Development Plan of the Township, and shall be consistent with the intent and spirit of this Chapter	The overall use is compatible.
In relation to underlying zoning, the proposed development shall not result in an unreasonable negative economic impact upon surrounding properties	Being that the plan is consistent with the master plan I would not find any negative economic impacts associated to the surrounding properties.
The proposed development shall contain at least as much green area and usable open space as would otherwise be required by	met

this Ordinance with respect to the most dominant use in the development	
The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with this Ordinance. This provision shall not prohibit a transfer of ownership or control, upon due notice to the Planning Director of the Township	met

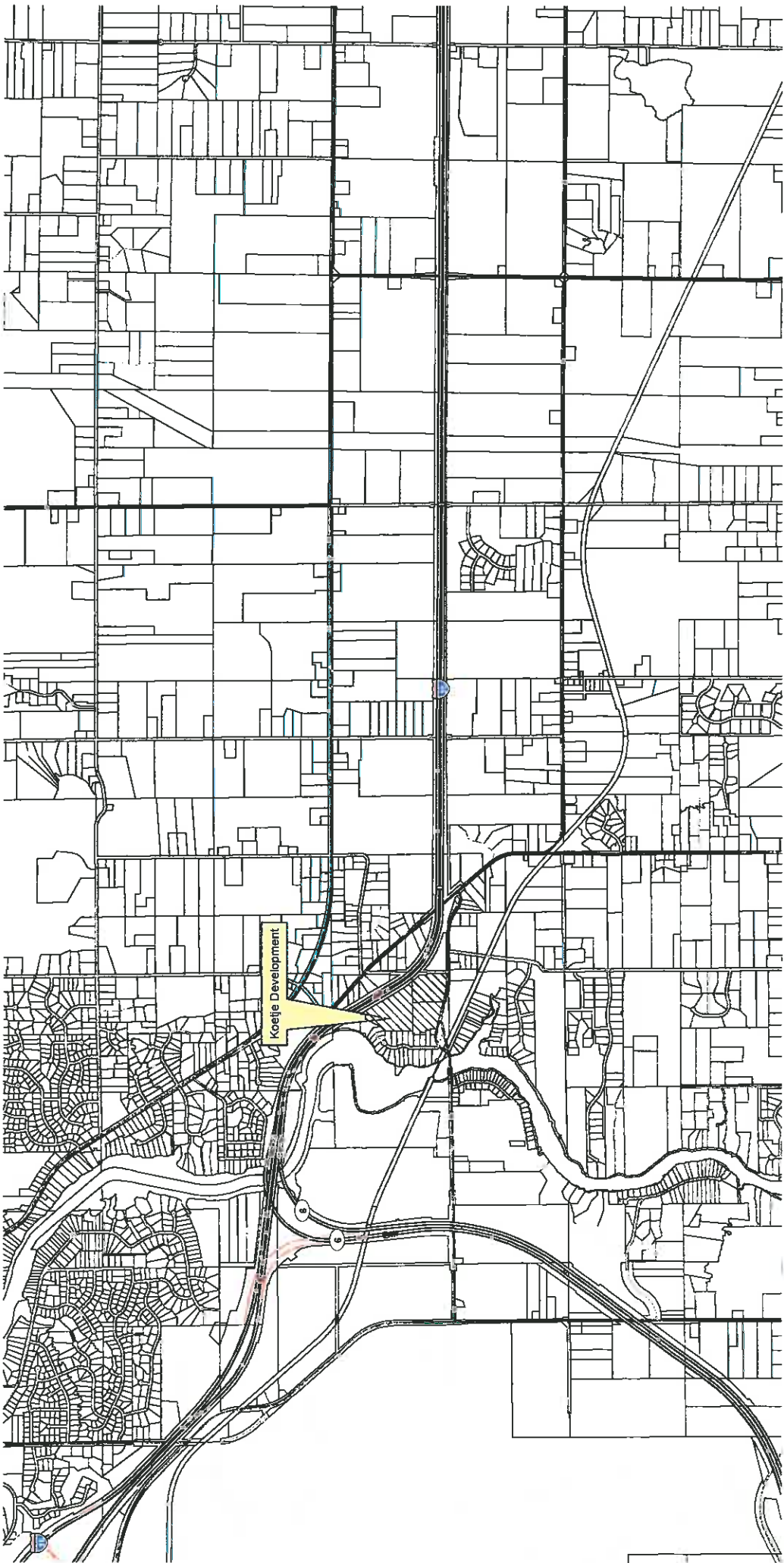
Staff Recommendation

Staff recommends approval of the preliminary plan with the following conditions:

1. Comply with the township engineer memo dated 7/21/17

If approved, the applicant will come back for a recommendation to the Township Board when the PUD Ordinance language is worked out and the plans are updated to comply with the conditions of your preliminary approval. After your recommendation, the Township Board will consider the matter at the final public hearing.

Attachments: Site Plan
Application
Location Map
Test Plan





Water Quality Control

The SWO requires the first 0.5-inch of stormwater runoff be detained and released over a 24-hour period. The stormwater detention basin outlet structures are designed to meet this requirement. Calculations and design details were provided by the applicant. The two infiltration basins will infiltrate the first 0.5-inch of runoff. The proposed design is in accordance with the SWO.

Stormwater Runoff

The applicant provided stormwater calculations to size the onsite detention and infiltration basins. All stormwater runoff from the impervious areas of the site will discharge to these basins. Therefore, the site will not see an increase in rate of stormwater leaving the site.

Drainage Plan

The applicant has submitted drawings, calculations, and additional documentation as required in the SWO Section 2.03, Drainage Plan. Please refer to the included checklist for items and comments on each item. Please note a maintenance agreement is required before construction begins. The agreement should be submitted to the Township for review. The maintenance agreement and plan should include at a minimum, cleaning of catch basin sumps, sediment and debris removal from the detention and infiltration basins, and landscape maintenance of the detention basins to maintain the design volume and ensure the system is operating as it was designed.

Utilities

The development will have onsite water wells and septic systems for each individual lot. The applicant is coordinating this design and permit with the Kent County Health Department. A permit from the health department will be required prior to construction taking place.

Soil Erosion and Sedimentation Control

Soil Erosion and Sedimentation Control (SESC) measures are provided on the drawings for the initial road and storm sewer construction. The applicant has included silt fence along the limits of clearing and grading, silt sacks in catch basins, placement of mulch blanket on steeper slopes, and seeding with mulch at all disturbed areas of the site. SESC falls under the review and approval of the Kent County Road Commission and a permit is required before construction can begin. The SESC measures indicated on the drawings appear appropriate given the expected work. The lots will be developed individually at a later date, at which time they will require another SESC permit specific to that lot.

Summary

The proposed stormwater design meets the Township SWO requirements for new developments. The applicant will need to apply for and obtain a number of permits (SESC, water and septic from the health department, Kent County Road Commission for the new driveway) prior to beginning construction. We recommend approval of the site plan from an engineering standpoint.

Mr. Steve Peterson
Page 3
July 21, 2017



If you have any questions or require additional information, please contact me at 616.464.3786 or nrtorrey@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink, appearing to read "N. Torrey", is positioned above the name of the sender.

Nathan R. Torrey, PE

jc2

Attachment

By email

cc: Michael L. Berrevoets, PE – FTCH

KENT COUNTY HEALTH DEPARTMENT

ENVIRONMENTAL HEALTH

700 Fuller Avenue N.E.

Grand Rapids, Michigan 49503-1918

Phone: 616-632-6900

Fax: 616-632-6892

Email: KCEHmail@kentcountymi.gov

Website: www.accesskent.com



Adam London, RS, MPA
Administrative Health Officer

December 28, 2016

Randy Koetjie
Koetjie Builders & Developers, LLC
547 Baldwin St.
Jenison, MI 49428

**RE: PROPOSED OAK HARBOR PRESERVE SITE CONDOMINIUM, UNITS 1-31
SINGLE FAMILY RESIDENTIAL
CASCADE TOWNSHIP**

Dear Mr. Koetjie:

The Environmental Health Division of the Kent County Health Department has reviewed the proposed development in accordance with Michigan Condominium Act (PA 59 of 1978) and the Michigan Land Division Act (PA 288 of 1967 Section 560.105).

The following advisories must be incorporated into the Master Deed and By-Laws prior to final Health Department approval:

WATER SYSTEMS / SEWAGE DISPOSAL SYSTEMS FOR CONDOMINIUM

WATER SYSTEMS

- A test well in the Development found arsenic above the Environmental Protection Agency (EPA) maximum contamination level (MCL) of 0.01 mg/L. **See additional Arsenic Advisory.**
- Iron levels in test wells were detected between .512 mg/L and 1.25 mg/L. The EPA considers iron a secondary contaminate that does not impact human health but may impart noticeable aesthetic impairment. Iron levels above 0.3 mg/L may adversely affect water quality including, rusty color, metallic taste, odor, and staining of fixtures. Individual owners may wish to install a water treatment systems to remove or reduce iron in the water supply.
- Individual water supply systems will be permitted on a unit solely to provide water for domestic uses on the unit.
- A permit from KCHD is required prior to the installation or major repair of any on-site water supply. As part of the application, KCHD may require a site plan of the property upon which the water supply is or will be located. Required features may include property boundaries, elevations, buildings, sewage disposal system, surface water bodies, wells, underground fuel storage tanks, chemical storage areas, driveways, and other significant details.
- All wells installed for private water supply must penetrate an adequate protective continuous clay overburden of at least 10 feet. This overburden is to be located greater than 25 feet below the ground surface. Test wells within the development drilled to a depth of 111 and 116 feet found suitable clay barrier from 44 feet to 105 feet.

PROPOSED OAK HARBOR PRESERVE, UNITS 1-31

- All wells are to be grouted in accordance with the Michigan Department of Environmental Quality water well grouting requirements.
- Except as otherwise approved by KCHD, all wells must be located on the unit being served and must be 10 feet from property boundaries.
- It will be the responsibility of the co-owner to install and maintain the water supply and treatment system in good order and working condition and comply with all applicable governmental regulations and neither the developer nor the association will have any responsibility with respect to the same.

ARSENIC ADVISORY

A test well in the Oak Harbor Preserve Site Condominium found Arsenic levels between .005 and 0.011 mg/L. The current Environmental Protection Agency maximum contaminant level (MCL) for arsenic in public water supplies is 0.01 mg/L. The current Michigan Department of Environmental Quality Rule 560.414, Onsite Water Supply and Sewage Disposal for Land Divisions and Subdivisions, which applies to private water wells located in proposed site condominiums and subdivisions, establishes a MCL for arsenic at 0.05 mg/L through reference to EPA's 1996 publication entitled "Drinking Water Regulations and Health Advisories."

Arsenic can naturally occur in soil and groundwater or it may be caused by agricultural or industrial practices. It is odorless and colorless. Arsenic is a recognized carcinogen and has been linked to several types of cancer. Prolonged exposure to low levels may cause skin damage, gastrointestinal, nervous system, and circulatory problems. Long-term exposure to levels above .005 mg/L may result in lower IQ scores in children.

Each individual well completed on any unit shall be sampled for arsenic prior to connection or use. Samples shall be collected by the well driller following well development and disinfection and a 24-hour waiting period. Immediately prior to sampling, the well casing must be flushed by removing the equivalent of three casing volumes of water. Any well that is found to have arsenic levels at or above the EPA MCL of 0.01 mg/L shall be either:

1. Be properly abandoned and replaced with a new well that has an arsenic level below 0.01 mg/L while meeting applicable well construction and isolation requirements.
- or
2. Owner will install point of use treatment devices. The device at a minimum meet NSF / ANSI Standard 61. At a minimum, the treatment systems must be installed at the point of use (each fixture where drinking water may be obtained).

Prior to installing a water treatment system, the owner must provide KCHD with the name and model number of the proposed treatment device, specification sheet detailing the type of system, and appropriate approvals for the removal of arsenic.

An additional water sample analyzed for arsenic downstream from treatment device(s) will be required prior to occupancy. The co-owner will be responsible for arranging the collection of water samples and payment of applicable laboratory fees. Results shall not exceed the MCL as defined by EPA for final approval. This Department will not approve the water supply well until a copy of the Arsenic Affidavit is notarized and recorded with the Kent

County Register of Deeds. Occupancy permits will not be issued by the Township Building Authority until this Department has approved the water supply.

Owners should consult with a qualified water treatment distributor to analyze the type of arsenic in the supply and the most appropriate technology for arsenic removal/reduction. Dissolved arsenic may be more difficult to remove in the presence of high iron or chlorides. Some forms of arsenic in the presence of high iron levels may require pretreatment systems ahead of the arsenic treatment device. The owner is encouraged to perform annual arsenic sampling and maintain a contract with the water treatment provider.

SEWAGE DISPOSAL SYSTEMS

- A site evaluation may be required on any unit where the developer or unit owner has proposed placement of the initial and replacement wastewater disposal system outside of those areas already approved and on file with KCHD.
- Due to lot sizes less than one acre, this Department will require detailed site plans with application to obtain a permit from KCHD for a septic tank and disposal areas, the co-owner will submit to KCHD a lot development plan drawn to scale that will locate the unit, private drives and right-of-ways, utilities, unit lines, building site and proposed well and septic location. As part of the application, KCHD may require a topographical map showing existing and proposed contours. Contour intervals shall not exceed two (2) feet. Due to small lot sizes, KCHD cannot guarantee that each individual site development plans will be approved.
- Utilities, buildings, drives, or other structures that may interfere with the installation and operation of the on-site sewage disposal system shall not be permitted within the designated initial and replacement sewage disposal areas as indicated on the permit issued by KCHD.
- Due to elevated levels of hardness, iron, and arsenic; water treatment systems may be necessary. Discharge of said water treatment system backwash cannot be directed into the building sewer, septic tanks, or disposal areas. The owner of each unit shall make provisions for a separate drainage system to properly dispose of water treatment system backwash. Units that have elevated arsenic shall not discharge treatment system backwash within 50 feet of any water well.
- Designated initial and replacement sewage disposal areas shall be isolated a minimum of 100 feet from the high water level in any surface water or stormwater infiltration basin, 25 feet from any 24-hour stormwater detention basin with a controlled outlet, 25 feet from foundation walls containing footing drains, 25 feet from storm sewer catch basins, 25 feet from slopes of 45 degrees or greater, 10 feet from drainage easements consisting of open swales, 10 feet from solid storm sewers, and 10 feet from the unit boundary line.
- It will be the responsibility of the co-owner to install and maintain the septic system in good working order and comply with all applicable government regulations. Neither the developer nor the association will have any responsibility with respect to the same.

KCHD requires that this portion (well/septic language and advisory) of the document not be recorded until approved and stamped by this office. Upon receipt of the approved, recorded document, final Health Department approval can be granted. If you have any questions, please contact me at 616-204-2375.

Sincerely,

Jason Buck, REHS

AFFIDAVIT

The undersigned _____ Owner(s), of the property commonly known as _____, located in Cascade Charter Township, Kent County, Michigan being first duly sworn say as follows:

1. Owner(s) has executed this Affidavit in order to obtain final approval for the private onsite water supply well located on the Property.
2. Owner(s) understands that the water supply well has an arsenic level which exceeds the maximum contaminant level of .01 milligrams per liter (mg/L) set forth in the Michigan Safe Drinking Water Act, Act 399 of 1979.
3. Owner(s) understands that a treatment device has been installed to reduce the level of arsenic to .01 mg/L or less and that this device requires regular maintenance in order to maintain safe drinking water levels. Failure to maintain the device may result in an increase concentration of arsenic in the water supply.
4. Owner(s) confirms that the sample(s) submitted to the Kent County Health Department for purposes of receiving final approval of the water supply well were collected from a treated water tap at the above listed address.
5. Owner(s) agrees to notify any potential buyers of the subject property that a treatment device is being utilized to reduce the level arsenic and maintain safe drinking water conditions prior to any transfer or conveyance of the property.
6. The undersigned has read this entire Affidavit and agrees to the truth of the statements contained herein.

Name
Owner of property

Date

STATE OF MICHIGAN)
) ss.
COUNTY OF KENT)

Drafted By & Return To:
Kent County Health Department
Environmental Health Division
700 Fuller Avenue NE
Grand Rapids, MI 49503
(616) 632-6900

Notary Public
State of Michigan, County of _____
My commission expires _____
Acting in the County of _____



July 21, 2017
Project No. 080322

Mr. Steve Peterson
Cascade Charter Township
2865 Thornhills Avenue, SE
Grand Rapids, MI 49546-7192

Re: Oak Harbor Preserve
Site Plan Review

Dear Steve:

We have reviewed the site plan for Oak Harbor Preserve, dated July 10, 2017, prepared by Feenstra & Associates. The proposed project is a 31-lot residential development with associated road and utility improvements. The 38-acre site is located in the Thornapple River watershed, sub-drainage district Maracaibo Shores, and is bounded by 48th Street to the south and I-96 to the east.

Stormwater and Drainage

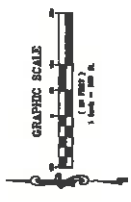
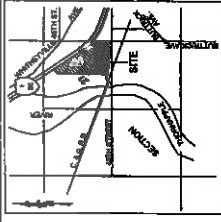
Flood Control

The proposed project is a new development, so all improvements shall comply with the requirements of the Cascade Charter Township (Township) Stormwater Ordinance (SWO). The site is located in Stormwater Management Zone B, which requires detention of the 25-year storm event and a direct connection (overland or underground) of the 100-year storm event, or detention of the 100-year storm event. The SWO also requires the first 0.5-inch of stormwater runoff be detained and released over a 24-hour period.

The proposed stormwater management design includes two detention basins sized for the 25-year storm event and two infiltration basins sized for the 100-year storm event. The detention basin located at the southwest corner of the site discharges to an existing 24-inch culvert and storm sewer in 48th Street that drains to the Thornapple River. The 100-year overflow would be conveyed down 48th Street to the river. The detention basin located at the north end of the site discharges to an existing drainage easement and runs overland to the Thornapple River. The 100-year overflow would be conveyed through the drainage easement to the river. The stormwater detention basins are designed with an outlet control structure to restrict the release in accordance with the SWO.

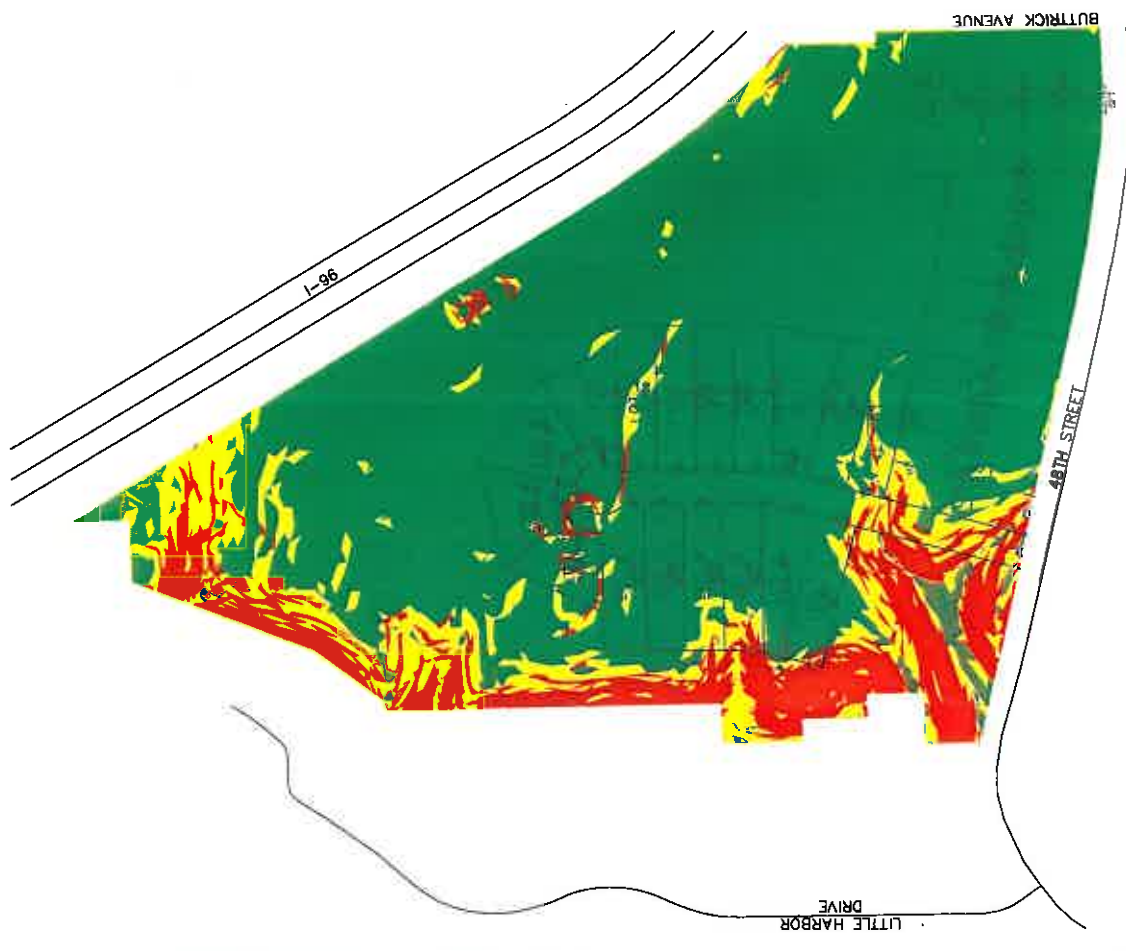
The two infiltration basins are located along the eastern property line, adjacent to I-96, sized for the 100-year storm event. Thirty soil borings/test pits were performed throughout the site, all of which revealed coarse brown sand. Two double-ring infiltrometer tests were taken at the locations of the proposed infiltration basins. The lowest measured infiltration rate was 19.5 inches/hour. The SWO requires the infiltration rate used in design to be one-half the average of the test results. The applicant used a design infiltration rate of 3 inches/hour to size the infiltration basins, more conservative than the requirements of the SWO.

At the entrance drive, it was not practical to capture and convey stormwater runoff to the detention basin. Therefore, a series of leaching catch basins are proposed to intercept and infiltrate stormwater onsite.



NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	COLOR	AREA
1	0.000%	12.500%	Green	15.28 AC
2	12.500%	25.000%	Yellow	3.15 AC
3	25.000%	2165.584%	Red	3.43 AC

NOTE: OPEN SPACE AREA DOES NOT INCLUDE LOTS OR ROAD
 DEVELOPABLE AREA: 16.61 AC
 OPEN SPACE AREA: 16.84 AC*
 * 15.26 AC + (3.15 AC x 0.5) = 16.84 AC





July 13, 2017

Mr. Steve Peterson
Cascade Township
2865 Thornhills SE
Grand Rapids, MI 49546

RE: Oak Harbor Preserve PUD
Case #16-3341

Dear Mr. Peterson,

Please schedule a public hearing for Oak Harbor Preserve. We have addressed the items found in your November 15, 2016 letter as follows:

1. KCRC has approved the street names and drive locations. A letter from John Strunk dated May 18, 2017 is attached.
2. Cardno has updated threatened and endangered species survey and "no threatened or endangered plant species were observed on site." (Letter dated July 6, 2017).
3. We have reviewed Calvin Becksvoot's analysis of the aquifer, comparing the pump test data with recent pump records of adjoining parcels, and concur with his analysis that the completed supply wells for the development will not have a detrimental effect on the adjoining individual water supply wells. Attached are water tests, water well and pump records.
4. Enclosed are design plans and drainage calculations that have been approved by the Township Engineer.
5. The KCHD has given approval for individual wells and septic systems with the development as outlined in their letter dated December 28, 2016.
6. The rear property line behind the homes on Little Harbor Drive have been staked.

If you have any questions or need additional information, do not hesitate to contact me.

Respectfully,

Feenstra & Associates, Inc.


David A. Hanko, PE

Cc: Randy Koetje
Nathan Torrey, FTC&H



**Kent County
Road Commission**

May 18, 2017

**Mr. Dave Henko PE
Feenstra & Associates
7482 Main St.
Jenison, MI 49428**

Dear Mr. Henko;

The Kent County Road Commission has reviewed the location of the proposed private streets for the Oak Harbor Preserve Development. The locations shown on 48th Street and Buttrick Avenue are acceptable. In addition, the private street names of Harbor View Drive (Pvt) and Oak Harbor Drive (Pvt) are acceptable.

If you have any questions, you may contact me at (616) 242-6901 Ext. 6913, Monday – Friday, 7:30 am to 4:00 pm.

Sincerely yours,

A handwritten signature in cursive script that reads "John Strunk".

**John Strunk
Certification Engineer
Kent County Road Commission
(616)-242-6901 Ext. 6913
jstrunk@kentcountyyroads.net**



July 6, 2017

Mr. Randy Koetje
Koetje Builders
547 Baldwin St.
Jenison, MI 49428

Cardno

11181 Marwill Avenue
West Olive, Michigan 49460
USA

Phone 616 847 1680
Fax 616 847 9970
www.cardno.com

Re: Plant Survey at Oak Harbor

This letter is intended to provide an update regarding the status of the threatened and endangered species concerns for the property located in section 27, T06 N, R 10 W which is named Oak Harbor. Specifically, the site is located to the west of I-96, to the north of 48th St. and at the end of Buttrick Ave. In August 2005, a survey was completed by JFNew staff to ascertain the existence of threatened or endangered species on the site, including kitten-tails (*Besseyia bullii*) and prairie golden-Alexander (*Zizia aptera*). While sufficient evidence suggested the site did not contain most of the listed species, the Michigan Department of Natural Resources (MDNR) indicated an early summer survey would be necessary to rule out the presence of prairie golden-Alexander, due to the phenology of the species.

In June 2017, Cardno was contracted by Koetje Builders to conduct a threatened and endangered species survey of the Oak Harbor property. Cardno scientists requested a Michigan Natural Features Inventory (MNFI) database search of any known occurrences of protected species near the project area. The MNFI report (copy attached) indicated the potential for eight species on site: kitten-tails, hairy-fruited sedge (*Carex trichocarpa*), creeping whitlow grass (*Draba reptans*), flattened spike rush (*Eleocharis compressa*), prairie smoke (*Geum triflorum*), Virginia bluebells (*Mertensia virginica*), red mulberry (*Morus rubra*), and prairie golden-Alexander. All of these species, with the exception of Kitten-tails and prairie golden-Alexanders, were last observed in the late 1800's. While marginal suitable habitat exists for a few of these other species (creeping whitlow grass and prairie smoke), the potential for them to be on site is limited, given the degraded nature of the habitat and their last observed date.

On June 20, 2017, a Cardno botanist familiar with the species of concern performed a meander survey through the entire site, noting appropriate habitat for each species and searching these habitats thoroughly. The site consists mainly of three types of forest: oak dominant, mixed hardwood, and red maple dominant systems. There were also a number of openings creating oak savannah type habitat, which can be suitable for both kitten-tails and prairie golden-Alexander. These openings were degraded and contained mainly wild raspberry, oak saplings, and various grass species. While sub-optimal habitat exists for kitten-tails and prairie golden-Alexanders, the existing areas are not in high quality condition, and the species listed above were not observed on site. Additionally, the other species with suitable habitat (prairie smoke and creeping whitlow grass) were also searched for. Prairie smoke is flowering in June, and it

was not observed on site. Creeping whitlow grass is just past its flowering stage in late June. It was searched for and was also not found.

In summary, the survey was conducted during a time when the species of concern (kitten-tails and prairie golden-Alexander) would be flowering and visible. Despite the presence of only marginal habitat, no threatened or endangered plant species were observed on site.

Sincerely,



Rebecca A. Norris
Staff Scientist
Cardno, Inc.



**AQUIFER ANALYSIS
OAK HARBOR PRESERVE TEST WELLS
Section 27, Cascade Township**

Two test wells have been constructed within the property limits of the proposed Oak Harbor Preserve Site Condominium which is to be developed in the Northwest quadrant of the 48th Street and Buttrick Avenue intersection. The test wells were constructed to aid in determining the availability and suitability of the water aquifer intended to supply the development's individual lot water supply wells. In addition to the two wells constructed within the property limits of the development, MDEQ Water Well and Pump Records for adjoining water supply wells were analyzed to determine the potential impact of the development's wells on the aquifer(s) supplying the surrounding private wells.

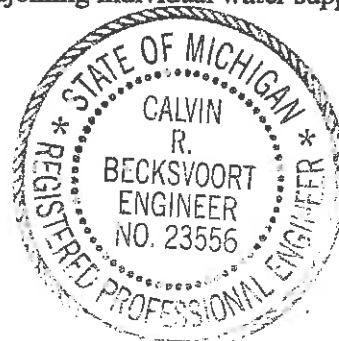
A test well was constructed on the proposed Unit #18 and a test well was constructed in a common area open space adjacent to the rear of Unit #28. Pump tests were conducted for a four hour duration at a pump rate of fifteen gallons per minute. This is the standard pump test length as established by the Kent County Health Department. The exact test well locations along with the individual parcels having recorded private wells that adjoin the site are mapped on the provided site plan.

The two test wells were drilled to a depth of 115' and 116' below the ground surface of the respective well locations. The static water level in the test well on Unit #18 was 75' below the surface and the static water level in the test well on the common open space was approximately 49' below the surface. The respective pump test resulted in a minimal drawdown of the static water level in the two test wells. The recovery rate for both test wells was of a very short duration. The combination of the minor drawdown and the fairly rapid recovery time indicates the presence of a strong water supply aquifer.

The existing recorded wells of the adjoining parcels indicate that the individual wells are constructed to a depth of equal to or greater than the two test wells. Based upon hydrological engineering standards and acknowledged "Cone of Influence Principles" the two test wells have a very minimal influence on the water supply aquifer.

Analysis of the above information and data along with the supplemental data from the adjoining recorded well logs indicates that the water supply wells for each of the proposed units within the Oak Harbor Preserve Site Condominium will be adequate to meet the standards and requirements of the Kent County Health Department and the MDEQ. The completed supply wells for the development will not have a detrimental effect on the adjoining individual water supply wells.


Calvin R. Becksvoort, P.E.



www.latitude-inc.com

Byron Center - Main Office

7885 Byron Center Ave. SW, Suite D
Byron Center, MI 49315
616.583.1601
Fax: 616.583.1605

Zeeland Office

9 East Main St.
Zeeland, MI 49464
616.748.9551
Fax: 616.748.9557

STAFF REPORT

- A. Applicant: Green Castle Properties
200 Ottawa Ave Suite 800
Grand Rapids MI 49503
- B. Status of Applicant: Owner/Purchaser
- C. General Location: The property is located east of on 28th St.
- D. Requested Action: Expand PUD 67 (East Imports) for a new parking lot at 6120 Charlevoix Woods Ct.
- E. Existing Zoning on Subject Parcels: PUD 67 (east Imports), B2 and PUD 58 (Thornapple Manor)
- F. Zoning on Adjoining Parcels:
N- PUD 58
S- PUD 39 (Centennial PARK)
E- B2 and PUD 58
W- B2
- G. Parcel Size: Approximately 9.6 acres (expansion area)
- H. Existing Land Use on Subject Parcel: Vacant, commercial
- I. Adjacent Area Land Uses:
N- Vacant portion of PUD 58 (assisted living uses)
S- Office
E – Office
W- WalMart

STAFF ANALYSIS

1. The expansion would accommodate a new parking lot for the automotive dealer. They have purchased the three buildings to the east as well as the vacant property where they want to place the new parking lot.

2. This amendment would only add the now vacant lot at 6120 Charlevoix Woods Ct and allow them to add it to their existing PUD. The other building along 28th st are not part of the plan.
3. The project does maintain the emergency vehicle connection from Charlevoix Woods Ct to 28th st.
4. The township engineer will need to approve the storm water plan for the new parking lot.
5. The new parking lot does not meet our interior parking lot landscaping requirements, but we did not apply that to the existing car storage area either.
6. Extra effort was put into the plan to try and ensure the integrity of the master plan by not using any of the property north of the "old" B2 zoning line for anything other than storm water/landscaping and parking, since these activities could occur with other permitted uses in PUD 58.
7. If rezoned to allow for the expansion, the reaming portion of PUD 58 will still provide the transition that the community residential designation calls for and would not cause a conflict with the residential uses to the north.
8. The Fire Dept has reviewed and approved the site plan.
9. The DDA director has reviewed the plans and approved.
10. The planning commission did basic plan review at our July 17, 2017 meeting. At that meeting we asked the applicant to address the following items.
 - Maintain the existing parcels for the buildings on 28th st.
 - Show the new parking area combined to the dealership parcel.
 - Storm water approved by township engineer.
 - Provide a copy of the emergency access easement.
 - Landscape plan
 - Lighting plan showing compliance with our standards.

A. Standards

Section 16.03 of the Zoning Ordinance requires that a Planned Unit Development must demonstrate that:

Standard	Staff Comment
----------	---------------

Granting of the Planned Unit Development rezoning will result in a recognizable and substantial benefit to the ultimate users of the project and to the community, where such benefit would otherwise be unfeasible or unlikely to be achieved.	The property is already zoned PUD. The changes they are asking for are consistent with the master plan.
In relation to underlying zoning, the proposed type and density of use shall not result in a material increase in the need for public services, facilities and utilities, and shall not place a material burden upon the subject or surrounding land or property owners and occupants or the natural environment	The type of use and density is consistent with the master plan would not result in a material increase in the need for public services.
The proposed development shall be compatible with the General Development Plan of the Township, and shall be consistent with the intent and spirit of this Chapter	The project is consistent with the master plan
In relation to underlying zoning, the proposed development shall not result in an unreasonable negative economic impact upon surrounding properties	The underlying zoning/use of the area is commercial and the amendment to allow the parking lot for car storage would not result in an unreasonable negative economic impact
The proposed development shall contain at least as much green area and usable open space as would otherwise be required by this Ordinance with respect to the most dominant use in the development	Although we did not apply the interior parking lot landscaping requirements they have provided significant landscaping around the perimeter of the site.
The proposed development shall be under single ownership or control such that there is a single person or entity having responsibility for completing the project in conformity with this Ordinance. This provision shall not prohibit a transfer of ownership or control, upon due notice to the Planning Director of the Township	met

Staff Recommendation

Staff recommends approval of the plan. Once approved, we will put together the P.U.D. ordinance amendments with the applicant for your review so you can make a recommendation to the Township Board.

Attachments: Application
 Site plan
 Master plan excerpts



August 1, 2017
Project No. G080322

Mr. Steve Peterson
Cascade Charter Township
2865 Thornhills Avenue, SE
Grand Rapids, MI 49546-7192

Re: Fox Subaru
Site Plan Review

Dear Steve:

We have reviewed the site plan for Fox Subaru, located at 6115 28th Street, prepared by Nederveld. The current site plan and basis of this review are dated July, 21, 2017. The proposed project is a parking lot expansion at the existing car dealership. The site is located in the Thornapple River watershed, sub-drainage district Schoolhouse Creek.

Stormwater and Drainage

Flood Control

The Cascade Charter Township Storm Water Ordinance (SWO), Section 1.04, states the ordinance shall apply to all development that requires any permit for work which will alter the stormwater drainage characteristics of the development site. The site is located in Stormwater Management Zone A, which requires retention of the 100-year storm event and infiltration to the greatest extent possible. Where soil conditions or other factors do not allow for adequate infiltration, the SWO requires detention of the 25-year storm event with a controlled release and a direct connection for stormwater runoff for the 100-year storm event, or detention of the 100-year storm event. The SWO also requires the first 0.5-inch of stormwater runoff be detained and released over a 24 hour period (Water Quality Control) and the 2-year storm event release rate be limited to 0.05 cfs/acre (Bank Erosion Control).

The applicant provided two soil borings and two double ring infiltrometer tests to verify the infiltration capacity of the existing soils. The soil conditions encountered generally consisted of brown lean clay and brown clayey sand extending to a depth of 17 to 20 feet below existing grade, 12 to 13 feet below bottom of the proposed detention basin. Groundwater was not encountered. The infiltration test results at both locations were 0.0 inches/hour. The existing soils are not suitable for stormwater infiltration.

Stormwater infiltration at this location was found to be not feasible, therefore the proposed stormwater management design includes a detention basin with a controlled release sized for the 100-year storm event. All stormwater runoff from the impervious areas of the new parking lot will be captured and conveyed to the new detention basin. The detention basin will tie-in to an existing county drain storm sewer that discharges to a regional detention basin located north and east of the site. A permit from the Kent County Drain Commissioner (KCDC) will be required for discharge to the county drain.

The existing site drains to a stormwater detention basin located adjacent to the proposed detention basin. The existing detention basin was also designed with a controlled release, not infiltration, and connects to the same county drain storm sewer.

Water Quality Control and Bank Erosion Control

The SWO requires the first 0.5 inch of stormwater runoff be detained and infiltrated where conditions permit, or released over a 24-hour period, and the 2-year storm event release rate be limited to 0.05 cfs/acre. The proposed detention basins includes an outlet control structure with three separate orifice openings, one each for the water



quality control, bank erosion control, and flood control discharges. The applicant provided design details and stormwater calculations indicating this SWO requirement has been met.

Stormwater Runoff

The applicant provided stormwater calculations to size the proposed detention basin. All stormwater runoff from the new parking lot will discharge to the detention basin. Therefore, the site will not see an increase in rate of stormwater leaving the site.

Drainage Plan

The applicant has submitted drawings, calculations, and additional documentation as required in the SWO Section 2.03, Drainage Plan. Please refer to the included checklist for items and comments on each item. Please note a maintenance agreement is required before construction begins. The agreement should be submitted to the Township for review. The maintenance agreement and plan should include at a minimum cleaning of catch basin sumps and the mechanical vortex separator unit.

Utilities

Water and/or sanitary sewer services are not required for the parking lot expansion.

Soil Erosion and Sedimentation Control

Soil Erosion and Sedimentation Control (SESC) measures are provided on the plan drawings. The applicant has included silt fence along the limits of disturbance and silt sacks in new catch basins. SESC falls under the review and approval of the Kent County Road Commission and a permit is required before construction can begin. The SESC measures indicated on the drawings appear appropriate given the expected work.

Summary

The proposed stormwater design meets the Township SWO requirements for new developments. The applicant will need to apply for and obtain a number of permits (SESC and KCDC) prior to beginning construction. We recommend approval of the site plan from an engineering standpoint.

If you have any questions or require additional information, please contact me at 616.464.3786 or nrtorrey@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

A handwritten signature in black ink, appearing to read 'N. Torrey', is positioned above the name of the signatory.

Nathan R. Torrey, PE

jlk
Attachment
By email



Cascade Charter Township

Storm Water Ordinance, Ordinance 7 of 2002, as amended by Ordinance No. 2 of 2008, 5/14/2008

Reviewing Engineer Comments are Italicized

OK – Received and Acceptable

NA – Not Applicable

NR – Not Received, Needs Follow-up, See Comments

Fox Subaru

Drainage Plan Checklist

- OK (1) Location of the development site and water bodies that will receive storm water runoff
All stormwater runoff from the new parking lot is collected by a new detention basin that discharges to a Kent County drain.
- OK (2) Existing and proposed topography of the development site, including the alignment and boundary of the natural drainage courses, with contours having a maximum interval of one foot (using USGS datum). The information shall be superimposed on the pertinent Kent County soil map
Existing and proposed contours have been provided.
- OK (3) Development tributary area to each point of discharge from the development
Stormwater calculations and tributary areas were provided by the applicant.
- OK (4) Calculations for the final peak discharge rates
The applicant provided calculations in design of the onsite storm sewer system and detention basin.
- OK (5) Calculations for any facility or structure size and configuration
Stormwater runoff calculations were provided by the applicant.
- OK (6) Drawing showing all proposed storm water runoff facilities with existing and final grades
The applicant provided a utility plan showing all proposed stormwater runoff facilities.
- OK (7) The sizes and locations of upstream and downstream culverts serving the major drainage routes flowing into and out of the development site. Any significant off-site and on-site drainage outlet restrictions other than culverts should be noted on the drainage map
The site plan did not indicate any major offsite drainage routes flowing into the site.
- OK (8) An implementation plan for construction and inspection of all storm water runoff facilities necessary to the overall drainage plan, including a schedule of the estimated dates of completing construction of the storm water runoff facilities shown on the plan and an identification of the proposed inspection procedures to ensure that the storm water runoff facilities are constructed in accordance with the approved drainage plan
A construction schedule was included on the plans.
- OK (9) Plan to ensure the effective control of construction site storm water runoff and sediment track-out onto roadways
The SESC measures shown on the plan appear appropriate given the expected work. SESC falls under the review and approval of the KCRC and a permit is needed before construction can begin.



- OK (10) Drawings, profiles, and specifications for the construction of the storm water runoff facilities reasonably necessary to ensure that storm water runoff will be drained, stored, or otherwise controlled in accordance with this ordinance
The applicant provided calculations and design details for construction of the onsite storm sewer system.
- NR (11) Maintenance agreement, in form and substance acceptable to the Township, for ensuring maintenance of any privately owned storm water runoff facilities. The maintenance agreement shall include the developer's written commitment to provide routine, emergency, and long-term maintenance of the facilities and, in the event that the facilities are not maintained in accordance with the approved drainage plan, the agreement shall authorize the Township to maintain any on-site storm water runoff facility as reasonably necessary, at the developer's expense
Maintenance agreement was not provided and is required.
- OK (12) Name of the engineering firm and the registered professional engineer that designed the drainage plan and that will inspect final construction of the storm water runoff facilities
- NA (13) All design information must be compatible for conversion to Grand Valley Regional Geographic Information System (REGIS)
This is a privately owned system and will not be uploaded to REGIS.
- OK (14) Other information necessary for the Township to verify that the drainage plan complies with the Township's design and performance standards for drains and storm water management systems

Ada Twp

City of Kentwood

Lotell Twp

Caledonia Twp





Cascade Charter

Township

Kent County, Michigan

Map 15 Future Land Use

Legend

-  Gateway Feature
-  Park 'n' Ride
-  Rail Station
-  Utility Service Area

-  Farmland Preservation
-  Rural Residential
-  Suburban Residential
-  Community Residential
-  Village Commercial
-  General Commercial
-  Highway Commercial
-  Mixed Use
-  Heavy Industrial
-  Light Industrial
-  Community Facility/ Golf Course

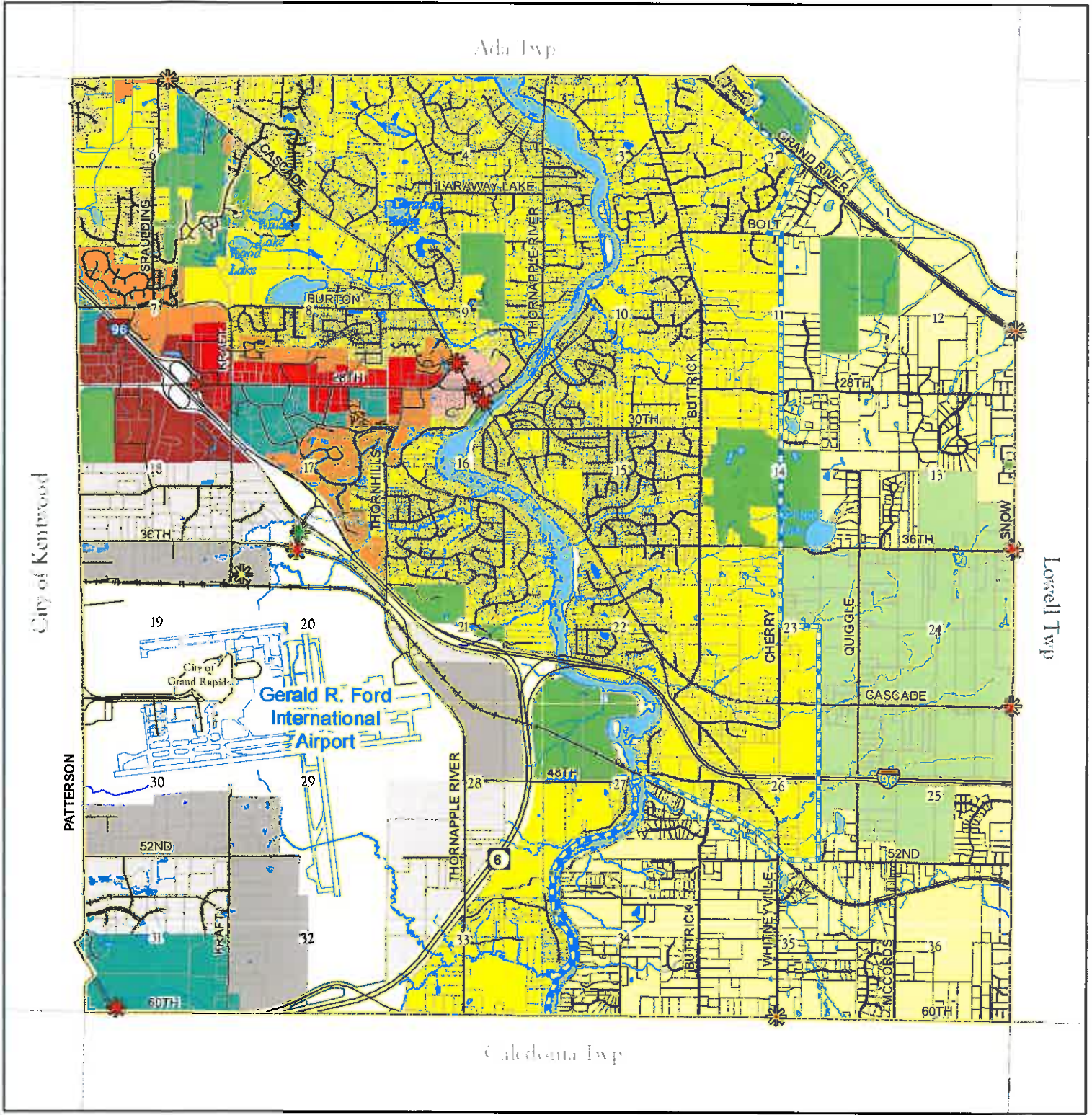


© 2004 Weeks. All Rights Reserved.
This map is not a contract. It is a general representation of future land use. The user is responsible for verifying the accuracy of the information on this map. The user is also responsible for obtaining all necessary permits and approvals from the appropriate authorities. The user is also responsible for obtaining all necessary information from the appropriate authorities. The user is also responsible for obtaining all necessary information from the appropriate authorities.

Williams & Works

416.234.1800 phone • 416.234.1881 fax
510 Cass Avenue NW • Grand Rapids, MI 49503

April 22, 2009



neighborhoods is a primary concern and measures should be taken periodically to assure proper coverage of these services. Private roads should be considered under certain circumstances, such as for the preservation of large stands of trees, or to preserve steep slopes, where drainage and run-off is a concern, or where important natural features have been identified in the Natural Feature Inventory.

COMMUNITY RESIDENTIAL

Description: The community residential land use designation is intended for attached or detached single family and multi-family housing. A project should be designed and developed to provide attractive, up-scale master planned living environments with amenities such as open spaces, walking paths, street trees, street lighting and attractive architectural style. Buildings and structures should be designed to minimize bulk and massing of attached living units.

Location: The community residential land use area primarily serves as a transition from commercial/mixed use and suburban residential uses along 28th Street. However, there are two areas where this use is proposed along the south side of Cascade Road north of Burton.

Desired Uses and Densities: Uses may include attached and detached residential dwellings, including projects that incorporate a variety of housing options, as well as assisted living and retirement communities. Master-planned retirement communities may also incorporate low-impact commercial uses internal and integrated within the development such as personal service establishments (barber shop or hair salon), post office, financial institution and other necessary uses for the convenience of the residents but not available for use by the general public. Development within the community residential area should include a walking system that connects to any existing or planned non-motorized pathway. The Township desires for the community residential areas to be served by mass transit in the future. Water and sewer must be available for new development or redevelopment in this land use category. Additionally, any natural features should be preserved and protected in projects located in the community residential land use area. Only public roads would be permitted in the community residential land use category. Allowable densities would range between 4-6 dwelling units to the acre.

VILLAGE COMMERCIAL

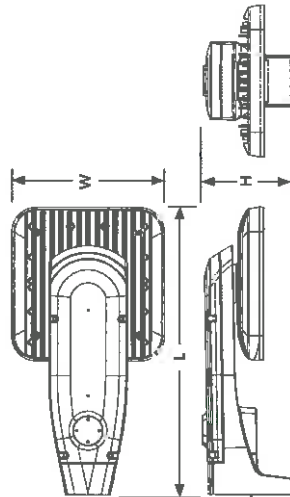
Description: This land use designation is intended to foster a pedestrian-scale, local shopping district confined to the parcels currently zoned for commercial use. It is not the intent of this land use plan to expand commercial uses either north or south along Cascade Road.

KAX LED Size 1 LED Area Luminaire



Specifications

EPA:	0.7 ft ² (0.07 m ²)
Length:	25" (635mm)
Width:	13-1/4" (340mm)
Height:	7-3/4" (195mm)
Weight (max):	26 lbs (11.8 kg)



Classing Number	KAX1 LED P3 40K R3 MVOLT
Notes	25" POLE ON 36" BASE
Type	SL1

Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and system-level interoperability.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is A+ Certified when ordered with DTL® controls marked by a shaded background.
- DTL DLL equipped luminaires meet the A+ specification for luminaire to photocontrol interoperability¹
- This luminaire is part of an A+ Certified solution for ROAMP2 or XPoint™ Wireless control networks, providing out-of-the-box control compatibility with simple commissioning, when ordered with drivers and control options marked by a shaded background²

To learn more about A+, visit www.acuitybrands.com/aplus

- See ordering tree for details.
- A+ Certified Solutions for ROAM require the order of one ROAM node per luminaire. Sold Separately: [Link to Roam](#); [Link to DTL DLL](#)

Ordering Information

Series	Color Temperature		Distribution	Mounting
	P2	40K		
KAX1 LED	P1	3000K	R3 Type 3	SPA
	P2	4000K	R4 Type 4	RPA
	P3	5000K	R5 Type 5	RMA
	P4			

Control options	Other options	Finish
Shipped installed	Shipped installed	Finish
PER	RS	DBBXO
PER7	SF	DBLXO
PIR	DF	DNAXO
PIR7	TILT	DNBXXO
PIR1FCV	Shipped separately	DBLXXO
PIR1FCV7	BS	DNMXXO
FAO	ES	DNWXXO

