



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
TOWNSHIP BOARD – REGULAR MEETING
May 2, 2017 6:00 PM



1. CALL MEETING TO ORDER*
2. PLEDGE OF ALLEGIANCE/INTRODUCTIONS
3. ROLL CALL
4. PRESENTATION
5. CITIZENS ADDRESS AGENDA ITEMS AND NON-AGENDA ITEMS*
6. TOWNSHIP MANAGER REPORT
7. BOARD MEMBER REPORTS AND ANNOUNCEMENTS
8. APPROVAL OF AGENDA
9. CONSENT AGENDA (SALMON)
 - A. Communications
 - B. Minutes
 - (1) March 21, 2017 Regular Meeting
 - (2) April 18, 2017 Regular Meeting
 - C. Bills
 - D. ~~Outdoor Gathering Permit - Gus Macker~~
 - E. Resolution to Approve Financial Institution (First National Bank)
 - F. Discharge of Mortgage 1678 Lake Lansing (Miser)
10. QUESTIONS FOR THE ATTORNEY
 - A. Legal Requirements-Board Minutes
11. HEARINGS (CANARY)
 - A. Mixed Use Planned Unit Development #16024 (Capstone), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway
12. ACTION ITEMS (PINK)
 - A. Rezoning #16060 (Summer Park Realty), Rezone 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road
 - B. 2017-2019 TPOAM Administrative Professional Employees Contract
 - C. Meridian Township Vision and Mission Statements
 - D. Policy Regarding Minutes of the Township Board
13. BOARD DISCUSSION ITEMS (ORCHID)
 - A. Mixed Use Planned Unit Development #16024 (Capstone), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway
 - B. Special Use Permit #16111 (Capstone), construct group of buildings greater than 25,000 square feet in size at Hannah Boulevard/Eyde Parkway
14. COMMENTS FROM THE PUBLIC*
15. OTHER MATTERS AND BOARD MEMBER COMMENTS
16. ADJOURNMENT
17. POSTSCRIPT – PHIL DESCHAIINE

All comments limited to 3 minutes, unless prior approval for additional time for good cause is obtained from the Supervisor.
Appointment of Supervisor Pro Tem and/ or Temporary Clerk if necessary.

Individuals with disabilities requiring auxiliary aids or services should contact the Meridian Township Board by contacting:
Township Manager Frank L. Walsh, 5151 Marsh Road, Okemos, MI 48864 or 517.853.4258 - Ten Day Notice is Required.
Meeting Location: 5151 Marsh Road, Okemos, MI 48864 Township Hall

TOWNSHIP BOARD REGULAR MEETING COMMUNICATIONS, MAY 2, 2017

(1) Board Deliberation (BD)

- 12A-1 Judy and Paul Kindel, 2915 Margate Lane, East Lansing; RE: Opposition to Rezoning #16060
- 12A-2 Jan and Mike Jenkins, 6030 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060
- 12D-1 Donna Rose, 6207 Cobblers Drive, East Lansing; RE: Board Meeting Minutes

(2) Board Information (BI)

- BI-1 Phyllis Vaughn, 6200 Balog Court, Haslett; RE: Concern with Commercial Planned Unit Development #17014

(3) Commission Linkage (CL)

- CL-1 Phyllis Vaughn, 6200 Balog Court, Haslett; RE: Resignation from the Transportation Commission

(4) Staff Communications (SC)

- SC-1 Director Deborah Guthrie; RE: Article in the February, 2017 edition of *Township Focus* concerning Meridian Township history

(5) On File in the Clerk's Office (OF)

Material handed out at the April 18, 2017 Board Meeting

- Kevin Sayers, 962 Northgate Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Phil Ballbach, 2723 E. Lake Lansing Road, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Jennifer Louagie, 6118 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Benjamin Louagie, 6118 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Gay Heusner, 6216 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Eleanor Heusner, 6216 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Karen Renner, 6270 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- William Flynn, 6086 Skyline Drive, East Lansing; RE: Opposition to Rezoning #16060 (Summer Park Realty/Walnut Hills)
- Neil Bowlby, 6020 Beechwood Drive, Haslett; RE: Order of items during public hearings

12A

**CLERK'S OFFICE
BOARD COMMUNICATIONS
MAY 2, 2017**

Board Deliberations (BD)

Sandy Otto

From: Judy Kindel <kindelj1@gmail.com>
Sent: Friday, April 14, 2017 10:55 AM
To: Board
Subject: DENY rezoning of parcel 16060

We ask that you vote to support the Planning Commission's decision to deny the request by Summer Park Reality to rezone Parcel 16060.

Many reasons for denial of the rezoning have been expressed to the Planning Commission over the past months. In addition to the proposed increase in density at that site, are the Township's future plans to infill the Carriage Hills Shopping Center, only 1/4 mile away, with new development. In combination, these would have a very negative impact on the residents living in the immediate area in regard to traffic and safety.

Thank you for considering this request.

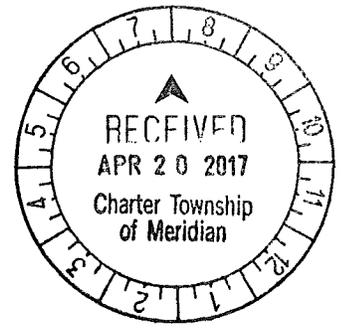
Judy and Paul Kindel

MAY 02 2017

BD 12A-1

MAY 02 2017

April 20, 2016



TO: Meridian Township Board of Trustees
FR: Jan & Mike Jenkins, 6030 Skyline Dr., East Lansing, M: 48823
RE: Opposed to rezoning of WHCC property

This information/photos were presented at the trustees' meeting April 18.
Here's a close up.

1. We agree with the opposition voiced by others and the Planning Commission concerning the WHCC property rezoning. The property is not suited for major development, and limiting the number of residences will be helpful to WHCC neighboring communities and actually the developer.
2. We are concerned that development, especially overdevelopment, will cause major, unresolvable water issues.
3. Development will require an extraordinary amount of soil be brought in to the property. Because its purpose is to displace an inordinate amount of water, we are concerned it will affect drainage on adjoining property, including ours.
4. Below are photos of the front of the WHCC property after multiple rains. All but one photo were taken in 2016. The area is the "good" area to the west of the entry drive; not the wetlands to the east of the entry drive.
5. The problem of dealing with excess water will only get worse. The Michigan Climate Action Network recently reported that "rainfall has increased 30 percent in Michigan since 1991..."¹ due to increasingly warm temperatures, which are expected to continue. Many Michigan cities had the warmest February on record this year.



Two photos are spliced together to show the temporary lake between the Lake Lansing Road sidewalk and hole #10. It's at least a day after a rainfall.

MAY 02 2017

BD 12A-2

MAY 02 2017



Same area enjoyed by wildlife.



Same area; the slow drain. It's been days since the rainfall.

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BD 12A-2
(page 2 of 3)
MAY 02 2017



More standing water, and clouds are not in sight.



Taken four days after last week's rain. Note slight puddles still remain - two are visible in center of photo. Ground was not walkable.

Footnote:

1. C&G Newspapers, April 11, 2017,
<http://www.candgnews.com/news/experts-discuss-climate-change-and-effect-state-100675>.

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BD 12A-2
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12D

**CLERK'S OFFICE
BOARD COMMUNICATIONS
MAY 2, 2017**

Board Deliberations (BD)

Sandy Otto

From: Donna Rose <wild-rose@sbcglobal.net>
Sent: Friday, April 21, 2017 6:34 PM
To: Board
Cc: Frank Walsh
Subject: Of Board Meeting About Minutes

Dear Supervisor and Trustees,

The minutes don't have to be taken by Bret. Why can't Sandy just watch the meeting, as she is doing anyway, and just do the minutes without overtime? Or just bring her back to do them so Bret is free to participate in the meeting. If there is going to be such a commotion over them, just change it back to how it was. I am glad to have her do them again and even pay her overtime just to end everyone's stress.

It seems very hard for politicians to stay in the here and now, so egos don't get bruised. I know many of you are looking ahead to the next big opportunity. I thought Julie and Bret both made some good points about the minutes in question. I would rather have Bret be able to concentrate on the important business of the Board and not to take notes. Please fix this so the issue doesn't come up again. By the way, I do like more complete notes than scant ones.

I really want to thank Trustee Jackson for her thoughtful discussion on why she doesn't support rezoning of Walnut Hills. And I also appreciated comments by Trustee Opsommer and Brixie as well. There are so many homes in our area for sale which cannot sell and building new homes, even using the current zoning, will have a greater impact on sales and property values too. I realize this owner will likely go to the Zoning Board of Appeals, but so be it. We can show up there too. I would prefer this parcel not be developed at all. It will disturb a lot of wildlife and new owners will complain about animals wandering around their subdivision when they were there first. Plus there is always a lot of flooding there unrelated to the wet lands. I live near the bottom of the hills located nearby by about two blocks, and my sump pump runs constantly as it is. I don't want more water from this higher ground after the development because it has nowhere to go.

Thank you so much for considering my viewpoint.

Peace,

Donna Rose

Cobblers Drive

It is better to light a single candle than to curse the darkness.

Attributed to Eleanor Roosevelt

MAY 02 2017

B7 12 D-1

MAY 02 2017

9A

**CLERK'S OFFICE
BOARD COMMUNICATIONS
MAY 2, 2017**

Board Information (BI)

Mark Kieselbach

From: phyllis vaughn <vaughnp8@yahoo.com>
Sent: Wednesday, April 26, 2017 3:10 PM
To: Ronald Styka; Mark Kieselbach
Subject: Gas station/ Haslett

I am writing about the proposed gas station and convenience store on the corner of Marsh and Haslett Road.

Due to the fact there is already Quality Dairy, Rite Aid and a small convenience store by Mayfair. I would like the board to consider who this store would be targeting as customers. The demographics of the closest residents are lower income and seniors.

I do not think another convenience store is warranted. Yes the owner will probably make good money from such a business. However, for residents who do not have transportation or concept of meal planning this is not good.

I have seen people pay up to three times the price at QD for a frozen dinner because it was available.

Also lottery tickets and alcohol are big money makers. We need fresh produce and healthier choices.

To give this many variances to put in a store like this does not make sense to me. I watched the planning Comm. discussions on this and was surprised they passed it.

Thank you

Phyllis Vaughn

"Give your best to the world and the best will come back to you."

"Friends are Angels who lift us to our feet, when our wings forget how to fly"

MAY 02 2017

BI-1

MAY 02 2017

**CLERK'S OFFICE
BOARD COMMUNICATIONS
MAY 2, 2017**

Commission Linkage (CL)

Sandy Otto

From: Mark Kieselbach
Sent: Thursday, April 27, 2017 8:40 AM
To: Sandy Otto
Subject: FW: Transportation Comm.



A Prime Community

Mark Kieselbach
Community Planning & Development Director
kieselbach@meridian.mi.us
W 517.853.4506
5151 Marsh Road | Okemos, MI 48864
meridian.mi.us

From: phyllis vaughn [mailto:vaughnp8@yahoo.com]
Sent: Monday, April 24, 2017 8:46 PM
To: Ronald Styka <styka@meridian.mi.us>; Chris Hackbarth <chackbarth@mml.org>; Mark Kieselbach <Kieselbach@meridian.mi.us>; Steve Vagnozzi <svagnozzi@comcast.net>; Tim Potter <flyingdutchman63@gmail.com>; Phil Deschaine <phildeschaine@gmail.com>; Karla Hudson <hudson.kc@live.com>; hiphomes@outlook.com; Frank Walsh <walsh@meridian.mi.us>
Subject: Transportation Comm.

Please accept this email as my resignation from the Transportation Comm. I feel the public disrespect shown to me by the Clerk is not worth putting myself in a position for more. One Comm Member greeted me at first meeting saying he expected me to have horns. I hope it was said jokingly. There are many ways I serve this community and do not need to open myself up to be dragged into the politics and name calling. I know who I am and what I believe as truth.

Sincerely

Phyllis Vaughn

"Give your best to the world and the best will come back to you."

"Friends are Angels who lift us to our feet, when our wings forget how to fly"

MAY 02 2017

CL-1

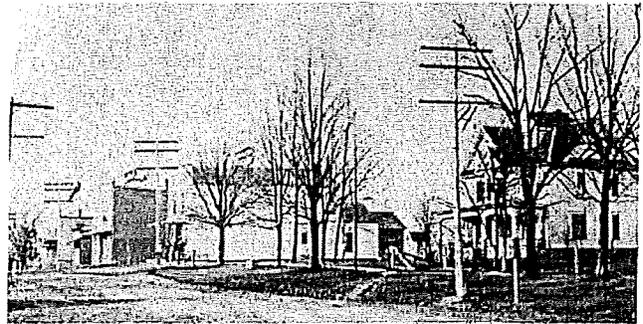
MAY 02 2017

**CLERK'S OFFICE
BOARD COMMUNICATIONS
MAY 2, 2017**

Staff Communications (SC)

around state

townships in the spotlight



Meridian Charter Township

On Feb. 16, 1842, both Meridian Charter and Delhi Charter Township (Ingham Co.) were enacted by an act of the Michigan Legislature. To commemorate their shared 175th birthday, the two townships have collaborated to organize a "Celebrate Enactment Day" at the state Capitol. Schools and community leaders will be on hand to present tributes to both communities about their history and where they are today.



The first township meeting in Meridian Charter Township was held at the home of George Matthews, although the exact date is unknown, as the records from 1842-1844 were destroyed in a fire.

The lines that define Meridian Charter Township began with the trails worn by native Chippewa and Ottawa tribes. Roadways in the community, such as Grand River, Marsh and Hulett, follow the paths of Native travelers.

Meridian Charter Township lies along the Michigan meridian line. After township and property lines were set between 1815 and 1827, the first settlers began purchasing property around Pine Lake, an area now referred to as Haslett, and the Red Cedar River known as Okemos.

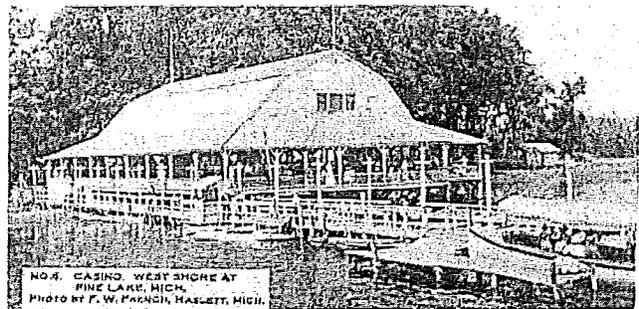
After the new state capital was moved to Lansing west of the township, plank roads and railroads began paving the lines for growth. Okemos became a stopping point between Lansing and Detroit for travelers, and hotels and stores were built to accommodate the influx of visitors.

"Meridian: The Lines That Define Us" is a historical documentary told by the people of Meridian Charter Township. It first aired at a township movie theater on New Year's Eve 2016, with two sold-out showings as part of the township's year-round kick-off celebration. The documentary had the highest number of tickets sold that evening, even beating out the box office smash Star Wars film "Rogue One." According to theater manager Justin Ziegler, the amount of traffic in the theater on Dec. 31 was the highest he's seen on a New Year's Eve. The documentary received rave reviews as did the entire kick-off celebration, which included fireworks. In fact, response to the documentary was so popular, the township is working with the theater to arrange additional showings.

The township is also celebrating with a "History of Meridian" traveling pictorial exhibit. Each month throughout 2017, various locations are hosting the pictorial. As participants walk through the exhibit, they can share stories or leave comments of their own.

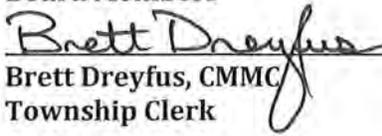
Today, Meridian Charter Township residents enjoy quiet, safe and well-maintained connected neighborhoods with more than 904 acres of parks, pathways and recreational opportunities for all to enjoy. With natural beauty on roads, interurban pathways and vibrant business districts, the township is a great atmosphere for families, seniors and young professionals.

A destination since before the turn of the century, the township offers an abundance of quality of life amenities as well as natural beauty with four seasons of outdoor activities.





9. B (1)

To: Board Members
From: 
Brett Dreyfus, CMMC
Township Clerk
Date: April 28, 2017
Re: March 21, 2017 Board Minutes

Item 9B (1) on the May 2, 2017 Township Board Agenda lists the minutes for March 21, 2017 Board Meeting.

The procedural issues concerning these minutes were discussed extensively at the Township Board Study Session held at the Fire Station on April 25, 2017. Here is a summary of my comments:

The Clerk's Office prepared Draft Minutes of the March 21, 2017 Township Board meeting and distributed them to Board members on March 31st as well as uploading those Draft Minutes to the Township website. This is standard procedure for the submission of Draft Minutes to the Board.

The Township Board had an opportunity to change or amend the minutes during the April 4, 2017 Board Meeting. At that meeting, Supervisor Styka requested the minutes be pulled from the agenda so that he could privately discuss some proposed changes with the Clerk the following week.

On Friday, April 14th, the Supervisor emailed suggested changes to the Clerk, as well as engaging in a telephone conversation with the Clerk regarding those proposed changes. The Clerk stated it was not correct protocol to make changes to Draft Minutes in this manner, but agreed this would be a "one-time situation" and the Draft Minutes submitted at the previous meeting – along with the Supervisor's proposed changes – was renamed "Revised Draft Minutes" and included with the April 18th Board Packet.

At the Board Meeting on April 18th, a number of changes to the "Revised Draft Minutes" were discussed, with one motion failing and one passing involving proposed changes. However, a motion to approve the minutes for the March 21st Board Meeting failed on a 4-3 vote.

Due to the importance of this issue, the Township Clerk conducted research on this issue to ensure compliance with state statutes. After reviewing Michigan Compiled Laws, and Michigan Township Association (MTA) reference materials, a key fact emerged which

resolves the question of “approval” of Draft Minutes. Here is the relevant section of state statute:

“Each public body shall keep minutes of each meeting ... The public body shall make any corrections in the minutes at the next meeting after the meeting to which the minutes refer. The public body shall make corrected minutes available at or before the next subsequent meeting after correction. The corrected minutes shall show both the original entry and the correction.”
(MCL 15.269)

The MTA explicitly states the only opportunity for the Board to correct or change minutes of a Board meeting is at the next Board meeting. Whether changes are made, or no changes are made, the Draft Minutes of the previous meeting automatically become the official (“approved”) minutes at the conclusion of the next Board meeting.

Based on this language and understanding, it is clear that the Draft Minutes of March 21, 2017 were NOT changed or modified at the April 4, 2017 meeting as the Supervisor pulled them from the Consent Agenda and no Board action was taken at that meeting. Therefore, the Draft Minutes of March 21, 2017, submitted to the Board on April 4th, became the Approved Minutes at the conclusion of that Board meeting and no changes or corrections can be made to those minutes.

Any Board member can review the minutes of the March 21, 2017 Board Meeting by referring to their Board Packet for April 4th, or by reviewing them on the Township website.

9B (2)

PROPOSED BOARD MINUTES

PROPOSED MOTION:

Move to approve and ratify the minutes of the April 18, 2017 Regular Meeting as submitted.

ALTERNATE MOTION:

Move to approve and ratify the minutes of the April 18, 2017 Regular Meeting with the following amendment(s): [insert amendments].

MAY 2, 2017
REGULAR MEETING

CHARTER TOWNSHIP OF MERIDIAN
TOWNSHIP BOARD REGULAR MEETING - **DRAFT** -
5151 Marsh Road, Okemos, MI 48864-1198
853-4000, Town Hall Room
TUESDAY, APRIL 18, 2017 **6:00 P.M.**

PRESENT: Supervisor Styka, Clerk Dreyfus, Treasurer Brixie, Trustees Deschaine, Jackson, Opsommer, Sundland
ABSENT: None
STAFF: Township Manager Frank Walsh, Assistant Township Manager/Director of Public Works and Engineering Derek Perry, Director of Community Planning & Development Mark Kieselbach, Police Chief David Hall, Assistant Chief Ken Plaga

1. CALL MEETING TO ORDER

Supervisor Styka called the meeting to order at 6:03 P.M.

2. PLEDGE OF ALLEGIANCE/INTRODUCTIONS

Supervisor Styka led the Pledge of Allegiance.

3. ROLL CALL

The Clerk called the roll of the Board.

4. MOMENT OF SILENCE & RECOGNITION-TRUSTEE JOHN R. VEENSTRA

Clerk Dreyfus read a Memorial Resolution he wrote honoring former Trustee John Veenstra, and presented the resolution to members of Mr. Veenstra's family. A motion for the Board to approve the resolution was passed unanimously.

5. CITIZENS ADDRESS AGENDA ITEMS AND NON-AGENDA ITEMS

Supervisor Styka opened Public Remarks.

Karen Renner, 6270 Skyline Drive, East Lansing, spoke in opposition to Rezoning #16060, citing concerns with poorly drained soils and the impact of over-development on drainage in the area.

R_x Harrington, 820 Piper Road, Haslett, offered his eulogy for former Trustee John Veenstra, characterizing him as a local citizen activist who lived his life for his constituency and the causes in which he believed.

Leonard Provencher, 5824 Buena Parkway, Haslett, voiced support for Kathy DeVito's letter regarding Board behavior and in opposition to Rezoning #16060 as it is not smart growth. He stated the Police and Fire Millage ballot language does not mention pension liabilities. Mr. Provencher objected to only one public comment opportunity at Transportation Commission meetings and believed the Board representative to the Commission is "too forceful."

Karla Hudson, 6009 Skyline Drive, East Lansing, indicated she was surprised when Trustee John Veenstra came to her door to discuss an issue she wrote a letter about. She voiced opposition to Rezoning #16060, citing safety issues for the children, increased traffic and nature "issues."

Michael Hudson, 6009 Skyline Drive, East Lansing, stated John Veenstra really cared and he made a difference. He believed Rezoning #16060 is a bad idea as the location abuts a working farm, has concern with additional traffic and drainage issues, adding the current zoning designation is appropriate.

Donna Rose, 6207 Cobblers Drive, East Lansing, described John Veenstra as a politician who was also a "nice" guy and always there "for the people." She spoke in opposition to Rezoning #16060. Ms. Rose shared that as one of the Meridian Township appointees to the Capital Area Transportation Authority (CATA) Board of Directors, she will be voting to cease planning of the BRT at tomorrow's CATA Board meeting.

Fred Stacks, 5913 Highgate Avenue, East Lansing, spoke in opposition to Rezoning #16060, noting the addition of 400 new homes in the area will cause existing home values to decrease. He voiced concern there is no firm plan in writing.

Bill Triola, 6292 Skyline Drive, East Lansing, spoke in opposition to Rezoning #16060, citing traffic and construction equipment concerns. He stated there has been no information from the East Lansing School Board regarding the impact additional children may have on nearby Donnelly elementary school.

Chester Lewis, 5944 Patriots Way, East Lansing, encouraged the Board to seriously consider the recommendation of the Planning Commission and follow their lead regarding denial of Rezoning #16060.

Bruce Kuffer, 16675 Austin Way, East Lansing, voiced opposition to Rezoning #16060. He asked the Board to consider what could be done if the zoning designation does not change.

Milton Scales, 1534 Downing Street, Haslett, spoke to what John Veenstra meant to the Meridian community, stating no "non-full time" employee of the Township worked harder than him. He suggested a pathway in the Township be named after Mr. Veenstra.

Ody Norkin, 3803 Sandlewood, Okemos, noted John Veenstra was a teacher and mentor to him. He stated several neighbors in the Briarwood subdivision are supportive of the Planning Commission recommendation to deny Rezoning #16060.

Neil Bowlby, 6020 Beechwood Drive, Haslett, questioned Item #77 contained in the Township Bills regarding the purchase of utility police interceptor vehicle(s). He spoke in opposition to Rezoning #16060. Mr. Bowlby requested an explanation of language contained in the Granger Recycling Agreement.

Jan Jenkins, 6030 Skyline Drive, East Lansing, spoke in opposition to Rezoning #16060. She displayed photographs of flooded areas on the property which demonstrate why this land is not suitable for large scale development, noting the photos display "regular" land that is flooded after a heavy rain.

Eleanor Heusner, 6216 Skyline Drive, East Lansing, read a prepared statement in opposition to Rezoning #16060, fearing the lowering of property values of existing homes in the surrounding area. She also voiced concern with drainage and safety of children attending school nearby.

Supervisor Styka closed Public Remarks.

6. TOWNSHIP MANAGER REPORT

Manager Walsh reported the following:

- Local roads meeting this week to begin their review of streets to be repaved in 2017
- Capstone MUPUD will be on the Township Board agenda for May 2, 2017
- 2016 audit findings will be made available to the Board for its May 16th Meeting
- Sleepy Hollow neighborhood meeting will be held on May 3rd at 6:00 P.M. in the Central Fire Station Community Room
- Towner Road Park groundbreaking to be held April 19th at noon will be rescheduled to a future date
- Location of a bench and naming of a pathway dedicated in honor of former Trustee John Veenstra is already underway and will come before the Board when plans are formalized

7. BOARD MEMBER REPORTS AND ANNOUNCEMENTS

Trustee Deschaine reported the following:

- Attendance at the March 23rd Transportation Commission Meeting
 - Approximately 4 miles of road can be repaved for the \$650,000 budgeted
 - 125 miles of roads in the Township will take 45 years to repave at the current schedule
 - Additional funding through a millage may be needed to move up the current timeline

- Attendance at the last Economic Development Corporation (EDC) Meeting
 - Issues discussed included health of Meridian Mall and moving the Farmers Market to the mall
 - Two ribbon cutting ceremonies planned for the 3D printers being donated to Haslett Public Schools on Monday, April 24th at 8:30 A.M. at both Ralya and Murphy Elementary Schools
- Attendance at the Michigan Townships Association (MTA) conference last week
 - Four Meridian Township police officers volunteered to be the color guard and presented at the conference

Trustee Opsommer reported the following:

- CATA Board of Directors will meet tomorrow to discuss audit committee recommendations to address state issued fines concerning non-payment of income tax withholdings
 - Recommendations include requests for proposal (RFPs) regarding auditing services

Clerk Dreyfus reported the following:

- John Veenstra encouraged him to run for office
 - John's family will donate a bench in honor of John to be located at Lake Lansing Park North
- Deputy Clerk Joan Horvath will retire May 9 and he thanked her for her many years of excellent service to the Township
- Attended a question and answer session for Clerks in Ingham County sponsored by the vendor providing new election equipment which will be used in our August 8th election
- May 2nd election for Haslett and East Lansing Schools for residents who live in those school districts
 - Precincts 18 & 19 in the East Lansing school district have been consolidated with East Lansing
 - Affected Meridian Township voters have been sent notification of their changed polling location for this election
- Haslett Community Church to activate a 60 solar panel rooftop array
 - Dedication service schedule for April 23rd at 11:15 A.M. at the church
- Concern with the change he discovered in the Harkness Law Firm renewal contract from the current two (2) year time frame to three (3) years as noted in Paragraph No. 28
- Concern with the lack of report by the Board's CATA representative concerning CATA's fine for late payment of payroll taxes and continued significant overtime costs for its bus drivers

Treasurer Brixie reported the following:

- Attendance at the last Land Preservation Advisory Board (LPAB) meeting
 - Undertaking of a vernal pool identification project
 - Burning at the Davis Foster Preserve
- Township will conduct a personal property tax auction for sale of equipment seized from Hampton Jewelers to be held online on April 27th at www.repocast.com
 - Seizure was in accordance with state law
 - Proceeds from the tax sale will go towards satisfying tax liens for both Meridian Township and Lansing Township

Trustee Jackson reported the following:

- Attendance at last week's MTA conference along with several members of the Board
 - MTA works with and for Meridian Township, as seen recently by the amicus brief related to the dark store issue
 - MTA's primary purpose is to "corral" the resources of townships to promote their interests at the state level
 - New Board of Directors elected

In response to previous comments by the Clerk, Trustee Opsommer clarified the following:

- As the Board representative to CATA, he was not in attendance at the March 15th CATA Board meeting (due to a scheduling conflict) where the income tax withholding issue was first brought to the CATA Board's attention

- Bus Rapid Transit (BRT) will be discussed at tomorrow night's meeting
 - Rationale for terminating funding for the BRT project was the reengineering required for project approval would cost \$700,000
- Bus driver overtime is an ongoing issue
 - Driver absenteeism can cause overtime

Supervisor Styka reported the following:

- LO Eye Care will open a new branch in Meridian Township on April 26th
- Meridian Township's semi-annual recycling event will take place April 22nd at Chippewa Middle School
- State requirement (through Proposal A) mandates school districts maintain a specific level of millage
 - Haslett voters will be asked to approve the standard state required millage on May 2nd
- East Lansing May 2nd millage question seeks funding to rebuild and modernize its elementary schools
- Clarification that Item #77 in the Township Bills is for three (3) police cars

Manager Walsh stated the renewal contract for prosecutorial services should be for two (2) years, included to provide the option to hold the firm, at a future date, to the current price for services.

8. APPROVAL OF AGENDA

Treasurer Brixie moved to approve the agenda as submitted. Seconded by Trustee Deschaine.

VOICE VOTE: Motion carried unanimously.

9. CONSENT AGENDA (SALMON)

Supervisor Styka reviewed the consent agenda.

Treasurer Brixie moved to adopt the Consent Agenda amended as follows:

- **Move Agenda Item #9 B (1): March 21, 2017 Regular Meeting Minutes to Action Item #12E**

Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

A. Communications

Treasurer Brixie moved that the communications be received and placed on file, and any communications not already assigned for disposition be referred to the Township Manager or Supervisor for follow-up. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

B. Minutes

(2) Treasurer Brixie moved to approve and ratify the minutes of the March 30, 2017 Regular Meeting as submitted. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

(3) Treasurer Brixie moved to approve and ratify the minutes of the April 4, 2017 Regular Meeting as submitted. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

C. Bills

Treasurer Brixie moved that the Township Board approve the Manager's Bills as follows:

Common Cash	\$	310,814.24
Public Works	\$	501,799.57
Trust & Agency	\$	3,199.25
 Total Checks	\$	 815,813.06
 Credit Card Transactions	\$	 8,725.60
 (March 30 to April 12, 2017)		
 Total Purchases	\$	 <u>824,538.66</u>
 ACH Payments	\$	 <u>397,465.94</u>

Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

[Bill list in Official Minute Book]

D. Bennett Village Phase #2 Streetlighting SAD #424-Resolution #3 & #4

Treasurer Brixie moved to approve Bennett Village Phase #2 Public Streetlighting Improvements Special Assessment Dist5rict No. 424, Resolution #3, which approves the construction of the public improvement, the estimate of cost, and defraying the cost by special assessment; determines the special assessment district and directs the making of an assessment roll; and to approve Resolution #4, which files the proposed final special assessment roll with the Township Clerk and sets the date for a public hearing on May 16, 2017. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

E. Support Emergency Operations Plan Update

Treasurer Brixie moved to approve the updated Support Emergency Operations Plan and authorize the Township Manager and department contacts to sign the agreement. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

- F. Lake Lansing Watershed Advisory Committee Appointments
Treasurer Brixie moved that the following property owners be reappointed to the Lake Lansing Watershed Advisory Committee for terms expiring April 30, 2019: Robert Hollenshead, 6068 Columbia; Ronald Rowe, 6247 E. Lake Drive; and Larry Wagenknecht, 6097 Partridge. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus
 NAYS: None
 Motion carried unanimously.

10. QUESTIONS FOR THE ATTORNEY (None)

11. HEARINGS

- A. Commercial Planned Unit Development #17014 (Saroki), Demolish and Reconstruct Gas Station at 1619 Haslett Road
 Supervisor Styka opened the public hearing at 7:23 P.M.

Director Kieselbach summarized the proposed commercial planned unit development (CPUD) as outlined in staff memorandum dated April 11, 2017.

- Applicant
 Robert Saroki, 3650 Stallion Way, Commerce, believed the proposed reconstruction of the existing gas station site will be safer and more aesthetically pleasing. He added the reconstruction will include a convenience store and on-site mechanics.

Adam Patton, PM Environmental, 3340 Ranger Road, Lansing, described the environmental condition of the property relative to the potential for brownfield funding to facilitate redevelopment. He explained the site is contaminated with soil and groundwater which exceeds Michigan’s cleanup criteria as a result of former service station and gas station operations. Mr. Patton explained the owner is not liable for cleanup but has “due care” requirements to appropriately construct and manage the property relative to the existing contamination. He noted the use of Brownfield Tax Increment Financing will financially assist the owner in addressing these conditions. Mr. Patton stated the total investment is \$1 million, with preliminary brownfield eligible expenses totaling up to \$200,000.

- Public
 Neil Bowlby, 6020 Beechwood Drive, Haslett, voiced appreciation for redevelopment of the site. He inquired how the requests for setback waivers differ from what currently exists. Mr. Bowlby wondered how the architectural features of the building conform to the proposed architectural desires for the Potential Intensity Change Area (PICA) areas.

Supervisor Styka closed the public hearing at 7:38 P.M.

12. ACTION ITEMS

- A. Rezoning # 17010 (Portnoy & Tu) north of 2476 Jolly Road from RA (Single Family-Medium Density) to PO (Professional and Office)-**Final Adoption**
Treasurer Brixie moved to adopt the resolution for final adoption of Ordinance No. 2017-04 pursuant to Rezoning Petition #17010. Seconded by Trustee Jackson.

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus
NAYS: None
Motion carried unanimously.

- B. Meridian Township Brownfield Authority
Trustee Jackson moved to adopt the resolution establishing the Brownfield Redevelopment Authority for the Charter Township of Meridian and appointing Board members pursuant to and in accordance with the provision of Act 381 of the Public Acts of the State of Michigan of 1996, as amended. Seconded by Treasurer Brixie.

Board discussion:

- Board members support for creation of this authority
- Membership will include the Township Manager, one representative each from the Planning Commission (PC) , EDC, Environmental Commission (EC)and three members having an interest or expertise in the fields of engineering, finance or law
- Change to the Application for Public Service will include the Brownfield Redevelopment Authority (BRA)
- Membership will be appointed at a future Board meeting

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus
NAYS: None
Motion carried unanimously.

- C. Recycling Center Operation Agreement & Road Improvement
Trustee Deschaine moved to approve the Agreement for Recycling Services with Reclaimed by Design and authorize improvements to the entrance drive at a cost not to exceed \$10,000.00. Seconded by Clerk Dreyfus.

Board discussion:

- This important Township asset needs to be well managed
- Citizen complaint regarding hours of operation has been remedied
- Revised elements of the agreement

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus
NAYS: None
Motion carried unanimously.

- D. Kansas Road Public Sanitary Sewer Improvement; SAD #52-**Resolution #5**
Treasurer Brixie moved to approve the Kansas Road Public Sanitary Sewer Improvement Special Assessment District No. 52 – Resolution No. 5, which approves the special assessment roll; designates the project as “Kansas Road Public Sanitary Sewer Improvement Special Assessment District No. 52”, the assessment roll as the “Kansas Road Public Sanitary Sewer Improvement Special Assessment District No. 52”, and the district as the “Kansas Road Public Sanitary Sewer Improvement Special Assessment District No. 52”; adopts the amount of \$117,191.20 as the final amount for the assessment roll; and orders and directs the assessment roll to be paid and collected. Seconded by Trustee Jackson.

Assistant Township Manager/Director of Public Works and Engineering Perry summarized the proposed sanitary sewer improvements as outlined in staff memorandum dated April 12, 2017.

Board discussion:

- One property owner asked for a second lateral to be added once the lot was split
- Meridian Township hired a different contractor to perform that installation and incorporated the cost into the overall assessment
- The treasurer's office will send out special assessment bills on June 1st to all property owners within the SAD, with the first installments due July 1st

ROLL CALL VOTE: YEAS: Trustees Deschaine, Jackson, Opsommer, Sundland, Supervisor Styka, Treasurer Brixie, Clerk Dreyfus

NAYS: None

Motion carried unanimously.

E. March 21, 2017 Regular Meeting Minutes

Trustee Deschaine moved to amend the March 21, 2017 minutes as follows:

- **Amend Page 8 under "E. Findings of the Local Officials Compensation Commission (LOCC)" by adding a bullet point directly under Board and staff discussion which reads: "This motion is being made in consideration of the tremendous sacrifices the current and future employees have made in renegotiating their pensions and with consideration of the public safety millage we are asking our residents to consider in August."**
- **Amend the fifth bullet point by deleting "Reminder" and inserting "Belief"; strike "including the Manager"**
- **Amend the seventh bullet by deleting "Board member belief that"; delete "the" after "2012", and delete "of the Clerk, Treasurer, Supervisor and Board Trustees"**
- **Amend the tenth bullet by deleting "statement that comparatively speaking," and inserting "belief that"**
- **Delete the 13th bullet**
- **Delete the 14th bullet in its entirety and insert "Board member belief that voting a raise for Board members in the same meeting as unanimously approving an approximate 1.5 millage is wrong and "turns my stomach"**
- **Add a bullet to read: "Board member belief that the Township is in a crisis with unfunded pension liability and there is an important message to send to voters that we take it seriously and we are going to do our part by refusing the raises and to make a sacrifice"**

Seconded by Treasurer Brixie.

Board discussion:

- Difficulty in following proposed changes to the minutes which are not in writing
- Support for inclusion of the amended language which sets the tone of the conversation regarding shared sacrifice by Board members
- Board member concern with creation of a transcript when it suits the needs of individual Board members while not wanting a transcript when it does not suit the needs of those same Board members
- Board member belief best practices say the Township Board already has minutes which are too lengthy
- Audio of Board meetings is reviewed by staff to ensure the essential gist of the meeting is included in the minutes

- Concern the extensive amendments are an attempt to recreate the past to suit “political needs”
- Board member belief revised draft minutes are out of protocol
- Board member belief the proper procedure is to amend minutes during the next Board meeting
- Board member belief best practices as presented during MTA workshops indicate “less is more”, a transcript should not be created, and Board members should not be involved in “minutia”
- Board member suggestion for comments regarding the minutes to be made under Board member comments
- Clerk’s office is open to receiving constructive comments after the meeting
- Language in all caps contained in Agenda Item #14 are revisions requested by the Supervisor
- Board member belief the minutes have become politicized by the minute taker
- Explanation of the process previously used regarding review of draft minutes prior to submission in the packet
- Board member belief there is an unconscious bias in the minutes produced by the minute taker
- Board member concern over a disproportionate number of bullet points contained in the minutes espoused by one Board member
- Board member preference for the minutes to be shorter and neutral in content
- Board member concern the politicization of minutes takes place outside of the public venue during discussions among Board members
- Belief of the Clerk it is “unfair” for any one Board member to receive draft minutes ahead of other Board members
- Explanation of “tyranny of the majority”
- Board member suggestion to receive legal advice on this issue
- Minute taking process will be discussed at next week’s study session

VOICE VOTE: Motion failed 3-4 (Clerk Dreyfus, Supervisor Styka, Trustees Jackson, Sundland)

Treasurer Brixie moved to amend Page 12 under Neil Bowlby’s comments as follows:

- **Delete “believed politics were involved by certain Board members” and insert “questioned the motives of the Board”**
- **Delete “HAD A SPOUSE WITH A PROFESSOR SALARY, BUT THE CLERK DID NOT” and insert “IS MARRIED TO A UNIVERSITY PROFESSOR AND FROM A DUAL INCOME HOUSEHOLD, AND THE CLERK IS SINGLE.”**

Seconded by Trustee Deschaine.

Board member discussion:

- Concern with the assertion that sex, marital status and family income is relevant to a conversation about compensation
- Board member belief the proposed amendment is an example of politicizing the minutes
- Board member belief the Treasurer took exception to the above referenced comment because an old sexist idea was that a woman doesn’t need an income because her husband has a job and was used to “push” women out of their jobs

VOICE VOTE: Motion carried 4-3 (Clerk Dreyfus, Supervisor Styka, Trustee Sundland).

Clerk Dreyfus moved to approve the minutes as amended. Seconded by Trustee Sundland.

VOICE VOTE: Motion failed 3-4 (Treasurer Brixie, Trustees Deschaine, Jackson, Opsommer)

13. BOARD DISCUSSION ITEMS

A. Commercial Planned Unit Development #17014 (Saroki), Demolish and Reconstruct Gas Station at 1619 Haslett Road

Board and staff discussion:

- Rationale for establishment of a commercial planned unit development (CPUD) was partly to provide waivers to deal with inconsistencies created for older sites through ordinance changes
- All property owners within 300 feet of the subject property were notified of both Planning Commission and Township Board public hearings
- Appreciation for a redevelopment proposal for one of the four corners in Haslett
- East side of the building will be constructed of split-face block
- Impervious surface on the current site is approximately 75%
- Redesign consists of 83.72% impervious surface
- Bicycle parking will be located north next to the service bays
- Concern that only two sides of the building are brick when all four sides are visible
- Board member preference for the brick to be applied equally throughout the building
- Canopy design is aesthetically pleasing
- Requested explanation on how to operate a business with no loading zone
- Nature of the business does not necessitate the need for a large loading area to accommodate a semi-truck
- Small delivery trucks (vans) will utilize a parking space for delivery
- Applicant and the Township Fire Department will review the design to ensure there is adequate space to accommodate a fueling truck
- History of seemingly abandoned cars stored on the property which leaked into the ground
- Proposed increase in the footprint from 1,674 square feet to 5,500 square feet to be used as a repair shop and convenience store
- Proposed increase in the gasoline pump area from 1,752 square feet to 3,480 square feet
- Existing gas station has four (4) fuel pumps, one of which is not covered by the canopy
- Proposal is to have four (4) pumps under the canopy, resulting in a larger canopy
- Applicant is proposing the removal of three (3) trees
- Township code requires an outdoor gathering space to be a minimum of 300 square feet
- Proposed 96 square foot area next to the building is proposed for outdoor seating
- Interpretation of the definition of a "degraded site" previously used as a service station relative to qualification for a brownfield tax credit
- Board member appreciation for the current "amazing" landscaping
- Board member belief the "thrust" of this redevelopment is the convenience store, which requires several waivers
- Board member preference for a reduction in the size of the convenience store and added greenspace
- Canopy fell four (4) years ago due to rust
- Packet provides a listing which shows existing and proposed variances for comparative purposes
- Notices were sent to all property owners within 300 feet of the subject property

- Concern regarding infringement on adjacent business property
- Location of a structure two (2) feet away from the adjacent property owner's line relative to meeting the "vision for the future"
- CPUD was written to provide redevelopment of older difficult sites which do not meet current standards
- Applicant could have chosen to not use the CPUD process
- Setback requirements are adopted, in large part, for safety reasons
- Concern whether there are fire or safety issues with the proposed building location close to lot lines
- Development Review Committee (DRC) consists of staff from the departments of Engineering, Public Works, Fire, Building and Planning who meet to review the plan prior to its submission to the Planning Commission
- Convenience store will provide a grocery for Haslett residents
- Continued concern with the extent of the waivers requested for the side yard and rear setbacks as well as the waiver for the amount of impervious surface
- Proposal will expand the size of the current uses; fuel station(s), convenience store and repair service

It was the consensus of the Board to place this item on the agenda for its May 2, 2017 Board meeting.

- B. Rezoning #16060 (Summer Park Realty), rezone 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road
 Director Kieselbach summarized the rezoning request as outlined in staff memorandum dated April 11, 2017.

Board discussion:

- Board deliberations take the Future Land Use Map (FLUM) and existing conditions into consideration
- Rezoning request would result in significant adverse impacts on the natural environment (i.e., wildlife habitat) which is in direct conflict with rezoning criteria B (3)
- Utilization of property as a golf course provides for greenspace
- Lower density zoning designation would have significantly fewer environmental impacts than the proposed RAA designation
- Maximum number of lots under the current zoning v. proposed rezoning
- Planned unit development (PUD) is an option in any residential zoning district
- Difference between a planned residential development (PRD) and a PUD
- Letters from the public contain thoughtful arguments against the proposed development
- Importance of the entirety of the Township's ecosystem
- Overwhelming resident belief the proposed rezoning would be a detriment to nearby properties
- Applicant statement the golf course operations are no longer economically viable
- Board member belief the golf course does not relate to the issue of whether the property's zoning designation should be RR or RAA
- Board member belief the current RR zoning designation is appropriate given the zoning categories which surround the property, the presence on the north end of the Land Preservation Trust Land and the farm land further to the north
- Walnut Hills Golf Course has been greenspace for more than 100 years
- Surrounding neighborhoods have been built up around the existence of this open greenspace
-

- Board member belief the proposed rezoning will negatively impact the current stability and negatively affect the stated goals and objectives of the Township as stated in both the current and proposed Master Plan
- Board member belief that availability of housing in Meridian Township is primarily that which is built on RAA zoned land and there is no need for new land to be categorized as RAA
- Increase in the tax base is not the only Board consideration when determining the best value of our land and resources
- Board member belief there are other community needs in the area “greater” than additional housing
- Appreciation for the land use expertise of two (2) Board members who previously served on the Planning Commission
- Staff preparation of a resolution consistent with the Planning Commission recommendation to deny the rezoning

It was the consensus of the Board to place this item on for action at its May 2, 2017 Board meeting.

C. Granger Recycling Agreement

Assistant Township Manager/Director of Public Works & Engineering Perry summarized the Granger Recycling Agreement request as outlined in staff memorandum dated April 18, 2017.

Tonia Olson, Director of Governmental and Public Relations, Granger Container Service, 16980 Wood Street, Lansing, explained the history of the Recycle More Program which started in Meridian Township in 2006, a service which provided for a free recycling tub for customers who subscribed to their trash service.

Board, staff and Granger representative discussion:

- Belief that removal of the cost barrier (\$1.50/month) for the larger cart will likely improve the recycling rate
- Recycling of glass is no longer prohibited
- Granger currently has similar programs with other municipalities in the area
- Granger has the vast majority of customers in Meridian Township
- Compromise regarding current bag tag customers who wish receive the large cart for recycling and ten (10) bags per year at an annual bag tag service fee of \$50
- Request for Granger to provide a table of fees for comparative purposes
- Meridian Township has a high recycling rate (67%) compared to other municipalities
- Expressed caution in entering into the proposed agreement as \$21 per month for residential service is at the high end statewide and prohibits any sole source agreement in the future
- Staff preference for the Township to further review the contract provisions
- Granger provides sole source to some communities in the area
- Explanation as to why bid market prices and single subscription market rates are different
- Sole source communities do not have a bag tag program
- Interest in obtaining an estimate of the number of households who are snow birds
- Financial advantage of recycling
- Granger currently provides a subscription for yard waste (6 bags/week) as well as a one-time collection

It was the consensus of the Board to continue discussion of this issue at a future Board meeting.

14. COMMENTS FROM THE PUBLIC

Supervisor Styka opened and closed Public Remarks.

15. OTHER MATTERS AND BOARD MEMBER COMMENTS

Trustee Opsommer added the BRT Small Starts Grant Program funding was eliminated through the executive budget recommendation at the federal level, but reminded Board members that it is not the budget. He believed the elimination was due, in large part, to the environmental assessment costs to reengineer the project.

Trustee Deschaine reported the EDC will soon have a vacancy.

16. ADJOURNMENT

Treasurer Brixie moved to adjourn. Seconded by Trustee Opsommer.

VOICE VOTE: Motion carried unanimously.

Supervisor Styka adjourned the meeting at 9:49P.M.

RONALD J. STYKA
TOWNSHIP SUPERVISOR

BRETT DREYFUS, CMMC
TOWNSHIP CLERK

Sandra K. Otto, Secretary



9.C

To: Board Members
From: Miriam Mattison
Miriam Mattison, Finance Director
Date: May 2, 2017
Re: Board Bills

MOVED THAT THE TOWNSHIP BOARD APPROVE THE MANAGER'S
BILLS AS FOLLOWS:

COMMON CASH	\$	356,930.89
PUBLIC WORKS	\$	97,602.44
TRUST & AGENCY	\$	-
TOTAL CHECKS:	\$	454,533.33
CREDIT CARD TRANSACTIONS Apr 13th to Apr 26th, 2017	\$	8,570.27
TOTAL PURCHASES:	\$	<u>463,103.60</u>
ACH PAYMENTS	\$	<u>778,541.37</u>

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 User: hudecek
 DB: Meridian

INVOICE APPROVAL BY INVOICE REPORT FOR CHARTER TOWNSHIP OF MERIDIAN
 EXP CHECK RUN DATES 05/02/2017 - 05/02/2017
 BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID
 BANK CODE: GF

Vendor Name	Description	Amount	Check #
1. 55TH DISTRICT COURT			
	CASH BOND-FAYE BETH HILDENBRAND	500.00	94945
2. AIRGAS GREAT LAKES			
	STANDING PO - MEDICAL OXYGEN	113.83	
3. AMERICAN ARBITRATION ASSOCIATION			
	CASE #01-17-0002-0806-2-MJ	275.00	
4. ANDREWS HOOPER PAVLIK PLC			
	SERVICES RENDERED WITH AUDIT YEAR ENDING 12/31/16	18,500.00	
5. AQUA-WEED CONTROL INC			
	2017 MDEQ PERMIT FEE	75.00	
6. ARBORIST SKILLS			
	MMUTCD PART 6 WORK ZONE TRAFFIC TRAINING	321.20	
7. AT& T			
	MONTHLY SERVICE	388.55	
8. AT&T MOBILITY			
	MONTHLY SERVICE	90.99	94950
9. AUTO VALUE OF EAST LANSING			
	FLEET REPAIR PARTS 2017	56.34	
	FLEET REPAIR PARTS 2017	222.81	
	FLEET REPAIR PARTS 2017	15.79	
	TOTAL	294.94	
10. B & D ELEVATOR INC.			
	QTRLY MAINTENANCE	138.00	
11. B & H PHOTO-VIDEO			
	CD/DVDS	557.96	
12. BANNASCH WELDING INC			
	WELDING/PLOW PARTS	381.00	
13. BARYAMES CLEANERS			
	STANDARD POLICE UNIFORM CLEANING	1,035.05	
14. BECKS PROPANE			
	PROPANE FOR GLENDALE CEMETERY	22.17	
15. BECK'S TRAILER STORE			
	7X18 DUMP TRAILER 15000# DUMP 13550 # CAP	9,500.00	94944
16. BEN MCCANN			
	REIMB FOR CDL TEST	150.00	
17. BOYNTON FIRE SAFETY SERVICE			
	ANNUAL FIRE SURPRESSION SYSTEMS TEST AND EXTINGISH	925.00	
18. CAPITAL CITY INTERNATIONAL TRUCKS			
	ANNUAL DOT INSPECTIONS & ROTATE TIRES 234,500,22-	1,399.26	
19. CINTAS CORPORATION #725			
	UNIFORM RENTAL 2017	33.03	
	UNIFORM RENTAL 2017	33.03	
	UNIFORM RENTAL 2017	90.64	
	UNIFORM RENTAL 2017	30.14	
	UNIFORM RENTAL 2017	30.14	
	TOTAL	216.98	
20. CLEANLITES RECYCLING INC			
	FLUORESCENT LIGHTS	146.23	
21. COCM			
	2017 COCM DUES & CONF - M. WALL	205.00	94951
22. COMCAST CABLE			
	TOWN HALL INTERNET & TV	190.24	
	TOWN HALL SERVICEQ	134.85	
	TOTAL	325.09	
23. COMPLETE BATTERY SOURCE			
	FLASHLIGHT BATTERIES	38.16	
24. CONSUMERS ENERGY			
	EMERG CRC PAYMENT TO RESTORE UTILITIES	200.00	94854

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 DB: Meridian

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Vendor Name	Description	Amount	Check #
25. COURTESY FORD	FORD REPAIR PARTS 2017	163.62	
	FORD REPAIR PARTS 2017	177.94	
	FORD REPAIR PARTS 2017	421.90	
	FORD REPAIR PARTS 2017	29.45	
	FORD REPAIR PARTS 2017	104.50	
	TOTAL	897.41	
26. CULLIGAN WATER CONDITIONING	SALT FOR WATER SOFTENER - HNC	17.00	
27. CUMMINS BRIDGEWAY LLC	GENERATOR REPAIR	353.50	
28. DELTA DENTAL	EMPLOYEE INSURANCE - MAY	10,452.84	
	EMPLOYEE INSURANCE - MAY	2,579.57	
	INSURANCE - MAY	58.79	
	TOTAL	13,091.20	
29. DESIGNS BY NATURE	INSTRUCTOR FEE FOR NATIVE PLANTS WORKSHOP	50.00	
30. DEWITT FENCE CO	REPLACE DAMAGED FENCE HASLETT RD	5,270.00	
31. DISCOUNT ONE HOUR SIGNS	SPONSORSHIP DECALS WASTE ELIMINATOR BAGS	125.99	
	PLOTTED PRINTS	172.99	
	TOTAL	298.98	
32. FIRST COMMUNICATIONS	MONTHLY SERVICE	889.77	
33. FIRSTDUE FIRE SUPPLY	NEW AIR BAG TO REPLACE OOS ONE	898.00	
34. FISHBECK, THOMPSON, CARR & HUBER	WUP 10-07 METC PROFESSIONAL SERVICES THRU 3/24/17	249.50	
35. GLOBAL TECHNOLOGY SYSTEMS INC	RADIO BATTERIES	818.50	
36. GOODYEAR COMMERCIAL TIRE	STATE CONTRACT HEAVY EQUIPMENT TIRES 2017	162.26	
37. GRAFF CHEVROLET-OKEMOS, INC	SHORT IN DOOR LOCK	298.75	
38. GRAINGER	REPLACEMENT RIBBON-BLACK	29.15	
39. GRANGER	MONTHLY SERVICE	87.00	
	MONTHLY SERVICE	262.11	
	MONTHLY SERVICE	9.00	
	MONTHLY SERVICE	76.00	
	MONTHLY SERVICE	111.00	
	MONTHLY SERVICE	128.51	
	MONTHLY SERVICE	65.44	
	MONTHLY SERVICE	87.00	
	MONTHLY SERVICE	17.50	
	TOTAL	843.56	
40. HANNEWALD LAMB FARM	FARM MRK VENDOR	32.00	
41. HASLETT COMMUNITY CHURCH	USE OF FACILITIES FOR SCHOOL ELECTION	75.00	
42. HASLETT PUBLIC SCHOOLS	JANUARY, FEBRUARY, MARCH 2016-MAINTENANCE REIMB.	4,434.39	
	APRIL, MAY, JUNE 2016 MAINTENANCE REIMB.	4,434.39	
	JANUARY, FEBRUARY, MARCH 2017 MAINTENANCE REIMB.	4,434.39	
	TOTAL	13,303.17	

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 User: hudecek
 DB: Meridian

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Vendor Name	Description	Amount	Check #
43. HENDERSON GLASS	WINDSHIELD- PARTS & LABOR-EXPLORER	590.88	94946
	WINDSHIELD PARTS & LABOR-MALIBU	180.31	94946
	PARTS & LABOR	310.85	
	TOTAL	1,082.04	
44. HERBERT L CONFER JR	FARM MARKET VENDOR	111.00	
45. JACK DOHENY COMPANIES INC	PARTS	119.54	
46. JEFFORY BROUGHTON	STANDING PO - RADIO COMMUNICATION REPAIRS/PARTS	506.00	
	RAIDIO REPAIR	148.00	
	REPAIR RADIO CAR #107	107.50	
	STANDING PO - RADIO COMMUNICATION REPAIRS/PARTS	442.45	
	TOTAL	1,203.95	
47. KINDER WINDOW CLEANING	SEMI ANNUAL WINDOW WASHING	900.00	
48. KITCH DRUTCHAS WAGNER VALITUTTI	MERIDIAN TWP RIGHTS OF WAY/TELECOM & CABLE	3,725.00	
	MERIDIAN TWP RIGHTS OF WAY/TELECOM & CABLE	500.00	
	TOTAL	4,225.00	
49. KIWANIS CLUB OF HASLETT	NEW MEMBER-B. MOTIL	89.00	
50. L3 COMM MOBILE VISION INC	MONITORS AND CABLES	1,239.09	
51. LACKEY FARMS LLC	FARM MARKET VENDOR	12.00	
52. LANSING SANITARY SUPPLY INC	JANITORIAL SUPPLIES 2017	320.52	
53. LANSING UNIFORM COMPANY	STANSING PO - UNIFORMS	34.95	
	STANSING PO - UNIFORMS	218.85	
	STANDARD POLICE UNIFORM PURCHASE	155.00	
	POLICE UNIFORM PURCHASE - SHOES AND BOOTS	119.00	
	STANDARD POLICE UNIFORM PURCHASE	122.95	
	TOTAL	650.75	
54. LAUX CONSTRUCTION LLC	TOWNER ROAD PARK DEVELOPMENT PROJECT	30,615.30	
55. M3 GROUP INC	PHASE THREE - MARCH SERVICE	3,125.00	
56. MAURER & PARKS WELL DRILLING	ABANDON AND CAP WELLS TOWNER & VAN ATTA RD	975.00	
	ABANDON AND CAP WELLS TOWNER & VAN ATTA RD	1,250.00	
	ABANDON AND CAP WELLS TOWNER & VAN ATTA RD	875.00	
	TOTAL	3,100.00	
57. MERIDIAN DRY CLEANERS	STANDING PO - UNIFORM CLEANING	313.00	
58. MERIDIAN MEADOWS LLC	EMERG NEEDS TO AVOID EVICTION	600.00	94949
59. MERIDIAN PLUMBING	REFUND OVERPMT PERMIT @ 220 MAC AVE	140.00	
60. MERIDIAN TOWNSHIP	TRANSFER FOR FLEX CKING PR 4/28/17	1,201.89	
61. MERIDIAN TOWNSHIP RETAINAGE	TOWNER RD PARK DEVELOPMENT CONTRACT	3,401.70	
	MT HOPE RD PATHWAY 2017 PAY EST #1	6,797.00	
	TOTAL	10,198.70	

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INVOICE APPROVAL BY INVOICE REPORT FOR CHARTER TOWNSHIP OF MERIDIAN
EXP CHECK RUN DATES 05/02/2017 - 05/02/2017
BOTH JOURNALIZED AND UNJOURNALIZED OPEN AND PAID
BANK CODE: GF

Vendor Name	Description	Amount	Check #
62. MICHIGAN CAT	CAT ERPILLAR 430F2 AR+4F	95,750.23	
63. MID MICHIGAN EMERGENCY EQUIPMENT	EMERGENCY EQUIPMENT LIGHTING	1,141.00	
64. MIKE MCDONALD	REIMB FOR CONF EXPENSES	23.05	
65. MOLLY NEVINS	INSTRUCTOR FEE FOR FINNESS OVER 50 - APRIL	128.00	
66. MUSCULAR DYSTROPHY ASSOCIATION	PANCAKE BKFT-LOCAL UNION 1600 MERIDIAN TWP FIREFIG	300.00	
67. NAPA	FLEET REPAIR PARTS 2017	180.02	
	FLEET REPAIR PARTS 2017	186.67	
	FLEET REPAIR PARTS 2017	7.16	
	FLEET REPAIR PARTS 2017	11.88	
	TOTAL	385.73	
68. NETWORKFLEET, INC	NETWORKFLEET MONTHLY SERVICES	56.85	
69. NEW HOPE CHURCH	USE OF FACILITIES FOR SCHOOL ELECTION	75.00	
70. NUTRON OSM	4'X4' TRAILHEAD MAPS; 11"X14" YOU ARE HERE SIGNS A	5,000.00	94947
71. OFFICE DEPOT	MISC OFFICE SUPPLIES	62.55	
	BOISE ASPEN WHITE RECYCLED COPY PAPER	1,367.13	
	TOTAL	1,429.68	
72. OFILIA DIAZ	FARM MARKET VENDOR	27.00	
73. OVERHEAD DOOR OF LANSING	S FIRESTATION DOOR REPAIR	285.46	
74. PECKHAM	MUNICIPALBUILDING/CEN FIRE JANITORIAL 2017	2,445.16	
75. PET WASTE ELIMINATOR	PET WASTE DISPOSAL BAGS	1,600.00	
76. PRINT MAKERS SERVICE INC	MONTHLY CHARGE	152.71	
77. PRO-TECH MECHANICAL SERVICES	ANNUAL HVAC MAINTENANCE CENTRAL FIRE STATION	312.50	
	PARTS & LABOR	899.28	
	TOTAL	1,211.78	
78. QUALITY TIRE INC	STATE CONTRACT TIRES	300.80	
79. RUSTY PLUMMER	FARM MARKET VENDOR	11.00	
80. SAFETY SERVICES INC	SAFETY EQUIPMENT	324.26	
81. SAFETY SYSTEMS INC	ANNUAL ALARM SERVICE AGREEMENT	90.00	
82. SHAHEEN CHEVROLET INC	PARTS	227.33	
83. SIGNATURE FORD INC.	FORD TRANSIT 250 VAN	25,782.00	
84. SPARROW OCCUPATIONAL	PROFESSIONAL SERVICES	78.00	
85. SPARTAN COUNTRY MEATS LLC	FARM MARKET VENDOR	66.00	
86. SPARTAN PRINTING INC	SCOOP NEWSLETTER SPRING 2017 & MAILING SERVICES	165.00	
87. ST LUKE LUTHERAN CHURCH	USE OF FACILITIES FOR SCHOOL ELECTION	75.00	
88. ST THOMAS AQUINAS PARISH	REIMB PAYMENT TO AVOID EVICTION	185.00	94855

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INVOICE APPROVAL BY INVOICE REPORT FOR CHARTER TOWNSHIP OF MERIDIAN
EXP CHECK RUN DATES 05/02/2017 - 05/02/2017
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Vendor Name	Description	Amount	Check #
89. STATE OF MICHIGAN	FIRE INSPECTOR LICENSE	150.00	
	2017 STORM WATER ANNUAL PERMIT FEE, MIO059774M,	500.00	
	TOTAL	650.00	
90. STATE TAX COMMISSION	MCAO PROGRAM - JENNIFER FLOWER	1,000.00	
91. THE HARKNESS LAW FIRM PLLC	LEGAL FEES-UTC	6,688.75	
92. THE ISABELLA CORP.	MT HOPE ROAD PATHWAY 2017	61,173.00	
93. THE LINCOLN NAT'L LIFE INS CO	LIFE INSURANCE - MAY	3,582.04	
94. THE POLACK CORPORATION	MONTHLY CONTRACT	839.26	
95. TITUS FARM LLC	FARM MARKET VENDOR	152.00	
96. UNEMPLOYMENT ISURANCE AGENCY	ID#38-6007712 1ST QTR JAN-MAR 2017	2,043.00	94948
97. VA FISCAL OFFICE	REFUND DUPLICATE PAYMENT FROM INSURANCE	308.03	
98. VARIPRO BENEFIT ADMINISTRATORS	FLEX ADMINISTRATION 05/01	10,081.20	
99. WEST SHORE FIRE	NEW SCBA MASK	278.21	
100 WILBUR HOCHSTETLER	FARM MARKET VENDOR	189.00	
101 XFINITY	MONTHLY SERVICE	6.42	
TOTAL - ALL VENDORS		356,930.89	
FUND TOTALS:			
Fund 101 - GENERAL FUND		97,237.65	
Fund 204 - PEDESTRIAN BIKEPATH MILLAGE		73,440.36	
Fund 208 - PARK MILLAGE		42,252.05	
Fund 209 - Land Preservation Millage		996.13	
Fund 211 - PARK RESTRICTED/DESIGNATED		2,325.99	
Fund 230 - CABLE TV		585.84	
Fund 250 - COMMUNITY NEEDS FUND		985.00	
Fund 661 - MOTOR POOL		139,107.87	
PAYMENT TYPE TOTALS			
Paper Check		356,930.89	

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INVOICE APPROVAL BY INVOICE REPORT FOR CHARTER TOWNSHIP OF MERIDIAN
 EXP CHECK RUN DATES 05/02/2017 - 05/02/2017
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Vendor Name	Description	Amount	Check #
1. ANDREWS HOOPER PAVLIK PLC	SERVICES RENDERED WITH AUDIT YEAR ENDING 12/31/16	6,500.00	
2. ARBORIST SKILLS	MMUTCD PART 6 WORK ZONE TRAFFIC TRAINING	808.60	
3. BARNHART & SON	WOODHILL CONTROL PANEL 2016	1,486.00	
4. CARL SCHLEGEL INC	SAND/GRAVEL/TOPSOIL	1,200.00	
	SAND/GRAVEL/TOPSOIL	2,186.42	
	TOTAL	3,386.42	
5. DELTA DENTAL	EMPLOYEE INSURANCE - MAY	1,541.49	
6. ELISHA FITCH-COOK	REFUND OVERPM'T FINAL #TOWA-006238-0000-06	39.50	
7. FERGUSON WATERWORKS #3386	5/8 X 3/4 T10 MTR DIR READ USG	3,753.42	
	WATER REPARTS 2017	1,716.00	
	WATER REPARTS 2017	1,782.00	
	TOTAL	7,251.42	
8. HAGAN REALTY	FINAL BILL DOUBLE PAID-#HART-006038-0000-01	132.94	
9. JERRY FEDEWA HOMES, INC	REFUND PGE 15-100 @ 2121 ISAAC - PERFORMANCE GUARA	500.00	
10. JOHNSON & ANDERSON INC	SCADA RADIO, PLC AND CENTRAL HMI MODERNIZATION	40,484.31	
11. MAULDON BROTHERS CONSTRUCTION LLC	ARDMORE BL69 TOWNER WATER MAIN 2017	28,368.00	
12. MERIDIAN TOWNSHIP RETAINAGE	ARDMORE/TOWNER RD WATER MAIN 2017	3,152.00	
13. MTH MANAGEMENT	REFUND OVERPM'T FINAL #CHOK-001741-0004-07	144.96	
14. SAFETY SERVICES INC	SAFETY EQUIPMENT	479.31	
15. THE LINCOLN NAT'L LIFE INS CO	LIFE INSURANCE - MAY	425.46	
16. TRI TITLE AGENCY LLC	REFUND OVERPM'T FINAL #DUST-002543-0000-00	219.20	
	REFUND OVERPM'T FINAL #ACAD-001196-0000-02	193.40	
	TOTAL	412.60	
17. USA BLUE BOOK	WATER SUPPLIES	1,193.90	
	WATER SUPPLIES	273.54	
	WATER SUPPLIES	302.40	
	WATER SUPPLIES	500.08	
	WATER SUPPLIES	85.08	
	WATER SUPPLIES	113.18	
	WATER SUPPLIES	(71.89)	
	WATER SUPPLIES	93.14	
	TOTAL	2,489.43	
TOTAL - ALL VENDORS		97,602.44	
FUND TOTALS:			
Fund 590 - SEWER FUND		47,289.96	
Fund 591 - WATER FUND		50,312.48	
PAYMENT TYPE TOTALS			
Paper Check		97,602.44	

Credit Card Transactions April 13th to April 26th, 2017

Date	Merchant Name	Amount	Account Name
2017/04/24	ADOBE *ACROPRO SUBS	\$15.89	DEREK PERRY
2017/04/21	AL-LIN'S FLORAL AND GIFTS	\$102.00	KRISTEN COLE
2017/04/13	AMAZON MKTPLACE PMTS	\$11.98	MICHELLE PRINZ
2017/04/14	AMAZON MKTPLACE PMTS	\$21.99	MICHELLE PRINZ
2017/04/14	AMAZON MKTPLACE PMTS	\$3.99	MICHELLE PRINZ
2017/04/15	AMAZON MKTPLACE PMTS	\$6.84	MICHELLE PRINZ
2017/04/17	AMAZON MKTPLACE PMTS	\$14.37	MICHELLE PRINZ
2017/04/25	AMAZON MKTPLACE PMTS	\$95.70	MICHELLE PRINZ
2017/04/26	AMAZON MKTPLACE PMTS	\$29.34	MICHELLE PRINZ
2017/04/17	AMAZON MKTPLACE PMTS	\$24.74	CHRISTOPHER DOMEYER
2017/04/18	AMAZON MKTPLACE PMTS	\$49.90	CHRISTOPHER DOMEYER
2017/04/18	AMAZON MKTPLACE PMTS	\$72.99	CHRISTOPHER DOMEYER
2017/04/19	AMAZON MKTPLACE PMTS	\$9.95	CHRISTOPHER DOMEYER
2017/04/24	AMAZON MKTPLACE PMTS	\$50.99	CHRISTOPHER DOMEYER
2017/04/19	AMAZON.COM	\$8.63	CHRISTOPHER DOMEYER
2017/04/23	AMAZON.COM	\$20.98	CHRISTOPHER DOMEYER
2017/04/15	AMAZON.COM	\$222.06	ROBERT MACKENZIE
2017/04/14	AMAZON.COM AMZN.COM/BILL	\$29.99	MICHELLE PRINZ
2017/04/22	AMAZON.COM AMZN.COM/BILL	\$18.35	MICHELLE PRINZ
2017/04/17	AMAZON.COM AMZN.COM/BILL	\$29.96	BENJAMIN MAKULSKI
2017/04/19	APPAREL PRINTERS	\$920.00	WILLIAM PRIESE
2017/04/21	BASEBALL SAVINGS	\$246.59	MICHAEL DEVLIN
2017/04/21	BELLE TIRE 044	\$277.23	TODD FRANK
2017/04/13	BEST BUY 00004168	\$19.99	GREGORY FRENGER
2017/04/18	BEST BUY 00004168	(\$19.99)	GREGORY FRENGER
2017/04/21	BLOOM COFFEE ROASTERS	\$16.44	DEBORAH GUTHRIE
2017/04/20	CITY OF E LANSING PARK	\$2.25	YOUNES ISHRAIDI
2017/04/20	CITY OF E LANSING PARK	\$1.50	YOUNES ISHRAIDI
2017/04/19	CITY OF E LANSING PARK	\$3.00	DEREK PERRY
2017/04/26	COMCAST	\$19.26	KRISTI SCHAEING
2017/04/25	COMPLETE BATTERY SOURCE	\$38.21	MATT FOREMAN
2017/04/20	COMPLETE BATTERY SOURCE	\$191.08	TODD FRANK
2017/04/25	D & G EQUIPMENT	\$6.40	TODD FRANK
2017/04/22	D J*WALL-ST-JOURNAL	\$110.97	JULIE BRIXIE
2017/04/17	DISCOUNT ONE HOUR SIGNS	\$65.72	ANGELA RYAN
2017/04/19	DISCOUNT ONE HOUR SIGNS	\$140.28	TODD FRANK
2017/04/18	DOMINO'S 1206	\$30.52	BENJAMIN MAKULSKI
2017/04/22	EPIC SPORTS, INC.	\$828.12	MICHAEL DEVLIN
2017/04/22	EPIC SPORTS, INC.	\$202.99	MICHAEL DEVLIN
2017/04/24	FILTERS FAST	\$140.97	PETER VASILION
2017/04/18	FULL COMPASS SYS VT	\$67.99	STEPHEN GEBES
2017/04/16	GOPRO PLUS	\$4.99	JANE GREENWAY
2017/04/17	HAMMOND FARMSLANDS	\$145.00	ROBERT STACY
2017/04/24	HAMMOND FARMSLANDS	\$145.00	ROBERT STACY
2017/04/24	HAMMOND FARMSLANDS	\$17.00	DAVID LESTER
2017/04/25	HASLETT TRUE VALUE HARDW	\$4.76	ROBERT MACKENZIE
2017/04/24	HITCHES AND MORE INC	\$44.95	TODD FRANK
2017/04/20	IN *WNC OF LANSING LLC	\$175.00	DEBORAH GUTHRIE
2017/04/17	INGHAM COUNTY ROD	\$120.00	YOUNES ISHRAIDI
2017/04/18	INGHAM COUNTY ROD	\$60.00	YOUNES ISHRAIDI
2017/04/17	JIM COLEMAN LTD #3	\$76.50	WILLIAM PRIESE

2017/04/20	JIMMY JOHNS - 90055 - MOT	\$40.25	MICHELLE PRINZ
2017/04/20	JIMMY JOHNS - 90055 - MOT	\$81.29	MICHELLE PRINZ
2017/04/20	KOHL'S #0738	\$34.99	KRISTEN COLE
2017/04/19	MARU SUSHI AND GRILL	\$43.76	LUANN MAISNER
2017/04/17	MEIJER INC #025 Q01	\$66.87	DARCIE WEIGAND
2017/04/20	MEIJER INC #025 Q01	\$5.49	MICHELLE PRINZ
2017/04/20	MEIJER INC #025 Q01	\$44.59	KRISTEN COLE
2017/04/20	MEIJER INC #025 Q01	\$23.56	KRISTEN COLE
2017/04/20	MEIJER INC #025 Q01	\$27.88	CATHERINE ADAMS
2017/04/24	MERIDIAN SCREEN PRINTING	\$107.50	DENNIS ANTONE
2017/04/13	MID MICHIGAN EMERGENCY E	\$230.29	TODD FRANK
2017/04/17	MID MICHIGAN EMERGENCY E	\$135.00	TODD FRANK
2017/04/18	MID MICHIGAN EMERGENCY E	\$135.00	TODD FRANK
2017/04/19	MID MICHIGAN EMERGENCY E	\$169.00	TODD FRANK
2017/04/20	MID MICHIGAN EMERGENCY E	\$169.00	TODD FRANK
2017/04/18	MRWA	\$695.00	DEREK PERRY
2017/04/24	NATIONAL EMERGENCY TRAIN	\$164.50	SCOTT DAWSON
2017/04/20	OFFICEMAX/OFFICEDEPOT #61	\$14.49	LAWRENCE BOBB
2017/04/13	OFFICEMAX/OFFICEDEPOT #61	\$20.99	GREGORY FRENGER
2017/04/18	OFFICEMAX/OFFICEDEPOT #61	(\$21.19)	GREGORY FRENGER
2017/04/24	OFFICEMAX/OFFICEDEPOT #61	\$27.99	SANDRA OTTO
2017/04/18	OKEMOS HDWE INC	\$12.39	ROBERT STACY
2017/04/20	OKEMOS HDWE INC	\$63.88	KATHERINE RICH
2017/04/17	PERSONALIZED PAPER STORE	\$142.01	DEBORAH GUTHRIE
2017/04/13	PETSMART # 0724	\$8.70	CATHERINE ADAMS
2017/04/17	SAFARILAND, LLC	\$111.30	ANDREW MCCREADY
2017/04/17	SOLDANS FEEDS PET S	\$8.94	CATHERINE ADAMS
2017/04/21	SOLDANS FEEDS PET S	\$4.47	CATHERINE ADAMS
2017/04/20	SPAGNUOLOS RESTAURANT	\$294.93	TAVIS MILLEROV
2017/04/22	THE HOME DEPOT #2723	\$65.55	MATTHEW WALTERS
2017/04/18	THE HOME DEPOT #2723	\$55.84	MATT FOREMAN
2017/04/23	THE HOME DEPOT #2723	\$8.98	CHRISTOPHER DOMEYER
2017/04/13	THE HOME DEPOT #2723	\$12.91	PETER VASILION
2017/04/17	THE HOME DEPOT #2723	\$4.95	PETER VASILION
2017/04/19	THE HOME DEPOT #2723	\$19.97	PETER VASILION
2017/04/21	THE HOME DEPOT #2723	\$10.21	PETER VASILION
2017/04/21	THE HOME DEPOT #2723	\$48.82	MIKE ELLIS
2017/04/20	THE HOME DEPOT #2723	\$258.00	DAVID LESTER
2017/04/18	THE HOME DEPOT #2723	\$12.96	DAN PALACIOS
2017/04/19	TRACTOR SUPPLY #1149	\$102.42	MATT FOREMAN
2017/04/13	USPS PO 2569800864	\$13.90	JANE GREENWAY
2017/04/20	WAL-MART #2866	\$9.48	DARCIE WEIGAND
2017/04/15	ZORO TOOLS INC	\$140.05	WILLIAM PRIESE

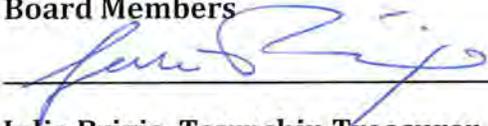
\$8,570.27

ACH Transactions

Date	Payee	Amount	Purpose
04/17/17	Elan	19,927.62	Credit Card Purchases-March
04/18/17	Mers	317,594.16	Employee Retirement
04/24/17	Consumers Energy	50,447.56	Gas & Electric
04/26/17	Various Financial Institutions	252,969.21	Direct Deposit 4/28/17 Payroll
04/26/17	IRS	101,930.98	Payroll Taxes 4/28/17 Payroll
04/26/17	ICMA	35,671.84	Payroll Deductions 4/28/17 Payroll
Total ACH Payments		<u><u>778,541.37</u></u>	



9.E

To: Board Members
From: 
Julie Brixie, Township Treasurer
Date: April 27, 2017
Re: Authority to open account First National Bank of America

This is a resolution to approve the following institution for the purpose of depositing and investing Township funds according to our Investment Policy and within PA 20 Guidelines.

**Move to adopt a resolution entitled "Authority to Open an Account" at:
First National Bank of America**

RESOLUTION OF CHARTER TOWNSHIP OF MERIDIAN
AUTHORITY TO OPEN ACCOUNT

I hereby certify that I, Brett Dreyfus, am the duly elected and qualified Clerk and the keeper of the records of Charter Township of Meridian and that the following is a true and complete copy of a resolution duly adopted at a meeting of the Township Board held on _____, and that such resolution shall be in full force and effect, as of _____.

RESOLVED, That First National Bank of America, ("Bank"), is hereby designated a depository of Charter Township of Meridian and that funds deposited therein may be withdrawn upon checks or other instruments of Charter Township of Meridian ("Township").

RESOLVED FURTHER, That all checks, drafts, notes, withdrawals or orders drawn against said funds shall be signed by Julie Brixie, Township Treasurer, or any two of the following: Ronald J. Styka, Supervisor; Frank L. Walsh, Manager; and Brett Dreyfus, Clerk.

RESOLVED FURTHER, That Julie Brixie, Township Treasurer, is authorized to make verbal telephone requests upon the Bank for the purchase of investments (by use of the Personal Identification Number assigned to her if required by the Bank) and in the case of her inability to exercise this function, any two of the following may issue written instructions to the Bank for the purchase of investments: Ronald J. Styka, Supervisor; Frank L. Walsh, Manager; and Brett Dreyfus, Clerk.

RESOLVED FURTHER, That the Bank is hereby authorized and directed to honor any withdrawals and to pay any checks and other instruments drawn against said funds, to the order of the Treasurer or any two of the above named officials signing and/or countersigning such instruments.

RESOLVED FURTHER, That the above designated officers are hereby authorized to execute, on behalf of the Township, signature cards, or other documents, containing the rules and regulations of the Bank and the conditions under which deposits are accepted, and to agree on behalf of the Township to those rules, regulations, and conditions as amended.

RESOLVED FURTHER, That the Clerk shall certify to the Bank the names of those holding the offices or positions listed above and shall thereafter as changes in those offices may occur, immediately certify to the Bank a revised list of officers who are authorized to act in accordance with this resolution. Bank may rely on such certifications and shall be indemnified by the Township from and against any claims, expenses, or losses resulting from honoring the signature of any officer so certified, or from refusing to honor any signature not so certified. These resolutions shall remain in force until written notice to the contrary shall have been received by the Bank, but receipt of such notice shall not affect any prior action taken by the Bank in reliance on this resolution or any certification made in connection herewith.

I further certify that the following are the titles, names and genuine signatures of the OFFICERS AUTHORIZED BY THE ABOVE RESOLUTIONS.

NAME and TITLE, SIGNATURE

FACSIMILE SIGNATURE (if used)

Julie Brixie, Treasurer

Ronald J. Styka, Supervisor

Frank L. Walsh, Manager

Brett Dreyfus, Clerk

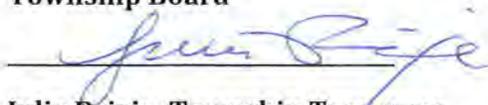
I hereby certify the above and I have hereunto subscribed my name as Clerk of Meridian Charter Township on _____.

Brett Dreyfus, CMMC, Township Clerk

386007712
Township's Tax Payer ID#



9. F

TO: Township Board
FROM: 
Julie Brixie, Township Treasurer
DATE: April 27, 2017
RE: Discharge of Mortgage 1678 Lake Lansing Road

We were recently contacted by a title company preparing a property for sale in Meridian Township at 1678 Lake Lansing Road in Haslett. The title search revealed a recorded mortgage of \$6,500 on 1678 Lake Lansing Road by Meridian Township on the property from 1988.

The owners, Mr. and Mrs. Miser, participated in a program that used community block grant funds to improve rental property in Meridian Township. The Township loaned the Misers \$6,500 for 1678 Lake Lansing Rd. to improve their property and provide quality rental housing for people in the housing market. The houses were then marketed for rental to those individuals who were not likely to apply for units without special outreach and by working with equal housing opportunity assistance.

Our research indicates that The Misers complied with the requirements of the program for the property on 1678 Lake Lansing Rd. but failed to take the final steps to discharge the debt as indicated in #21 of the mortgage. Attached is a discharge of Mortgage of \$6,500.00 and the original Mortgage paperwork.

Move to approve discharging the Rental Property Rehabilitation Program Mortgage from 1678 Lake Lansing Road, Haslett MI 48840 parcel # 33-02-02-10-203-020.

Attachments:

1. Discharge of Mortgage 1678 Lake Lansing Rd.
2. Original Rental Property Rehabilitation Program Mortgage or Assignment of Interest in Land Contract as Security and Mortgage for 1678 Lake Lansing Road

_____{Space Above This Line is for Recording Information}_____

DISCHARGE OF MORTGAGE

The instrument identified below made by **Lloyd and Dorothy Miser**, as mortgagor, to the **Charter Township of Meridian**, as mortgagee:

Rental Property Rehabilitation Program Mortgage dated December 15, 1988, and recorded on December 21, 1988, in Liber 1732, Pages 670-673, of Ingham County Records

is fully paid, satisfied, and discharged.

Dated April 27, 2017

Julie Brixie, Treasurer
Charter Township of Meridian

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, DO HEREBY CERTIFY that on the ____ day of April 2017, appeared before me Julie Brixie, Treasurer of the Charter Township of Meridian, who being first duly sworn, said that the above instrument was signed and sealed by her, and acknowledged the instrument to be her free act and deed, as authorized by the Charter Township of Meridian Board.

Mary Ann Groop, Notary Public
County of Ingham, Michigan
My commission expires: _____

Drafted by:
Stephaney Guild
5151 Marsh Rd
Okemos, MI 48864

201
RECORDED

Dec 21 2 34 PM '88

REGISTER OF DEEDS

Charles Johnson
INGHAM COUNTY, MICH.

RENTAL PROPERTY REHABILITATION PROGRAM MORTGAGE
OR ASSIGNMENT OF INTEREST IN LAND CONTRACT AS
SECURITY AND MORTGAGE

WITNESSETH THAT the undersigned property owner(s) (hereafter the "MORTGAGOR"), in consideration of the receipt of six thousand five hundred dollars (\$ 6,500) which indebtedness is evidenced by Mortgagor's Note dated 12-15-88 for a deferred payment loan from the CHARTER TOWNSHIP OF MERIDIAN, a Michigan municipal corporation, of 5151 Marsh Road, Okemos, MI 48864, (hereinafter the "MORTGAGEE") for the rehabilitation, preservation and enhancement of primarily rental residential real property containing 1 dwelling units for rent or lease to tenants, which is commonly known as 1678 Lake Lansing Road, and legally described as:

*Nothing
on
Laredo*

Lot 85, Oak Grove Park
Meridian Township
Ingham County, Michigan

(hereafter, the "PROJECT")

MORTGAGOR hereby covenants and consents to the creation and imposition of a mortgage upon the PROJECT to secure to MORTGAGEE the repayment of the indebtedness evidenced by the Note for the benefit of the MORTGAGEE, and does hereby mortgage, grant and convey, with power of sale, the PROJECT, together with all improvements now or hereafter erected on the property, subject to the following terms and conditions:

1. Such mortgage shall be in the full amount of the deferred payment loan given by the MORTGAGEE to the MORTGAGOR.

2. To secure the performance of the covenants and conditions herein contained, MORTGAGOR does hereby assign and transfer to MORTGAGEE all of MORTGAGOR'S interest as purchaser, in and to a NA as Seller and NA as Purchaser. (Applicable only if transaction involves an assignment of interest in a Land Contract.)

3. The MORTGAGOR covenants to keep the dwelling units in the Project in good condition and repair, fully tenantable and not to remove or demolish any dwelling unit thereon; to complete or restore promptly and in good and workmanlike manner any dwelling unit which may be constructed, damaged, or destroyed thereon and to pay when due all claims for labor performed and materials furnished to the PROJECT; to comply with all laws affecting said PROJECT or requiring any alterations or improvements to be made thereon; not to commit or permit waste, deterioration or impairment thereof; not to commit, suffer or permit any act thereon in violation of law.

4. The MORTGAGOR covenants to provide, maintain and deliver to the MORTGAGEE evidence of fire and extended coverage insurance satisfactory to the MORTGAGEE in order and amount sufficient to permit repair or replacement pursuant to Paragraph 3, above, of the balance outstanding of this mortgage.

5. The MORTGAGOR covenants to pay all taxes, assessments, utilities and other expenses of the PROJECT when due and without delinquency and shall not permit any mortgages or liens to be imposed on the PROJECT by reason of any delinquency.

6. The MORTGAGOR covenants not to convert the dwelling units in the PROJECT to condominium ownership or to any form of cooperative ownership wherein rents are not affordable to lower income households (as these terms "affordable" and "lower income households" may be defined by the MORTGAGEE).

*Julie
Bixie -
Mer. Twp.*

7. The MORTGAGOR covenants not to discriminate against or deny occupancy to any tenant or prospective tenant by reason of their receipt of, or eligibility for, housing assistance, under any Federal, State, or local housing assistance program and not to discriminate against or deny occupancy to any tenant or prospective tenant by reason that the tenant has a minor child or children who will be residing with them, unless the PROJECT be one reserved for elderly tenants.

8. The MORTGAGOR covenants to affirmatively market any rental units vacant after initial rental has occurred by providing notification to persons in the housing market area who are not likely to apply for units without special outreach through contacts with a list of churches and community organizations as provided by the MORTGAGEE, by advertising vacant rental units in a newspaper of general circulation, with Equal Housing Opportunity logo-type and/or slogan contained in the text of the advertisement, and by retaining records, documenting affirmative marketing as described in this covenant.

9. The term of this mortgage shall be until the balance due is paid in full or no later than the period ending on the first day of the month, first occurring ten (10) years after the completion of the PROJECT rehabilitation, preservation, or enhancement activities financed in whole or in part by the deferred payment loan evidenced by this Mortgage.

10. Unless accelerated pursuant to Paragraph 11, at each anniversary date the balance due hereunder shall be reduced by ten percent (10%) of the original amount of the deferred payment loan.

11. During the term of this mortgage, the MORTGAGOR shall make no payments of principal or interest; PROVIDED, HOWEVER, that if the MORTGAGOR shall be in default of any of the terms or conditions of this mortgage or promissory note of even date hereof, then the unpaid and remaining balance shall become immediately due and payable upon demand by the MORTGAGEE.

12. The deferred payment loan evidenced by this mortgage may be assigned and/or assumed provided that there are no defaults under this mortgage and that any and all terms and conditions shall remain in full force and effect for any assignee or successor to the MORTGAGOR and such assignee or successor shall assume all duties and obligations of the MORTGAGOR as described herein.

13. Any subordination of this mortgage to additional mortgages or encumbrances of the assignee or successors to the MORTGAGOR shall be only upon the written consent of the MORTGAGEE. Such additional mortgages and encumbrances shall extend to and include any contract for deed, land contract, or other agreement between the MORTGAGOR and his successor or assignee. Such consent to subordinate shall not be unreasonably withheld so long as MORTGAGOR has the assurance, reasonable to the MORTGAGEE, that the provisions of this mortgage remain enforceable and are adequately secured by the PROJECT.

14. To assure and protect its rights in this mortgage and the PROJECT, the MORTGAGEE shall have right of access and inspection of the PROJECT at reasonable times and with reasonable notice to the MORTGAGOR.

15. Any forbearance by the MORTGAGEE with respect to any of the terms and conditions of this mortgage in no way constitutes a waiver of any of this MORTGAGEE'S rights or privileges granted hereunder.

16. Any notice of one party to the other shall be in writing and mailed by certified mail to the parties as follows:

The MORTGAGOR - Lloyd I. and Dorothy E. Miser
16964 Marsh Road
Haslett, MI 48840

The MORTGAGEE - Charter Township of Meridian
 5151 Marsh Road
 Okemos, MI 48864

17. The MORTGAGOR, or his personal representative in the event of the death of the MORTGAGOR, shall notify the MORTGAGEE of any change in the MORTGAGOR'S name and address or of any successor or assignee of the MORTGAGOR.

18. The interpretation and application of this mortgage shall be in accordance with the laws and procedures of the State of Michigan.

19. If proceedings to foreclose this mortgage by advertisement are taken, MORTGAGOR shall pay MORTGAGEE, in addition to all other costs, a sum equal to the maximum attorney fee permitted by law. If proceedings to foreclose this mortgage are taken by Court action, MORTGAGOR shall pay to MORTGAGEE such costs and attorney fees as shall be allowed by the Court. Upon default in the terms and conditions of this mortgage, or the note secured by this mortgage, or in the terms and conditions of any other indebtedness secured by this mortgage, the MORTGAGOR does hereby authorize to the MORTGAGEE to grant, bargain, or sell the premises at public vendue and makes delivery to the purchaser, his or her heirs or assigns, good, ample and sufficient deed or deeds at law pursuant to the statute in such case made and provided, rendering the surplus moneys, if any, the MORTGAGOR, its heirs, personal representatives or successors, after deducting all sums due under the terms of this mortgage to MORTGAGEE, including expenses of foreclosure as set forth above.

20. MORTGAGOR hereby assigns to the MORTGAGEE as additional mortgage security, all the rents under any oral or written leases upon the PROJECT, such assignment to be binding on the MORTGAGOR only in the event of default in the terms and conditions of this Mortgage.

21. Upon satisfactory completion of all terms and conditions of this mortgage by the MORTGAGOR or upon payment of any and all balance due, the MORTGAGOR shall be entitled to a release and satisfaction of this mortgage by the MORTGAGEE at the MORTGAGOR'S own cost.

This mortgage is expressly created and imposed upon the above described PROJECT for the purpose of assuring the compliance of the MORTGAGOR with the terms and conditions incident to the deferred payment loan evidenced by this mortgage, such loan being exclusively for the purpose of rehabilitating, preserving and enhancing rental dwelling units in the PROJECT in accordance with the rules and procedures of the Rental Rehabilitation Program of the Charter Township of Meridian.

The MORTGAGOR covenants to affirmatively market any rental unit vacant after initial rental has occurred by providing notifications to persons in the housing market area who are not likely to apply for units without special outreach through contacts with the local MSHDA Section 8 Existing Housing Office and one or more locally designated social agencies as provided by the MORTGAGEE, by advertising vacant rental units in a newspaper of general circulation, with Equal Housing Opportunity logo and/or slogan contained in the text of the advertisement, and by retaining records, documenting affirmative marketing as described in this covenant.

This Mortgage is made this 15th day of December, 19 88.

Sherry E. Wilson
Sherry E. Wilson

Lloyd I. Miser
Lloyd I. Miser ** Mortgageor

Leesha W. Howe
Leesha W. Howe

Dorothy E. Miser
Dorothy E. Miser ** Mortgageor

** Husband and Wife

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

On December 15, 1988, before me, a Notary Public duly sworn
in and for said County, personally appeared Lloyd I. and Dorothy E. Miser,
described in and who executed the within instrument and acknowledged the
same to be ~~his~~ their free act and deed.

Leesha W. Howe

Notary Public, County of Ingham
State of Michigan
My Commission Expires: 1-8-91

DOCUMENT PREPARED BY:

CHARTER TOWNSHIP OF MERIDIAN
5151 Marsh Road
Okemos, MI 48864-1198

LEESHA HOWE, NOTARY PUBLIC
INGHAM COUNTY, STATE OF MICHIGAN
MY COMMISSION EXPIRES ON 01-08-91



11.A

13.A

To: Township Board

From: Mark Kieselbach
Mark Kieselbach
Director of Community Planning and Development

Peter Menser
Peter Menser
Senior Planner

Date: April 26, 2017

Re: Mixed Use Planned Unit Development (MUPUD) #16024 (Capstone Collegiate Communities, LLC), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway.

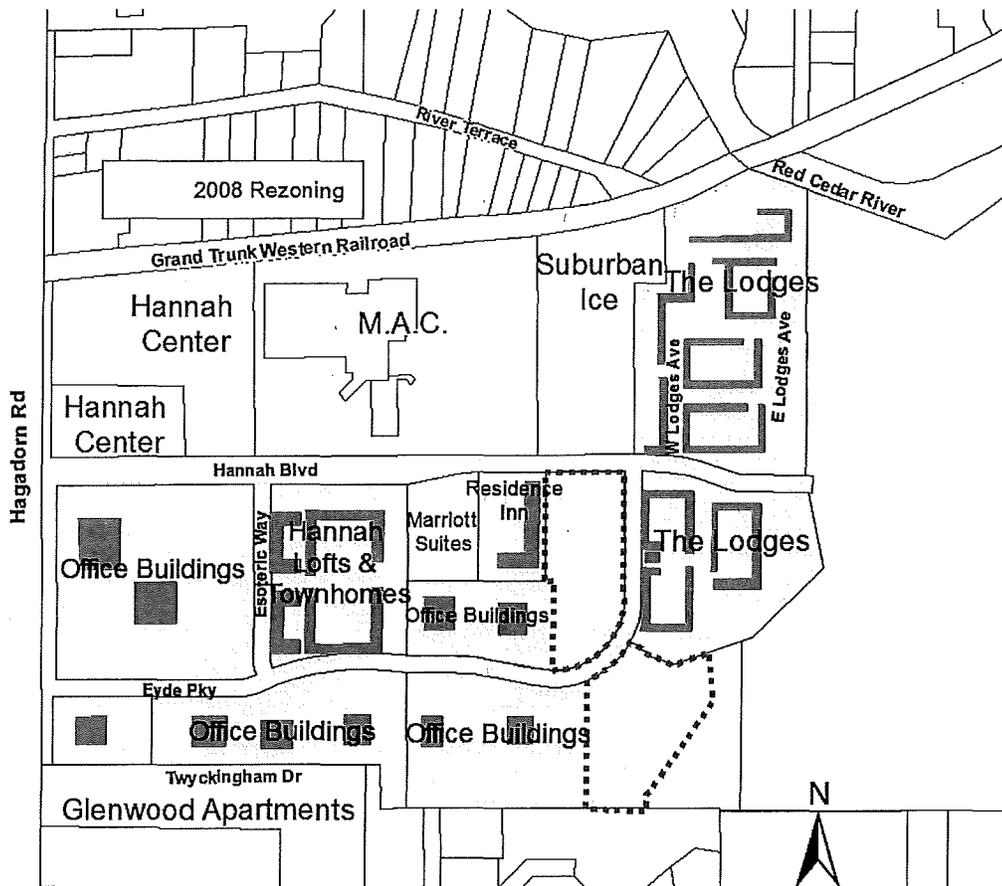
Capstone Collegiate Communities, LLC has submitted a proposal to construct Hannah Farms East, a project consisting of one 4-story apartment building, a 2-story, 34,760 square foot parking garage, and 65 3-story townhouses. 159 residential units are proposed (462 bedrooms), for a total of 237,248 square feet of residential space. The total project site is approximately 10.60 acres in size on portions of two parcels.

The Planning Commission held the public hearing on the mixed use planned unit development (MUPUD) at its meeting on December 19, 2016. After the public hearing the applicant revised the proposal, reducing the total number of units by six and the total number of bedrooms by 24. The proposal was revised again after the March 13, 2017 Planning Commission meeting, eliminating 131 units (159 bedrooms) and the apartment building proposed along Eyde Parkway, reducing the size of the parking garage, and adding two townhouse buildings. As the project has changed significantly since originally proposed, the original staff report from the public hearing at the Planning Commission is not included as an attachment as it is no longer relevant. This memorandum focuses on a review of the project as it is currently proposed.

Hannah Farms East is the fifth mixed use planned unit development (MUPUD) project stemming from the 2008 rezoning (REZ #08080) of 81 acres located east of Hagadorn Road that encompassed Hannah Boulevard, Eyde Parkway and Esoteric Way. The 2008 rezoning changed the zoning on five parcels in that area from RP (Research Park) to PO (Professional and Office) and C-2 (Commercial). The rezoning was conditioned on the development of the entire 81 acres in the rezoning using the MUPUD ordinance, construction of a maximum of 1,010 to 1,159 residential units distributed throughout and/or on portions of the subject property, and availability and adequate capacity of public utility services. The other MUPUD projects in the 81 acre rezoning area were The Lodges (2009), The Lodges II (2012), the Residence Inn extended stay hotel (2013), and Hannah Lofts (2013). The table below provides details on each project.

Project	Units	Bedrooms	Total Square Feet	Acreage
Lodges I	220	683	301,271	15.71 acres
Lodges II	144	366	146,318	9.06 acres
Residence Inn	96 rooms	N/A	72,091	2.5 acres
Hannah Lofts	282	702	378,240	7.9 acres

If the 159 units proposed in the Hannah Farms East MUPUD are approved there will be a total of 805 residential units distributed over the 81 acres in the 2008 rezoning. The following map identifies the proposed MUPUD in the context of the 2008 rezoning.



In addition to the MUPUD, a special use permit (SUP) is required for constructing a building or group of buildings totaling more than 25,000 square feet in gross floor area. The special use permit (SUP #16111) is being processed concurrently with the MUPUD request.

Hannah Farms East will be comprised of one apartment building, a parking garage, and 65 townhouses. A total of 237,248 square feet of residential space is proposed. The following is a review of each component of the project, including a breakdown of the number of residential units in each building and the number of bedrooms in each unit.

Apartment Building

A 4-story apartment building, identified as Building #1 on the submitted site plans, is proposed at the southwest corner of Hannah Boulevard and Eyde Parkway. The building is 90,146 square feet in size and has 94 residential units. There are 12 1-bedroom units, 56 2-bedroom units, and 26 3-bedroom units. There are a total number of 202 bedrooms in Building #1.

Townhouses

There are 65 townhouses proposed, 18 units in the north project area and 47 units across Eyde Parkway to the southeast. The townhouses are grouped into 11 buildings, each with a different number of residential units. There are two 3-unit buildings, two 4-unit buildings, three 6-unit buildings, one 7-unit building, two 8-unit buildings, and one 10-unit building. Each townhouse has four bedrooms, for a total of 260 beds. Eight out of the 11 townhouse buildings have a 2-car garage on the 1st (ground) floor of each unit.

Master Plan

The properties in the project area are designated on the Future Land Use Map from the 2005 Master Plan as Office.

FUTURE LAND USE MAP

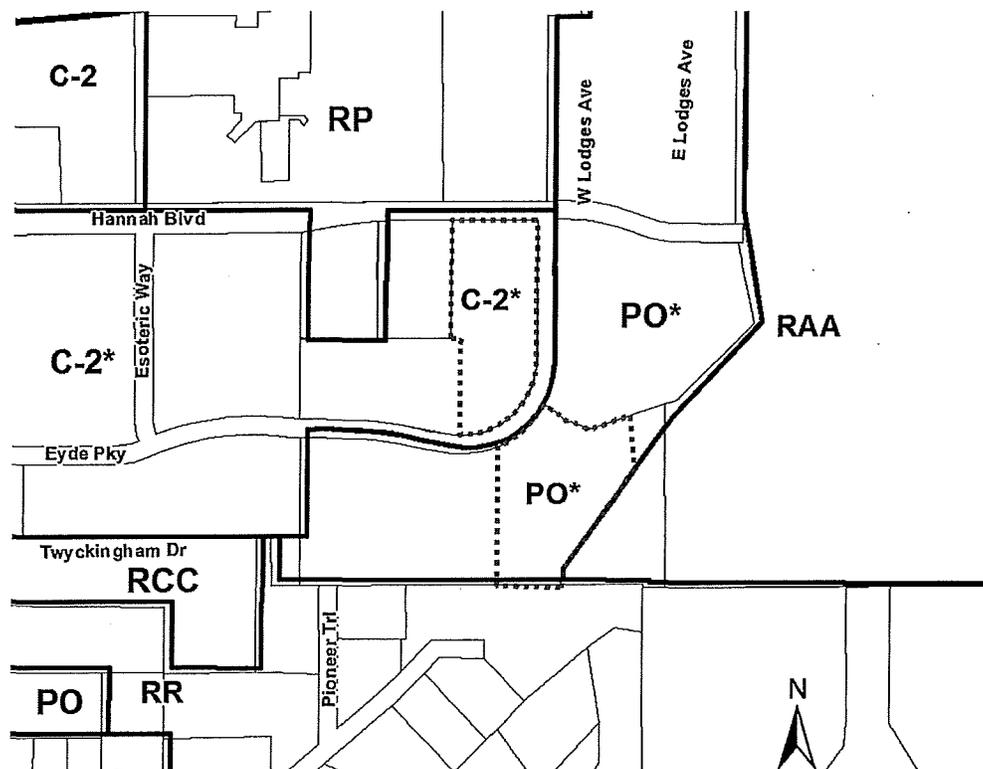


Zoning

The proposed project is located in both the C-2 (Commercial) and PO (Professional and Office) zoning districts, the north portion with the apartment building and parking ramp is zoned C-2 and the south portion with the townhouses is zoned PO. The C-2 zoning district allows for a mixed use planned unit development (MUPUD). The PO zoning district allows for a MUPUD, but only where public water and sewer are available, and when the MUPUD is adjacent to land zoned and developed in a single-family residential district, the height of buildings in the MUPUD are limited to being no taller than the abutting residential district would allow.

The project area is broken down into what will in the future be two separate parcels, a 4.72 acre, C-2 zoned parcel that contains the apartment building and the parking garage, and a 5.87 acre PO zoned parcel that includes the townhouses. The C-2 zoned parcel has approximately 307 feet of frontage along Hannah Boulevard and approximately 950 feet of frontage along Eyde Parkway. The PO zoned parcel has approximately 288 feet of frontage along Eyde Parkway. Both parcels meet and exceed the minimum requirements for lot width and lot area for the C-2 zoning district (100 feet of frontage, 4,000 square feet of lot area) and PO zoning districts (50 feet of frontage and 5,000 square feet of lot area).

ZONING MAP



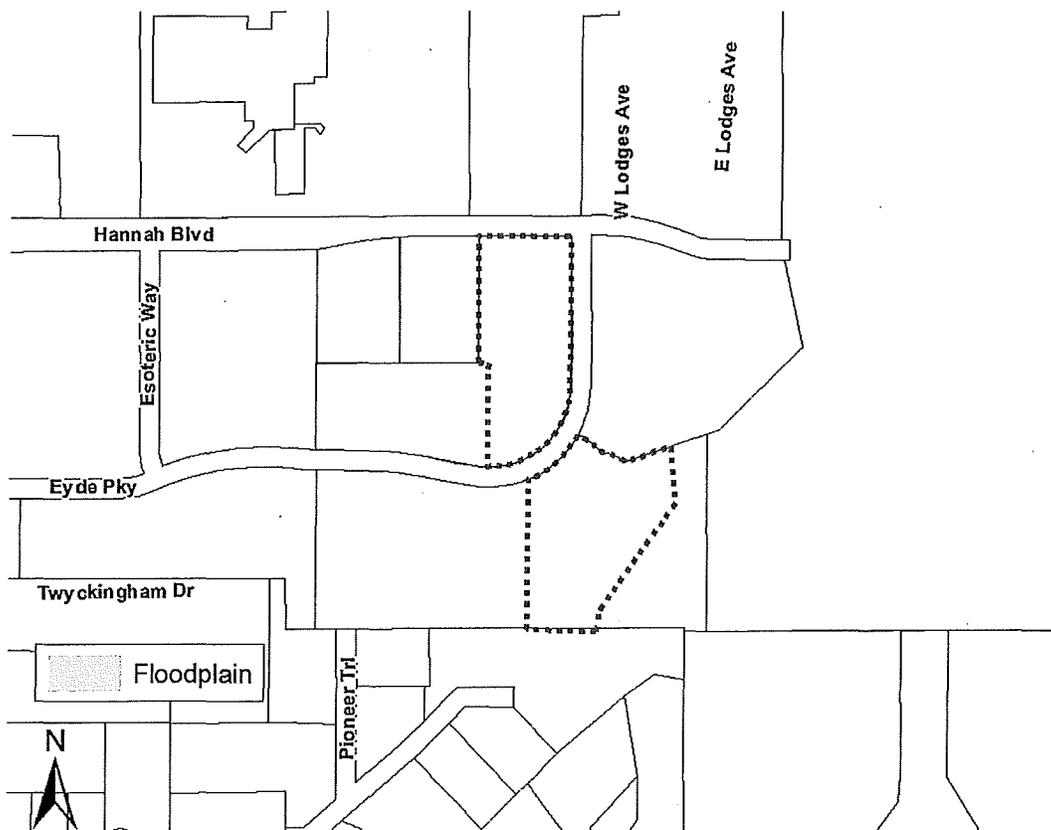
Physical Features

The subject site is undeveloped. The applicant submitted a Natural Features Assessment for the proposed project that provides extensive review of the natural features in the area proposed for development, including a tree survey showing trees with a dbh (diameter at breast height) of 12 inches or larger. The northern portion of the project area is currently occupied by a planted section of pine trees and a small immature deciduous forest habitat. The southern portion of the project area is an open field. The entire site is relatively flat, with the southeastern most portion of the site sloping toward a wetland area and the Herron Creek Drain. Spoils piles and some construction debris were observed on the southern portion of the site.

Floodplain

There is a floodplain area located south and east of the southern portion of the project site. No work is proposed in the floodplain.

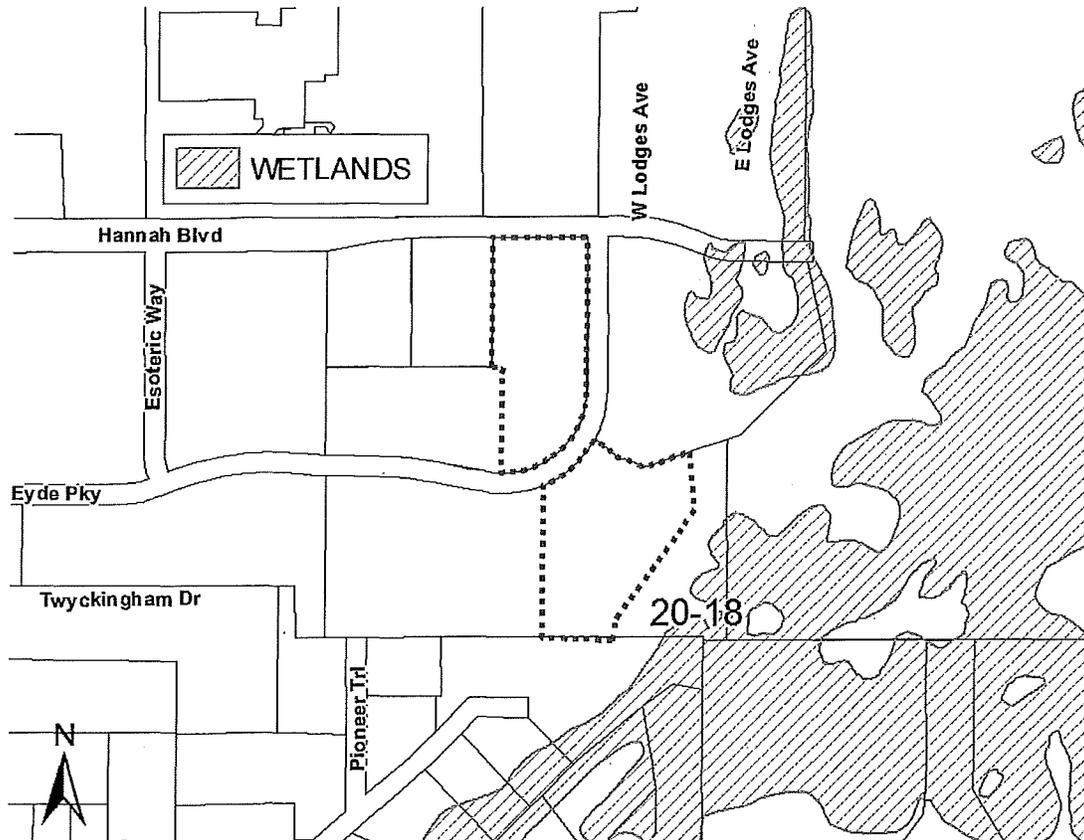
FLOODPLAIN MAP



Wetlands

Township wetland #20-18 is located southeast of the project site where the property slopes down toward the Herron Creek Drain. No site work is proposed within any wetland area.

WETLAND MAP



Streets and Traffic

Hannah Boulevard and Eyde Parkway will provide direct access to the proposed development. Both are classified as local streets and provide access to Hagadorn Road. Hagadorn Road is classified as a Minor Arterial in the 2005 Master Plan. It is a four lane roadway with a center median and curb and gutter. A seven foot wide pathway, part of the Township's Pedestrian-Bicycle Pathway Master Plan, exists on the east side of Hagadorn Road. The Ingham County Road Department's (ICRD) most recent traffic count for Hagadorn Road was taken on a weekday in April, 2011 between Mt. Hope Road and Briarcliff Drive. 17,324 vehicle trips were counted in a 24-hour period, 8,871 travelling northbound and 8,453 southbound. Hagadorn Road, Hannah Boulevard, and Eyde Parkway are all under the jurisdiction of the Ingham County Road Department.

Hannah Boulevard is a four lane divided roadway with a grass median that runs east from Hagadorn Road and terminates just east of the proposed project site. The grass median is not present in the area of the proposed development. There are seven foot sidewalks on the north and south side of Hannah Boulevard. There are no recent traffic counts available for Hannah Boulevard. Eyde Parkway is a two lane roadway with five foot sidewalks on the east side of the property in the vicinity of the proposed project site. There are no recent traffic counts available for Eyde Parkway.

The applicant submitted a traffic study prepared by Traffic Engineering Associates, Inc. dated June 2016 that provides information on traffic generated by the proposed Hannah Farms East development. The study looks at existing, background (future traffic volumes without the traffic generated by the proposed development), and future level of service (LOS) during the AM (8:00-9:00 a.m.) and PM (4:45-5:45 p.m.) peak hours at the following six intersections around the project site.

- Hannah Boulevard at Hagadorn Road
- Hannah Boulevard at Esoteric Way
- Hannah Boulevard at Eyde Parkway
- Hagadorn Road at Eyde Parkway
- Eyde Parkway at Esoteric Way
- Hagadorn Road at Mt. Hope Road

The traffic study notes that existing traffic at the studied intersections all operate at an acceptable LOS (LOS D or better) during the AM and PM peak hours, with the exception of the southbound left turn at the Hagadorn Road/Mt. Hope Road intersection, which operates at a LOS of F during the PM peak hour. The study shows that background traffic at the studied intersections will operate at an acceptable level of service during AM and PM peak hours, with the exception of the southbound left turn at the Hagadorn Road/Mt. Hope Road intersection, which is anticipated to continue operating at a LOS of F.

For future traffic, the study indicates that all studied intersections will continue to operate at an acceptable LOS (if the Hagadorn Road/Mt. Hope Road intersection signal timing is modified) during AM and PM peak hours, except for the southbound left turn at Hagadorn Road/Mt. Hope Road and the northbound through-right movement on Hagadorn Road at Eyde Parkway, which are both expected to operate at a LOS of E during the PM peak hour. The study, based on field counts at the existing Hannah Lodges development, projects that Hannah Farms East will generate 118 vehicle trips during the AM peak hours and 254 vehicle trips during the PM peak hour.

The applicant's traffic consultant recommends modifying the traffic signal timing at Hagadorn Road/Mt. Hope Road, suggesting that the LOS can be upgraded from F to E by doing so. The consultant also recommends modifying the signal timing at the Hagadorn Road/Eyde Parkway intersection to improve LOS. Suggestions were also made to ensure sight distance is maintained at the driveways to the proposed development relative the location of landscape materials.

The Ingham County Road Department (ICRD) commented that the parallel parking proposed along the west side of Eyde Parkway is prohibited because of a "No Parking" Traffic Control Order (TCO) issued by the Michigan State Police.

Utilities

The Department of Public Works and Engineering has indicated that municipal water and sanitary sewer are both available to serve the proposed development. The location and capacity of utilities will be reviewed in detail during site plan review if the MUPUD and SUP are approved.

Motor Vehicle Parking

A total of 434 parking spaces are shown on the site plan, comprised of a mix of surface parking, ramp parking, ground level garage parking under the townhouses, and on-street. 34 of the 38 proposed parking spaces will be lost due to the prohibition of on-street parking along the west side of Eyde Parkway, reducing the number of proposed parking spaces to 400.

The Township parking ordinance requires two parking spaces for each dwelling unit. 159 dwelling units are proposed, so a minimum of 318 parking spaces are required for the project.

Bicycle Parking

One bicycle parking space for every 10 required vehicle parking spaces is required. 40 inverted U-type bicycle parking racks are proposed in several areas around the development. Each rack provides space for two bicycles for a total of 80 bicycle parking spaces.

Staff Analysis

The applicant has requested to construct one apartment building, a parking garage, and 65 townhouses using the MUPUD process for a project named Hannah Farms East. A MUPUD is permitted in the C-2 (Commercial) and PO (Professional and Office) zoning districts. The MUPUD is related to a 2008 rezoning (REZ #08080) that required any project proposed in the 81 acre rezoning area to be developed using the MUPUD ordinance.

The MUPUD ordinance generally waives the standard requirements for lot size, yards, frontage requirements, setbacks, maximum impervious surface, and type and size of dwelling unit, provided the purpose and intent of the ordinance are incorporated into the overall development plan. The MUPUD ordinance is intended to provide flexibility for the Planning Commission and Township Board to set appropriate standards during the review process.

Following is a summary of the project's consistency with the MUPUD ordinance standards. As part of this project analysis, standards for the underlying C-2 and PO zoning districts and other requirements applicable to development in the C-2 and PO districts will be compared to what is proposed on the submitted site plan.

Land use: All uses permitted by right and by special use permit in the underlying zoning district are allowed in a MUPUD. A MUPUD in the PO zoning district is allowed only limited commercial uses; the type, size, and location of which must be depicted on a site plan and approved by the Township Board at the time the MUPUD is considered. The proposed land use is multiple family residential.

Density: The 2008 rezoning established that a maximum of 1,010 to 1,159 residential units can be distributed throughout and/or on portions of the entire 81 acres that were rezoned. The applicant is proposing 159 multiple family residential units.

Phasing: The applicant has not indicated a phasing plan for the proposed project.

Amenities: One or more amenities are required for every MUPUD project and should represent multiple categories from the list of amenity categories found in Section 86-440(e), which are Conservation; Environment; Accessibility; Parks, Recreation, and Culture; Social Interaction; and Site and Building Design. Criteria to determine whether a proposed amenity is acceptable for consideration are found in Section 86-440(e)(2) of the MUPUD ordinance. The site plan lists the following amenities on Sheets 2 and 3: recreational resources (parks), community center/clubhouse with Wi-Fi, covered bike rack areas, bike racks, outdoor amenity, a public art space, two electric car charging stations, sidewalks that connect to Township sidewalks, decorative pavers along Hannah Boulevard, and recycling area.

The uncovered bike racks are required as part of the zoning ordinance and therefore cannot be counted as an amenity. An area for the outdoor amenity is shown adjacent to the apartment building, but details were not provided. Details were also not provided for the proposed public art space or decorative pavers along Hannah Boulevard. The project also includes amenities not listed on the site plan, including multilevel parking, porches, and underground utilities.

Impervious surface coverage: The maximum allowed impervious surface coverage for the C-2 zoning district is 70 percent. The site plan shows 59.81 percent impervious for the portion located in the C-2 zoning district on the north side of Eyde Parkway. For the southern project area in the PO zoning district the maximum impervious surface allowed is 75 percent. The impervious surface coverage for the south project area is 54.32 percent. The overall project impervious surface coverage is 57.02 percent.

Building Height: The maximum building height allowed in a MUPUD is 45 feet. One exception is that in a MUPUD proposed on land zoned PO, when adjacent to land zoned and developed in a single-family residential district, building height is limited to being no taller than the abutting residential district would allow. The submitted building elevations indicate the apartment building is 40' 8" tall. The townhouse portion of the MUPUD proposed on the south side of Eyde Parkway is located north of a single family residential neighborhood which is zoned RR (Rural Residential) and land to the east zoned RAA (Single Family, Low Density). The maximum building height allowed in RR and RAA is 35 feet. The proposed townhouses are shown at 32' 4" tall.

Building Materials: Generally, building materials in a MUPUD should include, but are not limited to, wood, brick, clapboards, beadboard, glass, and stone. Other materials such as vinyl, aluminum, and other metal sidings should be avoided. All buildings should be completed on all sides with acceptable materials. The design of the building should relate to and blend with the facades of adjacent buildings and complement streetscape improvements in the area.

The proposed building materials for the apartment building are painted brick with fiber cement trim. Painted brick and vinyl siding is proposed for the townhouses; however the building elevations show cement fiber cement is also an option. The MUPUD ordinance specifically discourages the use of vinyl siding.

Architectural design: The MUPUD ordinance states that buildings wider than 50 feet shall be divided into increments of not more than 50 feet through articulation of the façade. The building elevations show both the apartment building and townhouses have the required articulation.

Railings, benches, trash receptacles, or bicycle racks: Accessory items such as railings, benches, trash receptacles, or bicycle racks shall be of commercial quality and complement the building design and style. Information on proposed railings, benches, trash receptacles or other accessory items were not provided.

Trash and Recycling: A dumpster and recycling area is shown in an area at the southeast corner of the property, south of Eyde Parkway. The site plan does not show an area for a dumpster or recycling area on the northern portion of the project area. Details on the trash compactor and recycling area, including elevation drawings, were not provided.

Landscaping: Proposed landscaping must generally comply with the provisions of the Code of Ordinances. Section 86-758 of the Code of Ordinances outlines the typical landscape requirements for off-street parking areas including landscaped islands at least ten feet in width, a minimum of 200 square feet of interior landscaping for every ten parking spaces, and two interior canopy trees per ten parking spaces. Section 86-473 provides standards for street trees. A landscape plan was not provided but will be required should the proposed project move to the site plan review process.

Lighting: The MUPUD ordinance requires site lighting to comply with the Outdoor Lighting Ordinance (Section 38-371 of the ordinance) and limits street lighting intended to provide illumination for pedestrians on the sidewalk to no taller than 15 feet in height. Information on proposed site lighting was provided and will be reviewed in detail during site plan review.

Signs: A sign program is required as part of the MUPUD application showing the style, size, number, and location of any proposed signs. The sign program is approved as part of the MUPUD. The submitted architectural plans show the locations of several proposed signs on both the apartment building and townhouses.

Sidewalks: Generally, sidewalks in a MUPUD must be a minimum of five feet in width. Seven foot wide sidewalks are required when a sidewalk is located immediately adjacent to an off-street parking area. The proposed five foot sidewalk in the southern project area must be widened to seven feet as they are adjacent to an off-street parking area. The submitted site plan shows internal circulation is provided via five foot wide sidewalks around the proposed buildings. All sidewalks in this area, with the exception of the seven foot pathway on the east side of Hagadorn Road, are not part of the Township's pathway system and are privately owned and maintained.

Waiver requests

The MUPUD ordinance generally waives the standard requirements for lot size, setbacks, type and size of dwelling unit, frontage, number of required parking spaces, and impervious surface coverage, provided the purpose and intent of the ordinance are incorporated into the overall development plan. Based on the revised site plan the applicant is requesting the following waivers for the Hannah Farms East project.

Front yard setback

A 25 foot front yard setback from the street right-of-way (ROW) line is required along Hannah Boulevard and Eyde Parkway. At its closest point the apartment building is setback approximately 2.56 feet from the Hannah Boulevard ROW and 12.76 feet from the Eyde Parkway ROW.

Rear yard setback

A 15 foot rear yard setback is required in the C-2 (Commercial) zoning district. The proposed parking ramp is located approximately 11.02 feet from the western property line.

The PO (Professional and Office) zoning district requires a 50 foot rear yard setback from an adjacent residential zoning district boundary. The proposed townhouses border the RAA (Single Family, Low Density) to the east and the RR (Rural Residential) zoning district on the south. The townhouses are setback approximately 10 feet from the RAA zoning district line at the east.

Parking setbacks

Where a parking area adjoins the same or any other nonresidential district a landscaped buffer at least 15 feet wide must be provided between the parking area and the property line. The surface parking lot on the north side of Eyde Parkway is located approximately two feet off the western property line. The surface lot on the south side of Eyde Parkway is located 11.41 feet from the western property line.

Review Period

The May 2, 2017 Township Board meeting is the public hearing for the MUPUD request. Following the public hearing, the Township Board has 30 days to approve, modify, or deny the request. The 30 day period ends on June 1, 2017 therefore the Board must act on the MUPUD at its May 16, 2017 meeting unless the applicant agrees to extend the deadline.

The Planning Commission held the public hearing on the CPUD request at its December 19, 2016 meeting and voted 8-0 to recommend approval of the request at its March 27, 2017 meeting, citing the following reasons for its decision:

- The proposed mixed use planned unit development has been designed to be harmonious and appropriate with the existing uses surrounding the site.

- The proposed mixed use planned unit development is in furtherance of Township Board Policy #1.5(2), which encourages diverse housing opportunities.
- The proposed project will establish residential units that exist in close proximity to commercial establishments and is within walking distance of Michigan State University.

Staff memorandums outlining the request and minutes from the Planning Commission meetings at which the request was discussed are attached for the Board's review.

Township Board Options

The Township Board may approve, approve with conditions, or deny the proposed CPUD. If the Board amends the proposal, the request may be referred back to the Planning Commission for a recommendation. A resolution will be provided at a future meeting.

Attachments

1. Application and attachments
2. Site rendering and building elevations received by the Township on April 24, 2017
3. Site plan dated April 21, 2017 and received by the Township on April 24, 2017
4. Building elevations and floor plans received by the Township on April 24, 2017.
5. Staff memorandums dated January 5, 2017, March 10, 2017, and March 24, 2017
6. Planning Commission minutes dated December 19, 2016 (public hearing), January 9, 2017, March 13, 2017, March 27, 2017 (decision)
7. Communication from Chris Edwards dated December 9, 2016

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CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
 5151 MARSH ROAD, OKEMOS, MI 48864
 PHONE: (517) 853-4560, FAX: (517) 853-4095

MIXED USE PLANNED UNIT DEVELOPMENT APPLICATION

Before submitting this application for review, an applicant shall participate in the pre-application conference with the Director of Community Planning and Development to discuss the requirements for a Mixed Use Planned Unit Development.

Part I

A. Applicant CAPSTONE COLLEGIATE COMMUNITIES, LLC
 Address of Applicant 431 OFFICE PARK DR., BIRMINGHAM, AL 35223
 Telephone - Work (205) 414-6432 E-Mail JACKIE@CAPSTONEAL.COM Fax (205) 414-6405
 Interest in property (circle one): Owner Tenant Option Other _____
 (Please attach a list of all persons with an ownership interest in the property.)

B. Site address / location / parcel number PART OF PARCELS 33-02-02-20-326-009 (6010)
 Legal description (please attach if necessary) SEE PLANS
 Current zoning C-2 / P-O
 Project name HANNAH FARMS EAST

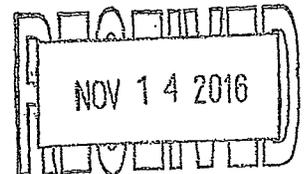
C. Developer (if different than applicant) SAME
 Address _____
 Telephone: Work _____ E-Mail _____ Fax _____

D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name KEBS INC - GREG PETRU
 Address 216 HASLETT ROAD, HASLETT MI 48840
 Telephone(s) (517) 339-1014 E-Mail G.PETRU@KEBS.COM Fax (517) 339-8017

E. Acreage of all parcels in the project: Gross 10.60 Net 10.60

F. Proposed Uses and Site Amenities:

1. Non-residential uses:
 - a. Type CLUBHOUSE (2), PARKING RAMP, MAINTENANCE
 - b. Percent of project area 16.23% OF BUILDING AREA (1ST FLOOR)
 - c. Total square feet for non-residential uses 71,450 SF
 - d. Usable floor area 13,000 SF
 - e. Number of employees 5 FULL TIME, 10-15 PART TIME
 - f. Hours of operation 7 AM - 9 PM



2. Residential Uses:
 - a. Percent of project area _____
 - b. Total dwelling units 296
 - c. Dwelling unit mix:
 - i. Number of single family detached: for Rent _____ Condo _____
 - ii. Number of duplexes: for Rent _____ Condo _____
 - iii. Number of townhouses: for Rent 56 Condo _____
 - iv. Number of garden style apartments: for Rent 240 Condo _____
 - v. Number of other dwellings: for Rent _____ Condo _____

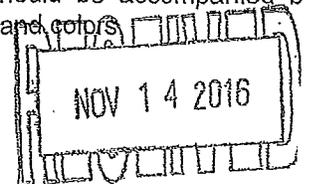
3. Parking:
 a. Non-residential uses _____
 b. Residential uses 609

4. Proposed Amenities: Type CONNECTING SIDEWALKS
 (General) Type GREEN SPACE / PARK AREA
 (SEE PLANS) Type CUBHOUSE / POOL
 Type COVERED BIKE RACKS

- Proposed Amenities: Type _____
 (Density Bonus) Type _____
 Type _____
 Type _____

G. The following support materials must be submitted with the application:

- ~~1.~~ Nonrefundable fee.
- ~~2.~~ Legal Description of the property. (A sealed survey may be required) - SEE PLANS
- ~~3.~~ Evidence of fee or other ownership of the property or a letter from the owner authorizing the request including the owner's proof of ownership.
- ~~4.~~ A written description of the project including, but not limited to: a site analysis; the principal factors which influenced the site plan and architectural elements; and, the proposed phasing program for non-residential and residential uses, installation and/or construction of amenities.
5. Fourteen copies (Thirteen (13) 24"x36" and one 8½" x11") of a Site Plan drawn to a readable scale containing the following (may be a set of plans for readability):
 - Total property, its location in the Township, its relationship to adjacent properties
 - Boundaries of subject property
 - Location and dimensions of all existing and proposed structures
 - Approximate location and distance of all structures within 100 feet of the subject property
 - Proposed means of vehicular and pedestrian ingress and egress to the subject property
 - Public and private roads and streets, rights-of-way and easements indicating names and widths of streets which abut or cross the site
 - Existing and proposed parking spaces and vehicular and pedestrian circulation patterns
 - Dimensions of setbacks from streets, property lines and between buildings on the site
 - Location of proposed amenities
 - Location and size of existing utilities including power lines and towers, both above and below ground
 - Amount and location and calculation of all impervious surfaces
 - Verified boundaries of all natural water features and required setback lines
- ~~6.~~ A reproducible two foot contour topographic map based on United States Geological Survey (USGS) drawn at the same scale as the site plan and showing existing relief features on the site.
- ~~7.~~ A schematic layout of the proposed storm sewer system.
- ~~8.~~ Architectural sketches of all elevations of proposed buildings or structures, including the project entrances, as they will appear upon completion. The sketches should be accompanied by material samples or a display board of the proposed exterior materials and colors.
- ~~9.~~ Floor plans of proposed residential units.



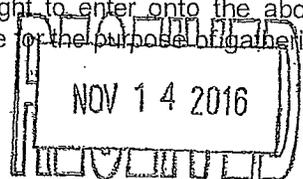
- 10. A Traffic Study (if the project will exceed 100 vehicle trips during the peak hours of the roadway(s), prepared by a qualified traffic engineer, based on the most current edition of *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation.
- 11. Natural Features Study for previously undeveloped properties which includes a written description of natural features proposed to be retained, removed, or modified. Natural features shall include, but are not limited to, wetlands, floodways, floodway fringe, waterbodies, significant stands of trees or individual trees greater than 12 inches dbh, identified groundwater vulnerable areas, slopes greater than 20 percent.
- 12. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
- 13. A sign program illustrating size and location of each proposed sign type.
- 14. A lighting plan (see Chapter 38, Article VII).
- 15. Copies of comments from reviewing agencies such as, but not limited to, the following:
 - Ingham County Road Commission
 - Ingham County Drain Commission
 - Michigan Department of Transportation (if applicable) *N/A*
 - Michigan Department of Environmental Quality (if applicable) *N/A*
 - The appropriate school board (as applicable)

H. Any other information specified by the Director of Community Planning and Development which is deemed necessary to evaluate the application.

Part II

I (we) hereby grant permission for members of the Charter Township of Meridian's Boards and/or Commissions, Township staff member(s) and the Township's representatives or experts the right to enter onto the above described property (or as described in the attached information) in my (our) absence for the purpose of gathering information including but not limited to the taking and the use of photographs.

Yes No (Please check one)



By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

J. Paul Maxwell
Signature of Applicant

11/11/16
Date

DAVIS MAXWELL
Type/Print Name

Fee: _____

Received by: *P. J. Meuser*

Date: 11-14-16

Pre-Application Meeting Held: _____
Date

Application Complete: _____
Date

By: _____
Staff



MARX
WETLANDS
LLC

Natural Features Assessment Report Hannah Farms West Site

1.0 INTRODUCTION

Marx Wetlands, LLC (Marx) was contracted by Capstone Companies to perform a natural features assessment for an approximately 10-acre parcel in Meridian Township, Ingham County, Michigan.

As part of a Special Use Permit Application, the Charter Township of Meridian Department of Community Planning and Development requires a "Natural Features Assessment," which is to include "a written description of the anticipated impacts on the natural features at each phase and at project completion that contains the following:

- a. An inventory of natural features proposed to be retained, removed, or modified. Natural features shall include, but are not limited to, wetlands, significant stands of trees or individual trees greater than 12 inches dbh, floodways, floodplains, water bodies, identified groundwater vulnerable areas, slopes greater than 20 percent, ravines, and vegetative cover types with potential to sustain significant or endangered wildlife.
- b. Description of the impacts on natural features.
- c. Description of any proposed efforts to mitigate any negative impacts."

After obtaining site location information, Marx conducted desktop information reviews, on-site assessments, a tree survey, and information analysis in order to help address the Township's natural features assessment requirements. This report provides results of Marx's natural features assessment.

2.0 SITE LOCATION AND PROJECT DESCRIPTION

The approximately 10-acre subject site (hereafter referred to as the Site) includes two parcels located along the west and south sides of the Lodges of East Lansing II housing complex, south of the Red Cedar River, and south of ARC Ice Sports in the east half of Section 20, Meridian Charter Township, Ingham County, Michigan. Capstone Companies (Developer) is proposing to construct a multi-unit residential complex on the Site. The proposed structures and parking facilities on this parcel will be completed in one phase. Prior to site clearing and grading, soil erosion and sediment control measures will be installed and will be inspected and maintained during the construction project. All soil erosion and sedimentation

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Suite 201

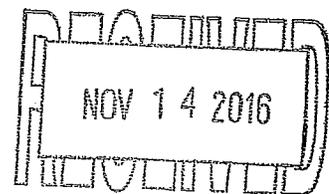
East Lansing, MI 48823

Tel: 517.333.8833

Mobile: 517.898.4187

e-mail

gmarx@marxwetlands.com



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control measures will be removed upon completion of construction and stabilization. Please refer to Site Location Map, Figure 1.

The Site is +/- 10 acres in size and is currently vacant. The north parcel is bordered on the east by The Lodges of East Lansing II complex and the Residence Inn of East Lansing on the west. The south parcel is south of the Lodges II site and immediately east of the Lansing Community College facility. The topography of the northern Site is relatively flat, and the southern parcel is relatively flat with significant slopes dropping down to the adjacent wetland on its south and east sides. The North Site contains an area of planted pines and an area of deciduous forest. The South site includes an open old field area and a sloping area of mature deciduous forest. Refer to the Aerial Imagery Map, Figure 2.

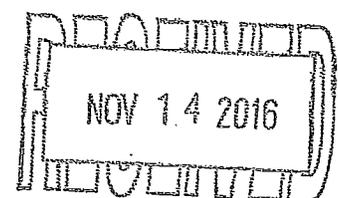
3.0 METHODS

Marx Wetlands conducted a desktop review for the Site using existing information and imagery, including the United States Geological Service (USGS) topographic map, aerial photographs, a site specific topographic map, Meridian Township's Wetland Inventory Map, National Wetland Inventory (NWI) map, USDA county soil survey map, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), and the Township's groundwater vulnerability map.

From January 11 to 15, 2016, Marx conducted a tree survey. On May 26, 2016, Marx conducted an on-Site assessment consisting of a site walkthrough to conduct a current and prior land use evaluation, habitat type determination, habitat quality evaluation, preliminary wetland assessment, wildlife observations, and floodplain or other special concern observations.

The tree survey consisted of identifying the species, general health status, and dbh (diameter-breast-height) of each tree on the subject site with a dbh of 12 inches or larger, and to these affixing a uniquely numbered metal tag and the surveyor collecting a GPS location point.

The findings from the desktop review, site assessment, and tree survey were combined to help interpret the subject Site's natural features and evaluate potential project impacts upon those natural features.



4.0 RESULTS, FINDINGS, AND DISCUSSION

4.1 Existing Structures, Materials, and Adjacent Land use

Other than the portion of Eyde Parkway that passes between the north and south parcels, there are no existing structures on the site.

Much of the land immediately surrounding the Site is already developed. The nearest structures are Lodges of East Lansing residential buildings just to the east and north. To the west is the East Lansing Residence Inn and the Lansing Community College facility. There are some piles of debris on the south parcel and some old piles of soil within the pine planting area. South and east of the south parcel is a large wetland that is mostly off the Site. Refer to Figure 2.

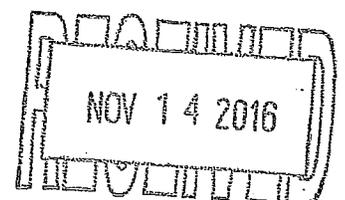
4.2 Topography

The lowest elevations on the Site are about 845 feet MSL, found at the bottom of the forested slope on the south parcel. The highest elevation is about 865 found near the north part of the north parcel. The north parcel is relatively flat, and the south part is partly flat with relatively steep slopes dropping down to the wetlands at the south and east ends of the site (refer to Figure 3, Topographic Map).

4.3 Vegetation

A vegetation assessment was conducted during the Site survey. Marx found four distinct community types present on the Site. The north parcel is divided into a planted pine plantation, and an immature deciduous forest area. The south parcel includes an old field area, which is characterized by herbs, grasses, and some shrubs, and an area of mature forest on the sloped areas stretching down to the wetland area on the adjacent parcels to the south. The species identified in these three areas during the field investigation are provided in tables (refer to Figure 10).

The Vegetation circa 1800 map produced by the Michigan Natural Features Inventory shows the Site to be part of an extensive beech-maple forest that extended many miles southward from the Red Cedar River (refer to Figure 4: Pre-settlement Vegetation/MNFI ca. 1800 map). Prior to extensive land clearing these shady forests were common on the flatter till plains of mid-Michigan. They often contained a wide variety of tree species, such as sugar maple, red maple, red oak, white oak, American beech, white ash, basswood, tulip tree, walnut, and hop hornbeam. These forests were commonly cleared to enable agricultural production, and it is likely that most of the higher elevation part of the Site was cleared many decades ago for this purpose. As twentieth century commercial



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development began to fill in lands between East Lansing and Okemos, the Site was probably eventually left idle due to commercial property expectations and to the infeasibility of continuing agriculture on a small scale. Whether the Site had been used for hay or crops, the cessation of this use would have spurred numerous plant species to colonize (or recolonize) from field edges and the surrounding landscape. Along the way, numerous white pines were planted. The resulting native and non-native plants currently present are adept at this type of recolonization.

The Forested Slope area is the most diverse area and is dominated by species which are associated with the pre-settlement forest in the Red Cedar watershed. These include trees such as sugar maple (*Acer saccharum*), black cherry (*Prunus serotina*), white oak (*Quercus alba*), red oak (*Quercus rubra*), bur oak (*Quercus macrocarpa*), swamp white oak (*Quercus bicolor*), cottonwood (*Populus deltoides*), basswood (*Tilia americana*) and American elm (*Ulmus americana*), and other species such as hackberry (*Celtis occidentalis*), hop hornbeam (*Ostrya virginiana*), Mayapple (*Podophyllum peltatum*), choke cherry (*Prunus virginiana*), black raspberry (*Rubus occidentalis*), Virginia creeper (*Parthenocissus quinquefolia*) and false Solomon Seal (*Smilacina racemosa*). A few invasive species were also noted, including garlic mustard (*Alliaria petiolata*), and Tartarian honeysuckle (*Lonicera tartarica*). The changes on this Site over the last two-hundred years have left this small remnant forest, with many of the maple, walnut, oak, hackberry, basswood and hop hornbeam trees in the forest are probably directly descendent and/or residual from the original forest in this location.

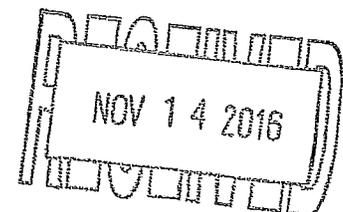
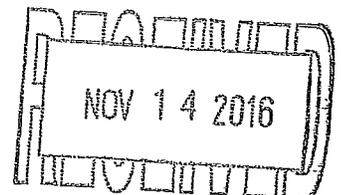




Photo 1. Mature forest on the south side of the south parcel.

The old field part of the south parcel is dominated by species typical of farmed areas that have been left to revegetate after farming activities have ceased for various reasons. These include non-native species, invasive species, native species that are tolerant of human land uses, and native pioneer species that normally colonize land after activities are abandoned. Examples of these species present on the Site include Tartarian honeysuckle (*Lonicera tartarica*), tall goldenrod (*Solidago altissima*), black raspberry (*Rubus occidentalis*), wild carrot (*Daucus carota*), dames rocket (*Hesperis matronalis*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), box elder (*Acer negundo*), garlic mustard (*Alliaria petiolata*), and burdock (*Arctium minus*). The few trees in this area include white pines (*Pinus strobus*), as well as box elder (*Acer negundo*), and Siberian elm (*Ulmus pumila*).



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Photo 2. Old field area which occupies the majority of the south parcel.

The planted pine area is dominated by the planted white pines (*P. strobus*), green ash (*Fraxinus pennsylvanica*), black walnut (*Juglans nigra*), red pine (*Pinus resinosa*), cottonwood (*Populus deltoides*) and black cherry (*Prunus serotina*), with a variety of disturbed area herbaceous vegetation such as dogbane (*Apocynum cannabinum*), field mustard (*Brassica sp.*), enchanter's nightshade (*Circaea lutetiana*), dames rocket (*H. matronalis*) and riverbank grape (*Vitis riparia*). It is likely that this area was farmed for a time and was later planted with several hundred white pines.

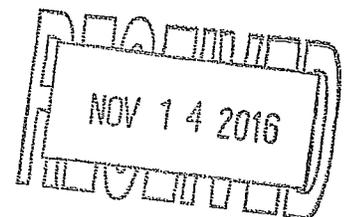




Photo 3. White pines in the planted tree area.

The deciduous forest part of the north parcel was also likely farmed, and was just allowed to re-vegetate, and the species found there came onto the site from adjacent areas, the seeds brought by the wind, animals, and birds. This area is dominated by native hardwood forest trees, and relatively weedy shrubs and groundcover plants. Examples of the tree species present on the Site include red maple (*Acer rubrum*), sugar maple (*Acer saccharum*), pignut hickory (*Carya glabra*), hackberry (*Celtis occidentalis*), black walnut (*Juglans nigra*), quaking aspen (*Populus tremuloides*), white oak (*Quercus alba*), red oak (*Quercus rubra*), and American elm (*Ulmus americana*), as well as a few herbaceous species such as garlic mustard (*Brassica sp.*), mayapple (*Podophyllum peltatum*), tall goldenrod (*Solidago altissima*), and poison ivy (*Toxicodendron radicans*). Again, this part of the Site was also likely once part of the extensive historical beech-maple forest.

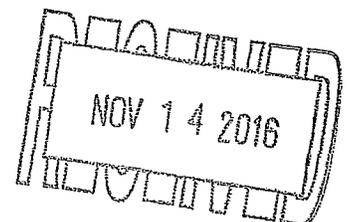




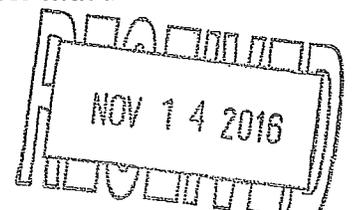
Photo 4. Deciduous forest area of the north parcel.

There is a large wetland area extending south and east from the site, that just touches the south and east side of the south parcel. This wetland extends south to and across Herron Creek which is tributary to the Red Cedar River east of the Site. There will be no impacts to this wetland from the proposed development.

Development of the Site will require clearing most vegetation that is present in the planted pine and immature deciduous forest areas of the north parcel, as well as the open field portion of the south parcel. Much of the mature forest on the steep slopes around the south parcel will remain intact, as well as some of the large trees around the periphery of the site. While no formal mitigation for vegetation removal has been planned, traditional landscape grass, shrub, and tree plantings are expected. Existing vegetation in the upland areas, particularly some of the larger trees, may be incorporated into the traditional landscaping to the extent possible.

4.4 Significant Tree Inventory

As part of the vegetation assessment, a tree survey was also conducted in the non-wetland areas of the site. The survey included trees considered "significant" or deserving special protection because of their size, relative rarity, or historical importance. During the inventory, trees with a



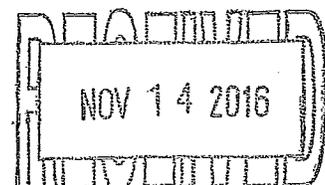
diameter at breast height (DBH) (the standard measure for tree size) of 12 inches or greater were located on the Site and mapped. The trees were identified to species and their size recorded (Figure 11). Results of the inventory identified 340 significant trees of 14 different species on the parcel. Of the 340 trees, 21 were larger than 25 inches in diameter, the largest being a sugar maple (*Acer saccharum*) with a diameter of 43 inches, and second a red oak (*Quercus rubra*) with a diameter of 42 inches. Twelve of the trees had multiple trunks of varying sizes.



Photo 5. Debris pile on south parcel.

4.5 Wetlands

Marx conducted a preliminary review for wetlands while on the Site. In accordance with the Midwestern Interim Regional Supplement to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual, wetland are defined by the presence of three basic parameters: 1) the presence of hydrophytic vegetation (plants adapted to living in saturated soils), 2) hydric soils (distinctive soil types that develop under saturated conditions), and 3) wetland hydrology (the presence of water at or near the surface for a specific period of time). The above parameters are virtually always inter-related and normally present in wetland systems.



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Marx's site visit occurred during relatively wet early spring conditions. These conditions resulted in very wet conditions in the large offsite wetland that borders the south and east boundaries of the south parcel.

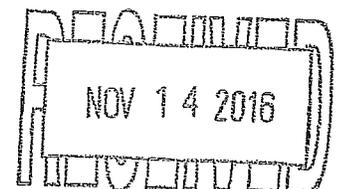
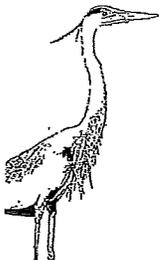
Marx's inspection of these parcels found no wetland areas. A large wetland area is present south and east of the south parcel, but no wetlands extend onto the Site. (refer to Figure 5: Township Wetland Map and Figure 6: National Wetland Inventory Map).

4.6 Special Flood Hazard Area

Flood Hazard Areas are those which are most likely to be inundated during flood events. Flood Hazard Areas are regulated by local, state, and federal regulations designed to reduce the damage to structures during floods. The regulations apply to areas within 100-year floodplains, which are defined by a one percent (1%) annual probability of flood occurrence. These areas are mapped by the Federal Emergency Management Agency on Flood Insurance Rate Maps, or FIRMs. These maps were developed using flow modeling and the existing USGS topographic maps. The modeling produces an elevation associated with 100-year flood events, and areas below these elevations are designated as the 100-year floodplains.

The FIRM for the subject area shows that the site is above the flood elevation and no areas of the Site are included within the 100-year floodplain, which means that no part of the site is regulated pursuant to the floodplain regulatory statutes (refer to Figure 7: Flood Insurance Rate Map). As noted above, the lowest elevation on the site is approximately 845 while the 100-year frequency flood elevation nearest to the site is 842. The floodplain largely coincides with the large wetland that occurs south and east of the south parcel of the site.

Sometimes FIRM maps can incorrectly show areas of 100-year floodplain. In such cases, a site's topography can be surveyed using modern techniques. When such studies show that the mapped floodplain is above the determined flood elevation or that the FIRM is otherwise inaccurate, this information can be sent to the National Flood Insurance Program to obtain a Letter of Map Amendment (LOMA) which officially changes the area included within the floodplain. It does not appear that this site will require such additional work.



4.7 Floodways

A floodway is the portion of the floodplain that is required to carry and discharge flood waters during a flood event. They have more rapidly moving water during flood events. They include river channels, upper banks, and adjacent areas that effectively become part of the water transit process during a flood. The FIRM for Meridian Township shows that there are no floodway areas on the subject property.

4.8 Water Bodies

Streams, rivers, lakes, and many ponds are afforded legal protection under a combination of Township, county, state, and federal regulations pertaining to wetlands, flood prone areas, and water bodies. Any filling or alteration of these areas would typically require one or more permits from state agencies, county agencies, federal agencies, or Meridian Township.

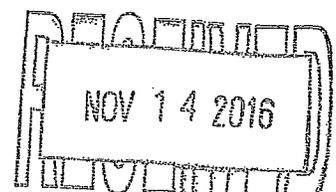
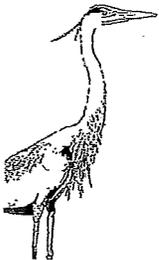
There are three open water bodies near the Site but not directly on the Site. These include the Herron Creek, the Red Cedar River, and the drain that runs north and south to the east of the site that functions as a stream. Activities on the Site are not expected to have any significant impact these water bodies or any others.

4.9 Soils

The NRCS digital county soils map identifies the soils on the Site. The map identifies four soil types: Owosso-Marlette sandy loams, 2 to 6 percent slopes (91.6%), Urban land-Marlette complex, 2 to 12 percent slopes (7.4%), Metea loamy sand, 2 to 6 percent slopes (0.6%) and Sebewa loam, 0 to 2 percent slopes (0.4 %). (Refer to Figure 8: County Soils Survey Map).

The Owosso Marlette sandy loams that make up almost 92% of the site consist of well drained, moderately rapidly permeable soils on till plains and end moraines, and are formed in moderately coarse and coarse textured deposits. The remaining soils are well drained except for the Sebewa loam which is poorly drained and in the wetland along the south border of the south parcel.

Site balancing, filling, and subsurface excavation activities will take place within the limits of disturbance which are all contained within the area of the well-drained soil types. The most suitable soils will be utilized on the Site during parking lot, driveway, and building construction. Unsuitable and excess soil, if any, will be trucked to authorized off-site areas.



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Soil erosion and sedimentation control (SESC) measures will be installed and maintained by the developer throughout the construction period, as required by the State of Michigan, Meridian Township, and the Ingham County Drain Commissioner, and will be removed once the entire Site has been stabilized. These measures will significantly reduce the possibility of soil erosion and the water transport of these soil materials, which could cause the degradation of areas receiving the Site's stormwater.

4.10 Identified Areas of Groundwater Vulnerability

Areas of groundwater vulnerability are those areas where the hydrologic and geologic surface and subsurface setting makes the groundwater more vulnerable to contamination than in other areas. The 2005 Meridian Township Master Plan groundwater vulnerability map shows areas identified as being vulnerable (refer to Figure 9: Identified Areas of Groundwater Vulnerability). This map is based upon the aggregation of four different vulnerability assessments or estimates. No part of the subject Site falls within any of the designated areas, so there will be no disturbance in any of the designated areas by the proposed project. Therefore, all construction activity on the Site will be well outside the bounds of Identified Areas of Groundwater Vulnerability. Stormwater on the site will be collected and treated in accordance with local regulations designed to protect water quality and runoff volumes.

4.11 Slopes Greater than 20 Percent

Slopes of greater than 20% are highly susceptible to soil erosion which can lead to sedimentation in other on and off-site areas such as ponds, streams and lakes. On the Site, slopes steeper than 20% do not exist. While slopes do exist along the south and east edges of the south parcel, the slopes are less than 20%. Even though the slopes are less than 20%, they will not be disturbed by the proposed project.

The development project will observe the structure and grading setbacks provided in Meridian Township ordinances. During construction, the small spoil and waste material piles will be removed. Any slopes created by the project that are over 20% will be intentionally designed and stabilized with appropriate landscaping materials. Soil erosion and sedimentation measures will be placed and maintained in the areas necessary to control any erosion that may occur during construction.

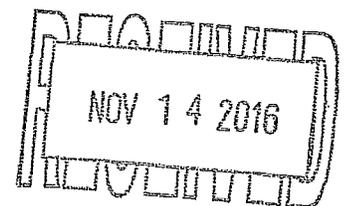


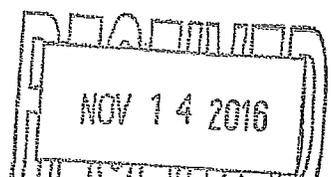


Photo 6. Sloped part of mature forest on south parcel.

4.12 Wildlife

Evidence of wildlife presence has been observed throughout the Site in the form of tracks, droppings, and holes, the amount of animal usage being greater than in the surrounding developed areas as this is an undeveloped area with forest and field areas surrounded by urbanized development. Evidence of white tailed deer (*Odocoileus virginiana*), eastern cottontail rabbit (*Sylvilagus floridanus*), gray squirrels (*Sciurus carolinensis*), raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*), were observed. Deer usage seemed to be throughout the site. One freshly dug animal den which was found would likely be used by a woodchuck (*Marmota monax*), though this was not certain. It is highly likely that the Site also serves as foraging or resting ground for numerous other insects and birds, such as Monarch butterflies (*Danaus plexippus*), honeybees (*Apis mellifera*), robins (*Turdus migratorius*), mourning doves (*Zenaidura macroura*), red bellied woodpeckers (*Melanerpes carolinus*), black capped chickadees (*Poecile atricapillus*), many other birds and insects.

Overall, the fauna at the Site can be viewed as urban and suburban wildlife. Urban and suburban wildlife species are common across the Midwest. Urban and suburban wildlife are mainly generalist species that

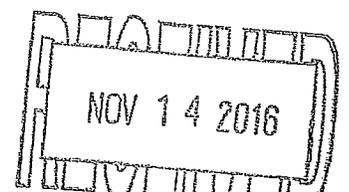
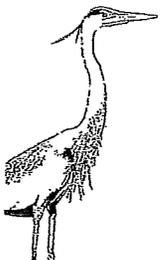


have wide tolerance in diet and behavioral flexibility. They are very unlike threatened and endangered species, which are almost all specialized and intolerant of numerous human disturbances. Some urban and suburban wildlife species have become so common that they are actually reducing the populations of less common native species (e.g. raccoons that feed on human food waste and garbage are believed to be a factor behind a widespread decline in turtle numbers). Therefore the decline in certain very abundant wildlife species should not be assumed to bear negative consequences. Wildlife will be displaced to a degree by the proposed development, but even after the development is completed, some of these common urban and suburban wildlife species will continue to use the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The proposed Site was reviewed for remnant and existing natural resources and features. The Site contains four major habitats and no wetland areas. The pine planting and immature deciduous forest habitat occupies most of the north parcel, and the mature forest occupies the edges of the south parcel while the old field habitat occupies the majority of that parcel. The Site is vacant, and contains no structures. The Site contains no wetland areas, or any water bodies, areas of floodplain or floodway. The Site is mostly flat with slopes falling away to a large wetland around the south and east sides of the south parcel, a result of the area's glacial past and location adjacent to the Red Cedar River. The soils are likely original to the Site, and are upland sandy loams that formed under what was once a beech maple forest. The vast majority of the Site was once a small portion of that upland forest which covered thousands of acres, but was largely cut down to make way for agriculture, except for the slope at the south end. Within the last few decades this particular Site has been surrounded by residential and growing commercial development.

Wildlife that use the site are common in the urban and suburban landscape and their populations won't be significantly affected by the development of this site. Vegetation on the Site includes planted pines, native trees, and relatively common native and non-native groundcover species. The loss of vegetation due to development on the Site will occur, though the species lost are very unlikely to include any that are locally rare (i.e. rare county-wide) or state threatened and endangered. There are numerous trees on the Site which are in good condition, including both planted pines and unplanted hardwoods. The only significant



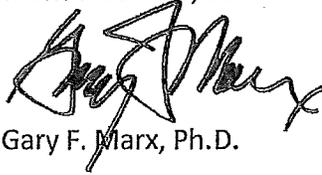
June 20, 2016

remaining natural heritage on this Site appears to be the original topography, soils, and the relatively undisturbed areas of the forest on the slopes at the south end of the south parcel. The commercialized land use context, vehicle access, and economic valuation might limit some design options, but for this Site the primary likelihood of preserving natural resource values within the developed parts would be associated with incorporating some of the larger or native trees into the landscape design, and thereby preserving them on the post development landscape. The proposed development will not impact the mature forests on the site.

Should you have any questions regarding this or any other matter, please feel free to contact our office at (517) 898-4187.

Sincerely,

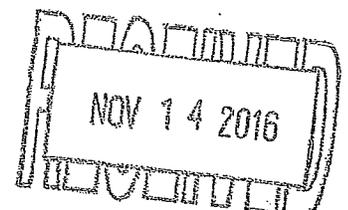
Marx Wetlands, LLC



Gary F. Marx, Ph.D.

FIGURES

- Figure 1: Site Location Map
- Figure 2: Aerial Imagery Map
- Figure 3: Site Topographic Map
- Figure 4: Presettlement Vegetation/MNFI ca. 1800 map
- Figure 5: Township Wetland Map
- Figure 6: National Wetland Inventory Map
- Figure 7: Flood Insurance Rate Map
- Figure 8: Identified Areas of Groundwater Vulnerability
- Figure 9: County Soils Survey Map
- Figure 10: Vegetation Lists and FQA
- Figure 11: Tree Survey Results





Hotel East
Lansing

Hannah Blvd

Hannah Blvd

East Lansing

Figure 2

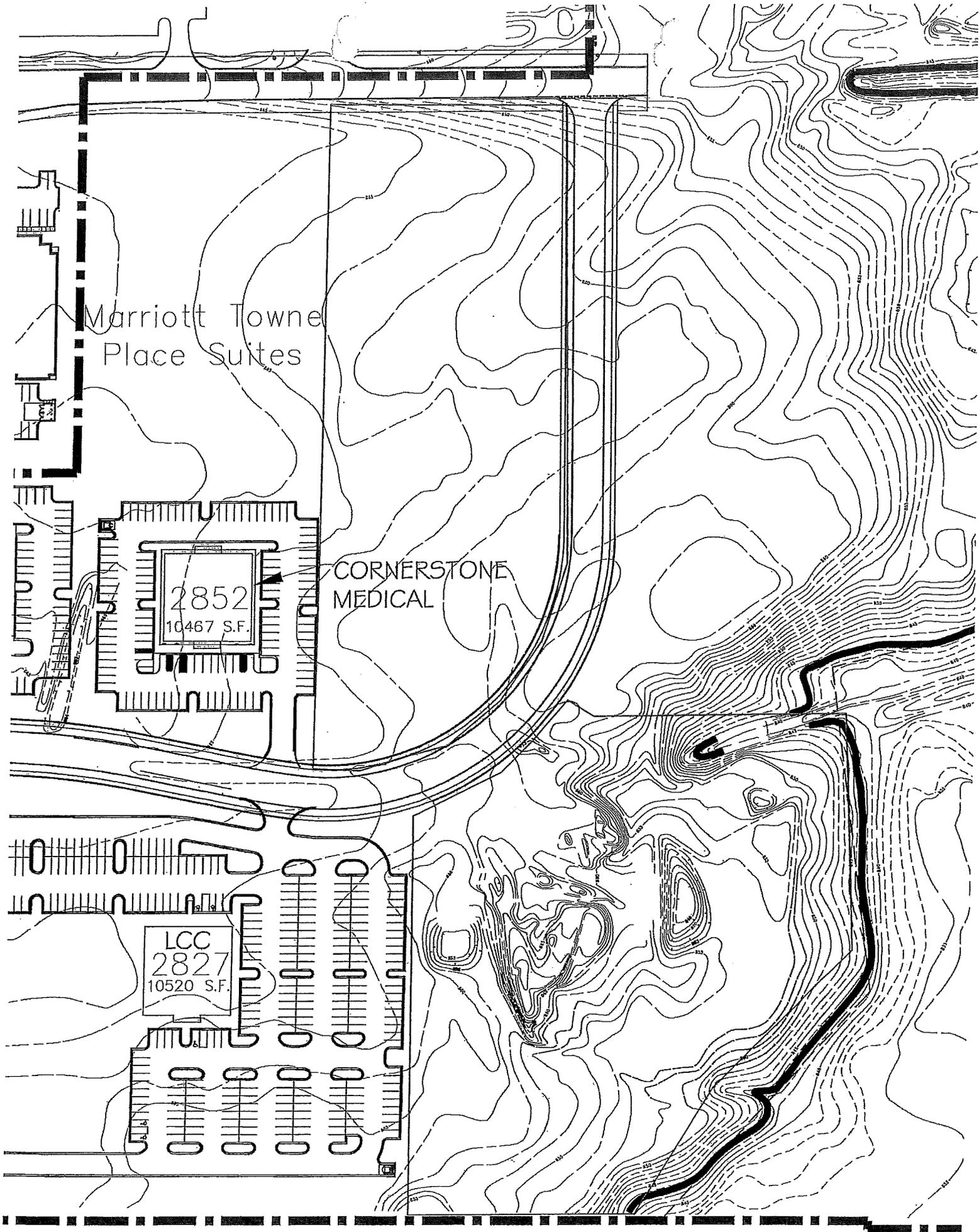
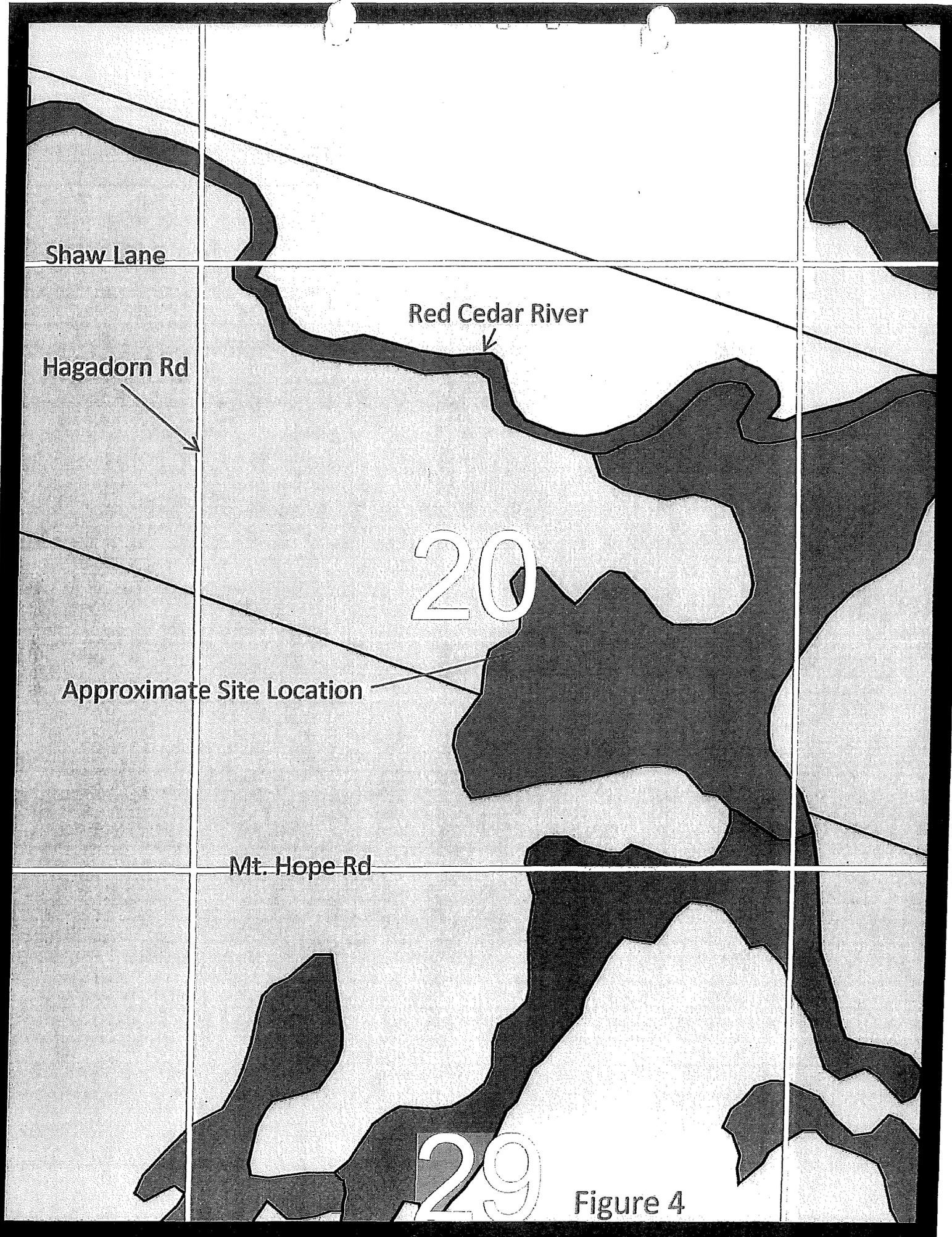


Figure 3



Shaw Lane

Hagadorn Rd

Red Cedar River

20

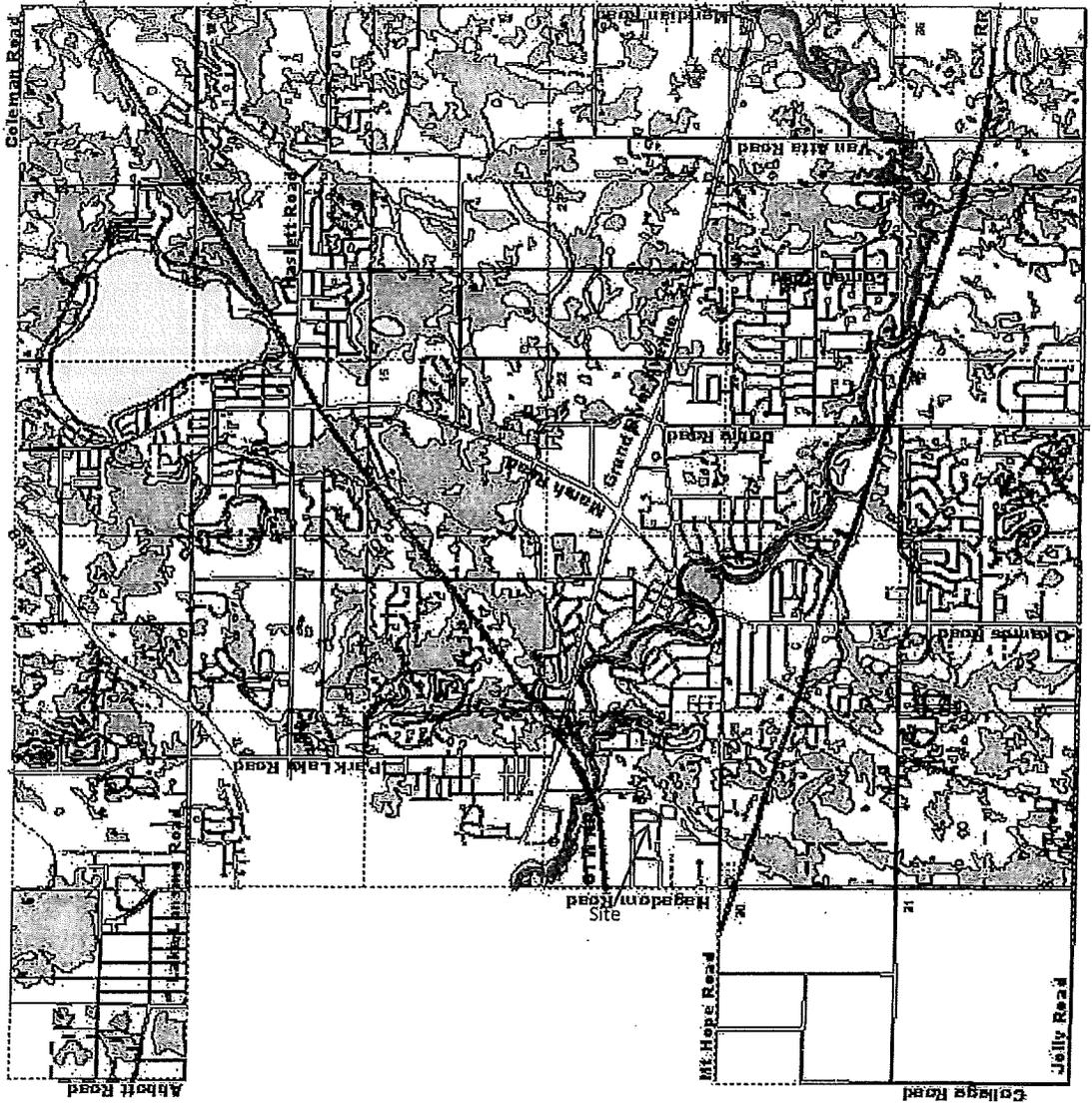
Approximate Site Location

Mt. Hope Rd

29

Figure 4

Map 7-5
TOWNSHIP WETLANDS MAP



Source: Department of Community Planning, Charter Township of Meridian

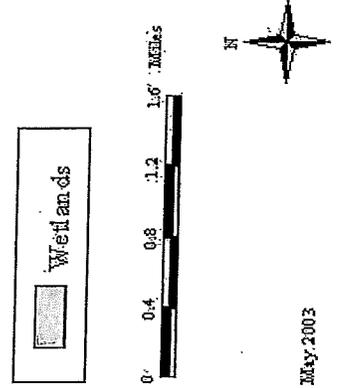


Figure 5

May, 2003

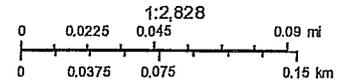
Wetlands Map Viewer



May 25, 2016

Part 303 Final Wetlands Inventory

-  Wetlands as identified on NWI and MIRIS maps
-  Soil areas which include wetland soils
-  Wetlands as identified on NWI and MIRIS maps and soil areas which include wetland soils
-  Wetland (Hydric) Soils
-  National Wetlands Inventory 2005



Source: Esri, HERE, DeLorme, USGS, Interm, Increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community
 Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS,

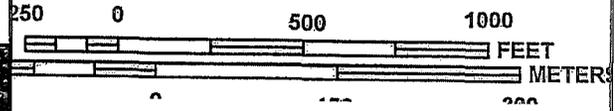
Disclaimer: This map is not intended to be used to determine the specific locations and jurisdictional boundaries of wetlands subject to regulation. More information regarding the map, including how to obtain a copy can be accessed at www.michigan.gov/wetlands.
 Map by: State of Michigan - CSS
 copyright 2016

708000m E

JOINS PANEL 0152



MAP SCALE 1" = 500'



PANEL 0154D

FIRM
 FLOOD INSURANCE RATE MAP
 INGHAM COUNTY,
 MICHIGAN
 (ALL JURISDICTIONS)

PANEL 154 OF 425
 (SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
EAST LANSING, CITY OF	260088	0154	D
LANSING, CITY OF	260090	0154	D
MERIDIAN, CHARTER TOWNSHIP OF	260093	0154	D

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.



MAP NUMBER
 26065C0154D

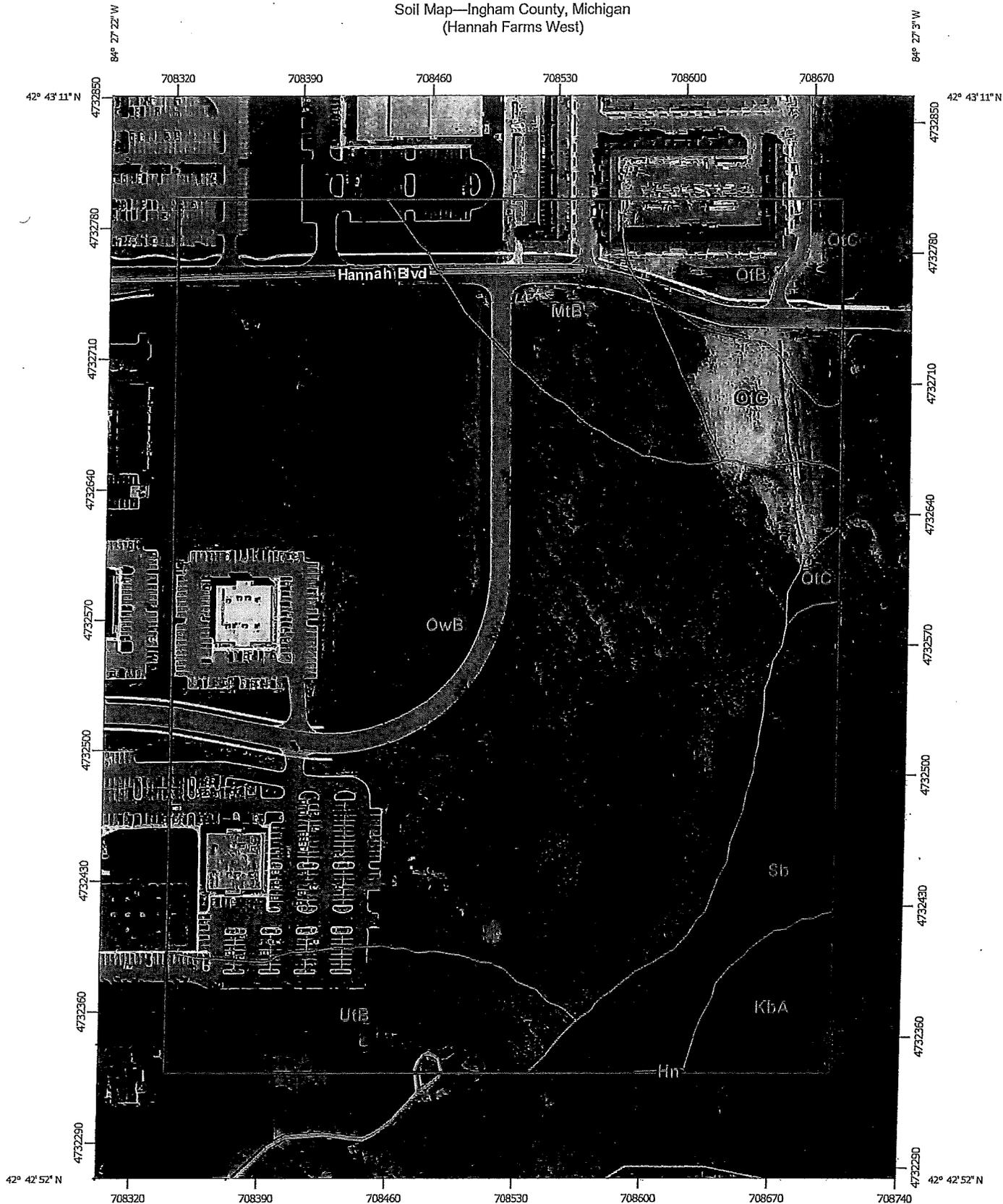
EFFECTIVE DATE
 AUGUST 16, 2011

Federal Emergency Management Agency

This is an official copy of a portion of the above-referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Figure 7

Soil Map—Ingham County, Michigan
(Hannah Farms West)



Map Scale: 1:2,830 if printed on A portrait (8.5" x 11") sheet.

0 40 80 160 240 Meters

0 100 200 400 600 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge ticks: UTM Zone 16N WGS84

Figure 8

Soil Map—Ingham County, Michigan
(Hannah Farms West)

MAP LEGEND

- | | | | | |
|-------------------------------|---|------------------------|---|-----------------------|
| Area of Interest (AOI) |  | Area of Interest (AOI) |  | Spoil Area |
| Soils |  | Soil Map Unit Polygons |  | Stony Spot |
| |  | Soil Map Unit Lines |  | Very Stony Spot |
| |  | Soil Map Unit Points |  | Wet Spot |
| Special Point Features | | |  | Other |
| |  | Blowout |  | Special Line Features |
| |  | Borrow Pit | Water Features | |
| |  | Clay Spot |  | Streams and Canals |
| |  | Closed Depression | Transportation | |
| |  | Gravel Pit |  | Rails |
| |  | Gravelly Spot |  | Interstate Highways |
| |  | Landfill |  | US Routes |
| |  | Lava Flow |  | Major Roads |
| |  | Marsh or swamp |  | Local Roads |
| |  | Mine or Quarry | Background | |
| |  | Miscellaneous Water |  | Aerial Photography |
| |  | Perennial Water | | |
| |  | Rock Outcrop | | |
| |  | Saline Spot | | |
| |  | Sandy Spot | | |
| |  | Severely Eroded Spot | | |
| |  | Sinkhole | | |
| |  | Slide or Slip | | |
| |  | Sodic Spot | | |

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ingham County, Michigan
Survey Area Data: Version 13, Sep 18, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Appendix 8.2

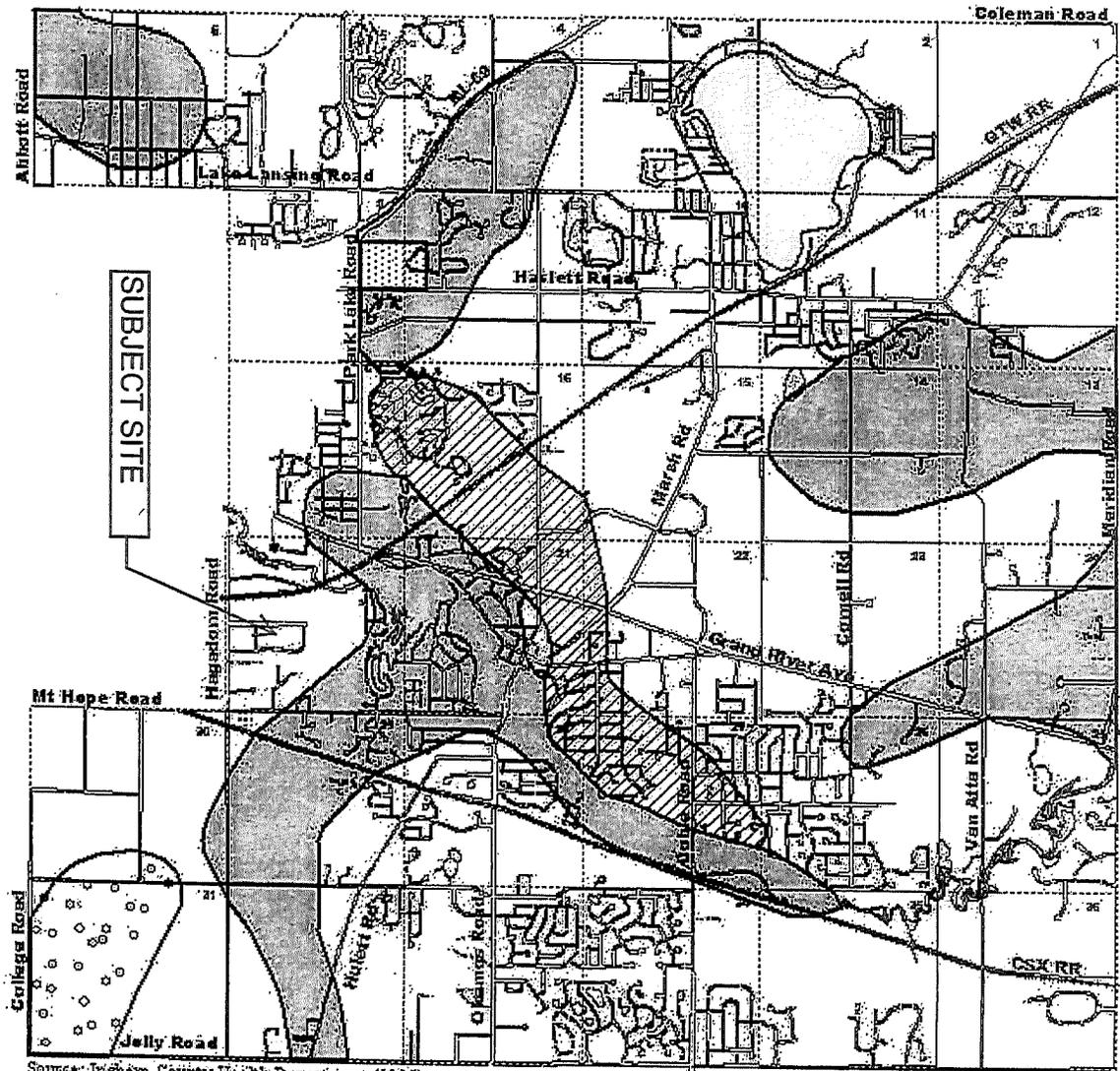
Map Unit Legend

Ingham County, Michigan (MI065)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Hn	Houghton muck, 0 to 1 percent slopes	0.0	0.0%
KbA	Kibbie loam, 0 to 3 percent slopes	1.2	2.9%
MtB	Metea loamy sand, 2 to 6 percent slopes	3.2	7.6%
OtB	Oshtemo-Spinks loamy sands, 0 to 6 percent slopes	2.2	5.3%
OtC	Oshtemo-Spinks loamy sands, 6 to 12 percent slopes	1.4	3.2%
OwB	Owosso-Marlette sandy loams, 2 to 6 percent slopes	27.9	65.9%
Sb	Sebewa loam, 0 to 2 percent slopes	3.1	7.4%
UtB	Urban land-Marlette complex, 2 to 12 percent slopes	3.2	7.7%
Totals for Area of Interest		42.4	100.0%

Appendix 8.3

Map 7-3

GROUNDWATER VULNERABILITY



Chapter 7: NATURAL FEATURES

FIGURE 7: Identified Areas of Groundwater Vulnerability

Source of Groundwater Vulnerability Information

- Keck Consultants on Site Studies
- Monaghan and Larson, Michigan State University
- Soil Conservation Service, USDA
- Southwest Michigan Groundwater Survey and Monitoring Program

0 0.25 0.5 0.75 1 Miles



May 2003

Source: Ingham County Health Department (1987)

Figure 9

**Figure 10. Plant List for
Hannah Farms West Natural
Features Inventory Report**

Old Field

<u>Scientific Name</u>	<u>Common Name</u>
<i>Acer negundo</i>	Box Elder
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Arctium minus</i>	Burdock
<i>Brassica spp</i>	Field Mustard
<i>Bromus spp</i>	Brome Grass
<i>Cirsium arvense</i>	Canada Thistle
<i>Cirsium vulgare</i>	Bull Thistle
<i>Daucus carota</i>	Queen Anne's Lace
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Galium triflorum</i>	Bedstraw
<i>Hesperis matronalis</i>	Dames Rocket
<i>Leersia oryzoides</i>	Fowl Manna Grass
<i>Matteuccia struthiopteris</i>	Ostrich Fern
<i>Pinus strobus</i>	White Pine
<i>Rubus occidentalis</i>	Black Raspberry
<i>Rumex crispus</i>	Curly Dock
<i>Solidage altissima</i>	Tall Goldenrod
<i>Stachys byzantina</i>	Lambs Ear
<i>Trifolium pratense</i>	Red Clover
<i>Ulmus pumila</i>	Siberian Elm
<i>Urtica dioica</i>	Stinging Nettles

Forested Slope

<i>Acer saccharum</i>	Sugar Maple
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Carex sp.</i>	Sedge
<i>Celtis occidentalis</i>	Hackberry
<i>Circaea lutetiana</i>	Enchanters nightshade
<i>Lonicera tartarica</i>	Tartarian Honeysuckle
<i>Ostrya virginiana</i>	Hop Hornbeam
<i>Parthenocissus quinquefolia</i>	Virginia Creeper
<i>Picea abies</i>	Norway Spruce
<i>Pinus resinosa</i>	Red Pine
<i>Podophyllum peltatum</i>	Mayapple
<i>Populus deltoides</i>	Cottonwood
<i>Prunus serotina</i>	Black Cherry
<i>Prunus virginiana</i>	Choke Cherry
<i>Quercus alba</i>	White Oak
<i>Quercus discolor</i>	Swamp White Oak
<i>Quercus macrocarpa</i>	Bur Oak

<i>Quercus rubra</i>	Red Oak
<i>Rubus occidentalis</i>	Black Raspberry
<i>Smilacina racemosa</i>	False Solomonseal
<i>Tilia americana</i>	Basswood
<i>Ulmus americana</i>	American Elm

Planted Pines

<i>Apocynum cannabinum</i>	Dogbane
<i>Brassica spp</i>	Field Mustard
<i>Circaea lutetiana</i>	Enchanters Nightshade
<i>Fraxinus pennsylvanica</i>	Green Ash
<i>Galium triflorum</i>	Bedstraw
<i>Hesperis matronalis</i>	Dames Rocket
<i>Juglans nigra</i>	Black Walnut
<i>Lonicera tartarica</i>	Tartarian Honeysuckle
<i>Morus rubra</i>	Mulberry
<i>Parthenociccuc quinquefolia</i>	Virginia Creeper
<i>Pinus resinosa</i>	Red Pine
<i>Pinus strobus</i>	White Pine
<i>Populus deltoides</i>	Cottonwood
<i>Prunus serotina</i>	Black Cherry
<i>Pteridium sp</i>	Fern
<i>Rubus occidentalis</i>	Black Raspberry
<i>Ulmus pumila</i>	Siberian Elm
<i>Vitis riparia</i>	Riverbank Grape

Deciduous Forest

<i>Acer rubrum</i>	Red Maple
<i>Acer saccharum</i>	Sugar Maple
<i>Alliaria petiolata</i>	Garlic Mustard
<i>Carya glabra</i>	Pignut Hickory
<i>Celtis occidentalis</i>	Hackberry
<i>Juglans nigra</i>	Black Walnut
<i>Podophyllum peltatum</i>	Mayapple
<i>Populus tremuloides</i>	Quaking Aspen
<i>Quercus alba</i>	White Oak
<i>Quercus rubra</i>	Red Oak
<i>Solidago altissima</i>	Tall Goldenrod
<i>Toxicodendron radicans</i>	Poison Ivy
<i>Ulmus americana</i>	American Elm

Figure 11. Tree Survey Data - Hannah Farms West Site

<u>Tag #</u>	<u>Scientific Name</u>	<u>Common Name</u>	<u>DBH</u>	<u>Condition</u>
601	<i>Pinus strobus</i>	White Pine	22	Good
602	<i>Pinus strobus</i>	White Pine	15	Dead
603	<i>Pinus strobus</i>	White Pine	28	Good
604	<i>Pinus strobus</i>	White Pine	19	Good
605	<i>Pinus strobus</i>	White Pine	17	Good
606	<i>Pinus resinosa</i>	Red Pine	16	Good
607	<i>Pinus resinosa</i>	White Pine	14	Good
608	<i>Juglans nigra</i>	Black Walnut	19	Good
609	<i>Juglans nigra</i>	Black Walnut	24	Good
610	<i>Pinus strobus</i>	White Pine	16	Good
611	<i>Pinus strobus</i>	White Pine	15	Dead
612	<i>Prunus serotina</i>	Black Cherry	14	Dead
613	<i>Prunus serotina</i>	Black Cherry	13	Good
614	<i>Pinus strobus</i>	White Pine	15	Good
615	<i>Pinus strobus</i>	White Pine	19	Good
616	<i>Pinus strobus</i>	White Pine	17	Good
617	Lost Tag			
618	<i>Pinus resinosa</i>	Red Pine	16	Good
619	<i>Juglans nigra</i>	Black Walnut	16	Good
620	<i>Pinus strobus</i>	White Pine	21	Good
621	<i>Pinus resinosa</i>	Red Pine	13	Good
622	<i>Pinus resinosa</i>	Red Pine	14	Good
623	<i>Populus deltoides</i>	Cottonwood	15	Good
624	<i>Juglans nigra</i>	Black Walnut	13	Good
625	<i>Tilia americana</i>	Basswood	13	Good
626	<i>Quercus rubra</i>	Red Oak	23,23	Good
627	<i>Quercus rubra</i>	Red Oak	21,15	Good
628	<i>Tilia americana</i>	Basswood	19	Good
629	<i>Populus deltoides</i>	Cottonwood	13	Good
630	<i>Pinus strobus</i>	White Pine	13	Good
631	<i>Pinus strobus</i>	White Pine	13	Good
632	<i>Pinus strobus</i>	White Pine	12	Good
633	<i>Pinus strobus</i>	White Pine	12	Good
634	<i>Pinus strobus</i>	White Pine	14	Good
635	<i>Pinus strobus</i>	White Pine	12	Good
636	<i>Pinus strobus</i>	White Pine	12	Good
637	<i>Pinus strobus</i>	White Pine	14	Good
638	<i>Pinus strobus</i>	Tulip Tree	12	Good
639	<i>Pinus strobus</i>	Black Walnut	13	Good
640	<i>Pinus strobus</i>	White Pine	12	Good
641	<i>Pinus strobus</i>	White Pine	14	Good
642	<i>Pinus strobus</i>	White Pine	12	Good
643	<i>Pinus strobus</i>	White Pine	12	Good
644	<i>Pinus strobus</i>	White Pine	13	Good

645	<i>Pinus strobus</i>	White Pine	12	Good
646	<i>Pinus strobus</i>	White Pine	13	Good
647	<i>Pinus strobus</i>	White Pine	12	Good
648	<i>Pinus strobus</i>	White Pine	13	Good
649	<i>Pinus strobus</i>	White Pine	13	Good
650	<i>Pinus strobus</i>	White Pine	13	Good
651	<i>Pinus strobus</i>	White Pine	15	Good
652	<i>Pinus strobus</i>	White Pine	13	Good
653	<i>Pinus strobus</i>	White Pine	13	Good
654	<i>Pinus strobus</i>	White Pine	13	Good
655	<i>Pinus strobus</i>	White Pine	13	Good
656	<i>Pinus strobus</i>	White Pine	14	Good
657	<i>Pinus strobus</i>	White Pine	14	Good
658	<i>Pinus strobus</i>	White Pine	15	Good
659	<i>Pinus strobus</i>	White Pine	17	Good
660	<i>Pinus strobus</i>	White Pine	13	Good
661	<i>Pinus strobus</i>	White Pine	13	Good
662	<i>Pinus strobus</i>	White Pine	12	Good
663	<i>Pinus strobus</i>	White Pine	13	Good
664	<i>Pinus strobus</i>	White Pine	14	Good
665	<i>Pinus strobus</i>	White Pine	15	Good
666	<i>Pinus strobus</i>	White Pine	12	Good
667	<i>Pinus strobus</i>	White Pine	12	Good
668	<i>Pinus strobus</i>	White Pine	14	Good
669	<i>Pinus strobus</i>	White Pine	13	Good
670	<i>Pinus strobus</i>	White Pine	14	Good
671	<i>Pinus strobus</i>	White Pine	13	Good
672	<i>Pinus strobus</i>	White Pine	12	Good
673	<i>Pinus strobus</i>	White Pine	12	Good
674	<i>Pinus strobus</i>	White Pine	12	Good
675	<i>Pinus strobus</i>	White Pine	13	Good
676	<i>Pinus strobus</i>	White Pine	13	Good
677	<i>Pinus strobus</i>	White Pine	15	Good
678	<i>Pinus strobus</i>	White Pine	13	Good
679	<i>Pinus strobus</i>	White Pine	14	Good
680	<i>Pinus strobus</i>	White Pine	16	Good
681	<i>Pinus strobus</i>	White Pine	12	Good
682	<i>Pinus strobus</i>	White Pine	13	Good
683	<i>Pinus strobus</i>	White Pine	16	Good
684	<i>Pinus strobus</i>	White Pine	13	Good
685	<i>Pinus strobus</i>	White Pine	14	Good
686	<i>Pinus strobus</i>	White Pine	13	Good
687	<i>Pinus strobus</i>	White Pine	14	Good
688	<i>Pinus strobus</i>	White Pine	13	Good
689	<i>Pinus strobus</i>	White Pine	13	Good
690	<i>Pinus strobus</i>	White Pine	12	Good
691	<i>Pinus strobus</i>	White Pine	12	Good

692	<i>Pinus strobus</i>	White Pine	14	Good
693	<i>Pinus strobus</i>	White Pine	14	Good
694	<i>Pinus strobus</i>	White Pine	15	Good
695	<i>Pinus strobus</i>	White Pine	12	Good
696	<i>Pinus strobus</i>	White Pine	14	Good
697	<i>Pinus strobus</i>	White Pine	14	Good
698	<i>Pinus strobus</i>	White Pine	14	Good
699	<i>Pinus strobus</i>	White Pine	13	Good
700	<i>Pinus strobus</i>	White Pine	13	Good
701	<i>Pinus strobus</i>	White Pine	15	Good
702	<i>Pinus strobus</i>	White Pine	12	Good
703	<i>Pinus strobus</i>	White Pine	16	Good
704	<i>Pinus strobus</i>	White Pine	15	Good
705	<i>Pinus strobus</i>	White Pine	12	Good
706	<i>Pinus strobus</i>	White Pine	15	Good
707	<i>Pinus strobus</i>	White Pine	13	Good
708	<i>Pinus strobus</i>	White Pine	15	Good
709	<i>Pinus strobus</i>	White Pine	15	Good
710	<i>Pinus strobus</i>	White Pine	17	Good
711	<i>Pinus strobus</i>	White Pine	13	Good
712	<i>Pinus strobus</i>	White Pine	16	Good
713	<i>Pinus strobus</i>	White Pine	18	Good
714	<i>Pinus strobus</i>	White Pine	18	Good
715	<i>Pinus strobus</i>	White Pine	12	Good
716	<i>Pinus strobus</i>	White Pine	15	Good
717	<i>Pinus strobus</i>	White Pine	12	Good
718	<i>Pinus strobus</i>	White Pine	13	Good
719	<i>Pinus strobus</i>	White Pine	12	Good
720	<i>Pinus strobus</i>	White Pine	12	Good
721	<i>Pinus strobus</i>	White Pine	13	Good
722	<i>Pinus strobus</i>	White Pine	15	Good
723	<i>Pinus strobus</i>	White Pine	13	Good
724	<i>Pinus strobus</i>	White Pine	12	Good
725	<i>Pinus strobus</i>	White Pine	18	Good
726	<i>Pinus strobus</i>	White Pine	14	Good
727	<i>Pinus strobus</i>	White Pine	16	Good
728	<i>Pinus strobus</i>	White Pine	16	Good
729	<i>Pinus strobus</i>	White Pine	13	Good
730	<i>Pinus strobus</i>	White Pine	14	Good
731	<i>Pinus strobus</i>	White Pine	14	Good
732	<i>Pinus strobus</i>	White Pine	12	Good
733	<i>Pinus strobus</i>	White Pine	16	Good
734	<i>Pinus strobus</i>	White Pine	15	Good
735	<i>Pinus strobus</i>	White Pine	12	Good
736	<i>Pinus strobus</i>	White Pine	12	Good
737	<i>Pinus strobus</i>	White Pine	12	Good
738	<i>Pinus strobus</i>	White Pine	15	Good

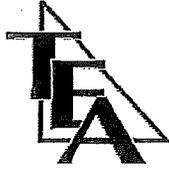
739	<i>Pinus strobus</i>	White Pine	13	Good
740	<i>Pinus strobus</i>	White Pine	12	Good
741	<i>Pinus strobus</i>	White Pine	13	Good
742	<i>Pinus strobus</i>	White Pine	14	Good
743	<i>Pinus strobus</i>	White Pine	13	Good
744	<i>Pinus strobus</i>	White Pine	14	Good
745	<i>Pinus strobus</i>	White Pine	15	Good
746	<i>Pinus strobus</i>	White Pine	15	Good
747	<i>Pinus strobus</i>	White Pine	15	Good
748	<i>Pinus strobus</i>	White Pine	14	Good
749	<i>Pinus strobus</i>	White Pine	15	Good
750	<i>Pinus strobus</i>	White Pine	16	Good
751	<i>Pinus strobus</i>	White Pine	12	Good
752	<i>Pinus strobus</i>	White Pine	14	Good
753	<i>Pinus strobus</i>	White Pine	15	Good
754	<i>Pinus strobus</i>	White Pine	14	Good
755	<i>Pinus strobus</i>	White Pine	15	Good
756	<i>Pinus strobus</i>	White Pine	13	Good
757	<i>Pinus strobus</i>	White Pine	13	Good
758	<i>Pinus strobus</i>	White Pine	14	Good
759	<i>Pinus strobus</i>	White Pine	15	Good
760	<i>Pinus strobus</i>	White Pine	14	Good
761	<i>Pinus strobus</i>	White Pine	12	Good
762	<i>Pinus strobus</i>	White Pine	12	Good
763	<i>Populus deltoides</i>	Cottonwood	12	Good
764	<i>Pinus strobus</i>	White Pine	12	Good
765	<i>Pinus strobus</i>	White Pine	15	Good
766	<i>Pinus strobus</i>	White Pine	15	Good
767	<i>Pinus strobus</i>	White Pine	13	Good
768	<i>Pinus strobus</i>	White Pine	12	Good
769	<i>Pinus strobus</i>	White Pine	13	Good
770	<i>Pinus strobus</i>	White Pine	16	Good
771	<i>Pinus strobus</i>	White Pine	13	Good
772	<i>Pinus strobus</i>	White Pine	13	Good
773	<i>Pinus strobus</i>	White Pine	19	Good
774	<i>Pinus strobus</i>	White Pine	15	Good
775	<i>Pinus strobus</i>	White Pine	12	Good
776	<i>Pinus strobus</i>	White Pine	14	Good
777	<i>Pinus strobus</i>	White Pine	15	Good
778	<i>Pinus strobus</i>	White Pine	16	Good
779	<i>Pinus strobus</i>	White Pine	14	Good
780	<i>Pinus strobus</i>	White Pine	14	Good
781	<i>Pinus strobus</i>	White Pine	15	Good
782	<i>Pinus strobus</i>	White Pine	14	Good
783	<i>Pinus strobus</i>	White Pine	13	Good
784	<i>Prunus serotina</i>	Black Cherry	21	Fair
785	<i>Celtis occidentalis</i>	Hackberry	21	Good

786	<i>Carya cordiformis</i>	Bitternut Hickory	18	Good
787	<i>Prunus serotina</i>	Black Cherry	23	Fair
788	<i>Prunus serotina</i>	Black Cherry	31	Good
789	<i>Acer saccharinum</i>	Silver Maple	20	Fair
790	<i>Acer saccharinum</i>	Silver Maple	12,19	Good
791	<i>Tilia americana</i>	Basswood	16,15	Good
792	<i>Acer saccharum</i>	Sugar Maple	15	Good
793	<i>Quercus rubra</i>	Red Oak	12	Good
794	<i>Prunus serotina</i>	Black Cherry	21	Good
795	<i>Acer saccharum</i>	Sugar Maple	14	Fair
796	<i>Acer saccharum</i>	Sugar Maple	16	Good
797	Lost Tag			
798	<i>Acer rubrum</i>	Red Maple	15	Good
799	<i>Acer rubrum</i>	Red Maple	12	Good
800	<i>Prunus serotina</i>	Black Cherry	14	Good
801	<i>Populus deltoides</i>	Cottonwood	13	Good
802	<i>Juglans nigra</i>	Black Walnut	20	Good
803	<i>Acer saccharum</i>	Sugar Maple	12,18	Poor
804	<i>Prunus serotina</i>	Black Cherry	17	Poor
805	<i>Juglans nigra</i>	Black Walnut	25	Good
806	<i>Celtis occidentalis</i>	Hackberry	17	Good
807	<i>Juglans nigra</i>	Black Walnut	16	Good
808	<i>Prunus serotina</i>	Black Cherry	15	Fair
809	<i>Quercus rubra</i>	Red Oak	16	Good
810	<i>Carya cordiformis</i>	Bitternut Hickory	16	Good
811	<i>Quercus rubra</i>	Red Oak	17	Good
812	<i>Quercus alba</i>	White Oak	29	Good
813	<i>Populus deltoides</i>	Cottonwood	12	Good
814	<i>Pinus strobus</i>	White Pine	12	Good
815	<i>Pinus strobus</i>	White Pine	12	Good
816	<i>Populus deltoides</i>	Cottonwood	12	Good
817	<i>Pinus strobus</i>	White Pine	12	Good
818	<i>Populus deltoides</i>	Cottonwood	12	Good
819	<i>Prunus serotina</i>	Black Cherry	21	Fair
820	<i>Quercus rubra</i>	Red Oak	13	Good
821	<i>Populus deltoides</i>	Cottonwood	13	Good
822	<i>Prunus serotina</i>	Black Cherry	27	Good
823	<i>Prunus serotina</i>	Black Cherry	16	Fair
824	<i>Juglans nigra</i>	Black Walnut	17	Good
825	<i>Acer saccharum</i>	Sugar Maple	16	Good
826	<i>Populus deltoides</i>	Cottonwood	12	Good
827	<i>Pinus strobus</i>	White Pine	13	Good
828	<i>Prunus serotina</i>	Black Cherry	16	Good
829	<i>Prunus serotina</i>	Black Cherry	16	Good
830	<i>Quercus rubra</i>	Red Oak	19	Good
831	<i>Acer saccharum</i>	Sugar Maple	29	Good
832	<i>Acer saccharum</i>	Sugar Maple	23	Good

833	<i>Acer saccharum</i>	Sugar Maple	32	Good
834	<i>Quercus rubra</i>	Red Oak	12	Good
835	<i>Prunus serotina</i>	Black Cherry	14	Good
836	<i>Quercus rubra</i>	Red Oak	19	Good
837	<i>Quercus rubra</i>	Red Oak	21	Good
838	<i>Pinus strobus</i>	White Pine	12	Good
839	<u><i>Prunus serotina</i></u>	<u>Black Cherry</u>	<u>17</u>	Good
840	<i>Pinus strobus</i>	White Pine	15	Good
841	<i>Pinus strobus</i>	White Pine	12	Good
842	<i>Pinus strobus</i>	White Pine	13	Good
843	<i>Pinus strobus</i>	White Pine	12	Good
844	<i>Pinus strobus</i>	White Pine	12	Good
845	<i>Populus deltoides</i>	Cottonwood	12	Good
846	<i>Pinus strobus</i>	White Pine	12,14	Good
847	<i>Pinus strobus</i>	White Pine	13	Good
848	<i>Ulmus pumila</i>	Siberian Elm	22	Poor
849	<i>Juglans nigra</i>	Black Walnut	13	Good
850	<i>Populus deltoides</i>	Cottonwood	14,16	Fair
851	<i>Fraxinus pennsylvanica</i>	Green Ash	15	Fair
852	<i>Acer negundo</i>	Box Elder	13	Fair
853	<i>Ulmus pumila</i>	Siberian Elm	29	Fair
854	<i>Fraxinus pennsylvanica</i>	Green Ash	16	Dead
855	<i>Quercus alba</i>	White Oak	19	Good
856	<i>Quercus alba</i>	White Pine	14	Good
857	<i>Quercus rubra</i>	Red Oak	17	Good
858	<i>Prunus serotina</i>	Black Cherry	22	Fair
859	<i>Prunus serotina</i>	Black Cherry	29	Good
860	<i>Quercus rubra</i>	Red Oak	16	Good
861	<i>Quercus rubra</i>	Red Oak	15	Good
862	<i>Pinus strobus</i>	White Pine	18	Good
863	<i>Prunus serotina</i>	Black Cherry	16	Poor
864	<i>Celtis occidentalis</i>	Hackberry	25	Good
865	<i>Quercus rubra</i>	Red Oak	17,14	Good
866	<i>Quercus rubra</i>	Red Oak	22	Good
867	<i>Prunus serotina</i>	Black Cherry	14	Poor
868	<i>Quercus alba</i>	White Oak	22	Good
869	<i>Quercus alba</i>	White Oak	13	Good
870	<i>Fraxinus pennsylvanica</i>	Green Ash	13	Dead
871	<i>Populus deltoides</i>	Cottonwood	14	Good
872	<i>Prunus serotina</i>	Black Cherry	15	Fair
873	<i>Prunus serotina</i>	Black Cherry	14	Good
874	<i>Pinus strobus</i>	White Pine	19	Fair
875	<i>Quercus alba</i>	White Oak	17	Good
876	<i>Ulmus pumila</i>	Siberian Elm	16	Good
877	<i>Quercus alba</i>	White Oak	16,19	Good
878	<i>Picea abies</i>	Norway Spruce	23	Good
879	<i>Quercus alba</i>	White Oak	15	Good

880	<i>Quercus alba</i>	White Oak	18	Good
881	<i>Quercus rubra</i>	Red Oak	15	Good
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884	<i>Quercus rubra</i>	Red Oak	14	Good
885	<i>Juglans nigra</i>	Black Walnut	34	Fair
886	<i>Quercus rubra</i>	Red Oak	20	Good
887	<i>Quercus alba</i>	White Oak	13	Fair
888	<i>Juglans nigra</i>	Black Walnut	24	Good
889	<i>Quercus rubra</i>	Red Oak	42	Good
890	<i>Quercus rubra</i>	Red Oak	17	Good
891	<i>Fraxinus pennsylvanica</i>	Green Ash	13	Fair
892	<i>Ulmus americana</i>	American Elm	15	Fair
893	<i>Ulmus americana</i>	American Elm	19	Good
894	<i>Quercus alba</i>	White Oak	19	Good
895	<i>Quercus alba</i>	White Oak	21	Good
896	<i>Juglans nigra</i>	Black Walnut	21	Good
897	<i>Quercus rubra</i>	Red Oak	16	Good
898	<i>Salix fragilis</i>	Crack Willow	15	Good
899	<i>Populus deltoides</i>	Cottonwood	22	Good
900	<i>Populus deltoides</i>	Cottonwood	20	Good
901	<i>Populus deltoides</i>	Cottonwood	14	Good
902	<i>Populus deltoides</i>	Cottonwood	18	Good
903	<i>Ulmus pumila</i>	Siberian Elm	13	Good
904	<i>Populus deltoides</i>	Cottonwood	21	Good
905	<i>Populus deltoides</i>	Cottonwood	13,16	Good
906	<i>Quercus rubra</i>	Red Oak	15	Good
907	<i>Juglans nigra</i>	Black Walnut	17	Good
908	<i>Juglans nigra</i>	Black Walnut	12	Good
909	<i>Juglans nigra</i>	Black Walnut	14	Fair
910	<i>Fraxinus pennsylvanica</i>	Green Ash	15	Good
911	<i>Juglans nigra</i>	Black Walnut	15	Good
912	<i>Quercus alba</i>	White Oak	13	Good
913	<i>Acer saccharum</i>	Sugar Maple	18	Good
914	<i>Quercus alba</i>	White Oak	28	Good
915	<i>Acer saccharum</i>	Sugar Maple	39	Good
916	<i>Acer saccharum</i>	Sugar Maple	17	Good
917	<i>Tilia americana</i>	Basswood	21	Good
918	<i>Quercus alba</i>	White Oak	25	Fair
919	<i>Quercus rubra</i>	Red Oak	15	Good
920	<i>Populus deltoides</i>	Cottonwood	14	Good
921	<i>Populus deltoides</i>	Cottonwood	13	Good
922	<i>Acer saccharum</i>	Sugar Maple	22	Good
923	<i>Acer saccharum</i>	Sugar Maple	18	Good
924	<i>Acer saccharum</i>	Sugar Maple	43	Good
925	<i>Acer saccharum</i>	Sugar Maple	13	Good
926	<i>Quercus rubra</i>	Red Oak	17	Good

927	<i>Quercus alba</i>	White Oak	37	Good
928	<i>Acer saccharum</i>	Sugar Maple	22	Good
929	<i>Acer saccharum</i>	Sugar Maple	36	Good
930	<i>Populus deltoides</i>	Cottonwood	17	Good
931	<i>Populus deltoides</i>	Cottonwood	19	Good
932	<i>Populus deltoides</i>	Cottonwood	17	Good
933	<i>Populus deltoides</i>	Cottonwood	17	Good
934	<i>Fraxinus pennsylvanica</i>	Green Ash	36	Dead
935	<i>Quercus rubra</i>	Red Oak	20	Good
936	<i>Juglans nigra</i>	Black Walnut	34	Fair
937	<i>Juglans nigra</i>	Black Walnut	20	Good
938	<i>Juglans nigra</i>	Black Walnut	16	Good
939	<i>Juglans nigra</i>	Black Walnut	18	Fair
940	<i>Juglans nigra</i>	Black Walnut	12	Good



TRAFFIC IMPACT STUDY

For The Proposed

Hannah Apartments

Meridian Charter Township
Ingham County, MI

June, 2016

Prepared by:

**Traffic Engineering
Associates, Inc.**

PO Box 100 • Saranac, Michigan 48881
517/627-6028 FAX: 517/627-6040

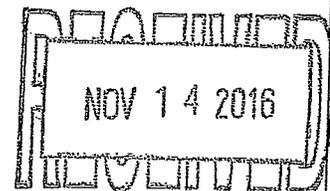
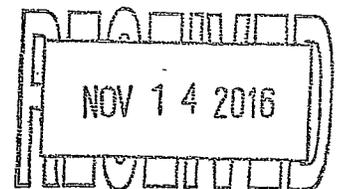


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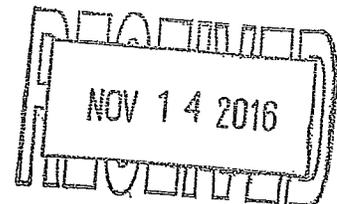


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EXECUTIVE SUMMARY

Traffic Engineering Associates, Inc. (TEA) conducted a traffic impact study to determine the impact from the new traffic generated by the Hannah Apartments development in Meridian Charter Township, Ingham County, Michigan. The project includes two (2) sites, the first site (north) being located on the southwest corner of Eyde Parkway and Hannah Boulevard and the second site (south) is located across the street on the south side of Eyde Parkway. The proposed project sites are vacant land.

The proposed north site of the Hannah Apartments development will contain two (2) apartment buildings and will consist of a total of 182 apartment units. There are two (2) proposed driveways on Eyde Parkway for this site which both provide full access to a parking garage. The proposed south site of the Hannah Apartments development will contain sixty nine (69) townhouse units. The south site will have one (1) new driveway with full access on Eyde Parkway.

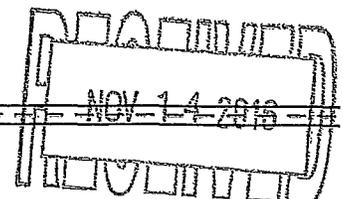
TEA, Inc. conducted vehicle counts during the midweek, of a non-holiday week, in the month of January, 2016, at six (6) intersections in the project area, which include Hannah Boulevard at Hagadorn Road, Hannah Boulevard at Esoteric Way, Hannah Boulevard at Eyde Parkway, Hagadorn Road at Eyde Parkway, Eyde Parkway at Esoteric Way and Hagadorn Road at Mt. Hope Road. The weekday AM and PM peak hours of existing traffic on the adjoining road system are 8:00 – 9:00 AM and 4:45 – 5:45 PM, respectively.

For existing traffic conditions, all existing geometrics and traffic control were used except at the intersection of Hagadorn Road and Mt. Hope Road. The Ingham County Road Department is currently under contract to reconstruct this intersection by adding an additional southbound thru lane on Hagadorn Road. As this intersection will be reconstructed before this development is approved and operational, the new reconstructed intersection was considered “existing” conditions.

A level of service analysis for existing traffic at the studied intersections during the AM and PM peak hours was conducted. All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours, except for the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road which operates at a LOS F during the PM peak hour.

Background traffic represents future volumes without the traffic generated by the proposed Hannah Apartments development. The target year for completion is the fall of 2018. An exponential growth rate of one point zero three percent (1.03%) was utilized for the background growth period to project traffic to the build out date.

All background turning movements at the studied intersections are expected to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except for the



southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road which is anticipated to continue to operate at a LOS F during the PM peak hour.

The level of service for the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road will be a LOS F for both the existing conditions and for the background conditions. An analysis was conducted to determine if a different traffic signal timing would improve this level of service. By modifying the traffic signal splits, the background level of service, LOS F, was improved to a LOS E with a reduction in vehicle delay of over 160 seconds.

For this study, the field data collected at the Lodges of East Lansing – Phase I facility was utilized for trip generation of the Hannah Apartments development given that the proposed units for the Hannah Apartments development and the existing housing in the Lodges of East Lansing – Phase I are anticipated to be marketed to the same consumer audience, college students. Additionally, they are both located in the same area and would have similar statistics.

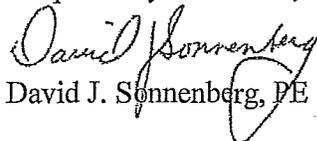
Based on the Lodges of East Lansing – Phase I rates, and utilizing the number of units as the independent variable, it is projected that the proposed Hannah Apartments development will generate 118 vehicle trips during the AM peak hour and 254 vehicle trips during the PM peak hour. Data was not collected for the weekday daily total.

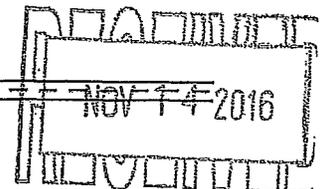
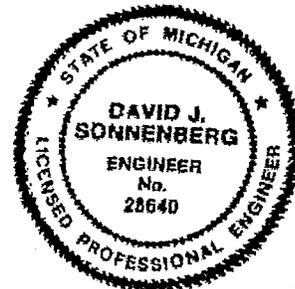
For future traffic conditions, all existing geometrics and traffic control were used, except at the intersection of Mt. Hope Road and Hagadorn Road where the new geometrics were added and the traffic signal timing was modified for the PM peak hour per recommendations for mitigated background conditions. All future turning movements at the studied intersections are anticipated to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except for the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road which is expected to operate at a LOS E during the PM peak hour, and the northbound thru-right movement on Hagadorn Road at Eyde Parkway which is anticipated to operate at a LOS E during the PM peak hour.

An analysis was conducted to determine if updating the traffic signal timing at the Hagadorn Road and Eyde Parkway intersection would improve the northbound thru-right movement level of service. The analysis shows that by increasing the cycle length from the current 80 seconds to a 90 second cycle length, and optimizing the traffic signal splits, the future level of service, LOS E, was improved to a LOS D.

The Ingham County Road Department should consider optimizing the traffic signal timing at the intersections of Mt. Hope Road and Hagadorn Road, as well as the signal at Hagadorn Road and Eyde Parkway.

Respectfully Submitted,


David J. Sonnenberg, PE



INTRODUCTION

NOV 14 2016



PROJECT DESCRIPTION

The purpose of this study is to determine the impact from the new traffic generated by the Hannah Apartments development in Meridian Charter Township, Ingham County, Michigan. The project includes two (2) sites, the first site (north) being located on the southwest corner of Eyde Parkway and Hannah Boulevard and the second site (south) is located across the street on the south side of Eyde Parkway. Both of the proposed project sites are vacant land.

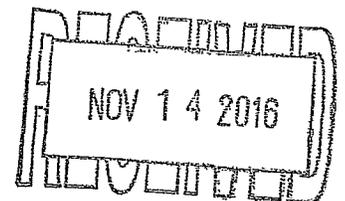
The proposed north site of the Hannah Apartments development will contain two (2) apartment buildings which consist of a total of 182 apartment units. There are two (2) proposed driveways on Eyde Parkway for this site which both provide full access to a parking garage. The proposed south site of the Hannah Apartments development will contain sixty nine (69) townhouse units. The south site will have one (1) new driveway with full access on Eyde Parkway.

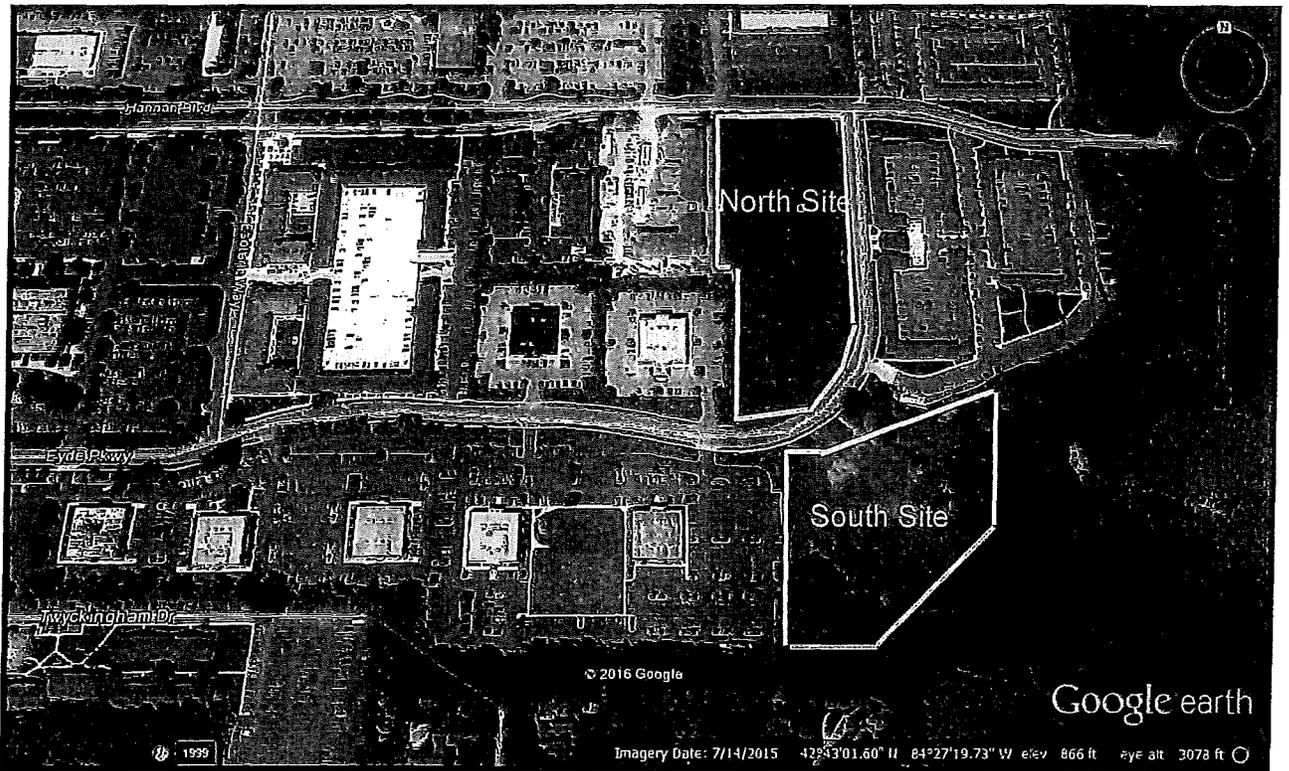
The study will focus on the impacts to the surrounding roadway system due to the proposed Developments. The project has an anticipated completion by the fall of 2018.

SCOPE OF WORK

The scope of work contained in this report is as follows:

- Analysis of existing traffic conditions on the adjoining street system.
- Analysis of background traffic conditions for the future year (fall of 2018) volumes without the proposed Hannah Apartments development.
- Projection of future traffic volumes to be generated by the proposed Hannah Apartments development.
- Evaluation of the impact of future traffic with the proposed Hannah Apartments development.
- Determination of what roadway and traffic control improvements, if any, will be needed to accommodate future (fall of 2018) traffic volumes.





Aerial Photo

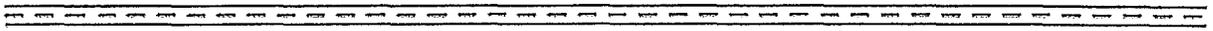
NOV 14 2016



EXISTING CONDITIONS

033 2 10 11 11 11 11

NOV 14 2018



ROADWAYS AND INTERSECTIONS

Roadways

Hagadorn Road is a four lane divided boulevard roadway in the project area. There are sidewalks on both sides of the roadway and the posted speed limit is 45 MPH. Hagadorn Road is under the jurisdiction of the Ingham County Department of Roads.

Hannah Boulevard is a four lane divided roadway with a grass boulevard. There are sidewalks on both sides of Hannah Boulevard. There is no posted speed limit; therefore, the prima facie speed is 25 MPH. Hannah Boulevard is under the jurisdiction of the Ingham County Department of Roads.

Esoteric Way is a two lane roadway with sidewalks on the east side. There is no posted speed limit; therefore, the prima facie speed is 25 MPH. Esoteric Way is under the jurisdiction of the Ingham County Department of Roads.

Eyde Parkway is a two lane roadway with sidewalk on the south and east sides of the roadway. There is no posted speed limit; therefore, the prima facie speed is 25 MPH. Eyde Parkway is under the jurisdiction of the Ingham County Department of Roads.

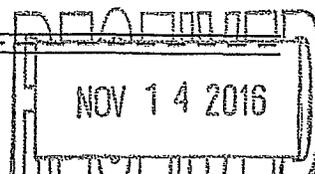
Intersections

The intersection of Hagadorn Road and Hannah Boulevard is controlled by a two-phase traffic signal. The north and south approaches on Hagadorn Road are five (5) lanes; two (2) thru lanes, one (1) exclusive right turn lane with two (2) outbound lanes. The east approach on Hannah Boulevard is five (5) lanes: one (1) thru lane, one (1) thru-right turn lane, one (1) right turn lane and two (2) outbound lanes. The west approach on Service Road is four (4) lanes; one (1) thru lane, one (1) thru-right turn lane with two (2) outbound lanes. There are no left turns allowed at this intersection; rather, all left turn movements are made via four (4) Michigan lefts.

The intersection of Hagadorn Road and Eyde Parkway forms a "T" intersection and is controlled by traffic signal. The north approach on Hagadorn Road is five (5) lanes; two (2) thru lanes, one (1) exclusive left turn lane, and two (2) outbound lanes. The south approach on Hagadorn Road is four (4) lanes; one (1) thru lane, one (1) thru-right turn lane, and two (2) outbound lanes. The east approach on Eyde Parkway is two (2) lanes; one (1) left-right lane and one (1) outbound lane.

The intersection of Hannah Boulevard and Esoteric Way forms a "T" intersection and is controlled by a traffic signal. The south approach is two (2) lanes with one (1) inbound and one (1) outbound lane. The east and west approach on Hannah Boulevard are two (2) lanes eastbound and two (2) lanes westbound with a grass median, the north approach is a private driveway.

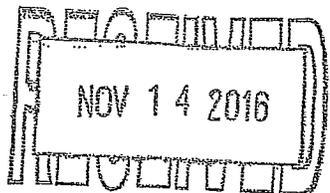
The intersection of Hannah Boulevard and Eyde Parkway forms a "T" intersection and is controlled by STOP control for northbound Eyde Parkway. All approaches are two (2) lanes with one (1) inbound and one (1) outbound lane.



The intersection of Esoteric Way and Eyde Parkway forms a "T" intersection and is controlled by STOP control on southbound Esoteric Way. All approaches are two (2) lanes with one (1) inbound and one (1) outbound lane.

The intersection of Hagadorn Road and Mt. Hope Road is controlled by a fully-actuated traffic signal with permissive-protective left turn phases in all four directions, and pedestrian push buttons in all four approaches. This intersection is currently under contract by the Ingham County Road Department to reconstruct the north and south approaches on Hagadorn Road which will add a second thru lane for the southbound traffic and realign the curb lines. As this construction will be completed prior to the completion and occupation of the Hannah Apartments, this traffic study considered the new design for the north and south approaches as existing conditions.

The north approach is six (6) lanes; one (1) exclusive right turn lane, two (2) thru lanes, one (1) exclusive left turn lane with two (2) outbound lanes. The south approach on Hagadorn Road and the east and west approaches on Mt. Hope Road are five (5) lanes; one (1) exclusive left turn lane, one (1) thru lane, one (1) thru-right lane with two (2) outbound lanes.



LAND USE

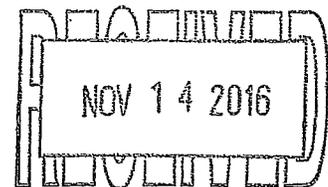
The proposed Hannah Apartments development will be located on the north and south side of Eyde Parkway south of Hannah Boulevard. Both of the proposed project sites are vacant land. The surrounding land use is mostly residential rental buildings and businesses.

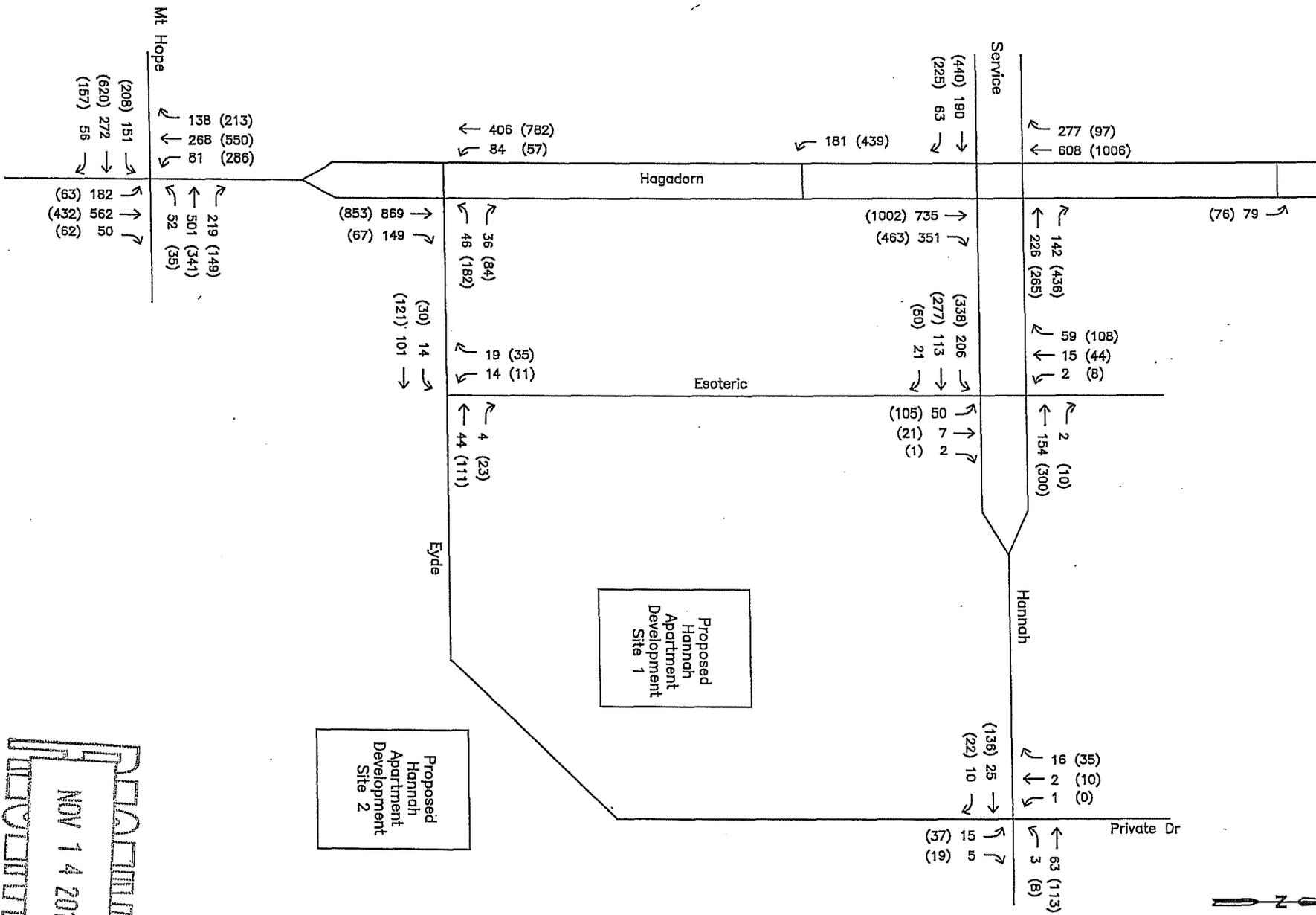
EXISTING TRAFFIC VOLUMES

TEA, Inc. conducted vehicle counts during the midweek, of a non-holiday week in the month of January, 2016, at the following intersections:

- Hagadorn Road and Mt. Hope Road
- Hagadorn Road and Eyde Parkway
- Hagadorn Road and Hannah Boulevard
- Eyde Parkway and Hannah Boulevard
- Eyde Parkway and Esoteric Way
- Hannah Boulevard and Esoteric Way

The weekday AM and PM peak hours of existing traffic on the adjoining road system are 8:00 – 9:00 AM and 4:45 – 5:45 PM, respectively. The existing peak hour volumes are illustrated in **Figure 1**.





NOV 14 2016

TEA
 TRAFFIC ENGINEERING
 ASSOCIATES, INC.
 PO Box 100
 Saranac, MI 48881
 PHONE: (517) 627-6028

LEGEND
 XXX AM Pk Hr (8:00-9:00 AM) Volumes
 (XXX) PM Pk Hr (4:45-5:45 PM) Volumes

FIGURE 1: Existing Traffic - Peak Hours
 DATE: June, 2016 SCALE: NTS PAGE: 8

LEVEL OF SERVICE ANALYSIS FOR EXISTING TRAFFIC

The critical intersections defined for this study were analyzed according to the methodologies published in the most recent edition of the *Highway Capacity Manual*. The analysis determines the "Level of Service" of the intersections and is based on factors such as the number and types of lanes, signal timing, traffic volumes, pedestrian activity, etc. The level of service (LOS) is defined by average vehicle delay in seconds created by a traffic control device for a given traffic movement or intersection approach.

Level of Service	Delay per Vehicle (seconds)	
	Non-Signalized	Signalized
A	< 10	< 10
B	10 to 15	10 to 20
C	15 to 25	20 to 35
D	25 to 35	35 to 55
E	35 to 50	55 to 80
F	> 50	> 80

Levels of Service are expressed in a range from "A" to "F," with "A" being the highest LOS and "F" representing the lowest LOS. Level of service "D" is considered the minimum acceptable LOS in an urban area. The above table shows the thresholds for Levels of Service "A" through "F" for non-signalized and signalized intersections, respectively.

All Level of Service computations contained in this report were based upon the Synchro 8 software package which is approved by the Michigan Department of Transportation (MDOT). Delay per vehicle includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay.

For existing traffic conditions, all existing geometrics and traffic control were used except at the intersection of Hagadorn Road and Mt. Hope Road. The Ingham County Road Department is currently under contract to reconstruct this intersection by adding an additional southbound thru lane on Hagadorn Road. As this intersection will be reconstructed before this development is approved and operational, the new reconstructed intersection was considered "existing" conditions.

All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours, except for the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road which operates at a LOS F during the PM peak hour with a vehicle delay of 190.7 seconds. The Level of Service analysis for existing traffic at the subject intersections during the AM and PM peak hours is summarized in **Table 1**.

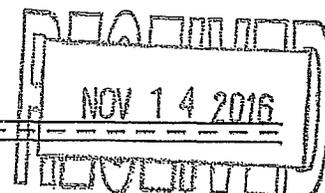


Table 1
Level of Service (LOS) Summary
Existing Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Hagadorn Road and Mt. Hope Road	EB Left	48.3	D	40.9	D
	EB Thru-Right	26.1	C	33.6	C
	WB Left	18.1	B	24.3	C
	WB Thru-Right	35.1	D	26.7	C
	NB Left	26.8	C	26.0	C
	NB Thru-Right	34.0	C	31.3	C
	SB Left	30.7	C	190.7	F
	SB Thru	29.4	C	31.4	C
	SB Right	4.2	A	5.0	A
	Intersection Overall	31.3	C	45.0	D
Hagadorn Road and Eyde Parkway	WB Left-Right	25.9	C	38.8	D
	NB Thru-Right	21.8	C	41.1	D
	SB Left	28.2	C	33.8	C
	SB Thru	2.6	A	10.0	B
	Intersection Overall	20.7	B	38.8	D
Hagadorn Road and Hannah Boulevard/ Service Drive	EB Thru-Right	20.6	C	28.5	C
	WB Thru	24.5	C	24.5	C
	WB Right	8.6	B	24.3	C
	NB Thru	2.9	A	6.6	A
	NB Right	0.9	A	5.7	A
	SB Thru	9.8	A	13.2	B
	SB Right	2.7	A	2.3	A
	Intersection Overall	7.3	A	22.7	C
Hagadorn Road SB to NB X Over	EB Left	12.1	B	19.3	C
Hagadorn Road NB to SB X Over	WB Left	12.4	B	15.1	C

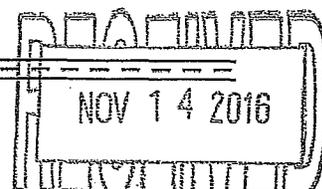
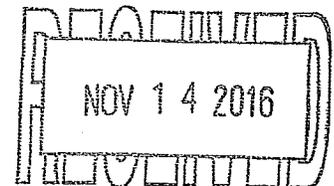


Table 1 (continued)
Level of Service (LOS) Summary
Existing Traffic

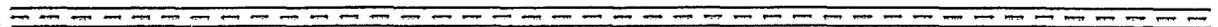
Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Eyde Parkway and Hannah Boulevard	EB Thru-Right	Free	-	Free	-
	WB Left-Thru	7.5	A	7.6	A
	NB Left-Right	9.8	A	12.3	B
	SB Right	8.9	A	9.8	A
	Intersection Overall	3.0	A	3.3	A
Eyde Parkway and Esoteric Way	EB Left-Thru	7.6	A	7.6	A
	WB Thru-Right	Free	-	Free	-
	SB Left-Right	9.7	A	9.8	A
	Intersection Overall	1.8	A	1.9	A
Hannah Boulevard and Esoteric Way	EB Left	7.9	A	13.7	B
	EB Thru-Right	5.5	A	7.8	A
	WB Thru-Right	17.4	B	22.0	C
	NB Left-Thru-Right	16.5	B	16.2	B
	SB Left-Thru-Right	8.7	A	8.4	A
	Intersection Overall	9.7	A	13.4	B

Note: Delay = Average vehicle delay in seconds
LOS = Level of Service



BACKGROUND CONDITIONS

NOV 14 2016



BACKGROUND TRAFFIC GROWTH VOLUMES

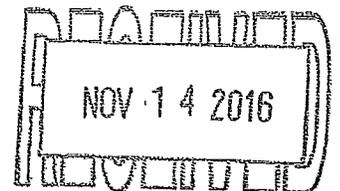
Background traffic represents future volumes without the traffic generated by the proposed Hannah Apartments development. The target year for completion is the fall of 2018.

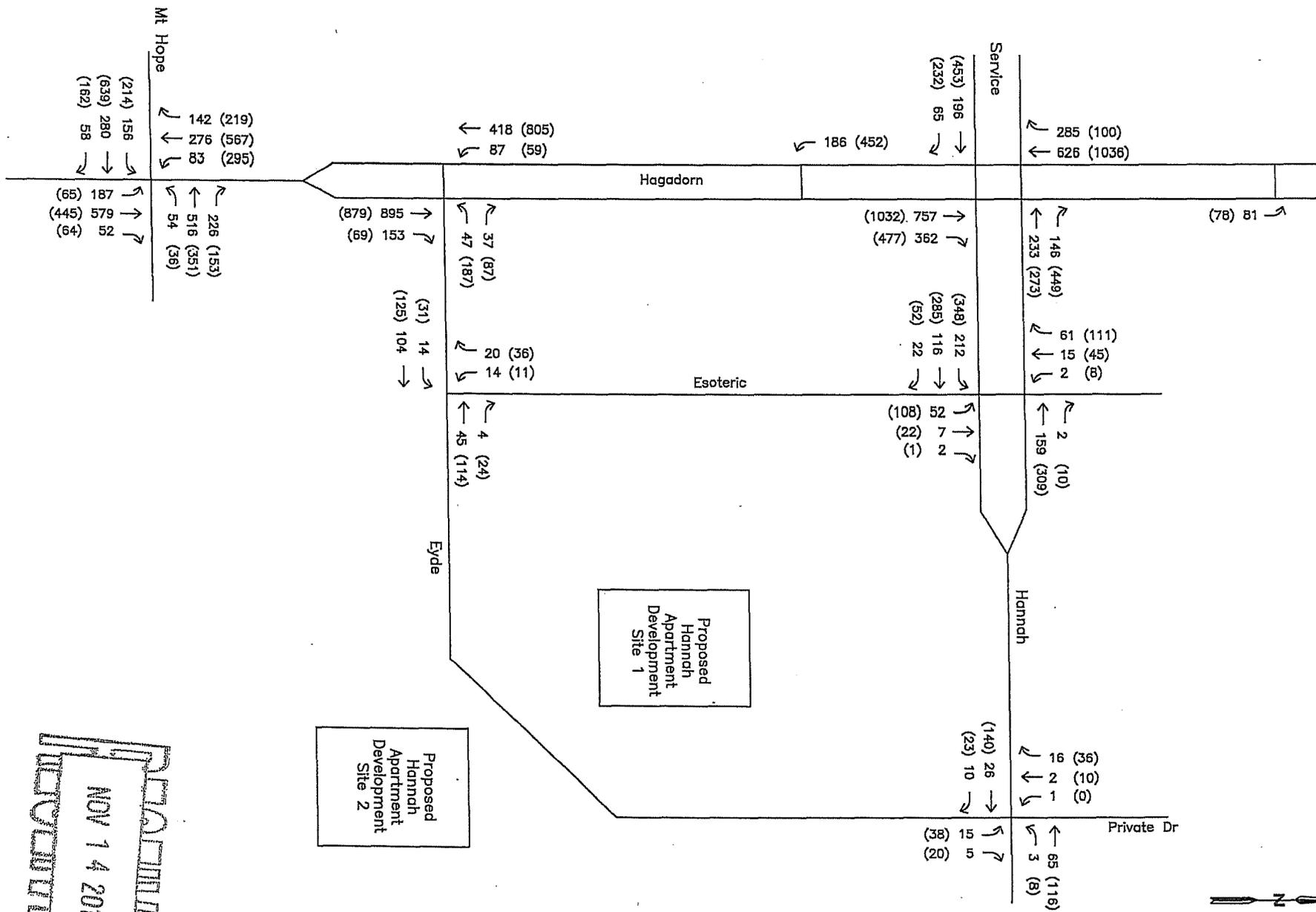
According to the US Census Bureau, the population growth for Ingham County from 2010 to 2014 was one point three percent (1.3%). The US Census Bureau also shows that the population growth from 2010 to 2014 for Meridian Charter Township was five point zero percent (5.0%).

The 5.0% total growth rate was used to determine the annual exponential growth rate of one point zero three percent (1.03%) for the background growth period to project traffic to the build out date of the fall of 2018. Background traffic growth volumes during the AM and PM peak hours are shown in **Figure 2**.

BACKGROUND DEVELOPMENT TRAFFIC VOLUMES

There were no new developments with completed traffic impact studies identified by Meridian Charter Township that would have an impact on background development traffic. Therefore, background development traffic volumes were not included in this study.





TRAFFIC ENGINEERING ASSOCIATES, INC.
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LEGEND
 XXX AM Pk Hr (8:00-9:00 AM) Volumes
 (XXX) PM Pk Hr (4:45-5:45 PM) Volumes

FIGURE 2: Background Traffic – Peak Hours

DATE: June, 2016 SCALE: NTS PAGE: 14

LEVEL OF SERVICE ANALYSIS FOR BACKGROUND TRAFFIC

For background traffic conditions, all geometrics and traffic control from existing conditions were utilized. All background turning movements at the studied intersections are expected to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except for the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road which is anticipated to operate at a LOS F during the PM peak hour with a vehicle delay of 221.7 seconds, an increase of 31.0 seconds in vehicle delay from existing conditions.

The level of service analysis for background traffic at the subject intersections during the AM and PM peak hours is summarized in **Table 2**.

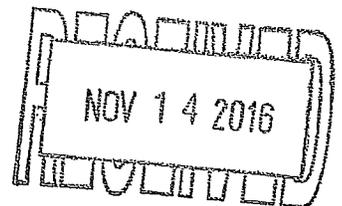


Table 2
Level of Service (LOS) Summary
Background Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Hagadorn Road and Mt. Hope Road	EB Left	53.9	D	44.6	D
	EB Thru-Right	26.4	C	34.5	C
	WB Left	18.4	B	24.7	C
	WB Thru-Right	36.4	D	27.1	C
	NB Left	27.1	C	27.4	C
	NB Thru-Right	34.5	C	31.7	C
	SB Left	32.3	C	221.7	F
	SB Thru	29.5	C	31.7	C
	SB Right	4.6	A	5.1	A
	Intersection Overall	32.2	C	48.6	D
Hagadorn Road and Eyde Parkway	WB Left-Right	25.9	C	39.7	D
	NB Thru-Right	22.6	C	45.6	D
	SB Left	28.4	C	34.2	C
	SB Thru	2.7	A	10.5	B
	Intersection Overall	21.3	C	42.2	D
Hagadorn Road and Hannah Boulevard/ Service Drive	EB Thru-Right	20.9	C	29.8	C
	WB Thru	24.6	C	25.3	C
	WB Right	9.7	B	25.4	C
	NB Thru	2.9	A	6.7	A
	NB Right	0.9	A	6.1	A
	SB Thru	10.0	A	13.5	B
	SB Right	3.1	A	2.2	A
	Intersection Overall	7.5	A	10.7	B
Hagadorn Road SB to NB X Over	EB Left	12.4	B	21.0	C
Hagadorn Road NB to SB X Over	WB Left	13.0	B	15.5	C

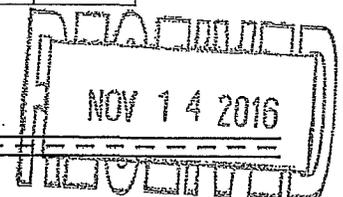
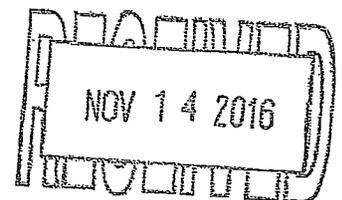


Table 2 (continued)
Level of Service (LOS) Summary
Background Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Eyde Parkway and Hannah Boulevard	EB Thru-Right	Free	-	Free	-
	WB Left-Thru	7.5	A	7.6	A
	NB Left-Right	9.8	A	12.4	B
	SB Right	8.9	A	9.8	A
	Intersection Overall	3.0	A	3.3	A
Eyde Parkway and Esoteric Way	EB Left-Thru	7.7	A	7.6	A
	WB Thru-Right	Free	-	Free	-
	SB Left-Right	9.7	A	9.8	A
	Intersection Overall	1.8	A	1.9	A
Hannah Boulevard and Esoteric Way	EB Left	8.1	A	14.6	B
	EB Thru-Right	5.6	A	8.0	A
	WB Thru-Right	17.6	B	22.3	C
	NB Left-Thru-Right	16.3	B	16.2	B
	SB Left-Thru-Right	8.8	A	8.4	A
	Intersection Overall	9.7	A	13.7	A

Note: Delay = Average vehicle delay in seconds
LOS = Level of Service



LEVEL OF SERVICE ANALYSIS FOR BACKGROUND MITIGATED TRAFFIC

The level of service for the southbound left turning movement on Hagadorn Road to eastbound Mt. Hope Road will be a LOS F for both existing conditions and background conditions. An analysis was conducted to determine if different traffic signal timing could improve this level of service and reduce the vehicle delays.

Keeping the cycle length at the existing 100 seconds, the traffic signal splits were modified to try and improve the level of service for the southbound left turning movement for the background conditions. By modifying the traffic signal splits, the background level of service, LOS F, was improved to a LOS E. The southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road is expected to operate at a LOS E during the PM peak hour with a vehicle delay of 58.1 seconds, a significant decrease of 163.6 seconds in vehicle delay from background unmitigated conditions.

The level of service analysis for background mitigated traffic at the Mt. Hope Road and Hagadorn Road intersection during the AM and PM peak hours is summarized in **Table 3**.

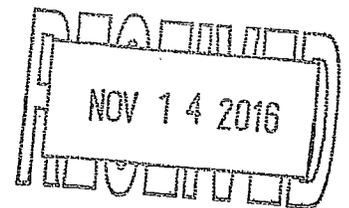
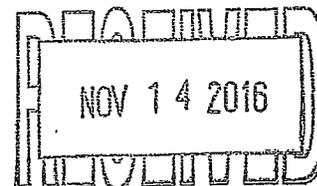


Table 3
Level of Service (LOS) Summary
Background Mitigated Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Hagadorn Road and Mt. Hope Road	EB Left	53.9	D	44.6	D
	EB Thru-Right	26.4	C	34.5	C
	WB Left	18.4	B	24.7	C
	WB Thru-Right	36.4	D	27.1	C
	NB Left	27.1	C	27.4	C
	NB Thru-Right	34.5	C	31.7	C
	SB Left	32.3	C	<u>58.1</u>	<u>E</u>
	SB Thru	29.5	C	31.7	C
	SB Right	4.6	A	5.1	A
	Intersection Overall	32.2	C	48.6	D

Note: Delay = Average vehicle delay in seconds
LOS = Level of Service



FUTURE CONDITIONS

NOV 14 2016



SITE TRAFFIC GENERATION

The trip generation rates were derived from the existing traffic counts taken at the Lodges of East Lansing – Phase I site driveways and compared to the ITE TRIP GENERATION MANUAL (9th edition).

The existing peak hour traffic volumes for the Lodges of East Lansing – Phase I site driveways during the AM and PM peak hours are 8:00 – 9:00 AM and 4:00 – 5:00 PM, respectively. These site peak hours do not correspond with the surrounding roadway peak hours; however, they represent the highest trip generation volumes during the peaks and thus, make the most conservative estimates for the proposed site. The following information was obtained from existing traffic counts:

	AM Peak Hour	PM Peak Hour
Enter	28	102
Exit	76	120
Total	104	222

The Lodges of East Lansing – Phase I development consists of 220 apartment units and 683 bedrooms and TEA was informed that the occupancy was 99% leased out when counts were taken in January, 2012. For the purposes of this report, it was assumed that the data collected at the existing Lodges of East Lansing – Phase I driveways accounted for the entire site fully occupied. Given that information, the following rates were determined:

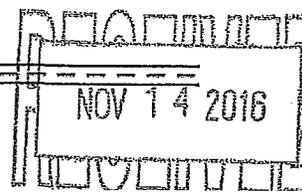
	AM Peak Hour	PM Peak Hour
Units	0.47	1.01
Bedrooms	0.15	0.325

These rates were applied to the proposed apartments and townhouses for the Hannah Apartments development to determine future trip generation estimates.

In addition, a trip generation analysis was conducted utilizing the ITE Trip Generation Manual (9th Edition) for comparison purposes. The ITE trip generation rates for Apartment (Land Use Code 220) were selected as representing the 182 apartment units in the Hannah Apartments development. The ITE description is as follows:

Apartments are rental dwelling units located within the same building with at least three other dwelling units, for example, quadrplexes and all types of apartment buildings. The studies included in this land use did not identify whether the apartments were low-rise, or high-rise.

The ITE trip generation rates for Rental Townhouse (Land Use Code 224) were selected as representing the 69 townhouse units in the Hannah Apartments development. The ITE description is as follows:



Rental townhouses are townhouse developments with rented rather than owned units and a minimum of two attached units per building structure. Units are not stacked on top of one another.

Comparing the estimated rates from the data collected at the Lodges of East Lansing – Phase I site against the ITE Trip Generation Manual, the independent variable of apartment units has similar numbers. The widest variation occurs when you look at the trip distribution between entering and exiting traffic, as displayed below.

	Lodges of East Lansing Field Data	ITE Trip Generation Manual
AM Peak Hour		
Enter	27%	20%
Exit	73%	80%
PM Peak Hour		
Enter	46%	65%
Exit	54%	35%

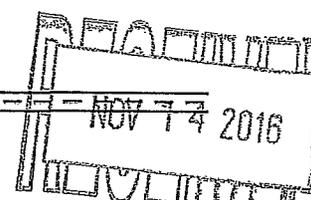
During the AM peak hour, the distribution is fairly similar between the two sources. However, in the PM peak hour the existing field data taken at the Lodges of East Lansing shows a more even split of entering and exiting traffic than the ITE Trip Generation Manual. This discrepancy may be due to the difference between a typical apartment facility where the occupants are more likely to leave for work in the AM peak hour and arrive home from work during the PM peak hour; whereas, at a more college student oriented facility the entering and exiting trips would be more dependent on the student class hours.

Based on the trip generation rates for the number of units from the Lodges of East Lansing field data, it is projected that the proposed 251 units in the Hannah Apartments development will generate 118 trips in the AM peak hour and 254 trips in the PM peak hour. Data was not collected for the weekday daily total.

Based on the trip generation rates for the number of bedrooms from the Lodges of East Lansing field data, it is projected that the proposed 680 bedrooms in the Hannah Apartments development will generate 102 trips in the AM peak hour and 221 trips in the PM peak hour. Data was not collected for the weekday daily total.

Based on the trip generation rates ITE Trip Generation Manual, it is projected that the proposed Hannah Apartments development will generate 164 trips in the AM peak hour, 210 trips in the PM peak hour, and 1337 during a weekday.

For this study, the data collected at the Lodges of East Lansing – Phase I facility was utilized for trip generation of the Hannah Apartments development given that the proposed units for the new development, and the existing housing in Lodges of East Lansing – Phase I, are anticipated to be marketed to the same consumer audience, college students. Additionally, they are both in the same immediate area and would have similar statistics.



Comparing the Lodges of East Lansing – Phase I rates to the ITE Trip Generation Rates, and utilizing the number of units as the independent variable (not the number of beds), it is projected that the proposed townhouse apartments for the Hannah Apartments development will generate 118 vehicle trips during the AM peak hour and 254 vehicle trips during the PM peak hour. Data was not collected for the weekday daily total.

The comparison of the projected traffic to be generated by the proposed Hannah Apartments development is summarized in **Table 4**.

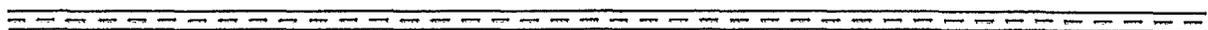
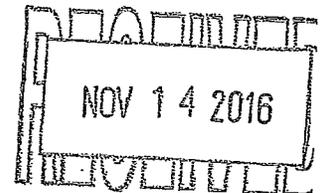


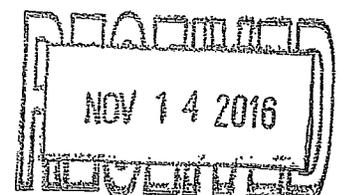
Table 4

**Vehicle Trip Generation Comparison Summary
Proposed Hannah Apartments Development**

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday 24-Hour
		In	Out	Total	In	Out	Total	
Lodges of East Lansing Rate Estimate	251 Units	32	86	118	117	137	254	N/A
Total Trips		32	86	118	117	137	254	N/A

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday 24-Hour
		In	Out	Total	In	Out	Total	
Lodges of East Lansing Rate Estimate	680 Bedrooms	28	74	102	102	119	221	N/A
Total Trips		28	74	102	102	119	221	N/A

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday 24-Hour
		In	Out	Total	In	Out	Total	
Apartments (ITE Code 220)	404 Bedrooms	23	93	116	104	56	160	1337
Rental Townhouse (ITE Code 224)	69 Units	16	32	48	26	24	50	N/A
Total Trips		39	125	164	130	80	210	1337



SITE TRAFFIC DISTRIBUTION

The distribution of traffic volumes to be generated by the proposed Hannah Apartments development during the future AM and PM peak hours is illustrated in **Figure 3**.

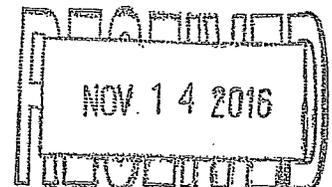
Traffic distribution was based on existing traffic patterns on the surrounding roadways. Typically, a residential facility has people exiting in the morning and entering in the evening; therefore, the traffic exiting the roadway system during the morning and entering during the evening generated the distribution for this study. There are very similar traffic patterns between the two peak hours, as displayed below.

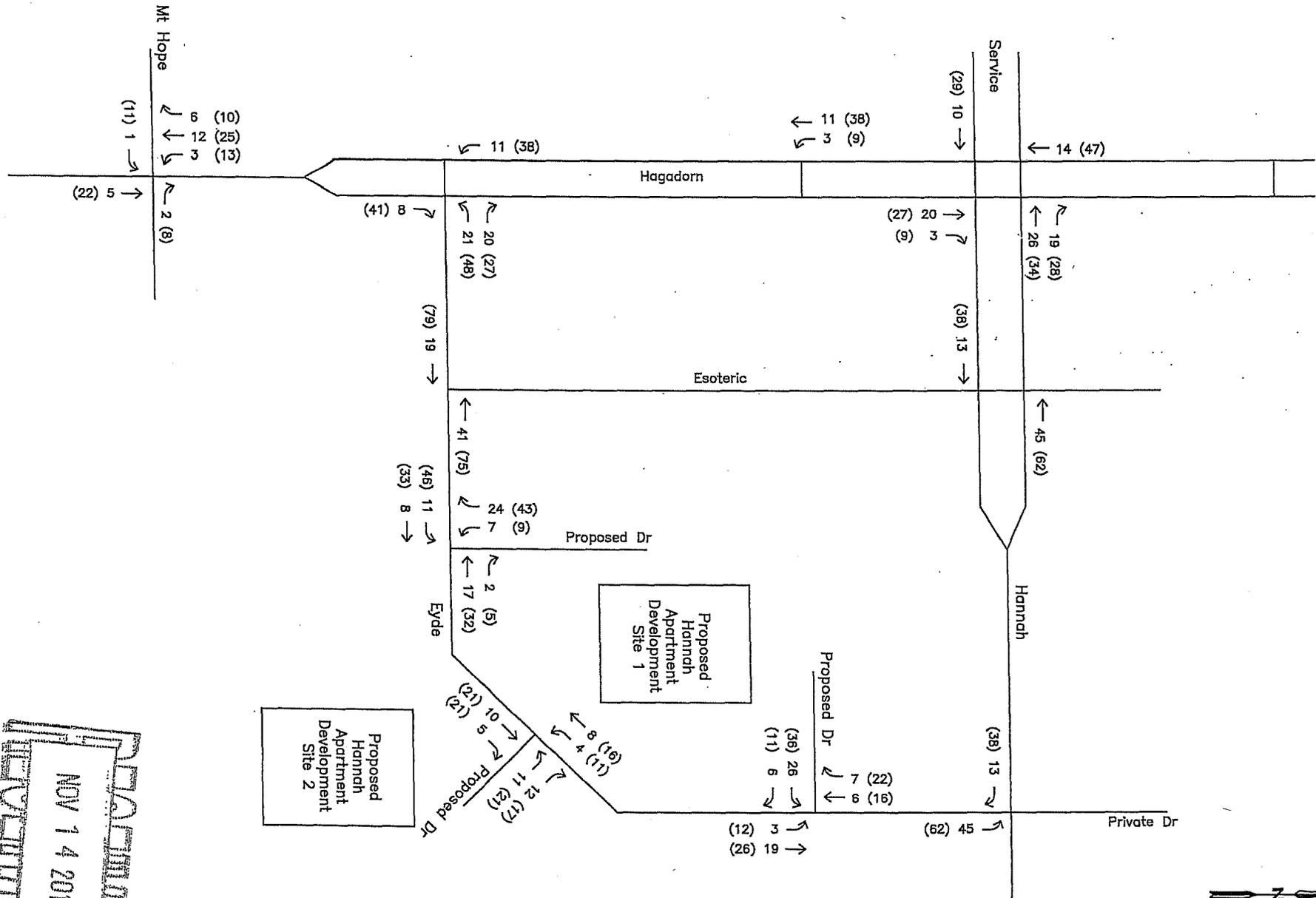
Direction of Approach and Departure	AM Peak Hour Distribution	PM Peak Hour Distribution
To/From the SOUTH on Hagadorn Road	25%	35%
To/From the NORTH on Hagadorn Road	45%	40%
To/From the WEST on Service Drive	30%	25%

Traffic was then further distributed by driveway. All townhouse traffic on the south site was distributed to the driveway for that facility. At the north site, the apartment traffic was distributed with 80% of traffic utilizing the nearest driveway, whether coming from the north or the south on Eyde Parkway, with the remaining 20% utilizing the second driveway.

It was determined that the majority of the Hannah Apartments development traffic at the north site would access the closest driveway that provided the shortest route; however, some residents might decide to access the driveway closest to their building. Therefore, 20% of the traffic was distributed to the second driveway after passing up on the first driveway.

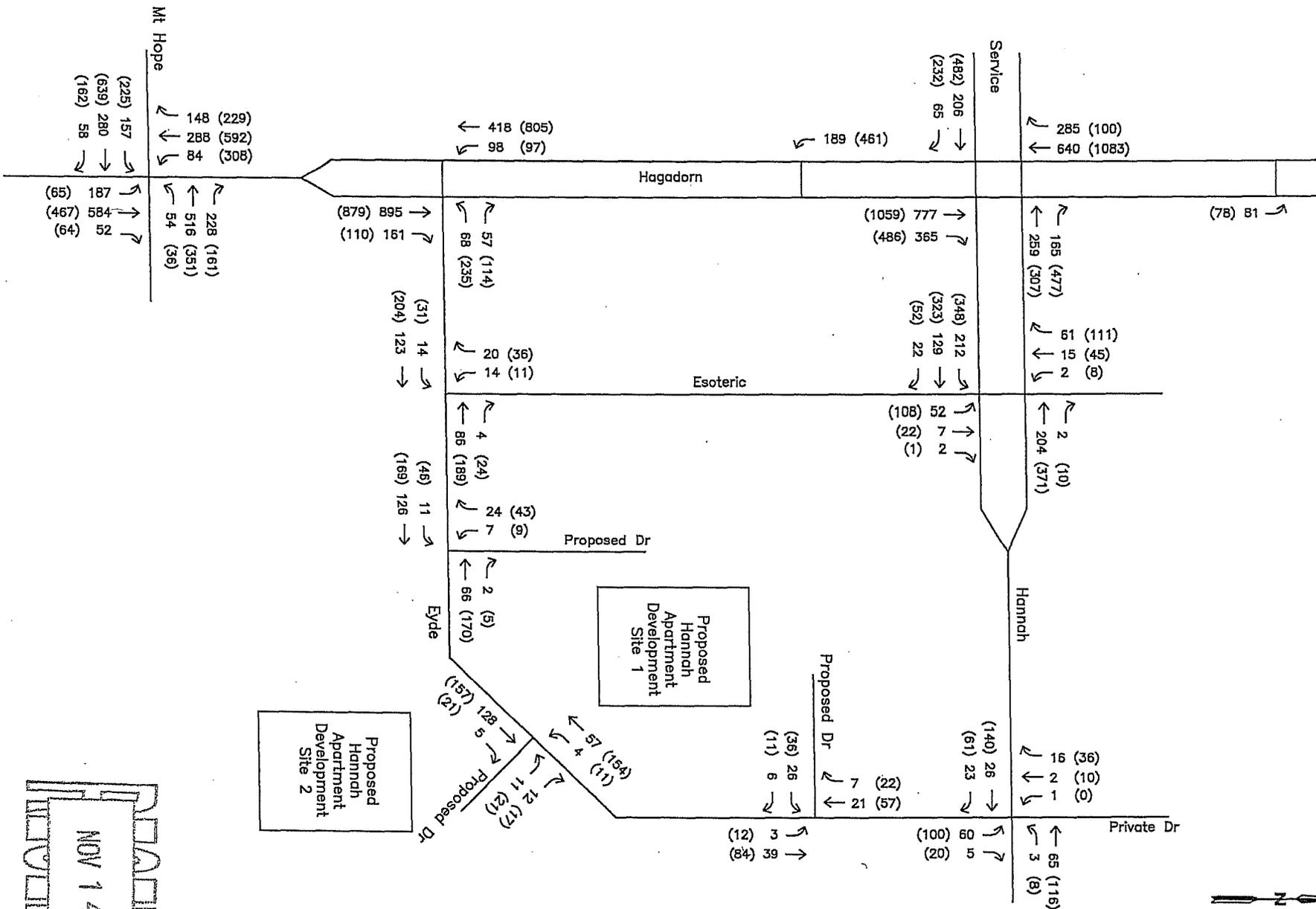
Adding the site generated traffic volumes to the background volumes yielded the total future traffic volumes. Total traffic volumes for the future AM and PM peak hours are illustrated in **Figure 4**.





NOV 14 2016

 <p>TRAFFIC ENGINEERING ASSOCIATES, INC. PO Box 100 Sarasota, MI 48881 PHONE: (517) 627-6028</p>	<p>LEGEND</p> <p>XXX AM Pk Hr (8:00-9:00 AM) Volumes</p> <p>(XXX) PM Pk Hr (4:45-5:45 PM) Volumes</p>	<p>FIGURE 3: Site Traffic - Peak Hours</p>	
		<p>DATE: June, 2016</p>	<p>SCALE: NTS</p>
		<p>PAGE: 26</p>	



NOV 14 2016

LEVEL OF SERVICE ANALYSIS FOR FUTURE TRAFFIC

For future traffic conditions, all existing geometrics and traffic control were used, except at the intersection of Mt. Hope Road and Hagadorn Road where the new geometrics were added and the traffic signal timing was modified for the PM peak hour per recommendations for mitigated background conditions. All future turning movements at the studied intersections are anticipated to operate at an acceptable level of service (LOS D or better) during the AM and PM peak hours except for the following movements;

- Southbound left turn movement from Hagadorn Road to Mt. Hope Road is expected to operate at a LOS E during the PM peak hour with a vehicle delay of 68.1 seconds, an increase of 10 seconds in vehicle delay from background mitigated conditions.
- Northbound thru-right movement on Hagadorn Road at Eyde Parkway is anticipated to operate at a LOS E during the PM peak hour with a vehicle delay of 55.1 seconds, an increase of 9.5 seconds in vehicle delay from background conditions.

The level of service analysis for future AM and PM peak hour traffic is summarized in **Table 5**.

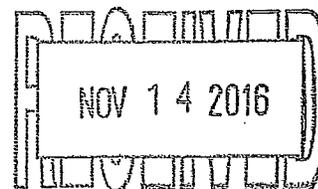


Table 5
Level of Service (LOS) Summary
Future Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Hagadorn Road and Mt. Hope Road	EB Left	54.2	D	47.9	D
	EB Thru-Right	26.4	C	42.9	D
	WB Left	18.5	B	25.3	C
	WB Thru-Right	36.5	D	36.2	D
	NB Left	27.4	C	28.6	C
	NB Thru-Right	34.7	C	42.5	D
	SB Left	32.6	C	<u>68.1</u>	<u>E</u>
	SB Thru	29.7	C	28.3	C
	SB Right	5.1	A	4.5	A
	Intersection Overall	32.3	C	38.8	D
Hagadorn Road and Eyde Parkway	WB Left-Right	29.3	C	50.8	D
	NB Thru-Right	22.8	C	<u>55.1</u>	<u>E</u>
	SB Left	31.4	C	38.5	D
	SB Thru	3.4	A	12.0	B
	Intersection Overall	21.8	C	50.4	D
Hagadorn Road and Hannah Boulevard/ Service Drive	EB Thru-Right	21.2	C	32.0	C
	WB Thru	24.9	C	26.8	C
	WB Right	12.1	B	27.5	C
	NB Thru	3.5	A	7.2	A
	NB Right	1.0	A	6.9	A
	SB Thru	10.3	B	13.9	B
	SB Right	4.1	A	2.2	A
	Intersection Overall	8.2	A	13.9	B
Hagadorn Road SB to NB X Over	EB Left	12.4	B	21.4	C
Hagadorn Road NB to SB X Over	WB Left	13.1	B	16.0	C

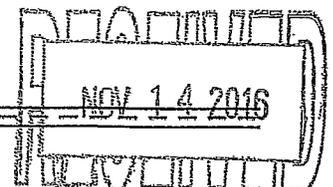
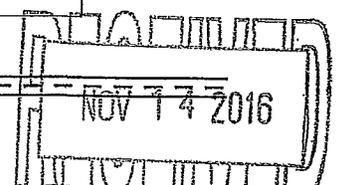


Table 5 (continued)
Level of Service (LOS) Summary
Future Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Eyde Parkway and Hannah Boulevard	EB Thru-Right	Free	-	Free	-
	WB Left-Thru	7.5	A	7.7	A
	NB Left-Right	10.3	B	14.2	B
	SB Right	8.9	A	9.9	A
	Intersection Overall	4.7	A	4.6	A
Eyde Parkway and Esoteric Way	EB Left-Thru	7.8	A	7.9	A
	WB Thru-Right	Free	-	Free	-
	SB Left-Right	10.3	B	10.7	B
	Intersection Overall	1.5	A	1.4	A
Hannah Boulevard and Esoteric Way	EB Left	8.1	A	14.6	B
	EB Thru-Right	5.7	A	8.3	A
	WB Thru-Right	18.1	B	23.7	C
	NB Left-Thru-Right	16.5	B	16.4	B
	SB Left-Thru-Right	7.8	A	8.5	A
	Intersection Overall	10.5	B	14.7	B
Eyde Parkway and Proposed Drive North	EB Left-Right	9.1	A	9.9	A
	NB Left-Thru	7.3	A	7.5	A
	SB Thru-Right	Free	-	Free	-
	Intersection Overall	2.6	A	2.2	A
Eyde Parkway and Proposed Middle Drive	WB Left-Right	10.3	B	10.6	B
	SB Left-Thru	7.8	A	7.7	A
	NB Thru-Right	Free	-	Free	-
	Intersection Overall	0.8	A	1.2	A
Eyde Parkway and Proposed South Drive	EB Left-Thru	7.5	A	7.8	A
	SB Left-Right	9.5	A	10.3	B
	WB Thru-Right	Free	-	Free	-
	Intersection Overall	1.2	A	1.9	A



LEVEL OF SERVICE ANALYSIS FOR FUTURE MITIGATED TRAFFIC

The level of service for the northbound thru-right movement on Hagadorn Road at Eyde Parkway will operate at a LOS E under future conditions. An analysis was conducted to determine if updating the traffic signal timing would improve this level of service.

By increasing the cycle length from the current 80 seconds to a 90 second cycle length, and optimizing the traffic signal splits, the future level of service, LOS E, was improved to a LOS D. The northbound thru-right movement on Hagadorn Road at Eyde Parkway is expected to operate at a LOS D during the PM peak hour with a vehicle delay of 36.6 seconds, a decrease of 18.5 seconds in vehicle delay from future unmitigated conditions. This signal timing change will also reduce the vehicle delays under background conditions by 9.0 seconds.

The level of service analysis for future mitigated traffic at the Hagadorn Road and Eyde Parkway intersection during the AM and PM peak hours is summarized in **Table 6**.

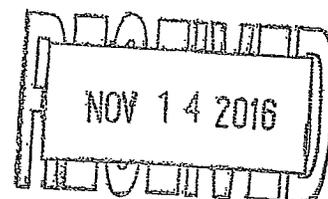
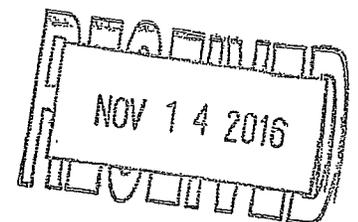


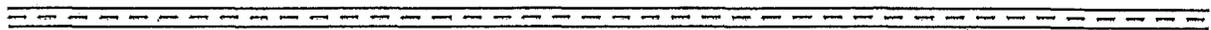
Table 6
Level of Service (LOS) Summary
Future Mitigated Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Delay	LOS	Delay	LOS
Hagadorn Road and Eyde Parkway	WB Left-Right	29.3	C	54.7	D
	NB Thru-Right	22.8	C	36.6	D
	SB Left	31.4	C	43.2	D
	SB Thru	3.4	A	11.6	B
	Intersection Overall	21.8	C	39.4	D



SIGNIFICANT FINDINGS

RECEIVED
NOV 14 2016
RECEIVED



INTERSECTION IMPROVEMENT CONSIDERATIONS

Hagadorn Road and Mt. Hope Road

This intersection is a fully-actuated, signalized intersection with permissive/protected left turn phasing for all four approaches. Under background conditions the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road is anticipated to operate at a LOS F during the PM peak hour with a vehicle delay of 221.7 seconds.

For mitigation purposes, under background conditions, the traffic signal at this intersection was analyzed to determine a more efficient timing plan to improve the level of service and to decrease the vehicle delays. The cycle length was optimized from the current 108 second cycle length to a 100 second cycle length and the timing splits were also optimized. With the modified traffic signal timing plan, the southbound left turn movement from Hagadorn Road to eastbound Mt. Hope Road is expected to operate at a LOS E with 68.1 seconds of vehicle delay under future modified conditions, a significant decrease in the vehicle delay of 153.6 seconds from background conditions.

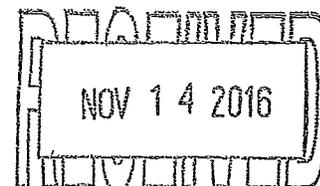
Hagadorn Road and Eyde Parkway

This intersection is a fully-actuated, signalized intersection with permissive/protected left turn phasing for the south approach. Under future conditions the northbound thru-right movement from Hagadorn Road to Eyde Parkway is expected to operate at a LOS E during the PM peak hour with a vehicle delay of 55.1 seconds.

For mitigation purposes, under future conditions, the traffic signal at this intersection was analyzed to determine a more efficient timing plan and improve the level of service and to decrease the vehicle delays. The cycle length was optimized from the current 80 second cycle length to a 90 second cycle length and the timing splits were then optimized. With the modified traffic signal timing plan, the northbound thru-right movement from Hagadorn Road to Eyde Parkway is anticipated to operate at a LOS D with 36.6 seconds of vehicle delay under future modified conditions, a decrease in the vehicle delay of 18.5 seconds from future conditions.

This intersection is coordinated with the Hagadorn Road and Hannah Boulevard/Service Drive intersection. The cycle length at Hagadorn Road and Hannah Boulevard/Service Drive was increased to 90 seconds to match the new PM peak hour cycle length at Hagadorn Road and Eyde Parkway and the intersections re-coordinated. The LOS at Hagadorn Road and Hannah Boulevard/Service with the new 90 second cycle length remained the same for all movements with only a slight change in the vehicle delays.

There are no recommended changes for the remaining intersections in this traffic study.



NON-MOTORIZED TRANSPORTATION

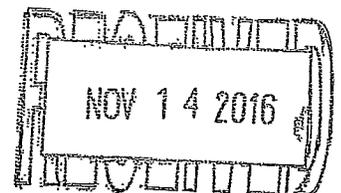
Eyde Parkway is a two-lane, two-way roadway with a marked double yellow centerline. There also is existing roadside parking on the east side near the Hannah Boulevard intersection. There are no marked non-motorized pathways on Eyde Parkway.

SIGHT DISTANCE

The proposed site driveway for the south site will be located on the south side of Eyde Parkway approximately halfway between two (2) existing driveways. This proposed driveway will be located on the outside of the curve with ample sight distance along Eyde Parkway.

The proposed south driveway for the north site with ingress and egress to the parking ramp is proposed to be constructed along the west property line immediately adjacent to an existing commercial driveway. Consideration should be given to the separation between the existing driveway and the proposed site driveway. The driveway separation should meet the Ingham County Road Department guidelines for local roads.

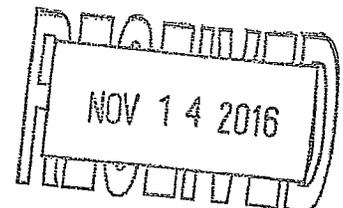
Given the location of the south driveway in relation to the existing curve on Eyde Parkway, all effort should be made by the landscape architect to provide a safe sight distance triangle with appropriate plantings to the northeast so that driveway traffic will be able to see southbound traffic on Eyde Parkway. The speed limit on Eyde Parkway is a prima facie 25 MPH; therefore, in accordance with the Ingham County Road Department driveway standards a stopping sight distance of 280 feet is required, or, if there is a substantial reason where this cannot be achieved, a minimum stopping sight distance of 155 feet is required.



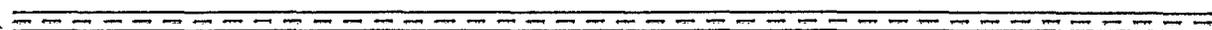
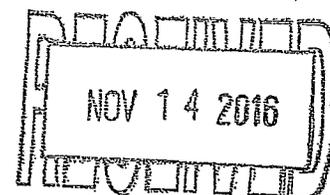
CONCLUSIONS

The findings of this report are as follows:

- The Ingham County Road Department should consider optimizing the traffic signal timing at the intersection of Hagadorn Road at Mt. Hope Road to provide a better level of service and to decrease vehicle delay.
- The Ingham County Road Department should consider optimizing the traffic signal timing at the intersection of Hagadorn Road at Eyde Parkway to provide a better level of service and to decrease vehicle delay.

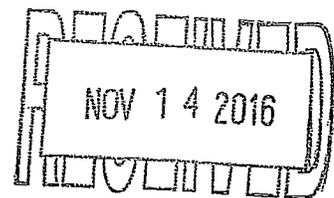


SUPPLEMENTAL INFORMATION



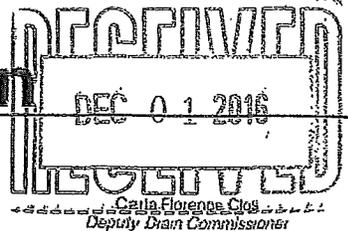
Supplemental Information

Site Plan
Census Population Estimates
Timing Plans
Vehicle Volume Counts
ICRD Sight Distance Tables
LOS Computations



Patrick E. Lindemann

Ingham County Drain Commissioner

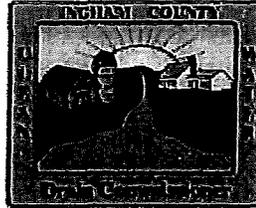


PO Box 220
707 Buhl Avenue
Mason, MI 48854-0220

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<http://dr.ingham.org>



Calla Florence Ciolek
Deputy Drain Commissioner

Paul C. Pratt
Deputy Drain Commissioner

David C. Love
Chief of Engineering and Inspection

Sheldon Lewis
Administrative Assistant

November 29, 2016

To: Greg Petru, P.E.
KEBS, Inc.

From: David Love, Ingham County Drain Engineer *DL*

CC: Meridian Charter Township, Mark Kieselbach

Re: Meridian Charter Township – Section 20
Capstone Collegiate Communities / MUPUD Conceptual Site Plan Review
Drain Office #16118

COPY

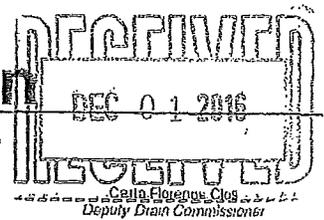
This comment is in response to your request for input dated November 14, 2016 and is in reference to a proposed MUPUD development for housing units to be designated as Hannah Farms East. The proposed project will add an additional 296 units with a total of 645 beds at two separate locations on both sides of Eyde Parkway.

- 1) The site is located southeast of the intersection of Hannah Boulevard and Eyde Parkway and on the south side of Eyde Parkway in Section 20 of Meridian Charter Township.
- 2) This area is served by the Hannah Farm Drain.
- 3) There is floodplain associated with the Hannah Farm Drain at this location as noted on the plan.
- 4) The following items pertain to handling the stormwater on the site:
 - Provision is being made for pretreatment of the first 1.0 inch of rainfall before the stormwater leaves the site;
 - Detention for this site is provided regionally and is already constructed;
 - The site plan must be submitted to this office for Site Plan Review and Drainage Review;
 - Drainage plans must meet the Ingham County Drain Commissioner's Standards for low impact development (LID), detaining the 100-year storm and outletting the detained water at a predevelopment rate of flow (0.15 cfs/ac). Applicable fees must be paid before the review process will begin. Forms can be obtained from the Ingham County website: http://www.ingham.org/elected_officials/drain_commissioner;
 - Dedication of drainage facilities or a maintenance agreement will be required; and

- All legal and engineering costs to prepare the stormwater plans to meet the Specifications of the Ingham County Drain Commissioner must be paid by the developer.
- 5) A copy of the Soil Erosion and Sedimentation Control Permit and plan from Meridian Charter Township is required to be submitted.

Patrick E. Lindemann

Ingham County Drain Commissioner

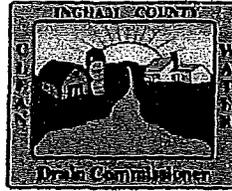


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Paul C. Pratt
Deputy Drain Commissioner

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Deputy Drain Commissioner

David C. Loye
Chief of Engineering and Inspection

Sheldon Lewis
Administrative Assistant

November 29, 2016

To: Greg Petru, P.E.
KEBS, Inc.

From: David Love, Ingham County Drain Engineer 

CC: Meridian Charter Township, Mark Kieselbach

Re: Meridian Charter Township – Section 20
Capstone Collegiate Communities / MUPUD Conceptual Site Plan Review
Drain Office #16118

COPY

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- 2) This area is served by the Hannah Farm Drain.
- 3) There is floodplain associated with the Hannah Farm Drain at this location as noted on the plan.
- 4) The following items pertain to handling the stormwater on the site:
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 - Detention for this site is provided regionally and is already constructed;
 - The site plan must be submitted to this office for Site Plan Review and Drainage Review;
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- 5) A copy of the Soil Erosion and Sedimentation Control Permit and plan from Meridian Charter Township is required to be submitted.

MEMORANDUM

TO: Planning Commission

FROM:



Peter Menser
Senior Planner

DATE: January 5, 2017

RE: Mixed Use Planned Unit Development (MUPUD) #16024 (Capstone Collegiate Communities, LLC), request to construct Hannah Farms East at Hannah Boulevard/Eyde Parkway

The public hearing for MUPUD #16024 was held at the December 19, 2016 Planning Commission meeting. At the meeting the Planning Commission shared with the applicant a variety of concerns related to density, traffic, greenspace, amenities, and other issues.

The applicant has provided revised site plans and a letter dated January 4, 2017 detailing the changes from the last set of submitted plans. The primary changes observed by staff not included in the letter from the applicant are as follows:

- Reduction in the total number of units in the project from 296 to 290
 - Six townhouses were removed from the southern project area, which led to a reduction in the number of beds in the townhouses from 168 to 144
- Reduction in the total number of bedrooms in the project from 645 to 621
- The elimination of units reduces the overall parking requirement from 592 to 580
- Reduction in the overall parking provided from 609 to 589

While the letter from the applicant indicates a reduction in the number of four bedroom units and an increase in the number of one and two bedroom units on the north portion of the project area the submitted site plan does not include this change.

At the public hearing a member of the Planning Commission requested data on police calls at the three housing projects in the overall Hannah Farms development, which includes Lodges I, Lodges II, and Hannah Lofts. The Meridian Police Department was able to provide this information; however it must be considered that the data represents the total number of police calls made, without insight into the validity of the call or whether or not the call revealed a crime or led to an arrest/citation. The total number of police calls for each development for the years 2014, 2015, and 2016 are depicted in the following table.

<i>Project</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>
Lodges I	139	111	129
Lodges II	48	41	33
Hannah Lofts	88	190	193

**MUPUD #16024 (Capstone)
Planning Commission (1/9/17)
Page 2**

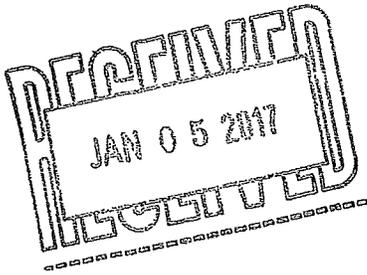
Planning Commission Options

The Planning Commission may recommend approval, approval with conditions, or denial of the proposed MUPUD. A resolution will be provided at a future meeting.

Attachments

1. Letter from applicant dated January 4, 2017
2. Revised site plan dated January 4, 2017
3. Revised building elevations and floor plans dated January 6, 2017

G:\Community Planning & Development\Planning\MIXED USE PLANNED UNIT DEVELOPMENTS (MUPUD)2016\MUPUD 16024 (Capstone)\MUPUD 16024.pc2.doc



January 4, 2017

We look forward to continuing the discussion on January 9th regarding the proposed Hannah Farms site. Below is a summary of the changes as well as a discussion of the various concerns expressed by the Commission and the public at the last meeting.

Site Plan Changes:

- a. Southern neighborhood buffer: In response to the neighbor to the south, we have increased substantially the buffer on the south side of the property to 60 feet. We will landscape this area to further buffer the property and provide a fence.
- b. Eliminate the second drive on the south side property: In response to the Road Department's comments as well as the concerns of the Commission that there was insufficient greenspace, we have eliminated the second drive into the south site. -

Impervious coverage: At the last meeting the Commission expressed some concern that the density and impervious coverage of the north side of the site exceeded the underlying zoning requirements. As a result of the changes to the site plan requested by the neighbors, the Road department and the Planning Commission, we reduced the overall impervious coverage by 15,230 sqft (.35 acres). Exhibit A is a chart showing the current impervious coverage of both the north and south sides of Eyde Parkway. As the chart indicates, the north side of Eyde Parkway exceeds the underlying impervious maximum coverage by 11,479 sqft (.26 acres). The south side of Eyde Parkway, however, is significantly below the maximum impervious coverage by 49,591 sqft (1.14 acres). We are therefore providing across the entire north and south sites 38,112 sqft (.87 acres) of greenspace than is required by code. The reason for consolidating the greenspace on the south side of Eyde Parkway and increasing the impervious coverage on the north is to reduce the overall density on the south side because it is closer to the neighborhoods to the south and east.

Density: As stated above, we wanted to shift the density to the north side of Eyde Parkway and away from the south side because the south side is closer to the neighborhoods to south and east. Therefore, we used Hannah Lofts as the model for the north side density and Lodges as the model for the south side density. As indicated in Exhibit B, north side units per acre exceeds Hannah's units per acre, but this is primarily because we used a market rate mix of predominately one and two bedroom units on the north side. Taking into account the Township's concerns about the ability to repurpose the units if the student market became saturated, we reduced the number of four bedroom units on the north side and increased the number of one and two bedroom units. Hannah's bedroom to unit ratio is 2.44 whereas the proposed north side development is only 1.75. The 1.75 ratio is more in line with a market rate development. Hannah and the north site however share almost exactly the same bedrooms per acre density. On the south side however the density is substantially less than Lodges both on a units per acre basis (17 units per acre for Lodges and 9 units per acre for south site) and bedrooms per acre (50 bedrooms per acre for Lodges and 35 bedrooms per acre for the south site.) Combining the

north and south sites the density (59 bedrooms per acre) is almost exactly the density of the overall existing development in Hannah Farms.

Greenspace: There were two concerns expressed at the planning commission with regards to greenspace. First, the proposed plan lacks sufficient public greenspace defined as greenspace adjacent to a public right of way that is inviting for the general public, and second that there was insufficient greenspace for the residents. Exhibit C shows a comparison of the public and private greenspace of each of the sites developed to date at Hannah farms including our most recent proposal. We have also included in the exhibit a summary which indicates that our current proposal provides 62,769 sqft (1.44 acres) of public greenspace. Not only does this amount well exceed the amount provided on either Lodges or Hannah, but the additional public greenspace almost doubles the amount of public greenspace in all of Hannah Farms.

With regard to private usable greenspace for the residents, both Hannah Lofts and Lodges provided approximately 80 sqft of useable greenspace per resident. By comparison our current design provides 221 sqft of useable greenspace per resident.

Market Demand: Many on the Commission expressed concern as to whether there was adequate market demand for additional housing. As explained in the presentation, almost all the units are designed to appeal to a wide variety of users, not just students. Those few four bedroom flat units that are designed to be more affordable for students could easily be converted to three bedroom units should the student market soften. We have also attached an executive summary as Exhibit D from The Danter Company, an outside third party consultant retained by Capstone, which describes the current vacancy rates, potential new housing and rent growth in the market. Based on our own internal market analysis as well as the Danter study, we are comfortable that there is adequate market demand for the new development.

Amenities: The Commission also expressed concern that Capstone was not providing sufficient amenities. We are therefore willing to discuss with the Planning Commission providing the following amenities in addition to those listed in our submittal:

- 1) Electric car charging stations: Given the popularity of electric cars, Capstone is willing to install electric car charging stations in the parking garage.
- 2) Increased pervious surfaces/Green space exceeding the underlying permeable surface regulation: As described above our current plan meets both of these requirements.
- 3) Public Art: Although we are unable to provide the requested 1% of the project cost given the size of the development, we would however be willing to work with the Township to fund and install in either the north or south parks public works of art.
- 4) Social interaction: As indicated on the plan and above we are providing ample public spaces and are willing to create a plaza or other amenity to further improve those spaces.
- 5) Balconies: As indicated on the elevations many of our units will have balconies overlooking the public right of way.
- 6) Multilevel parking: As indicated on the site plan the parking structure will be two stories thereby reducing the need for more surface parking on site.

- 7) Ornamental paving: We are willing to work with the Township to provide pavers on some of the public sidewalks that could be designed by the Township or members of the community.
- 8) Sidewalk planters: We plan to replicate the same street tree configuration as Lodges phases 1 and 2 which will allow for the tree wells to be sidewalk planters.

As always, we are willing to discuss these or any other amenities that the Planning Commission would like for us to include in the development.

Exhibit A

	Original impervious	Current impervious	Reduction	Max code impervious	Difference
Northside	155,603	155,603	-	144,124	11,479
Southside	137,982	122,752	(15,230)	172,343	(49,591)
Total Proposed	293,585	278,355	(15,230)	316,467	(38,112)

Exhibit B

	Units	Units /Acre	Bedrooms	Bedrooms /Acre	Bedrooms /Unit	Developable Acres*
Hannah Lofts	282	36	688	88	2.44	7.85
Northside	240	51	421	89	1.75	4.73
Lodges phases 1 and 2	361	17	1,049	50	2.91	20.87
Southside	50	9	200	35	4.00	5.72
Total Existing	643	22	1,737	60	2.70	28.72
Total Proposed	290	28	621	59	2.14	10.45
Total	933	24	2,358	60	2.53	39.17

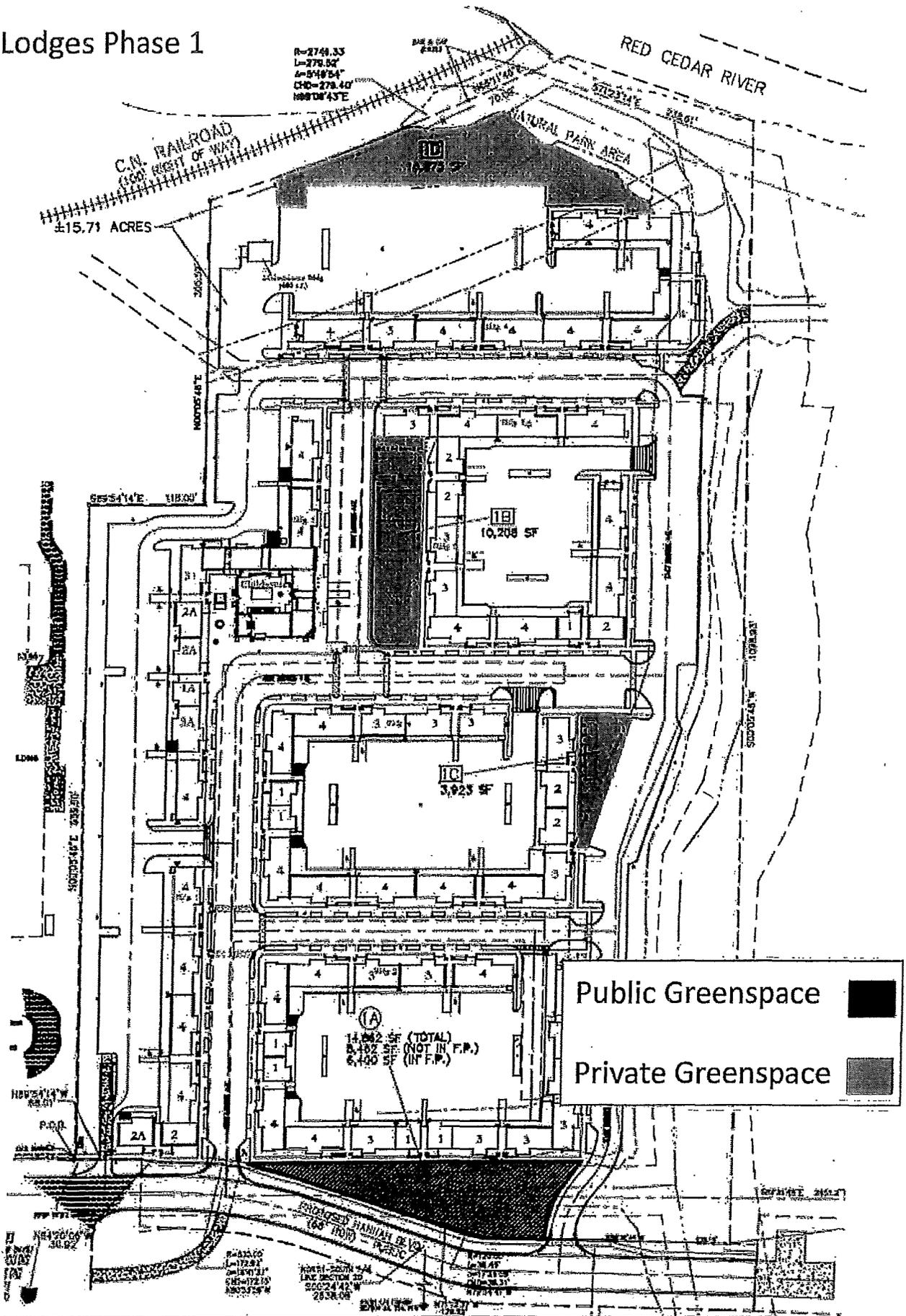
* Developable acres is outside the 100 year floodplain

Exhibit C

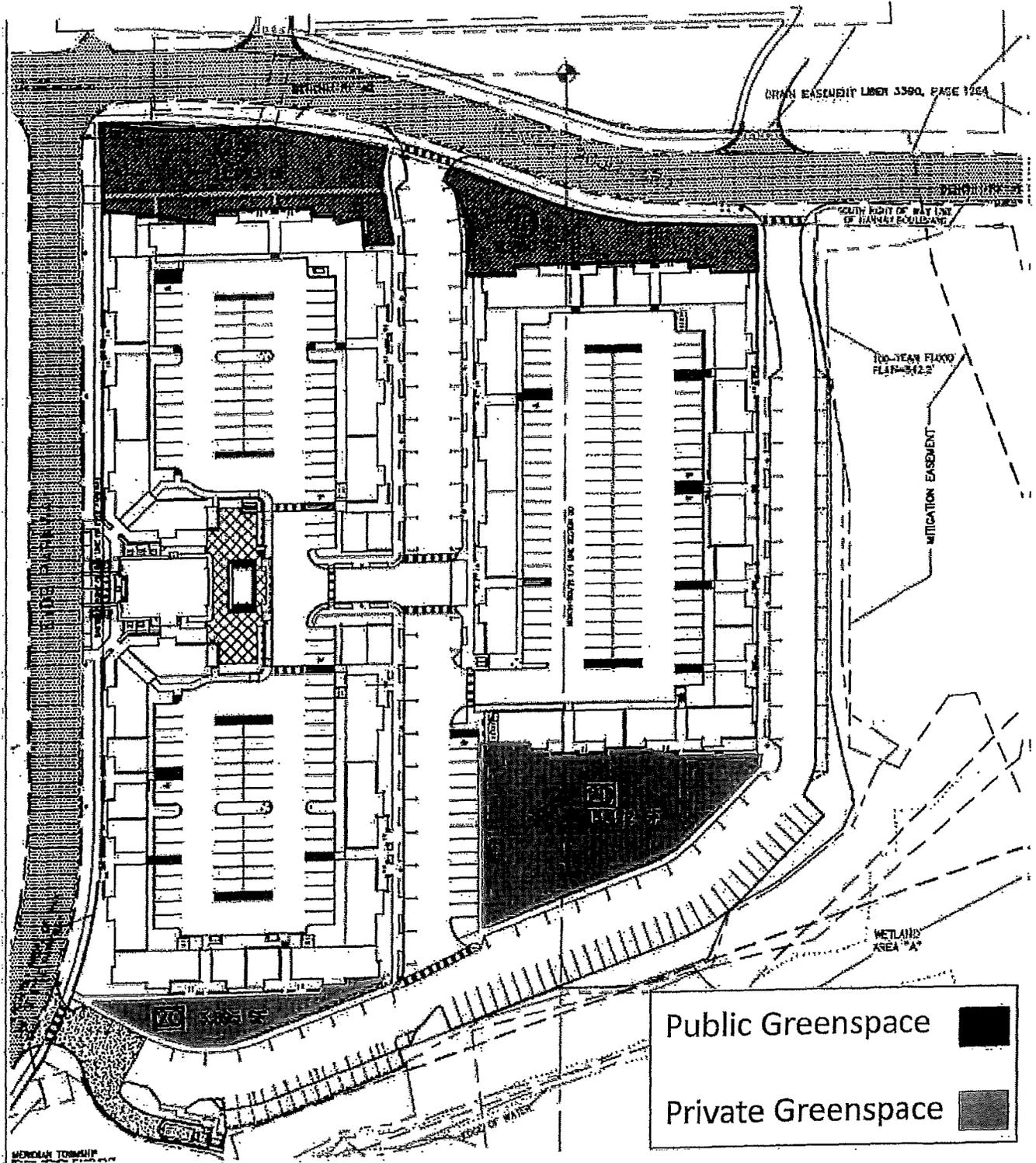
	Bedrooms	Developable* Acres	Developable* sqft	Public Greenspace	Percent Public	Total Useable* Greenspace	Percent Greenspace	Greenspace Sqft/Resident
Hannah Lofts	688	7.85	341,946	43,311	13%	54,476	16%	79
Lodges Phases 1 and 2	1,049	20.87	909,097	34,215	4%	84,538	9%	81
Total existing	1,737	28.72	1,251,043	77,526	6%	139,014	11%	80
Total Proposed	621	10.45	455,202	62,769	14%	137,445	30%	221
Total Hannah Farms	2,358	39.17	1,706,245	140,295	8%	276,459	16%	117

* Useable and developable is outside the 100 year floodplain

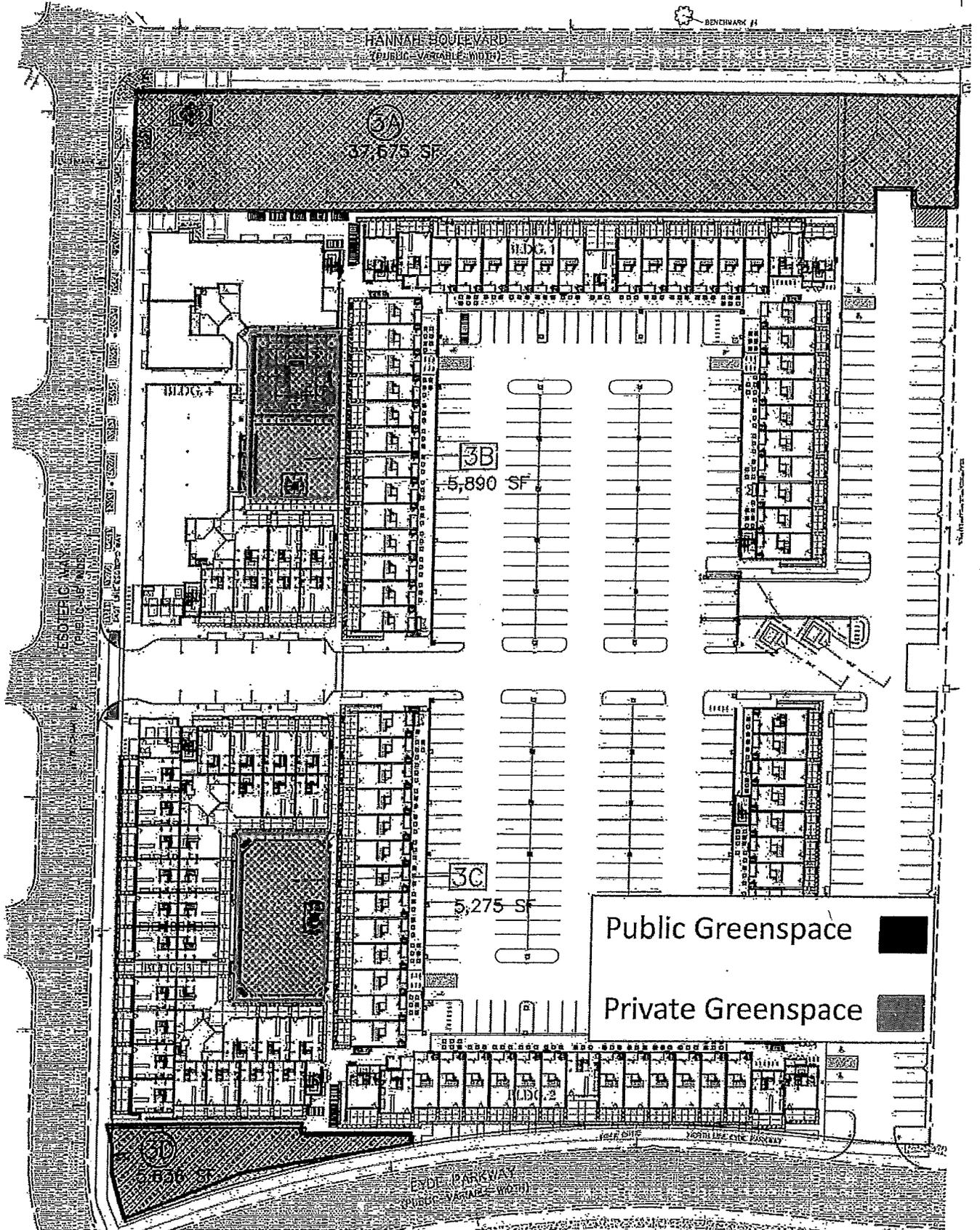
Lodges Phase 1



Lodges Phase 2



Hannah Lofts



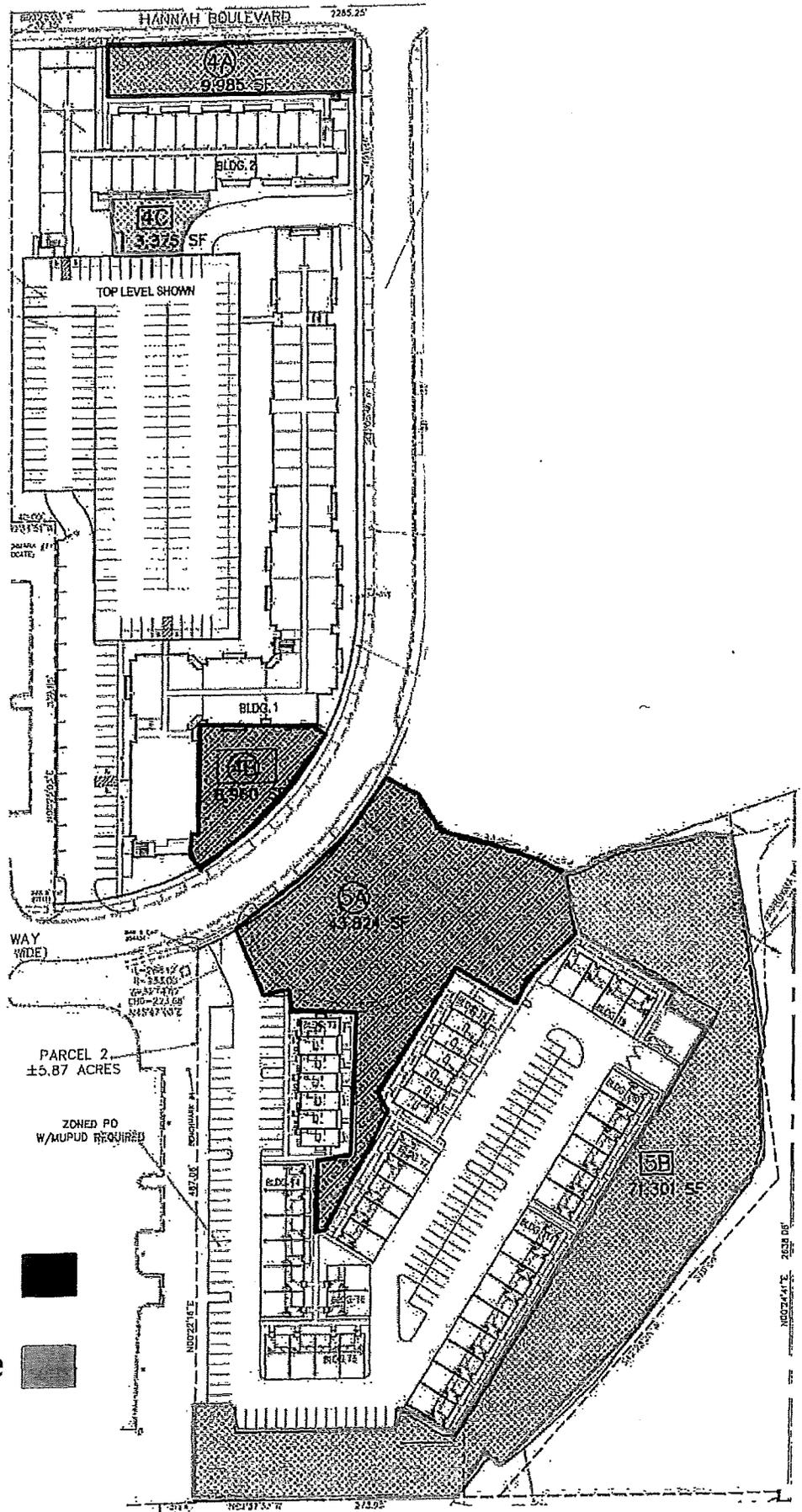
Proposed
Hannah East

North Side

South Side

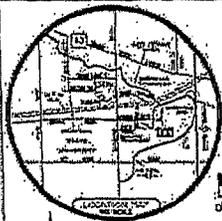
Public Greenspace

Private Greenspace

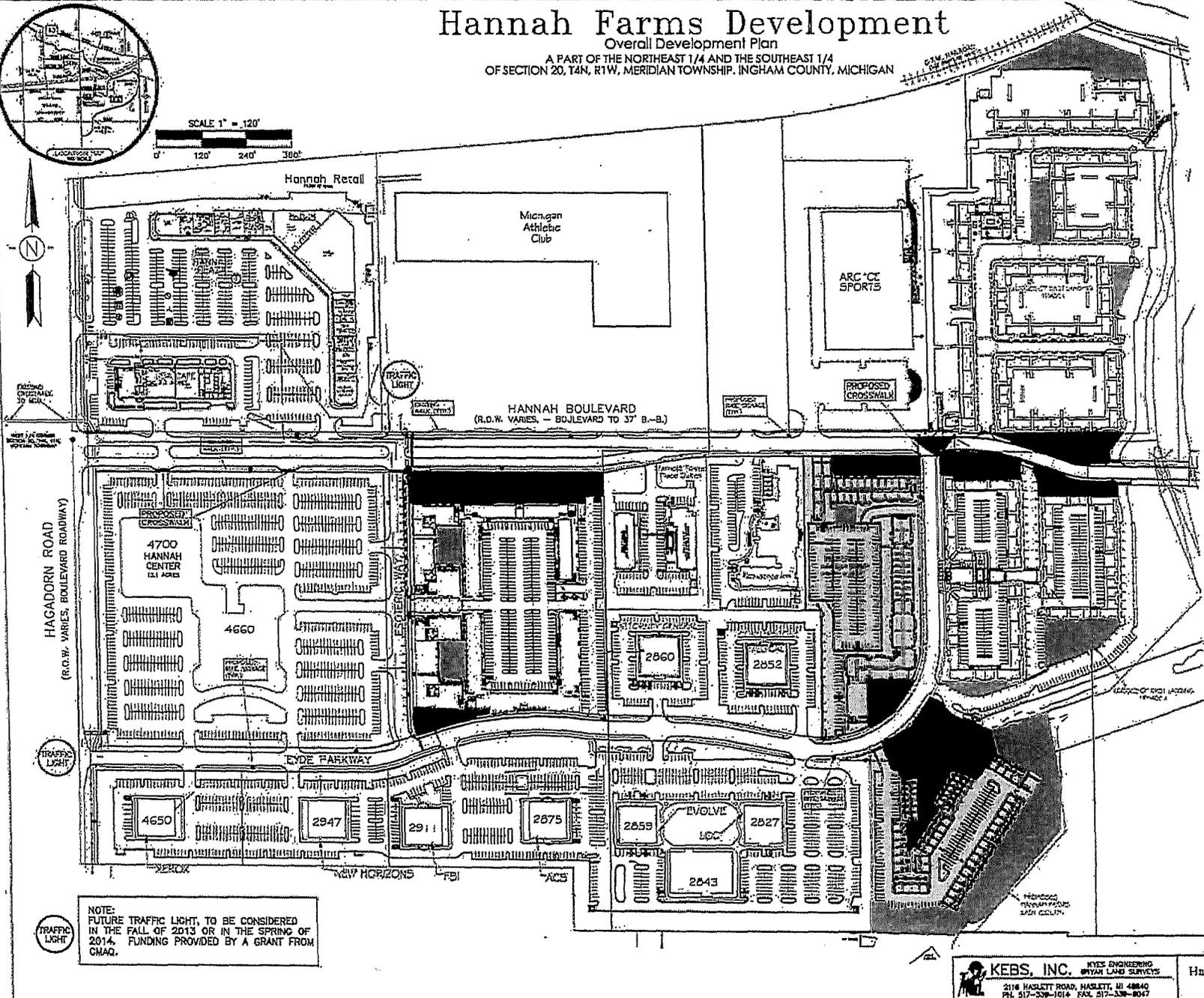


Hannah Farms Development

Overall Development Plan
 A PART OF THE NORTHEAST 1/4 AND THE SOUTHEAST 1/4
 OF SECTION 20, T4N, R1W, MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



SCALE 1" = 120'
 0' 120' 240' 360'



HAGADORN ROAD
 (R.O.W. VARIES, BOULEVARD ROADWAY)

Hannah Retail

Michigan Athletic Club

ARC CC SPORTS

HANNAH BOULEVARD
 (R.O.W. VARIES, - BOULEVARD TO 37' B.-B.)

4700
 HANNAH CENTER
 (2.1 ACRES)

4660

2660

2852

4650

2947

2911

2875

2659

EVOLVE

2827

2843

EYDE PARKWAY

XEROX

NEW HORIZONS

FEI

ACS

TRAFFIC LIGHT

TRAFFIC LIGHT

NOTE:
 FUTURE TRAFFIC LIGHT, TO BE CONSIDERED
 IN THE FALL OF 2013 OR IN THE SPRING OF
 2014. FUNDING PROVIDED BY A GRANT FROM
 CHAQ.

Exhibit D – Danter Company Market Survey

EXECUTIVE SUMMARY

Plans for the proposed project include the development of 290 units (621 private beds) in a newly-constructed student housing development 0.5 mile from the eastern edge of the Michigan State University (MSU) campus and 1.7 miles from the academic center of the Michigan State University (MSU) campus in the City of East Lansing. The developer plans to have units available to lease prior to the start of 2018 classes.

PROJECT CONCEPT

The project is summarized as follows:

PROPOSED STUDENT HOUSING HANNAH BOULEVARD/EYDE PARKWAY EAST LANSING, MICHIGAN				
UNIT TYPE	BATHS	NUMBER OF UNITS	NUMBER OF BEDS	SQUARE FEET
Upper Site – Building 1				
One-Bedroom Flat	1.0	64	64	420
Two-Bedroom Flat	2.0	16	32	792
Two-Bedroom Flat Deluxe	2.0	8	16	880
Three-Bedroom Flat	3.0	28	84	1,176
Four-Bedroom Flat	4.0	16	64	1,408
Four-Bedroom Townhouse	4.0	6	24	1,680
Upper Site – Building 2				
One-Bedroom Flat	1.0	67	67	600
Two-Bedroom Flat	2.0	27	54	792
Two-Bedroom Flat Deluxe	2.0	8	16	880
Lower Site				
Four-Bedroom Townhouse	4.0	14	56	1,680
Four-Bedroom Townhouse	4.0	36	144	1,856
Total		290	621	

Given the site's convenience to the Michigan State University (MSU) campus, we anticipate that the majority of support for the proposed project will originate from those students attending MSU.

However, with the high percentage of one-bedroom units to be offered, it is our opinion that the proposed site will also attract faculty and staff at Michigan State University, as well as young professionals.

Most traditional purpose-built student housing typically consists of a higher percentage of large unit types, three-, four-, and five-bedroom units. One-bedroom units among traditional student housing properties typically account for only a small percentage and

the existing purpose-built student housing in the Site EMA reflects this typical unit distribution.

Among the 2,922 student housing units within the 29 existing purpose-built student housing projects in the Site EMA, only 302 units are one-bedroom units, which account for only 10.3% of the total. Even with the inclusion of studio units among these properties, these 407 combined units account for only 13.9% of the total.

The proposed subject site, however, will offer 131 one-bedroom units, which will account for 45.2% of the total units. Clearly, the proposed site will offer a large percentage of unit types presently limited among the student housing projects in the East Lansing market area.

The following is a summary of the amenities that will be offered at the proposed site, indicating that the site will offer one of the most comprehensive amenity packages in the market area.

UNIT AMENITIES

Each unit in the proposed development will include the following amenities:

- Range
- Refrigerator
- Dishwasher
- Microwave oven
- Furniture in living area
- Washer/dryer
- Stainless steel appliances
- Carpeting/faux-wood flooring
- Central air conditioning
- Balcony/patio
- Disposal
- Window blinds
- 9-foot or vaulted ceilings
- Granite countertops

PROJECT AMENITIES

Project amenities will include the following:

- Over-sized hot tub
- Clubhouse
- Fitness center
- Multi-purpose room
- Study rooms
- Game room
- Roommate matching program
- Fire pit areas
- Shuffleboard court
- Social activities
- Picnic/BBQ area
- Media center
- On-site management
- Tanning salon
- Computer lab
- Limited lease liability
- Campus shuttle service
- Parking deck (optional)

PLANNED/PROPOSED/UNDER CONSTRUCTION PROJECTS

Based on interviews with area planning officials, there are 2 new apartment projects that recently began construction, as well as 4 other apartment projects planned and proposed in the Site EMA. The following is a summary of each project:

- Next Generation Investment Properties LLC is proposing White Oak Place, a 6-story, mixed-use development at 1301 and 1307 East Grand Avenue and 116-132 Spartan Avenue. This project would include ground floor retail and 69 apartment units (7 one-bedroom, 20 two-bedroom, 2 three-bedroom, and 40 four-bedroom units). Unit sizes will be 617 square feet for one-bedroom units, 815 square feet for two-bedroom units, 1,318 square feet for three-bedroom units, and 1,360 square feet for four-bedroom units. This \$22-million project would involve demolishing several buildings in the northeast quadrant of East Grand Avenue and Spartan Avenue.
- A mixed-use, five-story building that will contain 30 apartment units (1 one-bedroom unit, 4 two-bedroom units, 8 three-bedroom units, and 17 four-bedroom units) and 6,745 square feet of ground floor retail space is currently under construction at 565 East Grand River Avenue in East Lansing. This development is being developed by Stonehouse Village VI LLC and Cron Management LLC.
- The Cottages at MSU is a 4.29-acre, 27-unit duplex development currently under construction at 6170 Abbot Road in East Lansing, 2.4 miles from the academic center of the MSU campus. This development, which is being developed by CC Abbot Road, LLC, will include all four-bedroom units, for a total of 108 student housing beds. This property is expected to be completed for fall 2017 occupancy.
- East Towne Flats is a \$5-million, 39-unit mixed-use development being proposed along the 2000 block of East Michigan Avenue in Lansing. The developer, The Gillespie Company, is proposing an 11,500-square foot, four-story building with a restaurant and retail on the ground floor and the apartment units on the top 3 floors. The developer submitted a request in November 2015 to receive \$1.1-million in brownfield re-imbusement dollars over a 20-year period and city council approved this request in December 2015. Demolition of several older existing buildings on the property began in July 2016; however, there has not yet been any new construction to occur at this development.

- Red Cedar Renaissance is a \$380-million, mixed-use development that is being proposed on the former Red Cedar golf course on the south side of East Michigan Street, east of South Clippert Street in Lansing. The developer, Ferguson-Continental LLC, signed a comprehensive development agreement with the City of Lansing on November 2014. This development could potentially include 2 boutique hotels (Hyatt Centric and Moxy Hotel), although no definitive agreements have been signed with either chain, as well as medical office buildings, 5 restaurants, 129 3-story town homes, and student housing for up to 1,200 students to be managed by Hallmark Campus Communities. Although this is considered a proposed project, approvals are still required by city council, the Michigan Economic Development Corporation, and the Michigan Department of Environmental Quality in order for construction to begin.
- "Elevation" at Okemos Point is an apartment developed currently being proposed by TA Forsburg near the Jolly Road/Okemos Road intersection, behind the Staybridge Suites, approximately 5.0 miles from the academic center of the MSU campus. The Lansing Economic Area Partnership (LEAP) recently announced that the Ingham County Board of Commissioners has given final approval to the Brownfield Plan for this 37.29-acre development, which will be developed in 3 phases. Phase I will include 166 apartment units and 6,214 square feet of commercial space, while Phases II & III will include 232 additional apartment units and 20,000 square feet of space for a community market and food innovation district. This development is currently in the site plan review stage and the developer is anticipating commencing construction in spring 2017.

STUDENT HOUSING DEMAND ANALYSIS

There are 51,189 (undergraduate, graduate, and law/professional) students enrolled in fall 2016 at Michigan State University. Currently, the university has a housing capacity for approximately 18,257 students and historically, the housing system has operated at or near full capacity during the fall semester.

However, this on-campus housing capacity will soon change with the completion of a new student housing project and the closing of an older MSU-operated property. 1855 Place is currently under construction and is expected to be completed for fall 2017 occupancy.

This project will house 926 students. Once 1855 Place is completed, the remaining portion of Spartan Village is scheduled to be closed and will eventually be demolished. Therefore, the overall on-campus housing capacity at MSU will total 18,032 students in fall 2017.

The MSU student body reflects typical housing characteristics of other universities. Students live at home with their families, in apartments, in on-campus residence halls, or in other rental alternatives (i.e. duplexes/triplexes, single-family homes, etc.). Currently, just over 64.0% of the university's total students must reside in off-campus accommodations. These housing alternatives encompass the majority of living arrangements for students.

Based on the proposed unit types to be offered at the subject site, one-, two-, three-, and four-bedroom units, we anticipate that the project will attract undergraduate, graduate, and law/professional students. Therefore, we have analyzed the feasibility of the subject project to house all levels of students for the purpose of this analysis.

We do not anticipate the proposed project to negatively impact existing on-campus housing and as a result, we have deducted the 18,032 beds from the total enrollment figures, as we anticipate that these beds will continue to be used by students. This is especially true among freshmen, who are required to live on-campus during their first academic year.

Based on interviews, case studies of college student housing characteristics, and our evaluation of the East Lansing rental market, there is a current potential resident pool of 33,157 MSU students for the subject student housing project.

The following table summarizes this estimate:

STUDENT HOUSING DEMAND ANALYSIS	
Fall 2016 Enrollment	51,189
Less On-Campus Housing	18,032
Potential Resident Base	33,157
Total Purpose-Built Beds in EMA (Including Properties Under Construction)	9,317
Proposed Beds at Subject Site	621
Total Purpose-Built Beds Including Subject Site	9,938
Total Purpose-Built Beds as a Percent of Potential Resident Base	30.0%

The Site EMA currently contains 29 purpose-built student housing properties that contain a combined total of 8,414 beds. In addition, there are 2 student housing properties currently under construction that will contain a combined total of 903 beds, which will bring the total number of purpose-built student housing beds to 9,317.

These projects, combined with the 621-bed subject property, bring the total purpose-built beds in the Site EMA to 9,938. This represents 30.0% of the potential resident base, which is considered a modest ratio and well within the achievable penetration rate range.

Based on case studies of student housing markets throughout the US, an average ratio or penetration rate of 30% to 40% off campus beds to potential resident base is considered achievable when comparing units to the potential support base.

However, the ratio of support that we consider achievable is influenced by overall market conditions, school enrollment trends, school policies/procedures, on campus housing, undergraduate and graduate ratios, as well as, subject site location, amenities, and rents. Many schools, especially those in the south/southeast achieve even higher ratios, while maintaining a healthy rental market.

In addition to this achievable penetration rate, other positive market factors to consider in determining demand for additional student housing apartment development include the following:

- The current vacancy rate among the 29 existing purpose-built properties of 5.5% is low and would indicate that the market is strong, despite the amount of purpose-built student housing product that opened over the past several years.
- In fact, a large portion of the current vacancies are among properties that are nearly 4.0 miles from the academic center of the MSU campus. When excluding these projects, the vacancy rate among the purpose-built student housing projects decreases to only 1.4%.
- Among the 29 existing student housing projects, 18 of the projects (just over 60% of the total) are currently 100.0% occupied.
- Although fall 2016 enrollment of 51,189 students slightly declined from the previous fall enrollment, total enrollment at MSU has increased by 10.1% over the past 10 years.
- Despite the amount of new purpose-built student housing that was constructed over the past 6 years, rents among the purpose-built student housing properties continue to increase at a steady rate.

- We updated rental information for a number of larger purpose-built student housing projects for the purpose of this executive summary. The following table will compare average fall 2016 rents with the average fall 2017 rents for the larger purpose-built student housing projects in the market area and the increases that will occur between academic years at Michigan State University at these properties:

PROPERTY	AVERAGE RENT (FALL 2016)	AVERAGE RENT (FALL 2017)	PERCENT INCREASE
The Lodges of East Lansing	\$1,703	\$1,742	2.3%
Hannah Lofts and Townhomes	\$1,831	\$1,875	2.4%
Abbott Place	\$1,154	\$1,293	12.0%
The Club at Chandler Crossing	\$1,539	\$1,594	3.6%
The Landings at Chandler Crossing	\$1,513	\$1,555	2.8%
The Village at Chandler Crossing	\$1,338	\$1,397	4.4%
Waterbury Place	\$2,012	\$2,052	2.0%
The Cottages at Chandler Crossing	\$1,889	\$1,895	0.3%
300 Grand	\$1,913	\$2,109	10.2%
The Gates	\$1,985	\$2,110	6.3%
Beech Townhomes	\$1,483	\$1,590	7.2%
Trowbridge Lofts	\$1,131	\$1,227	8.5%
Element 903	\$1,750	\$1,825	4.3%
Overall Average	\$1,634	\$1,713	4.8%

MEMORANDUM

TO: Planning Commission

FROM: 
Peter Menser
Senior Planner

DATE: March 10, 2017

RE: Mixed Use Planned Unit Development (MUPUD) #16024/Special Use Permit #16111 (Capstone Collegiate Communities, LLC), construct Hannah Farms East at HÁnnah Boulevard/Eyde Parkway.

The Planning Commission last discussed MUPUD #16024 and SUP #16111 at the January 9, 2017 meeting. Since the last meeting the applicant has submitted revised site plans. The plans arrived on Thursday (March 9, 2017) afternoon; therefore staff has not yet had the time to provide a detailed review of the revised plans. Initial observations include:

- Reduction in the total number of units in the project from 290 to 159.
- Reduction in the total number of bedrooms in the project from 621 to 462.
- Elimination of the apartment building along Eyde Parkway and the addition of townhouses.

The applicant will be in attendance at the March 13, 2017 meeting to provide an overview of the revised site plan. Staff will provide a report with a detailed review for the next Planning Commission meeting on March 27.

Planning Commission Options

The Planning Commission may recommend approval, approval with conditions, or denial of the proposed MUPUD. A resolution will be provided at a future meeting.

Attachments

1. Revised site plan dated March 9, 2017 and received by the Township on March 9, 2017
2. Revised building elevations and floor plans labeled March, 2017 and received by the Township on March 9, 2017.

Peter Menser

From: John Acken <JAcken@capstonemail.com>
Sent: Tuesday, March 07, 2017 9:12 AM
To: Peter Menser
Subject: MUPUD extension



Peter,

Capstone would like to request a 45 day extension to the MUPUD deadline for a Planning Commission decision. We continue to refine the plans in accordance with the Planning Commissions guidance.

Sincerely,

John Acken
Executive Vice President
Capstone Collegiate Communities



To: Planning Commission

From:


Peter Menser
Senior Planner

Date: March 24, 2017

Re: Mixed Use Planned Unit Development (MUPUD) #16024 (Capstone Collegiate Communities, LLC), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway.

The MUPUD request was last discussed at the March 13, 2017 Planning Commission meeting. At the meeting the applicant provided an overview of the revised plans for the project. The revised project consists of one 4-story apartment building, a 2-story, 34,760 square foot parking garage, and 65 3-story townhouses. 159 residential units are proposed, for a total of 237,248 square feet of residential space. The following significant changes were made to the site plan:

- Reduction in the total number of units in the project from 290 to 159.
- Reduction in the total number of bedrooms in the project from 621 to 462.
- Elimination of the apartment building along Eyde Parkway.
- Addition of two townhouse buildings in the former location of the apartment building.
- Reduction of the parking garage from 116,000 square feet to 34,760 square feet.
- Addition of a driveway off Hannah Boulevard.
- Relocation of the driveway on Eyde Parkway to align with the driveway to The Lodges II.
- Removal of the proposed pool.

The following is a brief review of the revised project.

Apartment Building

A 4-story apartment building, identified as Building #1 on the submitted site plans, is proposed at the southwest corner of Hannah Boulevard and Eyde Parkway. The building is 90,146 square feet in size and has 94 residential units. There are 12 1-bedroom units, 56 2-bedroom units, and 26 3-bedroom units. There are a total number of 202 bedrooms in Building #1.

Townhouses

There are 65 townhouses proposed, 18 units in the north project area and 47 units across Eyde Parkway to the southeast. The townhouses are grouped into 11 buildings, each with a different number of residential units. There are two 3-unit buildings, two 4-unit buildings, three 6-unit buildings, one 7-unit building, two 8-unit buildings, and one 10-unit building. Each townhouse has four bedrooms, for a total of 260 beds. Eight out of the 10 townhouse buildings have a 2-car garage on the 1st (ground) floor of each unit.

Streets and Traffic

The driveway onto Eyde Parkway from the north project area was revised to meet Ingham County Road Department (ICRD) spacing requirements and to align with the driveway for The Lodges II development. The ICRD has also noted that the parallel parking proposed along the west side of Eyde Parkway is prohibited because of a "No Parking" Traffic Control Order (TCO) issued by the Michigan State Police.

Motor Vehicle Parking

A total of 434 parking spaces is shown on the site plan, comprised of a mix of surface parking, ramp parking, ground level garage parking under the townhouses, and on-street. 34 of the 38 proposed parking spaces will be lost due to the prohibition of on-street parking along the west side of Eyde Parkway, reducing the number of proposed parking spaces to 400.

The Township parking ordinance requires two parking spaces for each dwelling unit. 159 dwelling units are proposed, so a minimum of 318 parking spaces are required for the project.

Bicycle Parking

One bicycle parking space for every 10 required vehicle parking spaces is required. 40 inverted U-type bicycle parking racks are proposed in several areas around the development. Each rack provides space for two bicycles for a total of 80 bicycle parking spaces.

Impervious surface coverage

The maximum impervious surface coverage allowed in the C-2 zoning district is 70 percent. The site plan shows 59.81 percent impervious for the portion located in the C-2 zoning district on the north side of Eyde Parkway. For the southern project area in the PO zoning district the maximum impervious surface allowed is 75 percent. In reviewing the impervious surface plan, staff has determined the 43,500 square foot area in the southeast corner of the site located in the RAA (Single Family, Low Density) zoning district cannot be counted as impervious surface for the project as it is not a part of the MUPUD. While the north project area remains the same, staff recalculated the impervious surface figures for the south project area and overall project. The revised impervious surface coverage for the south project area is 54.32 percent. The overall project impervious surface coverage is 57.02 percent. After revision, the project remains below the maximum impervious surface coverage allowed.

Amenities

One or more amenities are required for every MUPUD project. Criteria to determine whether a proposed amenity is acceptable for consideration are found in Section 86-440(e)(2) of the MUPUD ordinance. The revised site plan lists the following amenities on Sheets 2 and 3: recreational resources (parks), community center/clubhouse with Wi-Fi, covered bike rack areas, bike racks, outdoor amenity, and sidewalks that connect to Township sidewalks, and recycle area.

The uncovered bike racks are required as part of the zoning ordinance and therefore cannot be counted as an amenity. An area for the outdoor amenity is shown adjacent to the apartment building, but details were not provided. The project also includes amenities not listed on the site plan, including multilevel parking, porches, and underground utilities.

Waiver requests

The MUPUD ordinance generally waives the standard requirements for lot size, setbacks, type and size of dwelling unit, frontage, number of required parking spaces, and impervious surface coverage, provided the purpose and intent of the ordinance are incorporated into the overall development plan. Based on the revised site plan the applicant is requesting the following waivers for the Hannah Farms East project.

Front yard setback

A 25 foot front yard setback from the street right-of-way (ROW) line is required along Hannah Boulevard and Eyde Parkway. At its closest point the apartment building is setback approximately 2.56 feet from the Hannah Boulevard ROW and 12.76 feet from the Eyde Parkway ROW.

Rear yard setback

A 15 foot rear yard setback is required in the C-2 (Commercial) zoning district. The proposed parking ramp is located approximately 11.02 feet from the western property line.

The PO (Professional and Office) zoning district requires a 50 foot rear yard setback from an adjacent residential zoning district boundary. The proposed townhouses border the RAA (Single Family, Low Density) at the east and the RR (Rural Residential) zoning district on the south. The townhouses are setback approximately 10 feet from the RAA zoning district line at the east.

Parking setbacks

Where a parking area adjoins the same or any other nonresidential district a landscaped buffer at least 15 feet wide must be provided between the parking area and the property line. The surface parking lot on the north side of Eyde Parkway is located approximately two feet off the western property line. The surface lot on the south side of Eyde Parkway is located 11.41 feet from the western property line.

Review Period

The public hearing for the MUPUD request was held on December 19, 2016. The MUPUD ordinance requires that the Planning Commission make a recommendation to the Township Board within 60 days of the public hearing. The 60 day period expired on February 17, 2017, at which time the applicant provided a 45 day extension to March 29. Due to the upcoming expiration of the review period, the Planning Commission must act and provide a recommendation on the MUPUD at the March 27, 2017 meeting. As consensus on the project has not yet been reached, a resolution to recommend approval of the request is attached for consideration. Failure of the resolution to recommend approval will result in a recommendation to deny the request. If there is not support for the resolution, members of the Planning Commission must provide reasons as to why the project should be recommended for denial.

- Motion to adopt the attached resolution to recommend approval of MUPUD #16024.

Planning Commission Options

The Planning Commission may recommend approval, approval with conditions, or denial of the proposed MUPUD. A resolution to recommend approval of the MUPUD is attached.

Attachment

1. Resolution to recommend approval with conditions

G:\Community Planning & Development\Planning\MIXED USE PLANNED UNIT DEVELOPMENTS (MUPUD)\2016\MUPUD 16024 (Capstone)\MUPUD 16024.pc4

RESOLUTION TO APPROVE

**Mixed Use Planned Unit Development #16024
Capstone Collegiate Communities, LLC
Hannah Boulevard/Eyde Parkway**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 27th day of March, 2017 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Capstone Collegiate Communities, LLC has submitted a request to establish a mixed use planned unit development (MUPUD) on approximately 10.60 acres at Hannah Boulevard/Eyde Parkway consisting of a 4-story apartment building, 2-story parking garage, and 65 townhouses for a total of 159 residential units and 462 bedrooms (273,459 total square feet); and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on December 19, 2016 and discussed the proposed MUPUD at its meetings on January 9, 2017 and March 13, 2017; and

WHEREAS the Planning Commission has reviewed and discussed the staff material provided under memoranda dated December 13, 2016, January 5, 2017, and March 10, 2017; and

WHEREAS, the subject site is located in the C-2 (Commercial) and PO (Professional and Office) zoning districts, which allow for a mixed used planned unit development; and

WHEREAS, the proposed mixed use planned unit development has been designed to be harmonious and appropriate with the existing uses surrounding the site; and

WHEREAS, the proposed mixed use planned unit development is in furtherance of Township Board Policy #1.5(2), which encourages diverse housing opportunities; and

WHEREAS, the proposed project will establish residential units that exist in close proximity to commercial establishments and is within walking distance of Michigan State University; and

WHEREAS, public water and sanitary sewer is available to serve the proposed mixed use planned unit development; and

WHEREAS, the number and type of amenities are consistent with the standards of Section 86-440 of the Code of Ordinances.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Mixed Use Planned Unit Development (MUPUD) #16024, subject to the following conditions:

**Resolution to Approve
MUPUD #16024 (Capstone)
Page 2**

1. The recommendation for approval is based on the site plan prepared by Kebs, Inc., dated March 9, 2017 and received by the Township on March 9, 2017, subject to revisions as required.
2. The MUPUD #16024 shall be contingent on the approval of Special Use Permit (SUP) #16111 (Capstone).
3. Approval is subject to one or more amenities. The applicant proposes the following amenities: recreational resources (parks), community center/clubhouse with Wi-Fi, covered bike rack areas, connecting sidewalks, a recycling area, multilevel parking, and underground utilities.
4. The waivers requested for front yard setback, rear yard setback, and parking setbacks are recommended for approval as depicted on the submitted site plan prepared by Kebs, Inc. dated March 9, 2017 and received by the Township on March 9, 2017.
5. Any future building additions or expansions to the buildings will require modification to MUPUD #16024 and SUP #16111.
6. Building materials shall respect the preferences of the MUPUD ordinance which include, but are not limited to, wood, brick, clapboards, glass, and stone. Other materials, such as vinyl, aluminum, and other metals should be avoided. The character and quality of the building materials and general architectural design of the buildings shall be consistent on all four sides of each building.
7. The final building elevations and building materials shall be subject to the approval of the Director of Community Planning and Development.
8. The applicant shall apply for and receive all applicable variances from the Zoning Board of Appeals, if required.
9. All utility service distribution lines shall be installed underground.
10. Site accessories such as railings, benches, trash and recycling receptacles, exterior lighting fixtures, and bicycle racks shall be of commercial quality, and complement the building design and style. Final design and location shall be subject to the approval of the Director of Community Planning and Development.
11. Landscaping shall generally comply with the provisions of the Code of Ordinances, including the mixed use planned unit development standards as outlined in Section 86-440(f)(4) and other applicable sections of the Ordinance pertaining to landscaping.
12. Site and building lighting shall comply with Article VII in Chapter 38 of the Code of Ordinances and shall be subject to the approval of the Director of Community Planning and Development.
13. A final sign program shall be submitted as part of site plan review and shall be subject to the review and approval of the Director of Community Planning and Development.

CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES

APPROVED

December 19, 2016
5151 Marsh Road, Okemos, MI 48864-1198
853-4000, Town Hall Room, 7:00 P.M.

PRESENT: Commissioners DeGroff, Honicky, Ianni, Lane, Premoe, Richards, Scott-Craig, Tenaglia
ABSENT: Commissioner Van Coevering
STAFF: Director Kieselbach, Senior Planner Menser, Associate Planner/Economic Development Coordinator Motil

1. Call meeting to order

Chair Scott-Craig called the regular meeting to order at 7:05 P.M.

2. Approval of agenda

Commissioner Ianni moved to approve the agenda with the suggestion from Chair Scott-Craig that Special Use Permit #16101 (Gillett) be acted upon prior to the public hearings. Seconded by Commissioner Honicky.

VOICE VOTE: Motion carried 8-0.

3. Approval of Minutes

Commissioner Ianni moved to approve the Regular Meeting Minutes of November 14, 2016 and November 21, 2016. Seconded by Commissioner Tenaglia.

VOICE VOTE: Motion carried 8-0.

4. Public Remarks

Chair Scott-Craig opened and closed the floor for public remarks.

5. Communications

A. Chris Edwards, 4612 Herron Road, Okemos; RE: Special Use Permit #16111

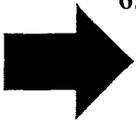
6. Public hearings

A. Mixed Use Planned Unit Development #16024 (Capstone), construct Hannah Farms East project consisting of 296 multiple family residential units at Hannah Boulevard/Eyde Parkway **and**

B. Special Use Permit #16111 (Capstone), construct group of buildings greater than 25,000 square feet at Hannah Boulevard/Eyde Parkway.

Chair Scott-Craig opened the public hearing at 7:14 P.M.

- Introduction by the Chair (announcement of procedures, time limits and protocols for public participation and applicants)
- Summary of subject matter



Senior Planner Menser summarized the proposed mixed use planned unit development (MUPUD) and Special Use Permit #16111 as outlined in staff memorandums dated December 19, 2016.

- Applicant

Mark Clouse, Chief Financial Officer/General Counsel, Eyde Company, 300 S. Washington Square, Suite 400, Lansing recapped projects for the entire 81 acre parcel since 2008. He noted the goal was to provide a diversity of unit types and indicated the proposal before Commissioners this evening have unit types which are not currently available within the 81 acre parcel.

John Acken, Capstone Collegiate Communities, 431 Office Park Drive, Birmingham, Alabama offered a depiction on the overhead projector how the current site plan fits in with the existing area. He indicated it is their intent to extend the existing greenspace on the north side of The Lodges development across the front of the proposed development. Mr. Acken stated the intent of the plan is to create three (3) different housing types: one (1) and two (2) bedroom apartments in a stand-alone building; a second building which contains one (1) to four (4) smaller bedroom units for a lower price point (both with internal corridors and served with elevators), and townhomes on the south side with some units having an underground two-car garage. Mr. Acken offered the layout of the various unit types. He noted parallel parking along Eyde Parkway is currently prohibited by the Ingham County Road Department (ICRD), but the applicant would like to use some of their land to create parallel parking as a traffic calming device which would buffer pedestrian traffic along the sidewalk.

Mr. Acken stated the applicant wants to make a change to the setback on the southside based on the communication from Mr. Edwards and demonstrated the desired change to buffer the neighbors to the south. He added that based on comments from the ICRD, the applicant would like to change the location of the entrance so it does not conflict with the entrance to The Lodges and provides for only one entrance onto Eyde Parkway with an emergency access off of Eyde Parkway. Mr. Acken also demonstrated interior finishes on the overhead projector for all three (3) development areas.

- Public

Neil Bowlby, 6020 Beechwood Drive, Haslett, believed the proposed project is more high density student housing, with only .94 percent dedicated to mixed use over the 81 acre parcel. He indicated he did not see any affordable housing component presented. Mr. Bowlby projected future Hagadorn Road traffic through a linear extension of 22,000-25,000 vehicle trips in 2022. Mr. Bowlby noted there does not appear to be any comments from the Township's traffic consultant and requested the Planning Commission give careful consideration when reviewing this latest phase.

Susan Davis, 4772 Arapaho Trail, Okemos, urged the Township to consider the effect the proposed project would have on nearby residents. She voiced concern with the lack of overall greenspace throughout the various phases. Ms. Davis believed the additional units would place stress on police and fire services. She believed this to be nothing more than high-density student housing and requested the Planning Commission consider the residents' desire when reviewing this project.

Joe Pavona, 4726 Arapaho Trail, Okemos, representative for Indian Lakes Estates Homeowner Association, voiced appreciation for the applicant's willingness to reach out to the neighborhood. He stated this latest phase is a continuation of dense student housing, not residential as being depicted. Mr. Pavona expressed opposition to the dense nature of the proposed MUPUD and its impact to the overall community. He questioned why the Township would agree to exceed its ordinance requirements for the special use permit (SUP) and urged the Planning Commission to take a step back. He cited an article in the October 3rd edition of the *Lansing State Journal* which stated Michigan State University President LouAnna Simon has told local officials there is no need for more student housing.

John Acken, Capstone Collegiate Communities, replied the applicant followed the vision they understood from the Township Board and Planning Commission regarding density to create a village type atmosphere. He concurred with earlier public comment requesting Commissioners take a drive through the area. Mr. Acken stated students want to be in the area due to its close proximity to MSU and the proposed development would reduce vehicle trips for students who would live farther away and need to use a vehicle.

Mark Clouse, Eyde Company, reminded Commissioners and the public the overall 81 acre site already includes substantial office and a hotel, the definition of what mixed use is intended to be. He added the density was intentional when the rezoning was approved in 2008.

Douglas Hinterman, 4616 Pioneer Trail, Okemos, lives in a residence immediately to the south of the proposed high density student housing project, and believed the ordinances currently in place should be used as a guide. He suggested there be more greenspace on the southern border currently zoned Professional and Office (PO). Mr. Hinterman stated PO as a neighbor provides less activity during the evening and on weekends.

Leonard Provencher, 5824 Buena Parkway, Haslett, inquired as to how many individuals will live in each bedroom. He believed parallel parking on Eyde Parkway would present problems relative to snow removal. Mr. Provencher questioned the need for this project as noted in the communication from MSU's community liaison regarding no need for additional student housing with the construction of 1855 Place off Harrison Road.

- Planning Commission discussion:
Commissioner Ianni voiced appreciation for the presentation from Capstone and the affordability segment of the project.

Commissioner Honicky asked why the applicant wanted the setbacks waived.

Mr. Acken responded the request to waive the setbacks was to achieve the vision of the original MUPUD in this area. He indicated they understood this vision was to create a traditional village concept where buildings are "pulled" closer to the street and provides an outdoor space. He acknowledged that density happens as a result of those actions. Mr. Acken added most of the commercial is towards Hagadorn Road, where he believes it needs to be for visibility of traffic.

Commissioner Honicky stated his experience with underneath garages leaves the first floor very cold in the winter and warm in the summer.

Mr. Acken replied consultants were hired to deal with the issue of balancing heating and cooling within the units.

Commissioner Honicky summarized this phase would not have commercial on the first floor with residences above, but the applicant is requesting setbacks be waived in order to have the buildings located as close to the sidewalks as possible to achieve the village atmosphere.

Mr. Acken responded Lodges Phase One has the village type feel and they would like to continue that same type of development pattern in this phase with different types of units.

Commissioner Tenaglia inquired as to whom this phase is being marketed and how these units would be marketed.

Mr. Acken replied that because of the proximity to MSU, students have a desire to live there. He alleged that regardless of how these units are marketed, students will typically outbid to live in the area.

Commissioner Tenaglia inquired if the townhouses are rentals or available to purchase. She believed there is a need for 2-3 bedroom housing by young professionals with families who do not desire upkeep of the traditional single family homes.

Mr. Acken responded the intent today is to market the townhouses as rentals. He believed one idea to improve the housing stock of single family homes for young professionals is to "pull" out the students who live in them. Mr. Acken alleged the overall ratio associated with the number of students looking for housing v. the number of purposeful student housing in the market is approximately 30%, a percentage he indicated is on the low side for most college towns. He indicated that this means students are living farther from the school in 1-2 bedroom apartments, single family homes in neighborhoods and in the surrounding area. Mr. Acken believed that by building more purposeful student housing in close proximity to campus, it will pull students out and open up the supply of single family homes for young professionals to rent. He asserted the lack of student housing in the area inflates the rate of student housing.

Commissioner Richards inquired if the proposed townhouses meet the ordinance's height requirement, which he believed was not taller than what is buildable for single family to the south.

Mr. Acken replied their architect is looking at the situation and it "goes" to the interpretation of the height requirement with regard to measurement of the roof line.

Commissioner Richards noted one of the issues raised by residents is being able to hear the activity taken place in the apartment area, and suggested if there are balconies, they be placed to the north and to the west to minimize noise experienced by the adjacent neighborhood. He inquired as to when the applicant will have a discussion concerning the offered amenities.

Mr. Acken responded the amenities are defined in statute, which include covered bicycle parking, open bicycle parking and pedestrian connection to sidewalks. He noted that in lieu of one centralized clubhouse, there will be two (2) clubhouses. Mr. Acken stated the clubhouse to the north would contain a game room, workout facilities, tanning facilities, multipurpose rooms, saunas, conference rooms, computer rooms with a greenspace out front. He alleged one of the biggest amenities is the walking distance to the commercial area and linkages to MSU. Mr. Acken noted the central location of the clubhouse is to provide buffering from the residential neighborhoods.

Commissioner Richards requested information concerning police and fire responses for the existing phases.

Chair Scott-Craig requested staff provide the requested data to Planning Commissioners for their next meeting.

Commissioner DeGroff requested public policy rationale behind the MUPUD concept.

Mr. Menser replied he believed it was an initiative to allow flexibility on setbacks and traditional zoning requirements to obtain a higher end product with more amenities and higher density of residents within an area.

Commissioner DeGroff believed the rationale behind the MUPUD concept was to create synergy between commercial and residential and used as a placemaking tool.

Mr. Menser deferred to Section 86-440 of the Code of Ordinances and read the purpose and intent.

Chair Scott-Craig reiterated the purpose is to create more walkable pedestrian oriented developments that respect Meridian Township's transitional land use concept to protect, enhance and preserve natural resources. He asked the applicant what part of this development enhances and preserves natural resources.

Mr. Acken demonstrated on the overhead projector where the development creates two (2) internal greenspaces. He noted the idea of a denser village development is to take the pressure off low slow growth throughout the "countryside", not necessarily on the site.

Based on the applicant's answer, Chair Scott-Craig suggested he reverse his intent to exceed the maximum impervious surface on the northern portion and bring back something that is below the amount allowed for the underlying zoning requirement.

Chair Scott-Craig acknowledged from his perspective, the MUPUD ordinance needs some work. He noted Lodges 1 has 14 units per acre, Lodges 2 has 16 units per acre, both of which are within the range of 14-18 units per acre permitted by ordinance. Chair Scott-Craig stated Hannah Loft has 35.7 units per acre, more than double the density permitted by ordinance. He added the proposed phase is 28 units per acre, double what is allowed by ordinance. Chair Scott-Craig recommended the applicant considerably reduce the density of the proposed phase which would also alleviate a significant increase in vehicle traffic. He believed the amenities listed by the applicant were non-existent, as none of them proposed were for the public to enjoy.

Chair Scott-Craig discussed the study commissioned by MSU President Simon in collaboration with the Land Policy Institute which concluded the surrounding towns to MSU are overbuilt for student housing. He stated the number of on-campus students is decreasing and the total number of students within the university will also likely decrease.

Mr. Acken will look at the plans and take the factors presented this evening into consideration. He added that one of the biggest indicators is demand in the area, adding The Lodges is 75% leased and Hannah Lofts is over 50% leased for next year.

Commission Ianni believed raising the supply of housing will drive prices down and provide more affordable housing options throughout the community.

Chair Scott-Craig closed the public hearing at 8:43 P.M.

7. Unfinished Business

- A. Special Use Permit #16101 (Gillett), install outdoor barbeque smoker at 1754 Central Park Drive. **Commissioner Tenaglia moved [and read into the record] NOW THEREFORE BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves Special Use Permit #16101 (Gillett) to install an outdoor barbeque smoker behind the existing shopping center at 1754 Central Park Drive subject to the following condition:**

1. **The applicant shall obtain all necessary and applicable permits and approvals from the Ingham County Department of Health, and all other relevant entities.**

Seconded by Commissioner Ianni.

Planning Commission discussion:

- Applicant has indicated the area will be enclosed and monitored
- Barbeque smoker will be a good addition to an area where several restaurants currently exist
- Township has a nuisance ordinance relative to any complaints regarding smoke from restaurants

ROLL CALL VOTE: YEAS: Commissioners DeGross, Honicky, Ianni, Lane, Premoe, Richards, Tenaglia, Chair Scott-Craig

NAYS: None

Motion carried 8-0.

8. Other Business

- A. Master Plan update

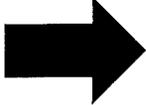
Commissioner DeGross moved to transmit the 2017 Master Plan to the Township Board and recommend authorization to distribute the document for the 63-day review period to agencies and communities identified in the Michigan Planning Enabling Act. Seconded by Commissioner Lane.

Planning Commission and staff discussion:

- Maps are being updated by staff and will be included
- Suggested attachments will be included in the distribution
- Preference for items such as Building a More Liberal Community's Corridor Design portfolio to be referenceable by outside commenters

- Desire to extend service drive to Powell Road

Consensus of the Planning Commission was to place the special use permit on the next regular meeting agenda for action to approve one of the two requested drive-through windows.



B. Mixed Use Planned Use Development #16040 (Capstone), construct Hannah Farms East project consisting of 296 multiple family residential units at Hannah Boulevard/Eyde Parkway.

- Senior Planner Menser outlined the mixed use planned use development for discussion.
- Applicant outlined the changes to the site plan since the public hearing, including:
 - Relocation of the north site parking to increase the buffer between the development and the adjacent neighborhood
 - Reduction of 24 bedrooms
 - Revised configurations of the townhomes in the south site
 - Total decrease in impervious surface
 - Amenities were added, including electric car charging stations, sidewalks linked to the Township pathway system, covered bicycle storage, underground utilities

Planning Commission, applicant's representative and staff discussion:

- Concern the reduction in density was too small
- Suggestion to add active outdoor space such as basketball courts and tennis courts
- Not enough buffering from existing commercial space as well as adjacent residential space
- Concern over traffic increase resulting from higher density

- Public

Ms. Jane Sissle, 4777 Mohican Lane, commented she was concerned about the high density of the proposed development and related potential noise and disturbances.

Consensus of the Planning Commission was to not recommend approval of the mixed use planned use development to the Township Board.

C. Special Use Permit #16111 (Capstone), construct group of buildings greater than 25,000 square feet at Hannah Boulevard/Eyde Parkway.

This item was not discussed as it was covered during the discussion of MUPUD #16024.

10. Other Business

A. Planning Commission liaison to the Zoning Board of Appeals

- Commissioner Scott-Craig moved to appoint Commissioner Lane liaison to the Zoning Board of Appeals. Seconded by Commissioner Richards.

VOICE VOTE: Motion carries 9-0.

Mr. Steve Schafer, 31400 North Western, Farmington Hills, said the proposal is consistent with the Township's Master Plan.

Commissioner Tenaglia commented the Township should form a task force to look into zoning questions.

Commissioner Scott-Craig said he did not understand the conditions offered by the applicant. He said there did not seem to be any decrease in density.

Mr. Schafer replied it was his intent to cap the density of the project.

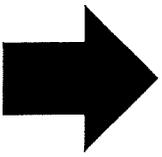
Commissioner DeGroff and Lane commented the conditions were unclear and seemed more like requests rather than limits.

Mr. Schafer said he had no intention of being vague and was willing to resubmit the conditions using language that was more concise. He said he would like to get the question of rezoning to the Township Board.

A straw poll of the Commissioners indicated they were not supportive of the rezoning and would like a resolution to deny at the March 27, 2017 meeting.

Chair Ianni called a five minute recess at 8:47 P.M.

The Planning Commission reconvened at 8:54 P.M.

- 
- C. Mixed Use Planned Unit Development #16024 (Capstone), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway.
 - D. Special Use Permit #16111 (Capstone), construct group of buildings greater than 25,000 square feet in size at Hannah Boulevard/Eyde Parkway.

For the sake of brevity item 7C and 7D were discussed together.

- Summary of Subject Matter

Senior Planner Menser outlined MUPUD #16024 (Capstone) and SUP #16111 (Capstone) for discussion.

- Applicant

Mr. John Acken, the applicant, summarized the revised plans before the Planning Commission. He said included in the revisions were: density, green space, building height and townhomes.

- Planning Commission, Applicant's representative and Staff Discussion

Commissioner Cordill commented while she appreciated the plan revisions she still did not see any mixed use component to the development.

Mr. Acken replied commercial use is not viable at the rear of the development.

Commissioner Cordill expressed concerns over the architecture not being compatible with other buildings in the area.

Commissioner Richards asked about the color of the proposed buildings.

Commissioner DeGross commented that commercial space was an expectation of the rezoning and MUPUD when first proposed in 2008.

Chair Ianni thanked the applicant for the revised plans and responding to the concerns of the Planning Commission.

Commissioner DeGross commented there still needed to be a substantial reduction in density.

Commissioner Scott-Craig added traffic was still a concern.

Commissioner Cordill commented there needed to be more information on the overall density of the entire development.

8. Other Business

A. None

9. Township Board, Planning Commission officer, committee chair, and staff comments or reports

Commissioner Scott-Craig attended the March 2nd Economic Development Corporation meeting and gave a brief summary of that meeting. He also attended the Township Branding meeting on March 9th and a February 20th workshop on regulatory issues of medical marijuana.

Commissioner Richards will attend the Transportation Commission meeting on March 23rd as a representative of the Planning Commission.

Commissioner Premoe is attending the Environmental Commission meetings as a representative of the Planning Commission.

10. Project Updates

A. New Applications - NONE

B. Site Plans Received - NONE

C. Site Plans Approved - NONE

11. Public Remarks

Ms. Jane Sherzer, 4777 Mohican Lane, spoke in opposition to MUPUD #16024.

Mr. Neil Bowlby, 6020 Beechwood, commented he would like to see a commercial component in the MUPUD projects. He asked about the status of discussions on the Township's proposed updates to the Master Plan.

7. Unfinished Business

- A. Special Use Permit #17011 (Verizon Wireless), install 90 foot tall cell tower at 4888 Dawn Avenue.

Commissioner Tenaglia moved to approve Special Use Permit #17011
Seconded by Commissioner Premoe

- Planning Commission, Applicant's representative and Staff Discussion:

Commissioner Scott-Craig asked if the applicant was available because he had a question about other companies being able to co-locate on this tower. Senior Planner Menser replied the applicant was not available but it was his understanding that other companies would be able to co-locate on the tower.

ROLL CALL VOTE: YEAS: Commissioners Tenaglia, Premoe, Richards, Lane, Baruah, Cordill, Scott-Craig and Chair Ianni

NAYS: None

Motion carries: 8-0.

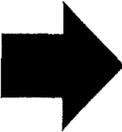
- B. Rezoning #16060 (Summer Park Realty), rezone 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road.

Commissioner Scott-Craig moved to recommend denial of Rezoning #16060
Seconded by Commissioner Lane

ROLL CALL VOTE: YEAS: Commissioners Tenaglia, Premoe, Richards, Lane, Baruah, Cordill, Scott-Craig and Chair Ianni

NAYS: None

Motion carries: 8-0.

-  C. Mixed Use Planned Unit Development #16024 (Capstone), construct Hannah Farms East at Hannah Boulevard/Eyde Parkway.

- Discussion of Planning Commission, applicant's representatives and staff

Senior Planner Menser stated the attached resolution was to approve the MUPUD request, if the Commission would like to deny the MUPUD specific reasons should be sited.

Mr. John Acken, applicant's representative, said the project would use Michigan labor and have a lasting economic impact by creating permanent jobs. Mr. Acken said he had spoken to the Ingham County Road Department about the possibility of parallel parking along Eyde Boulevard and was told it may be approved if the curb was moved back. He said the applicant plans to include amenities such as, electric car charging stations, special pavers and public art in the project.

Mr. Mark Clouse, applicant's representative, stated the current phase of this project fits well with the plan that was approved in 2008. He said the overall development does not require commercial space in every phase of the development and the recent acquisition and

redevelopment of Hannah Plaza helps meet most of the commercial requirements. He said the hotel contributes to the level of commercial space in the development as well.

Commissioner Richards moved to approve MUPUD #16024
Seconded by Commissioner Lane

Commissioner Richards commented the revised version of the project meets the requirements as laid out in prior approvals but he would like to hear discussion of the traffic impact of the project. He asked if the intersections on Hagadorn Road had been revised at all.

Mr. Dave Sonnenberg, who supplied the traffic study, commented the project had very little impact on traffic; at peak travel times it was estimated to add only 150 trips per hour. He said the Eyde Parkway northbound through lane was the largest problem but adjusting the timing of the light had restored the lane to its original level of service. He restated the project would have little to no impact on traffic.

Commissioner Scott-Craig said according to his recollection there were two intersections in the area that were graded "E" which to him was unacceptable.

Mr. Sonnenberg said both intersections were upgraded to "D" after the timing of the lights was changed.

Commissioner Scott-Craig replied Hagadorn Road is a very busy road and this project is bound to have a negative effect. He said at some point the subject of traffic must be addressed and this project will bring that discussion closer than ever.

Commissioner Baruah commented students keep irregular hours, they are not necessarily traveling at peak hours and asked if the traffic study reflected this fact.

Mr. Acken added there will be bus service from the units to the MSU campus at 15 to 20 minute intervals from 7:30 a.m. to 6:00 p.m. Monday through Friday and from the units to Downtown East Lansing on the weekends. He pointed out a great quantity of students ride bicycles to and from classes.

Commissioner Cordill commented she liked the revisions, the scaled back number of units and the fact the applicant will be using Michigan labor for construction but it was her feeling there should be a greater amount of commercial space tied in with this phase of the project.

Commissioner Scott-Craig asked if the amenities mentioned by Mr. Acken could be listed in the resolution.

Senior Planner Menser explained that the amenities were not shown on the site plan so they could not be listed in the resolution.

Mr. Acken said they will put the amenities on the site plan for future meetings and they were listed in a letter sent to the Planning Commission.

Chair Ianni suggested they be in a friendly amendment to the motion.

Commissioner Richards agreed to accept the amenities: car charging stations, pavers and public art as a friendly amendment to the original motion.

Commissioner Lane accepted the friendly amendment.

Commissioner Premoe stated he was not convinced that student housing was not being overbuilt.

VOICE VOTE: YEAS: Commissioners Richards, Lane, Tenaglia, Premoe, Baruah, Cordill, Scott-Craig and Chair Ianni

NAYS: None

Motion carries: 8-0.

D. Special Use Permit #16111 (Capstone), construct group of buildings greater than 25,000 square feet in size at Hannah Boulevard/Eyde Parkway.

Commissioner Lane moved to approve the resolution

Seconded by Commissioner Baruah

VOICE VOTE: YEAS: Commissioners Lane, Baruah, Richards, Premoe, Cordill, Scott-Craig and Chair Ianni

NAYS: None

Motion carries: 7-0.

8. Other Business

A. None

9. Township Board, Planning Commission officer, committee chair, and staff comments or reports

Senior Planner Menser informed the Planning Commission that Rezoning #17020 was withdrawn.

10. Project Updates

A. New Applications - NONE

B. Site Plans Received - NONE

C. Site Plans Approved - NONE

11. Public Remarks-NONE

12. Adjournment

Chair Ianni adjourned the meeting at 8:06 P.M.

Peter Menser

From: Chris Edwards <chris.edwards@superiorbrass-mi.com>
Sent: Friday, December 09, 2016 3:44 PM
To: Peter Menser
Cc: Sally Edwards (Sallythevet@comcast.net)
Subject: Capstone Collegiate Communities. Special use permit # 16111

Hello Peter,

It was a pleasure meeting with you today.

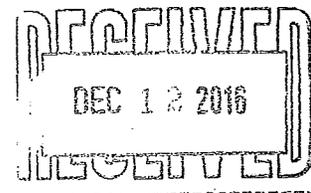
My wife and I reside at 4612 Herron Road Okemos Michigan. Our home borders the south property line of the proposed Capstone mixed use planned development. When the Eyde Company built the office buildings that are positioned on the south property line and slightly west of the planned development they graciously agreed to an added amount of distance (maybe 15 feet?) to the township set back guidelines. They also planted pine trees on the southern border as part of the setback shield. We would like to see this same setback distance continued down the entire southern border to help shield our home like our neighbors have been able to do. This extra distance will help us block out the lights of the cars parking in the proposed parking spaces that face our property.

Our home stands on the same foundation that my father constructed his home on in the late 40's when we bordered the 200 acre Hannah farm. Our north east corner of our home is very close to the north lot line where the new town homes are proposed.

Thank you for looking into what was done in the past and considering our request to maintain what has been started. It might help the visualization if we set up a meeting at the house to view what I have tried to describe.

Thank you for your time.

*Chris Edwards
W 351-7534 C 881-6306*



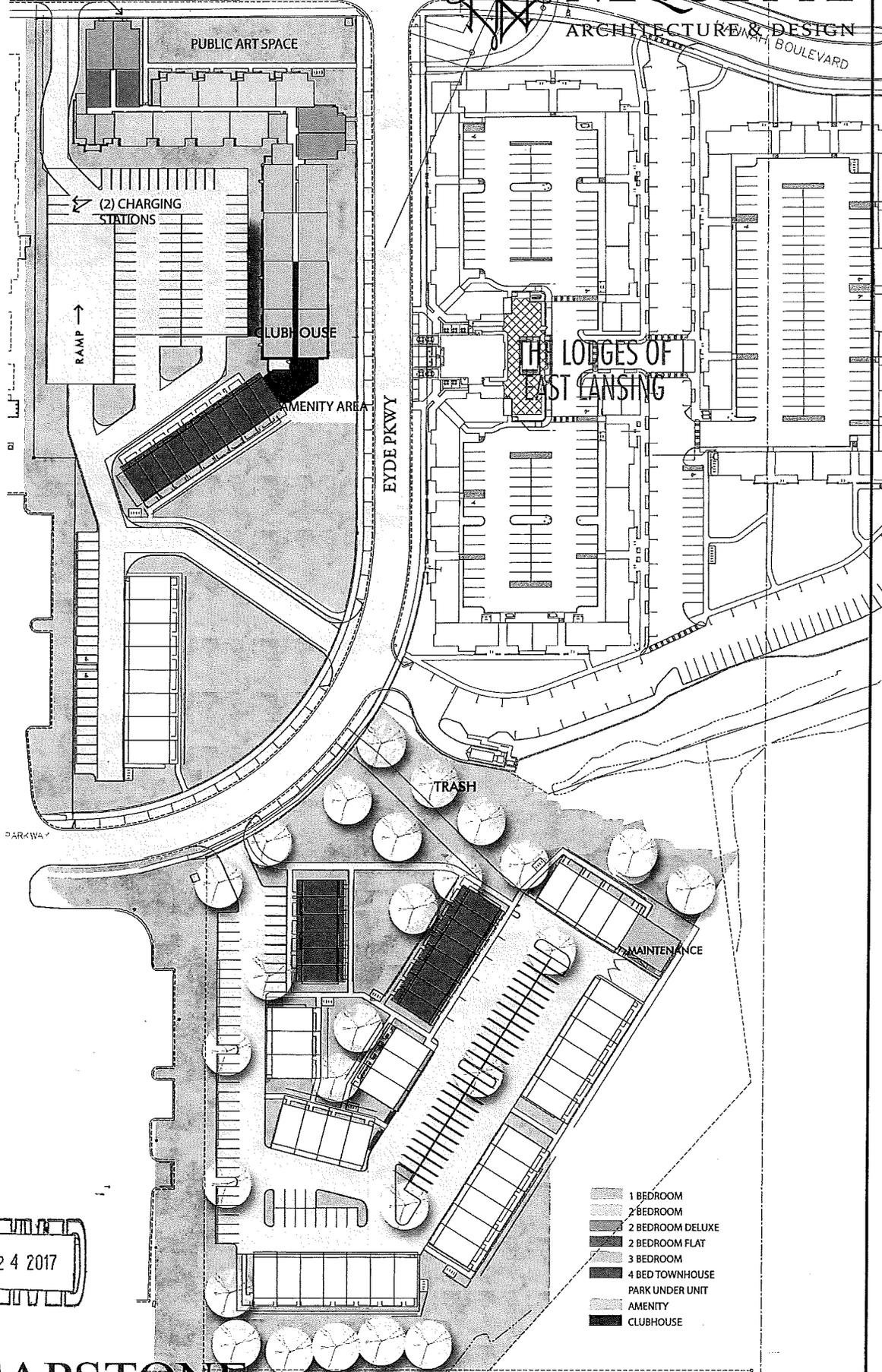
DECORATIVE PAVERS
ALONG HANNAH

HANNAH PKWY
HANNAH BOULEVARD

NEQUETTE

ARCHITECTURE & DESIGN

HANNAH BOULEVARD



(2) CHARGING STATIONS

RAMP

CLUBHOUSE

AMENITY AREA

EYDE PKWY

THE LODGES OF
EAST LANSING

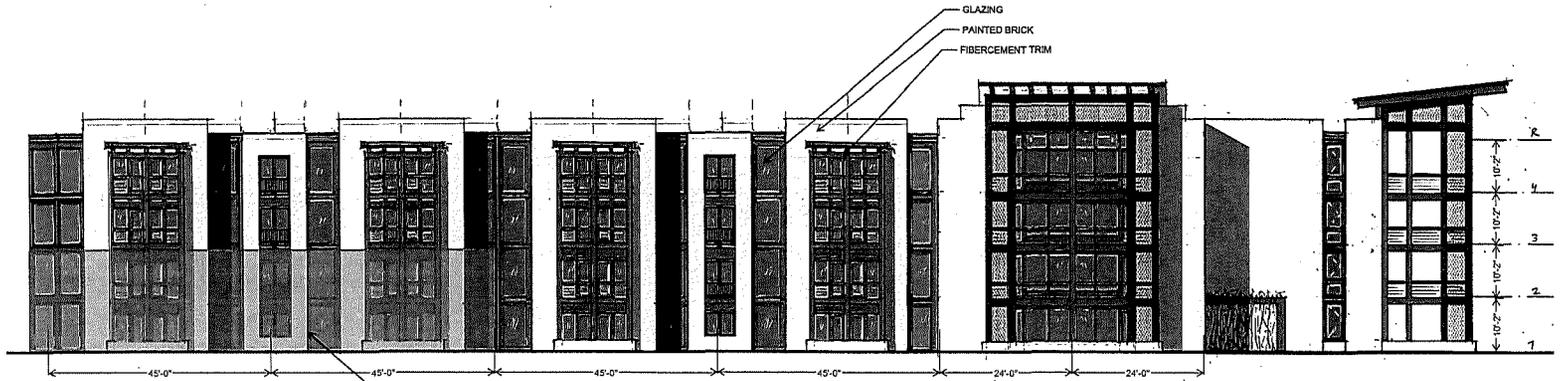
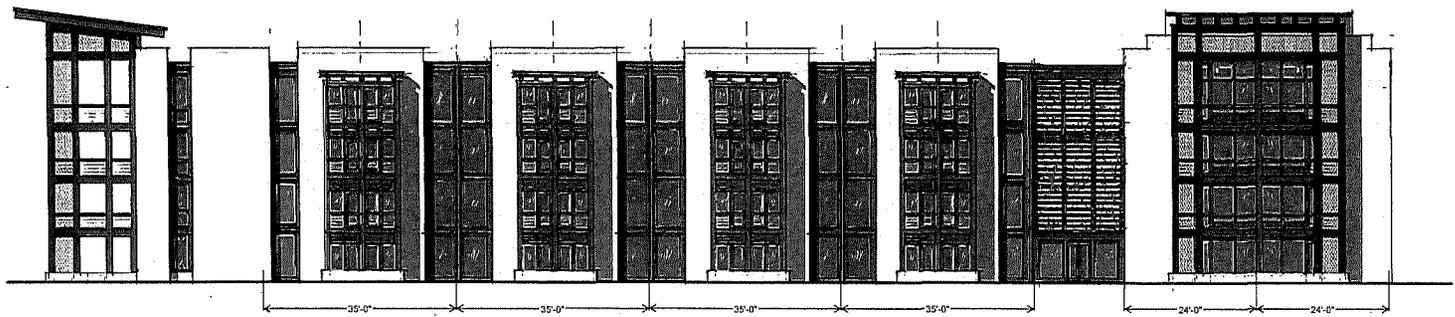
TRASH

MAINTENANCE

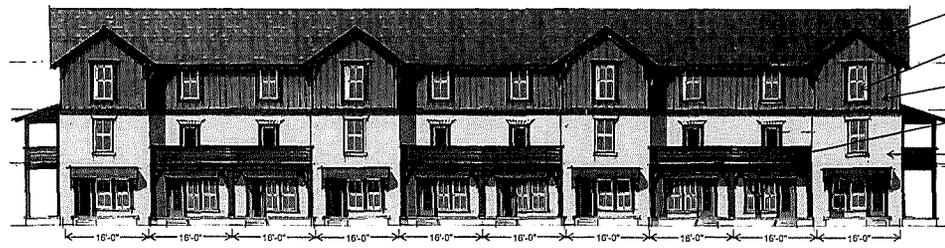
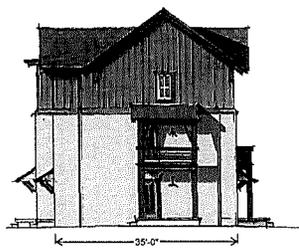
PARKWAY

- 1 BEDROOM
- 2 BEDROOM
- 2 BEDROOM DELUXE
- 2 BEDROOM FLAT
- 3 BEDROOM
- 4 BED TOWNHOUSE
- PARK UNDER UNIT
- AMENITY
- CLUBHOUSE

APR 24 2017



BUILDING 1

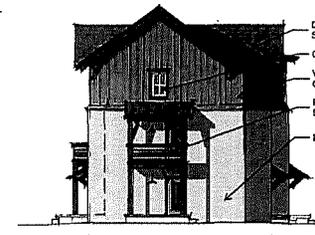


- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK



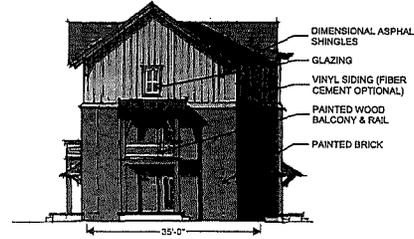
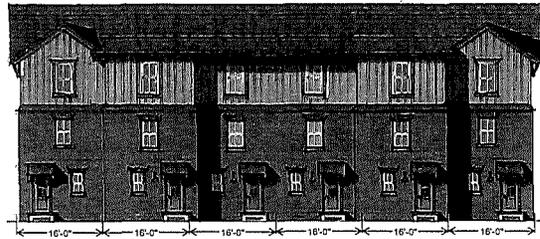
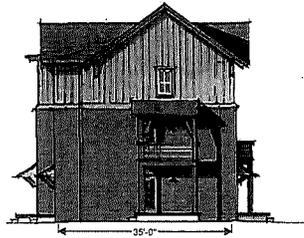
10 UNIT NO GARAGE

- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK



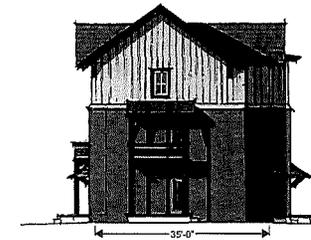
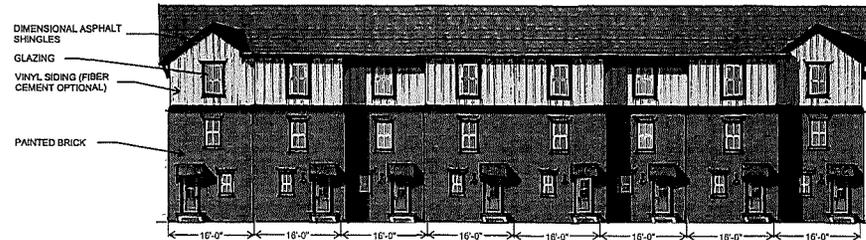
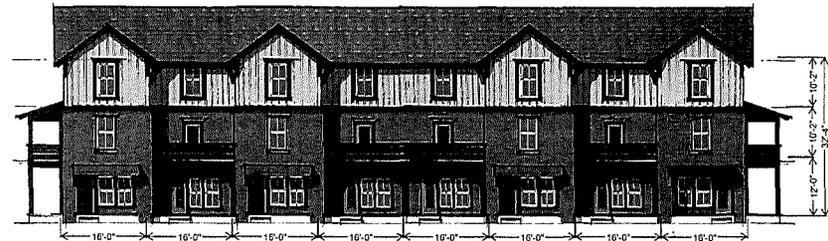
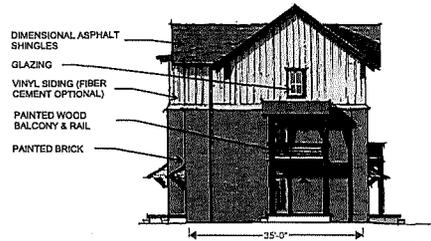
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK

BUILDING 2



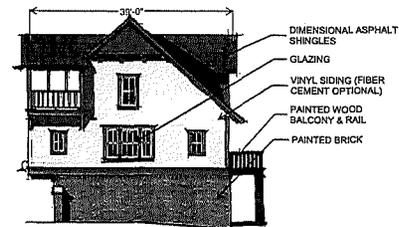
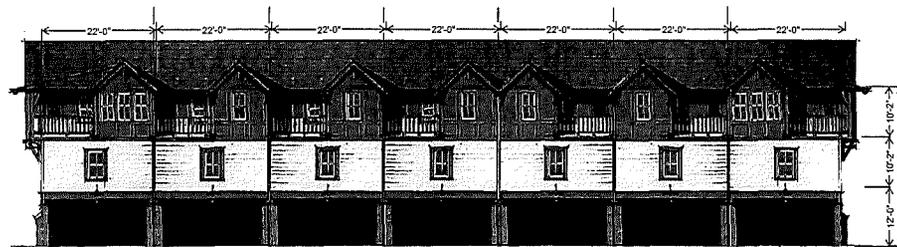
6 UNIT - NO GARAGE

BUILDING 4

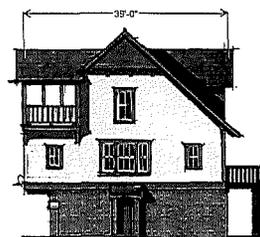


8 UNIT NO GARAGE

BUILDING 8

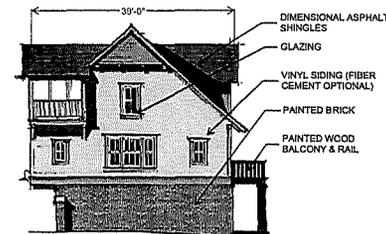
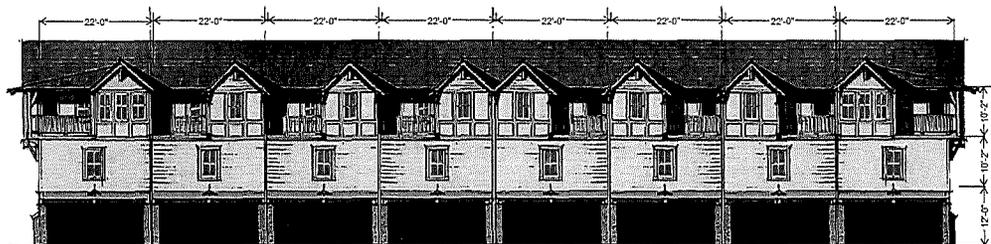


PARK UNDER PARKING PAD

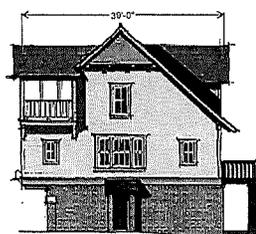


BUILDING 12

7 UNIT WITH PORCH

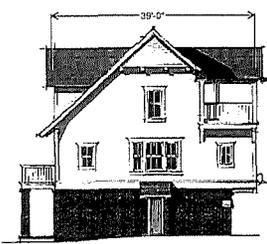


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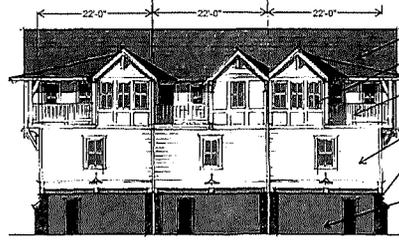


8 UNIT WITH PORCH

BUILDING 3

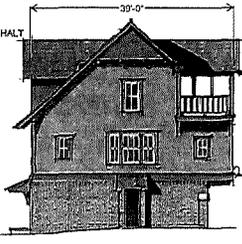


3 UNIT

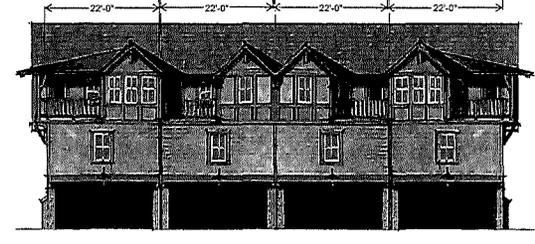


BUILDINGS 5 & 7

- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- PAINTED WOOD BALCONY & RAIL
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK
- PARK UNDER PARKING PAD



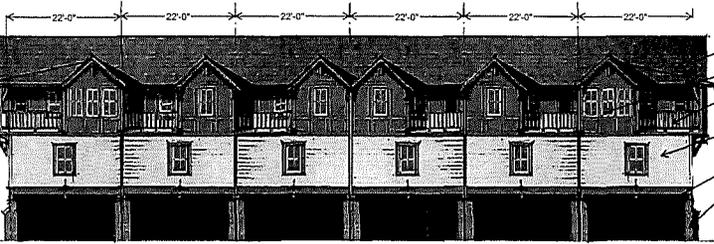
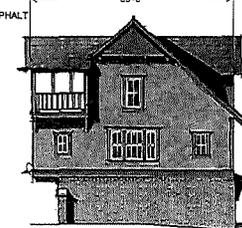
4 UNIT W/ STOOP



BUILDING 6



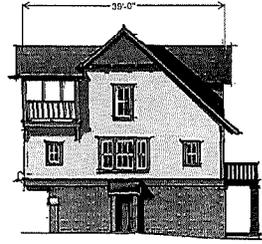
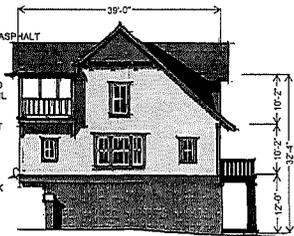
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK



6 UNIT WITH PORCH

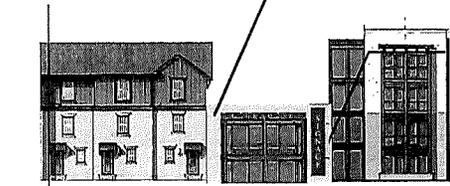
BUILDINGS 10 & 11

- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- PAINTED WOOD BALCONY & RAIL
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PARK UNDER PARKING PAD
- PAINTED BRICK



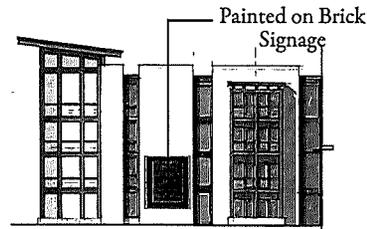
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- PAINTED WOOD BALCONY & RAIL
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK

12" Metal Letters "CLUBHOUSE"

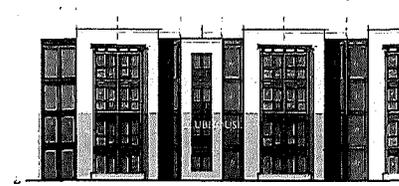


① West Elevation

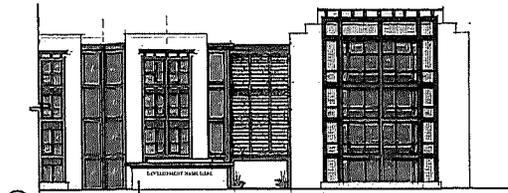
4'-0" by 20'-0"
Vertical Sign



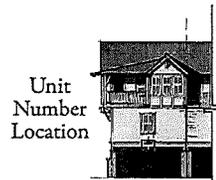
② East Elevation



③ 12" Metal Letters "CLUBHOUSE"



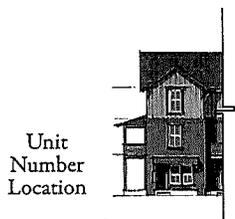
④ Wood and brick low wall monument sign facing Hannah Blvd



Unit Number Location
⑦ Rear Entry/Parking Townhouse Elevation



Unit Number Location
⑧ Front Door Townhouse Elevation



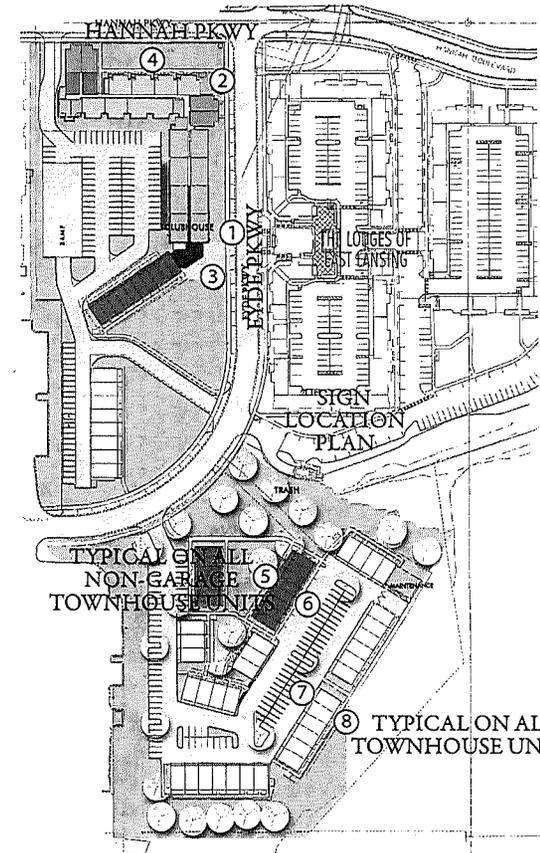
Unit Number Location

⑤ Front Door Townhouse Elevation



Unit Number Location

⑥



EX. SENIOR INVENTORIES

- STORM MANHOLE #101
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #102
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #103
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #104
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #105
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #106
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #107
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12" RCP WEST- 864.39
- STORM MANHOLE #108
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #109
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12" RCP SOUTH- 862.18
12" RCP WEST- 864.39
- STORM MANHOLE #110
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12" RCP WEST- 864.39
- STORM MANHOLE #111
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12" RCP WEST- 864.39
- STORM MANHOLE #112
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- STORM MANHOLE #113
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- STORM MANHOLE #114
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- STORM MANHOLE #120
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- STORM MANHOLE #121
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12" RCP WEST- 864.39
- STORM MANHOLE #122
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- STORM MANHOLE #123
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- STORM MANHOLE #124
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- STORM MANHOLE #130
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- STORM MANHOLE #131
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- STORM MANHOLE #132
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- STORM MANHOLE #133
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- STORM MANHOLE #134
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- STORM MANHOLE #135
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- STORM MANHOLE #138
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- STORM MANHOLE #141
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- STORM MANHOLE #142
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- STORM MANHOLE #144
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- STORM MANHOLE #145
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- STORM MANHOLE #147
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- STORM MANHOLE #149
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- STORM MANHOLE #150
24" CPW 12'-84.00'
12" RCP SOUTH- 862.18
12" RCP WEST- 864.39

- SEWER MANHOLE #200
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #201
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #202
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- SEWER MANHOLE #203
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- SEWER MANHOLE #205
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- SEWER MANHOLE #206
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- SEWER MANHOLE #207
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- SEWER MANHOLE #214
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- SEWER MANHOLE #220
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- SEWER MANHOLE #221
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- SEWER MANHOLE #222
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- SEWER MANHOLE #224
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- SEWER MANHOLE #225
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- SEWER MANHOLE #226
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- SEWER MANHOLE #227
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- SEWER MANHOLE #228
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- SEWER MANHOLE #229
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- SEWER MANHOLE #230
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- SEWER MANHOLE #231
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12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #232
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12" RCP NORTH- 861.32
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- SEWER MANHOLE #233
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12" RCP WEST- 858.08
- SEWER MANHOLE #234
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #235
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #236
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #237
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #238
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #239
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #240
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #241
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #242
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #243
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #244
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #245
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #246
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #247
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #248
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #249
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08
- SEWER MANHOLE #250
18" CPW 12'-84.00'
12" RCP NORTH- 861.32
12" RCP WEST- 858.08

LEGAL DESCRIPTION
(As provided by Transaction Title Agency, Commitment No. 18291584, Revision No. 1, dated June 22, 2016)

PARCEL 1:
Part of the Southwest 1/4 of Section 20, Town 4 North, Range 1 West, Meridian Township, Ingham County, Michigan, described as: Commencing at the west 1/4 corner of Section 20; thence South 89°08'40" East along the East-West 1/4 line 1600.03 feet; thence South 02°21'12" West 35.26 feet to the South line of Hannah Boulevard; thence along said South line the following two courses: Northwesteasterly 53.36 feet along a curve to the right with a radius of 500.00 feet and a chord bearing North 82°24'47" East 53.36 feet and South 82°41'14" East 227.22 feet to the Point of Beginning; thence South 82°41'14" East continuing along said South line 327.27 feet to the West line of Ede Parkway; thence along the westerly and northerly line of Ede Parkway the following two courses: South 02°02'46" East 40.86 feet and Southwesterly 233.53 feet on a curve to the right with a radius of 207.00 feet and a chord bearing South 42°24'02" West 302.79 feet; thence North 02°20'13" East 336.80 feet; thence North 89°34'31" West 40.00 feet; thence North 02°20'13" East 416.76 feet to the Point of Beginning.

PARCEL 2:
Part of the South 1/2 of Section 20, Town 4 North, Range 1 West, Meridian Township, Ingham County, Michigan, described as: Commencing at the West 1/4 corner of said Section 20; thence South 89°36'48" East along the East-West 1/4 line West 2223.22 feet; thence South 02°21'12" West 35.46 feet to the South line of Hannah Boulevard; thence along the Easterly line of Ede Parkway the following two courses: South 02°02'46" East 40.86 feet and Southwesterly 162.01 feet on a curve to the right with a radius of 333.00 feet and a chord bearing South 14°27'32" West 187.11 feet to the Point of Beginning; thence South 02°02'46" East 32.20 feet; thence Southwesterly 70.82 feet on a curve to the left with a radius of 73.00 feet and a chord bearing South 50°20'34" East 68.07 feet; thence South 79°24'02" West 40.86 feet; thence South 02°02'46" East 44.82 feet; thence North 71°41'20" East 156.36 feet; thence South 07°13'32" East 328.93 feet; thence South 42°23'20" West 370.00 feet to the North line of Herring Acres Subdivision; thence North 92°22'21" West along said North line 273.85 feet; thence North 02°21'12" East 487.06 feet to the South line of Ede Parkway; thence along said South line the following two courses: South 02°02'46" East 40.86 feet and a chord bearing North 48°47'00" East 223.68 feet to the Point of Beginning.

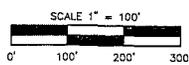
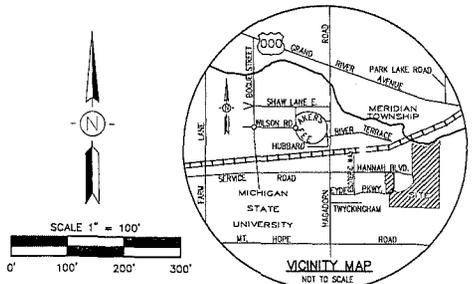
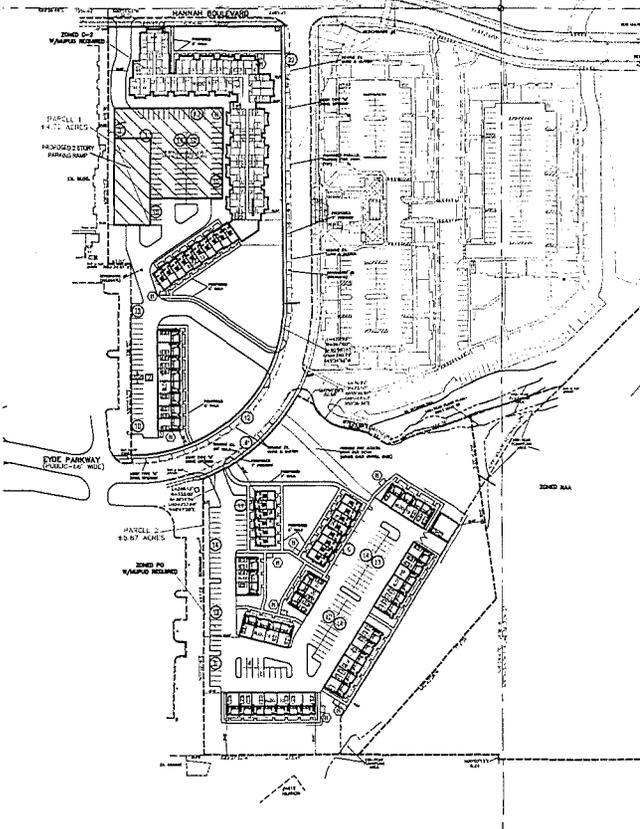
PART OF PARCEL #3: 33-02-02-20-326-000 & 33-02-02-20-326-010

**M.U.P.U.D. PLAN FOR:
Hannah Farms East
MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN**

APPLICANT: CAPSTONE COLLEGIATE COMMUNITIES, INC.
431 GREGG PARK DR.
BIRMINGHAM, AL 35223
PH: (205) 444-8483
FAX: (205) 414-8405

ENGINEER/SURVEYOR: KEBS, INC.
2116 HAZLETT RD.
HAZZETT, MI 48840
PH: (517) 330-1511
FAX: (517) 330-8047

LANDOWNER: EDE LIMITED FAMILY PARTNERSHIP
PO BOX 4218
EAST LANSING, MI 48020
PH: (517) 251-2490



SITE DATA:
ZONED PD AND C-2
TOTAL SITE AREA = 47-10.80 ACRES
(461,796 S.F.)
TOTAL LOTS = 159 (SEE UNIT BREAKDOWN)
TOTAL BEDS = 462

BUILDING DATA (OVERALL):
TOTAL CONSTRUCTABLE AREA:
BLDG. 1 - 94,500 S.F. (4 Floors) + 16,320 S.F.
(Townhouse 2 is now a part of BLDG. 1)
BLDG. 3 - 21,060 S.F. (Townhouse)
BLDG. 4 - 9,792 S.F. (Townhouse)
BLDG. 5 - 7,898 S.F. (Townhouse)
BLDG. 6 - 10,530 S.F. (Townhouse)
BLDG. 7 - 7,898 S.F. (Townhouse)
BLDG. 8 - 13,056 S.F. (Townhouse)
BLDG. 9 - 10,530 S.F. (Townhouse)
BLDG. 10 - 15,795 S.F. (Townhouse)
BLDG. 11 - 15,795 S.F. (Townhouse)
BLDG. 12 - 18,428 S.F. (Townhouse)

MAINTENANCE = 1,450 S.F.
PARKING DECK = 34,760 S.F. (2 Floors)
TOTAL PROJECT GROSS S.F. = 277,812 S.F.

PROPOSED SETBACKS:
FRONT (HANNAH) = 3.48'
FRONT (EDE) = 13.33' (At Cheest Point)
REAR (ADM. Property to West) = 11.02'

SOUTH:
FRONT (EDE) = 62.20'
SIDE (WEST LINE) = 40.15'
SIDE (EAST LINE) = 47.49'
REAR (SOUTH LINE) = 65.91'

PARKING DATA:
77 - 8' x 20' SPACES (INCL. 4 B/P)
(LOWER LEVEL PARKING DECK)
89 - 8' x 20' SPACES (INCL. 4 B/P)
(UPPER LEVEL PARKING DECK)
44 - 8' x 23' SPACES
2 - BARRIER FREE SPACES
138 - 8' x 20' SPACES
TOWNHOUSE GARAGES = 41 (2 SPACES) = 84

434 TOTAL SPACES PROVIDED
PARKING TO BED RATIO = 434/482=0.939

REQUIRED VEHICLE PARKING:
TWO FOR EACH DWELLING UNIT
159 DWELLING UNITS = 159 x 2 = 318
= 318 REQUIRED VEHICLE SPACES

PARKING SPACES PROVIDED: 434 (SEE BELOW)

BIKE PARKING DATA:
(1) SPACE IS REQUIRED FOR EVERY 10 REQUIRED CAR PARKING SPACES (318/10 = 32 REQUIRED)
BIKE PARKING RACKS PROVIDED: 40
BIKE PARKING SPACES: 40 x 2 = 80
TOTAL BIKE PARKING: 80 SPACES

ADDITIONAL BUILDING DATA:

BUILDING #1:	UNITS	BEDS
1. BED FLAT (STUDIO)	12	12
2. BED FLAT	32	64
3. BED FLAT - DELUXE	16	32
3. BED FLAT - NO PORCH	6	16
3. BED FLAT	26	76
TOTALS	159	462

TOWNHOUSES (BLDG.#2-#12)

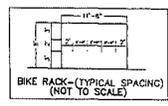
4. BEDROOM (PARK UNDER)	UNITS	BEDS
4. BEDROOM (PARK UNDER)	41	164
4. BEDROOM (TYPICAL)	24	96
TOTALS	159	462

PROPOSED OPENSPACE - NORTH HALF
TOTAL PROPERTY = 205,891 S.F. (4.73 ACRES)
TOTAL PERIMETER = 82,702 S.F. (1.89 ACRES)
TOTAL IMPERVIOUS = 123,130 S.F. (2.81 ACRES) (MAX. = 70%)

PROPOSED OPENSPACE - SOUTH HALF
TOTAL PROPERTY = 212,382 S.F. (4.87 ACRES)
TOTAL PERIMETER = 82,702 S.F. (1.89 ACRES)
TOTAL IMPERVIOUS = 115,379 S.F. (2.62 ACRES) (MAX. = 75%)

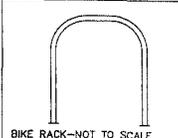
OPEN SPACE TOTAL (BOTH PARCELS)
TOTAL PROPERTY = 418,273 S.F. (9.60 ACRES)
TOTAL PERIMETER = 172,750 S.F. (3.98 ACRES)
TOTAL IMPERVIOUS = 238,518 S.F. (5.47 ACRES)

- ① DENOTES PROPOSED NUMBER OF 8'x20' PARKING SPACES & 8' x 23' PARALLEL PARKING SPACES
- ② DENOTES NUMBER OF B/P PARKING SPACES
- ④ DENOTES PROPOSED NUMBER OF 8'x20' PARKING SPACES



BIKE RACK-NOT TO SCALE

- THE MIN. HEIGHT OF RACK SHALL BE 36" FROM THE BACK TO THE TOP OF THE BACK.
- THE MIN. LENGTH FOR THE RACK SHALL BE 2'.
- THE EXTERIOR SURFACE OF THE RACKS SHALL BE NON-ABRASIVE, NON-MARKING, AND DURABLE.



BIKE RACK-NOT TO SCALE

- THE MIN. HEIGHT OF RACK SHALL BE 36" FROM THE BACK TO THE TOP OF THE BACK.
- THE MIN. LENGTH FOR THE RACK SHALL BE 2'.
- THE EXTERIOR SURFACE OF THE RACKS SHALL BE NON-ABRASIVE, NON-MARKING, AND DURABLE.

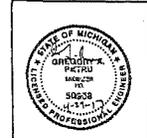


- LEGEND**
- EXT. CONTIGUOUS
 - EXT. WATER MAIN
 - EXT. SANITARY SEWER
 - EXT. STORM SEWER
 - EXT. ELEVATIONS
 - PROPOSED WATER MAIN
 - PROPOSED SANITARY SEWER
 - PROPOSED STORM SEWER
 - PROPOSED STORM SEWER MANHOLE (EX)
 - PROPOSED STORM SEWER MANHOLE (INT)
 - CENTER LINE OF ROAD
 - ROAD RIGHT OF WAY
 - PROPOSED LINE
 - FIRE HYDRANT
 - WATER VALVE
 - TURNER BLOCK
 - PROPOSED TOP OF CURB ELEV.

- EX. LEGEND**
- SET 1/2" DIM WITH CAP
 - FRINGE NOMENCLATURE NOTED
 - DISTANCE NOT TO SCALE
 - FENCE
 - ASPHALT
 - CONCRETE
 - EXISTING SPOT ELEVATION
 - EXISTING CONTOUR ELEVATION
 - ELECTRIC MANHOLE
 - TELEPHONE MANHOLE
 - CATCH BASIN
 - SANITARY CLEANOUT
 - FIRE HYDRANT
 - VALVE
 - UTILITY POLE
 - LIGHT POLE
 - GUY POLE
 - GUY WIRE
 - UTILITY PRECAST
 - TRANSFORMER
 - ELECTRIC METER
 - GAS METER
 - WATER METER
 - SIGN BOARD
 - SIGN
 - POST
 - EDGE OF WOODS
 - OCCURRING TREE
 - CONSIDERED TREE
 - BUSH
- NOTES:** WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 10' VERTICAL SEPARATION FROM ALL SEWERS

APR 24 2017

- SHEET INDEX**
- COVER SHEET
 - DIMENSION/AMENITIES PLAN NORTH
 - DIMENSION/AMENITIES PLAN SOUTH
 - UTILITY PLAN NORTH
 - UTILITY PLAN SOUTH
 - GRADING/STORM PLAN NORTH
 - GRADING/STORM PLAN SOUTH
 - PERVIOUS/SUPERVISE PLAN NORTH
 - PERVIOUS/SUPERVISE PLAN SOUTH
 - EXISTING SURVEY PLAN NORTH
 - EXISTING SURVEY PLAN SOUTH

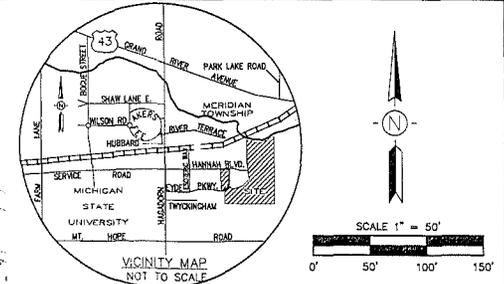


REVISIONS

NO.	DATE	DESCRIPTION
1	04/24/17	ISSUED FOR PERMITS
2	04/24/17	ISSUED FOR PERMITS
3	04/24/17	ISSUED FOR PERMITS
4	04/24/17	ISSUED FOR PERMITS
5	04/24/17	ISSUED FOR PERMITS
6	04/24/17	ISSUED FOR PERMITS
7	04/24/17	ISSUED FOR PERMITS
8	04/24/17	ISSUED FOR PERMITS
9	04/24/17	ISSUED FOR PERMITS
10	04/24/17	ISSUED FOR PERMITS
11	04/24/17	ISSUED FOR PERMITS

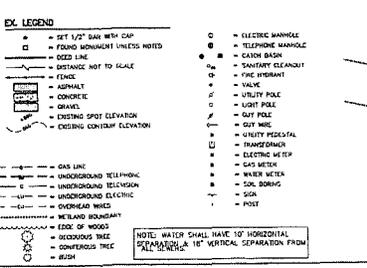
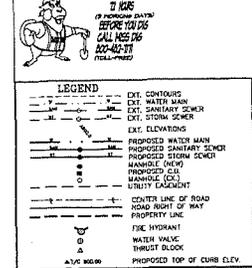
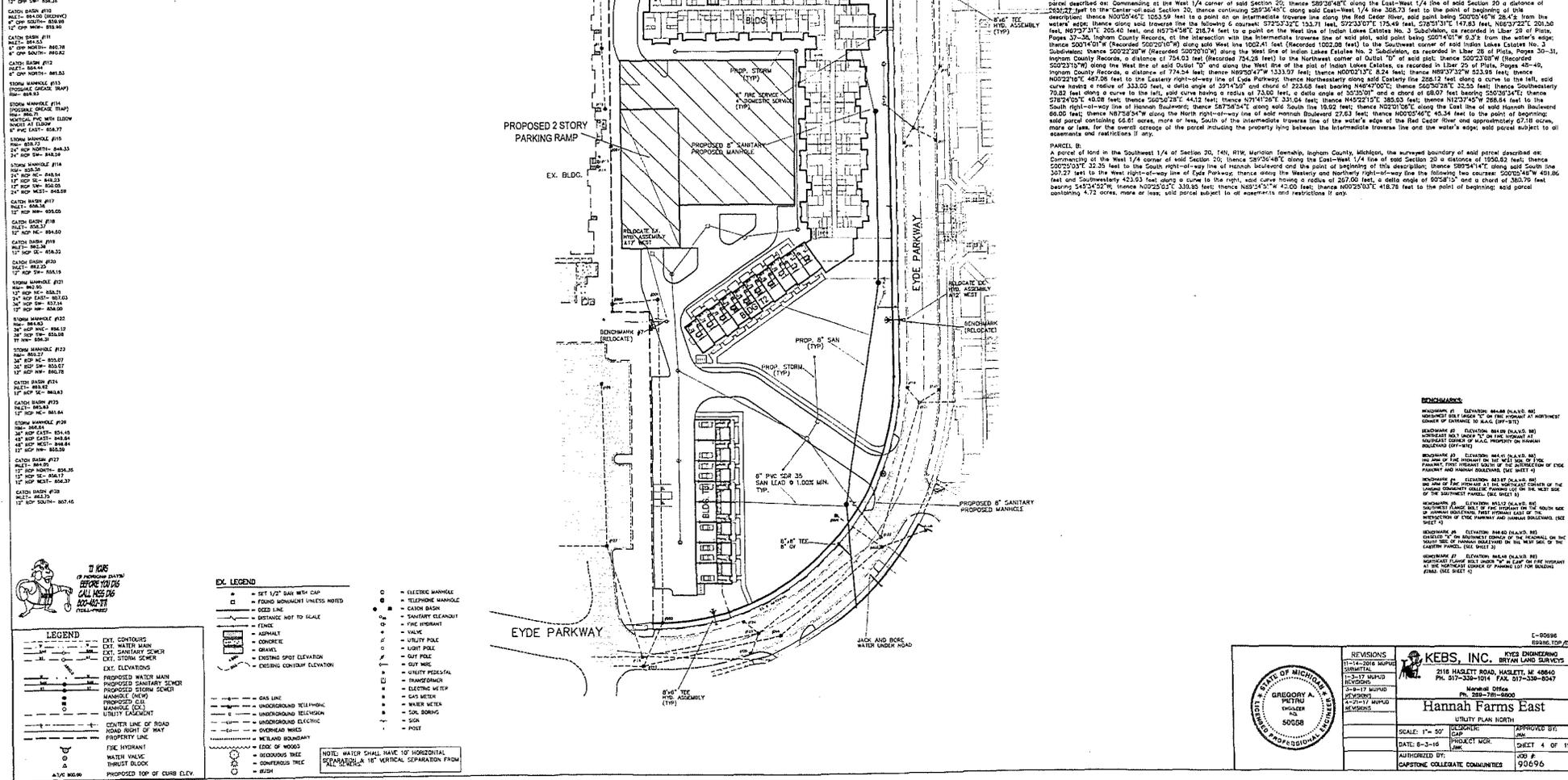
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M.U.P.U.D. PLAN FOR:
Hannah Farms East
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EX. SEWER INVENTORIES

STORM MANHOLE #101 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #101 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #101 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #102 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #102 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #102 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #103 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #103 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #103 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #104 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #104 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #104 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #105 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #105 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #105 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #106 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #106 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #106 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #107 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #107 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #107 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #108 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #108 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #108 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #109 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #109 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #109 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #110 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #110 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #110 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #111 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #111 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #111 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #112 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #112 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #112 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #113 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #113 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #113 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #114 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #114 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #114 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #115 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #115 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #115 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #116 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #116 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #116 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #117 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #117 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #117 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #118 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #118 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #118 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #119 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #119 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #119 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #120 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #120 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #120 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #121 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #121 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #121 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #122 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #122 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #122 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #123 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #123 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #123 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #124 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #124 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #124 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #125 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #125 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #125 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #126 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #126 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #126 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #127 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #127 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #127 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #128 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #128 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #128 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #129 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #129 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #129 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20
STORM MANHOLE #130 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	CATCH BASIN #130 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20	SANITARY MANHOLE #130 12" DIA. - 881.20 12" DIA. - 881.20 12" DIA. - 881.20



PARCEL A:
 A parcel of land in the Northeast 1/4 and the Southwest 1/4 of Section 20, T4N, R7W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section 20; thence S20°34'48"E along the East-West 1/4 line of said Section 20 a distance of 500.227 feet to the Center of said Section 20, thence continuing S20°34'48"E along said East-West 1/4 line 308.73 feet to the point of beginning of this description; thence N0°20'44"E 1003.59 feet to a point on an intermediate traverse line along the West Center line, said point being 500.000'± from the water's edge; thence along said traverse line the following 6 courses: 1) S72°33'32"E 133.71 feet, 2) S72°33'32"E 175.49 feet, 3) N82°32'22"E 201.50 feet, 4) N0°22'47"E 205.49 feet, 5) N0°24'04"E 283.74 feet to a point on the West line of Indian Lakes Estates, No. 3 Subdivision, as recorded in Liber 23 of Plats, Pages 27-30, Ingham County Records, at the intersection with the Intermediate Traverse line of said plat, said point being 500.000'± from the water's edge; thence S0°14'01"E (Recorded S0°22'00"E) along said West line 1002.01 feet (Recorded 1002.00 feet) to the Southwest corner of said Indian Lakes Estates, No. 3 Subdivision, thence S0°22'28"W (Recorded S0°20'00"W) along the West line of Indian Lakes Estates, No. 2 Subdivision, as recorded in Liber 28 of Plats, Pages 30-31, Ingham County Records, a distance of 754.03 feet (Recorded 754.28 feet) to the Northwest corner of said 1/4 of said plat, thence S0°22'00"E (Recorded S0°23'17"E) along the West line of said 1/4 of said plat and along the West line of the plat of Indian Lakes Estates, as recorded in Liber 25 of Plats, Pages 48-49, Ingham County Records, a distance of 774.54 feet (Recorded N0°20'47"W 133.97 feet); thence N0°21'37"E 82.24 feet; thence N0°23'32"W 523.89 feet; thence N0°22'15"E 485.08 feet to the Lateral right-of-way line of Eye Parkway; thence Northwesterly along said Lateral line 208.12 feet along a curve to the left, said curve having a radius of 333.00 feet, a delta angle of 39°14'50" and a chord of 223.68 feet bearing N44°47'00"E; thence S0°20'24"E 32.52 feet; thence S0°20'24"E 40.08 feet; thence S0°20'24"E 44.12 feet; thence N71°41'20"E 331.04 feet; thence N40°22'17"E 383.03 feet; thence N12°37'45"W 288.84 feet to the South right-of-way line of Hannah Boulevard; thence S47°38'42"E along said South line 18.50 feet; thence N0°21'07"E 401.86 feet; thence S0°21'07"E 401.86 feet; thence N0°22'54"W along the North right-of-way line of said Hannah Boulevard 27.63 feet; thence N0°20'54"E 45.34 feet to the point of beginning; said parcel containing 68.81 acres, more or less, South of the Intermediate Traverse line of the water's edge of the Red Cedar River and approximately 67.18 acres, more or less, for the overall acreage of the parcel including the property lying between the Intermediate Traverse line and the water's edge; said parcel subject to all easements and restrictions if any.

PARCEL B:
 A parcel of land in the Southwest 1/4 of Section 20, T4N, R7W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section 20; thence S20°34'48"E along the East-West 1/4 line of said Section 20 a distance of 500.228 feet; thence S20°33'37"E 32.35 feet to the South right-of-way line of Hannah Boulevard and the point of beginning of this description; thence S0°21'14"E along said South line 303.27 feet to the West right-of-way line of Eye Parkway; thence along the Westerly and Northerly right-of-way line of said Eye Parkway 423.63 feet and Southwesterly 423.63 feet along a curve to the right, said curve having a radius of 267.00 feet, a delta angle of 90°58'15" and a chord of 385.70 feet bearing S45°42'52"E; thence N0°22'07"E 330.00 feet; thence N45°47'45"E 43.00 feet; thence N0°25'03"E 418.78 feet to the point of beginning; said parcel containing 4.72 acres, more or less, said parcel subject to all easements and restrictions if any.

BENCHMARKS:

- BENCHMARK #1 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #2 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #3 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #4 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #5 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #6 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #7 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #8 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #9 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)
- BENCHMARK #10 ELEVATION 848.0 (ASLT) BEING 10.0 FEET FROM THE CENTER OF ENTRANCE TO H.A.C. (OFF-SITE)

REVISIONS

1	2016	NOV 15	NOV 15	NOV 15	NOV 15
2	2016	NOV 15	NOV 15	NOV 15	NOV 15
3	2016	NOV 15	NOV 15	NOV 15	NOV 15
4	2016	NOV 15	NOV 15	NOV 15	NOV 15
5	2016	NOV 15	NOV 15	NOV 15	NOV 15
6	2016	NOV 15	NOV 15	NOV 15	NOV 15

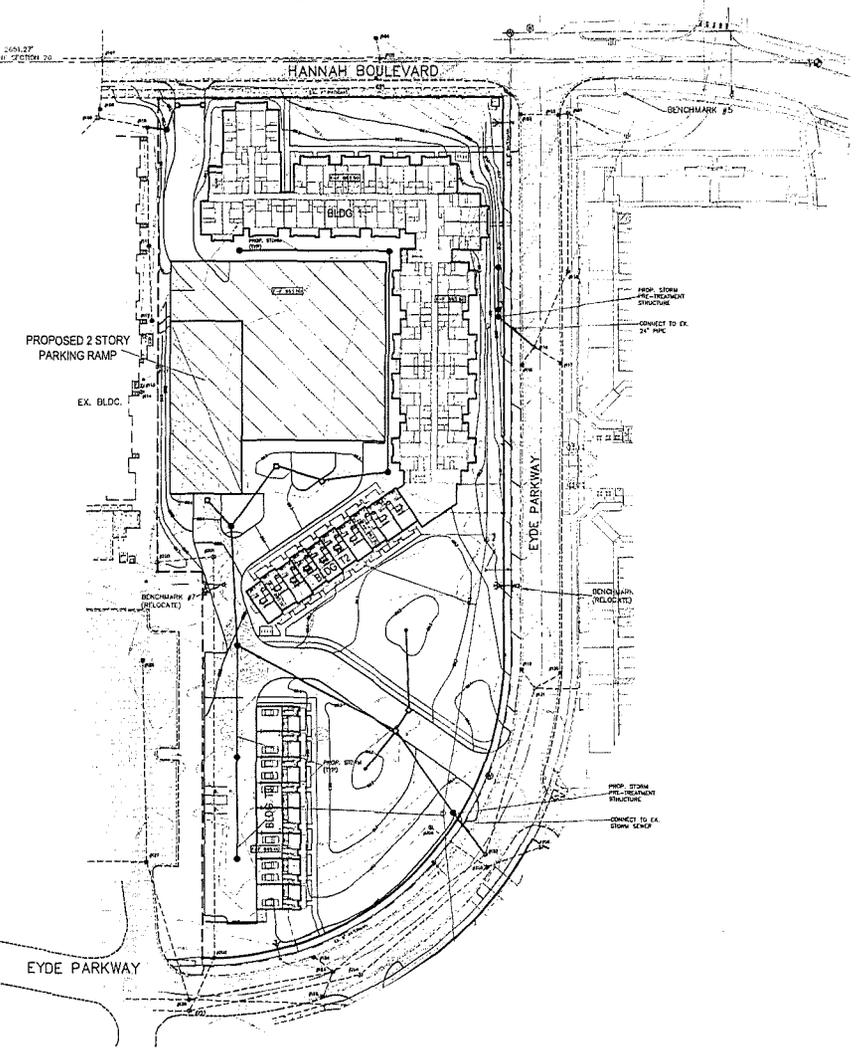
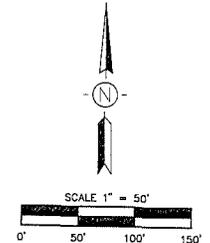
KEBS, INC. PLYER ENGINEERING
 2118 HAZLETT ROAD, HAZLETT, MI 48840
 PH: 517-330-1014 FAX: 517-330-8047

Hannah Farms East
 UTILITY PLAN NORTH

SCALE: 1" = 50'
 DATE: 8-3-16
 AUTHORIZED BY: JSS
 CUSTOME COLLABORATE COMMITMENT

APPROVED BY: [Signature]
 PROJECT MGR: [Signature]
 SHEET 4 OF 11
 9/6/16

M.U.P.U.D. PLAN FOR:
Hannah Farms East
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EX. SEWER INVENTORIES

CATCH BASIN #101 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #102 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #103 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #104 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #105 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #106 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #107 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #108 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #109 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #110 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #111 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #112 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #113 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #114 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #115 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #116 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #117 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #118 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #119 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #120 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #121 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #122 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #123 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #124 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #125 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #126 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #127 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #128 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #129 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #130 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #131 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #132 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #133 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #134 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #135 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #136 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #137 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #138 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #139 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #140 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #141 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #142 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #143 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #144 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #145 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #146 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #147 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #148 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #149 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00	CATCH BASIN #150 12" COP DIA- 842.00 12" COP DIA- 842.00 12" COP DIA- 842.00
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EX. LEGEND

●	SET 1/2" BAR WITH CAP	○	ELECTRIC MANHOLE
■	FOUND MONUMENT UNLESS NOTED	○	TELEPHONE MANHOLE
■	DEED LINE	○	CATCH BASIN
---	DISTANCE NOT TO SCALE	○	SANITARY CLEANOUT
---	EDGE	○	PIPE MANHOLE
---	ASPHALT	○	VALVE
---	CONCRETE	○	UTILITY POLE
---	GRAVEL	○	LIGHT POLE
---	ENDING SPOT ELEVATION	○	QUIK POLE
---	ENDING CONTROL ELEVATION	○	QUIK WIRE
---		○	UTILITY PEDESTAL
---		○	SHAW CORNER
---		○	ELECTRIC METER
---		○	GAS METER
---		○	WATER METER
---		○	SOB BORING
---		○	SOB
---		○	POST
---		○	MEADOW BOUNDARY
---		○	EDGE OF WOODS
---		○	WOODPILE TRAIL
---		○	CONTINUOUS TRAIL
---		○	BUSH

NOTE: WATER SHALL HAVE 10' HORIZONTAL SEPARATION & 18" VERTICAL SEPARATION FROM ALL UTILITIES



LEGEND

---	EXT. CONTROL
---	EXT. WATER MAIN
---	EXT. SANITARY SEWER
---	EXT. STORM SEWER
---	EXT. ELEVATION
---	PROPOSED WATER MAIN
---	PROPOSED SANITARY SEWER
---	PROPOSED STORM SEWER
---	PROPOSED CUB
---	MANHOLE SIGN
---	UTILITY EASEMENT
---	CENTER LINE OF ROAD
---	ROAD RIGHT OF WAY
---	PROPERTY LINE
---	FIRE HYDRANT
---	WATER VALVE
---	THURST BLOCK
---	PROPOSED TOP OF CURB ELEV.

BENCHMARKS

BENCHMARK #1	ELEVATION 84.88 (N.A.S. 84)
BENCHMARK #2	ELEVATION 84.88 (N.A.S. 84)
BENCHMARK #3	ELEVATION 84.88 (N.A.S. 84)
BENCHMARK #4	ELEVATION 84.88 (N.A.S. 84)
BENCHMARK #5	ELEVATION 84.88 (N.A.S. 84)

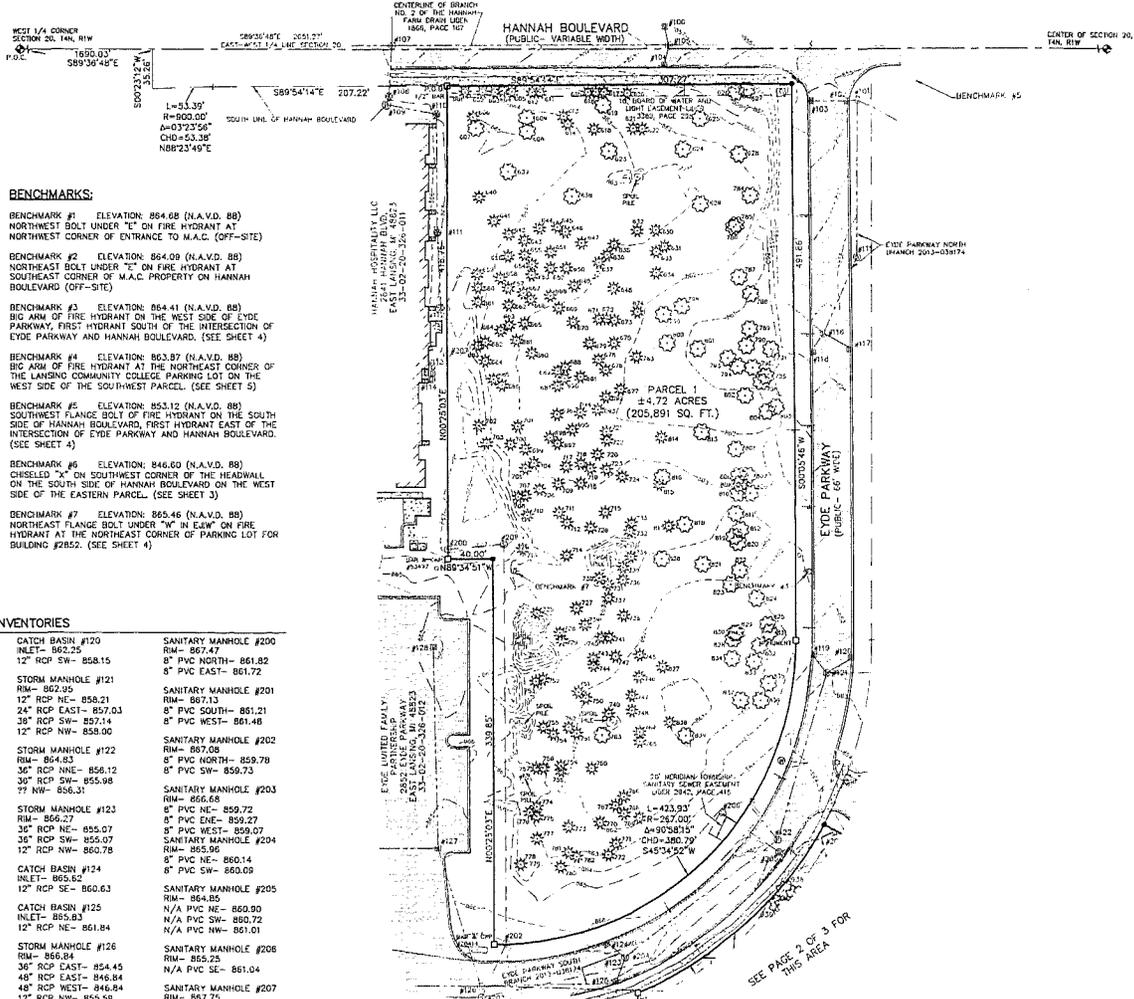
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	PROJECT: Hannah Farms East SHEET: 6 OF 11 DATE: 6-3-18 DRAWN BY: JSS CHECKED BY: JSS APPROVED BY: JSS	PROJECT: Hannah Farms East SHEET: 6 OF 11 DATE: 6-3-18 DRAWN BY: JSS CHECKED BY: JSS APPROVED BY: JSS	

ALTA/NSPS LAND TITLE SURVEY

"HANNAH FARMS EAST- PARCEL 1"

LEGEND

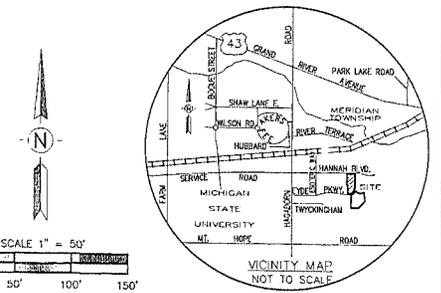
- = SET 1/2" BAR WITH CAP
- = FOUND IRON AS NOTED
- = DEED LINE
- = DISTANCE NOT TO SCALE
- = FENCE
- = ASPHALT
- = CONCRETE
- = DECK
- = EXISTING SPOT ELEVATION
- = EXISTING CONTOUR ELEVATION
- = SANITARY SEWER
- = STORM SEWER
- = WATER LINE
- = GAS LINE
- = UNDERGROUND TELEPHONE
- = UNDERGROUND TELEVISION
- = UNDERGROUND ELECTRIC
- = OVERHEAD WIRES
- = DECIDUOUS TREE
- = CONIFEROUS TREE
- = SANITARY MANHOLE
- = DRAINAGE MANHOLE
- = ELECTRIC MANHOLE
- = TELEPHONE MANHOLE
- = CATCHBASIN
- = SANITARY CLEANDUT
- = FIRE HYDRANT
- = VALVE
- = UTILITY POLE
- = LIGHT POLE
- = GUY POLE
- = GUY WIRE
- = UTILITY PEDESTAL
- = TRANSFORMER
- = ELECTRIC METER
- = GAS METER
- = WATER METER
- = SOIL BORING
- = SIGN
- = POST
- = DOWNSPOUT
- = WETLAND BOUNDARY
- = TREE IDENTIFICATION NUMBER



- BENCHMARKS:**
- BENCHMARK #1 ELEVATION: 864.68 (N.A.V.D. 88)
NORTHWEST BOLT UNDER "E" ON FIRE HYDRANT AT
NORTHWEST CORNER OF ENTRANCE TO M.A.C. (OFF-SITE)
 - BENCHMARK #2 ELEVATION: 864.09 (N.A.V.D. 88)
NORTHEAST BOLT UNDER "E" ON FIRE HYDRANT AT
SOUTHEAST CORNER OF M.A.C. PROPERTY ON HANNAH
BOULEVARD (OFF-SITE)
 - BENCHMARK #3 ELEVATION: 864.41 (N.A.V.D. 88)
BIG ARM OF FIRE HYDRANT ON THE WEST SIDE OF EYDE
PARKWAY, FIRST HYDRANT SOUTH OF THE INTERSECTION OF
EYDE PARKWAY AND HANNAH BOULEVARD. (SEE SHEET 4)
 - BENCHMARK #4 ELEVATION: 863.87 (N.A.V.D. 88)
BIG ARM OF FIRE HYDRANT AT THE NORTHEAST CORNER OF
THE LANDING COMMUNITY COLLEGE PARKING LOT ON THE
WEST SIDE OF THE SOUTH-WEST PARCEL. (SEE SHEET 5)
 - BENCHMARK #5 ELEVATION: 853.12 (N.A.V.D. 88)
SOUTHWEST FLANGE BOLT OF FIRE HYDRANT ON THE SOUTH
SIDE OF HANNAH BOULEVARD, FIRST HYDRANT EAST OF THE
INTERSECTION OF EYDE PARKWAY AND HANNAH BOULEVARD.
(SEE SHEET 4)
 - BENCHMARK #6 ELEVATION: 846.60 (N.A.V.D. 88)
CHISELED "X" ON SOUTHWEST CORNER OF THE HEADWALL
ON THE SOUTH SIDE OF HANNAH BOULEVARD ON THE WEST
SIDE OF THE EASTERN PARCEL. (SEE SHEET 3)
 - BENCHMARK #7 ELEVATION: 865.46 (N.A.V.D. 88)
NORTHEAST FLANGE BOLT UNDER "W" IN E/W ON FIRE
HYDRANT AT THE NORTHEAST CORNER OF PARKING LOT FOR
BUILDING #2852. (SEE SHEET 4)

SEWER INVENTORIES

STORM MANHOLE #101 RM- 855.94 24" CPP SE- 847.05 24" RCP SOUTH- 847.17 12" RCP WEST- 848.29	CATCH BASIN #110 INLET- 864.00 (BEEHIVE) 6" CPP SOUTH- 859.98 12" CPP NW- 858.90	CATCH BASIN #120 INLET- 862.25 12" RCP SW- 858.15	SANITARY MANHOLE #200 RM- 867.47 12" RCP NORTH- 861.82 8" PVC EAST- 861.72
CATCH BASIN #102 INLET- 855.18 12" RCP EAST- 850.48 12" RCP WEST- 850.25	CATCH BASIN #111 INLET- 864.63 6" CPP SOUTH- 860.82	STORM MANHOLE #121 RM- 862.95 12" RCP NE- 858.21 24" RCP EAST- 857.03 36" RCP SW- 857.14 12" RCP NW- 858.00	SANITARY MANHOLE #201 RM- 867.13 12" RCP SOUTH- 851.21 8" PVC WEST- 861.48
CATCH BASIN #103 INLET- 855.00 12" RCP EAST- 850.93	CATCH BASIN #112 INLET- 864.44 6" CPP NORTH- 861.53	STORM MANHOLE #122 RM- 864.83 36" RCP NNE- 856.12 30" RCP SW- 855.98 7" NW- 856.31	SANITARY MANHOLE #202 RM- 867.08 8" PVC NORTH- 859.78 8" PVC SW- 859.73
CATCH BASIN #104 INLET- 858.97 12" RCP NNE- 853.14	STORM MANHOLE #113 RM- 864.93 (POSSIBLE GREASE TRAP)	STORM MANHOLE #123 RM- 864.27 36" RCP NE- 855.07 35" RCP SW- 855.07 12" RCP NW- 860.78	SANITARY MANHOLE #203 RM- 866.68 8" PVC NE- 859.72 8" PVC ENE- 859.27 8" PVC WEST- 859.07 SANITARY MANHOLE #204 RM- 865.96 8" PVC NE- 860.14 8" PVC SW- 860.09
STORM MANHOLE #105 RM- 857.50 12" RCP NNW- 852.61 36" RCP EAST- 845.72 12" RCP SOUTH- 852.35 36" RCP SSW- 845.78	STORM MANHOLE #114 (POSSIBLE GREASE TRAP) VERTICAL PVC WITH ELBOW INVERT AT ELBOW 6" PVC EAST- 859.77 36" RCP SSW- 845.78	CATCH BASIN #124 INLET- 865.82 12" RCP SE- 860.63	SANITARY MANHOLE #205 RM- 864.85 N/A PVC NE- 860.90 N/A PVC SW- 860.72 N/A PVC NW- 861.01
CATCH BASIN #106 INLET- 857.15 12" RCP SE- 853.20	STORM MANHOLE #115 RM- 858.73 24" RCP NORTH- 848.33 24" RCP SW- 848.59	CATCH BASIN #125 INLET- 865.83 12" RCP NE- 861.84	SANITARY MANHOLE #206 RM- 865.25 N/A PVC SE- 861.04
STORM MANHOLE #107 RM- 862.73 12" RCP NORTH- 853.21 36" RCP EAST- 850.06 12" RCP SOUTH- 851.17 36" RCP WEST- 850.07	STORM MANHOLE #116 RM- 858.38 24" RCP NE- 848.54 12" RCP SE- 849.23 12" RCP SW- 850.05 24" RCP WEST- 848.66	STORM MANHOLE #126 RM- 866.84 36" RCP EAST- 854.45 48" RCP EAST- 846.84 48" RCP WEST- 846.84 12" RCP NW- 855.39	SANITARY MANHOLE #207 RM- 861.75 8" PVC SOUTH- 862.53
CATCH BASIN #108 INLET- 864.78 12" RCP NORTH- 852.24 12" CPP SSW- 852.32	CATCH BASIN #117 INLET- 858.38 12" RCP NW- 855.05	CATCH BASIN #127 INLET- 864.02 12" RCP NORTH- 856.35 12" RCP SE- 856.17 12" RCP WEST- 856.37	
STORM MANHOLE #109 RM- 865.26 12" CPP NORTH- 852.00 12" CPP ESE- 858.48 12" CPP SW- 858.38	CATCH BASIN #118 INLET- 858.37 12" RCP NE- 854.50	CATCH BASIN #128 INLET- 863.75 12" RCP SOUTH- 857.45	



SURVEYOR'S NOTES:

1. This plan was made at the direction of the parties named herein and is intended solely for their immediate use. Survey prepared from benchmark network in June 2016.
 2. All bearings and distances on the survey are correct and measured unless otherwise noted. Bearings are based on the National True Azimuth System, NAD 83, Michigan Meridian No. 1, dated June 22, 2016. Elevations based on N.A.V.D. 88.
 3. All dimensions are in feet and decimals thereof.
 4. No building dimensions are to be used for establishing the property lines.
 5. There are no observable potential encroachments onto the subject property from adjoining lots, or from the subject property onto adjoining lands, except as shown hereon.
 6. See sheet 4 for direct access to public Hannah Boulevard and public Eyde Parkway.
- PARCEL 1: ALTA/NSPS LAND TITLE SURVEY - TABLE "A" REQUIREMENTS:**
- Item 1: Address of Parcel 1:
Vacant - Hannah Boulevard, East Lansing, MI 48823
 - Item 2: By scaled map location and graphic platting only, Parcel 1 lies entirely within Flood Zone "X", areas outside the 0.2% annual chance floodplain according to the National Flood Insurance Program, Flood Insurance Rate Map for the City of East Lansing, Ingham County, Michigan, Community Panel No. 260993 0152 G, dated August 16, 2011.
 - Item 4: 4.72 Acres (205,891 square feet)
 - Item 5: Shown on the survey map.
 - Item 7a: Parcel is vacant - there are no buildings on-site.
 - Item 8: Shown on the survey map.
 - Item 10: There is no observable evidence of earth moving work, building construction, or building additions within recent months.
 - Item 11: There is no observable evidence of proposed changes in street right-of-way, or recent street or sidewalk construction or repairs.
 - Item 16: There were no wetlands delineated on Parcel 1 at the time of this survey.



REVISIONS	COMMENTS	DATE

KEBS, INC. ENGINEERING AND LAND SURVEYING
2116 HASLETT ROAD, HASLETT, MI 48840
PH: 517-338-1014 FAX: 517-338-8047
Normal Office Ph: 269-781-8800

DRAWN BY: SLH SECTION: 20, T4N, R17W
FIELD WORK BY: RF JOB NUMBER:
SHEET: 10 OF 11 E-90698

ALTA/NSPS LAND TITLE SURVEY

"HANNAH FARMS EAST- PARCEL 2"

BENCHMARKS:

BENCHMARK #1 ELEVATION: 864.68 (N.A.V.D. 88)
NORTHWEST BOLT UNDER "C" ON FIRE HYDRANT AT NORTHWEST CORNER OF ENTRANCE TO M.A.C. (OFF-SITE)

BENCHMARK #2 ELEVATION: 864.09 (N.A.V.D. 88)
NORTHWEST BOLT UNDER "T" ON FIRE HYDRANT AT SOUTHEAST CORNER OF M.A.C. PROPERTY ON HANNAH BOULEVARD (OFF-SITE)

BENCHMARK #3 ELEVATION: 864.41 (N.A.V.D. 88)
BIG ARM OF FIRE HYDRANT ON THE WEST SIDE OF EYDE PARKWAY, FIRST HYDRANT SOUTH OF THE INTERSECTION OF EYDE PARKWAY AND HANNAH BOULEVARD. (SEE SHEET 4)

BENCHMARK #4 ELEVATION: 862.87 (N.A.V.D. 88)
BIG ARM OF FIRE HYDRANT AT THE NORTHEAST CORNER OF THE LANSING COMMUNITY COLLEGE PARKING LOT ON THE WEST SIDE OF THE SOUTHWEST PARCEL. (SEE SHEET 5)

BENCHMARK #5 ELEVATION: 853.12 (N.A.V.D. 88)
SOUTHWEST FLANGE BOLT OF FIRE HYDRANT ON THE SOUTH SIDE OF HANNAH BOULEVARD, FIRST HYDRANT EAST OF THE INTERSECTION OF EYDE PARKWAY AND HANNAH BOULEVARD. (SEE SHEET 4)

BENCHMARK #6 ELEVATION: 846.69 (N.A.V.D. 88)
CHISELED "X" ON SOUTHWEST CORNER OF THE HEADWALL ON THE SOUTH SIDE OF HANNAH BOULEVARD ON THE WEST SIDE OF THE EASTERN PARCEL. (SEE SHEET 3)

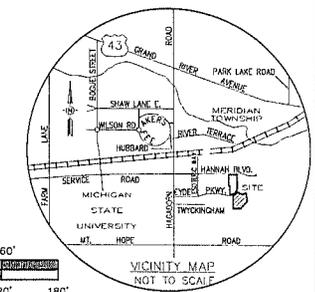
BENCHMARK #7 ELEVATION: 865.46 (N.A.V.D. 88)
NORTHEAST FLANGE BOLT UNDER "W" IN CURB ON FIRE HYDRANT AT THE NORTHEAST CORNER OF PARKING LOT FOR BUILDING #2852. (SEE SHEET 4)

WEST 1/4 CORNER SECTION 20, T4N, R1W

EAST-WEST 1/4 LINE SECTION 20

CENTER OF SECTION 20, T4N, R1W

EAST 1/4 CORNER SECTION 20, T4N, R1W



SCALE 1" = 60'

SEE SHEET 3 OF 3 FOR LEGAL DESCRIPTION AND EASEMENTS

SURVEYOR'S NOTES:

- The map was made at the direction of the parties named herein and is intended solely for their immediate use. Survey prepared from fieldwork performed in June 2016.
- All bearings and distances on the survey are record and measured unless otherwise noted. Bearings are based on True North, Commission No. 182915LANS, Revision No. 1, dated June 22, 2016. Elevations based on N.A.V.D. 88.
- All dimensions are in feet and decimals thereof.
- All existing building dimensions are to be used for establishing the property lines.
- There are no observable potential encroachments onto the subject property from adjoining lands, or from the subject property onto adjoining lands, except as shown hereon.
- Parcel has direct access to public Eyde Parkway.

PARCEL 2: ALTA/NSPS LAND TITLE SURVEY - TABLE "A" REQUIREMENTS:

- Shown on the survey map.
- Address of the Parcel 2: Vacant- Eyde Parkway, East Lansing, MI 48823
- By scaled map location and graphic plotting only. Parcel 2 lies partially within Flood Zone "X", areas outside the 0.2% annual chance floodplain, and partially within Flood Zone "AE" areas within the 100-year floodplain, according to the National Flood Insurance Program, Flood Insurance Rate Map for the City of East Lansing, Ingham County, Michigan, Community Panel No. 260093 0152 D, dated August 16, 2011.
- 0.87 acres (250,859 square feet)
- Shown on the survey map.
- Parcel is vacant- there are no buildings on-site.
- Shown on the survey map.
- Shown on the survey map.
- There is no observable evidence of earth moving work, building construction, or roadway additions within recent months.
- There is no observable evidence of proposed changes in street right-of-way (back or recent street or sidewalk construction or repairs).
- There were no wetlands delineated on Parcel 2 on the date of this survey.

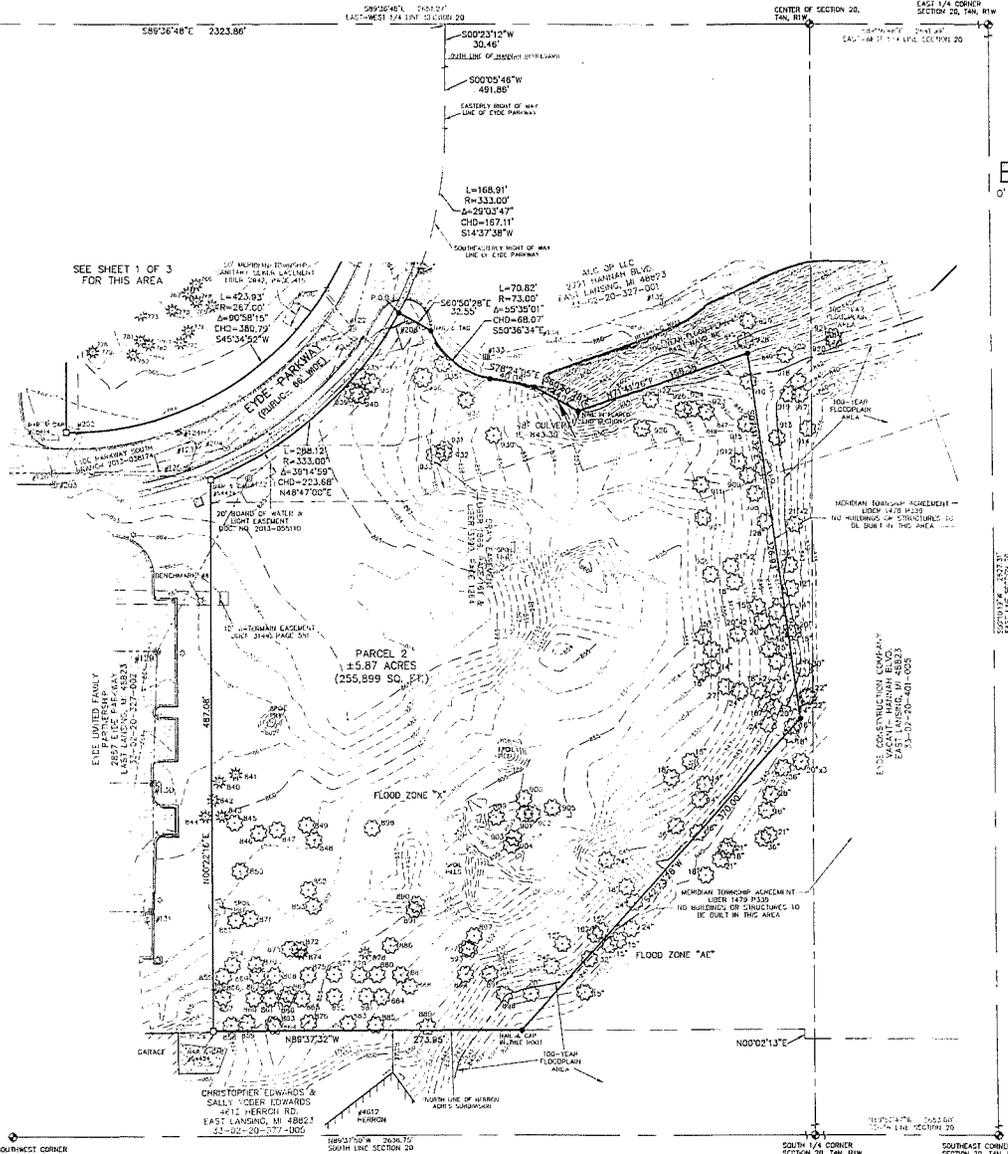


SEWER INVENTORIES

STORM MANHOLE	CATCH BASIN	SANITARY MANHOLE
#122 RM= 864.83 36" RCP NNE= 856.12 36" RCP SW= 855.98 77" NW= 858.31	#130 INLET= 860.23 18" RCP NORTH= 852.85 12" RCP SOUTH= 853.02 12" RCP WEST= 856.00	#202 RM= 857.08 8" PVC NORTH= 859.78 8" PVC SW= 856.73
#123 RM= 864.27 36" RCP NE= 855.07 36" RCP SW= 853.97 12" RCP NW= 860.78	#131 INLET= 858.64 12" RCP NORTH= 853.41 12" RCP WEST= 853.99	#203 RM= 866.68 8" PVC NE= 859.27 8" PVC ENE= 859.27 5" PVC WEST= 859.07
#124 INLET= 865.62 12" RCP SE= 860.63	#132 RM= 864.39 12" RCP NE= 845.72 24" RCP SW= 850.26 77" WEST= 845.73	#204 RM= 865.96 8" PVC NE= 860.14 8" PVC SW= 859.09
#125 INLET= 863.83 12" RCP NE= 861.84	#133 INLET= 860.83 12" RCP EAST= 855.93	#205 RM= 865.01 77" PVC NE= 860.90 77" PVC SW= 850.72 77" PVC NW= 861.01
#126 RM= 866.84 36" RCP EAST= 854.45 48" RCP EAST= 846.84 48" RCP WEST= 846.84 12" RCP NW= 855.99	#134 RM= 857.63 12" RCP NE= 851.70 12" RCP SW= 851.66 8" RCP NW= 852.87	#206 RM= 855.25 77" PVC SE= 861.04
#129 INLET= 860.43 24" RCP NE= 851.93 18" RCP SOUTH= 852.26 15" RCP WEST= 855.08	#135 RM= 855.40 24" RCP NORTH= 846.10 24" RCP EAST= 846.03 12" RCP SW= 848.42	#208 RM= 865.01 8" PVC SW= 860.74

LEGEND

• = SET 1/2" BAR WITH CAP	⊙ = SANITARY MANHOLE
□ = FOUND IRON AS NOTED	⊙ = DRAINAGE MANHOLE
— = DEED LINE	⊙ = ELECTRIC MANHOLE
— = DISTANCE NOT TO SCALE	⊙ = TELEPHONE MANHOLE
— = FENCE	⊙ = CATCHBASIN
— = ASPHALT	⊙ = SANITARY CLEANOUT
— = CONCRETE	⊙ = FIRE HYDRANT
— = DECK	⊙ = VALVE
— = EXISTING SPOT ELEVATION	⊙ = UTILITY POLE
— = EXISTING CONTOUR ELEVATION	⊙ = LIGHT POLE
— = SANITARY SEWER	⊙ = GUY POLE
— = STORM SEWER	⊙ = GUY WIRE
— = WATER LINE	⊙ = UTILITY PEDESTAL
— = GAS LINE	⊙ = TRANSFORMER
— = UNDERGROUND TELEPHONE	⊙ = ELECTRIC METER
— = UNDERGROUND TELEVISION	⊙ = GAS METER
— = UNDERGROUND ELECTRIC	⊙ = WATER METER
— = OVERHEAD WIRES	⊙ = SOIL BORING
— = DECIDUOUS TREE	— = SIGN
— = CONIFEROUS TREE	— = POST
— = TREE IDENTIFICATION NUMBER	— = DOWNSPOUT
— = WETLAND BOUNDARY	



SOUTHWEST CORNER SECTION 20, T4N, R1W

SOUTH 1/4 CORNER SECTION 20, T4N, R1W

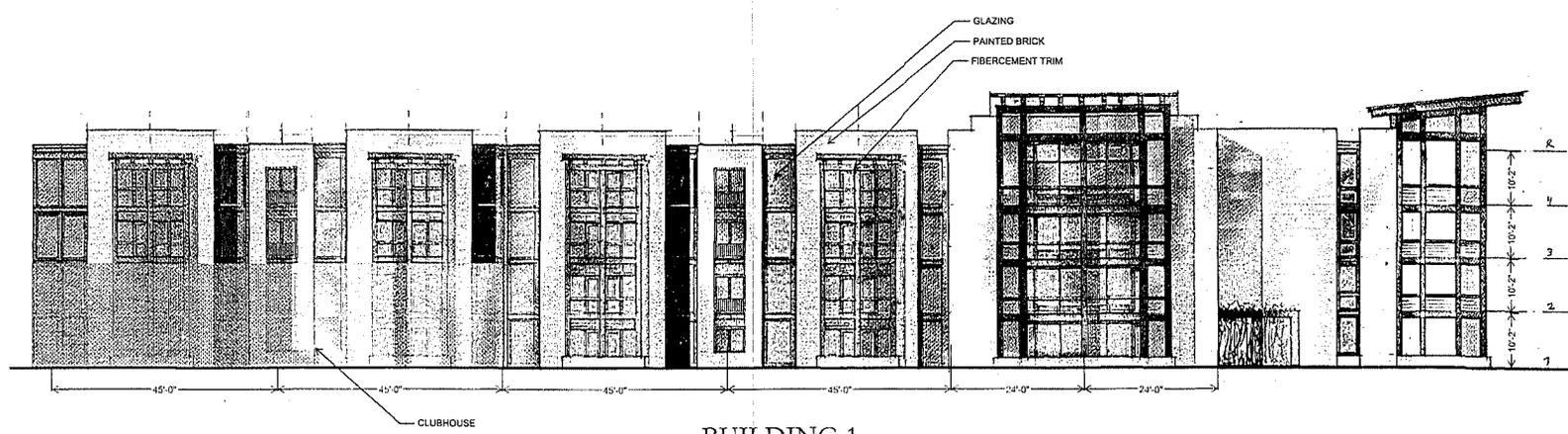
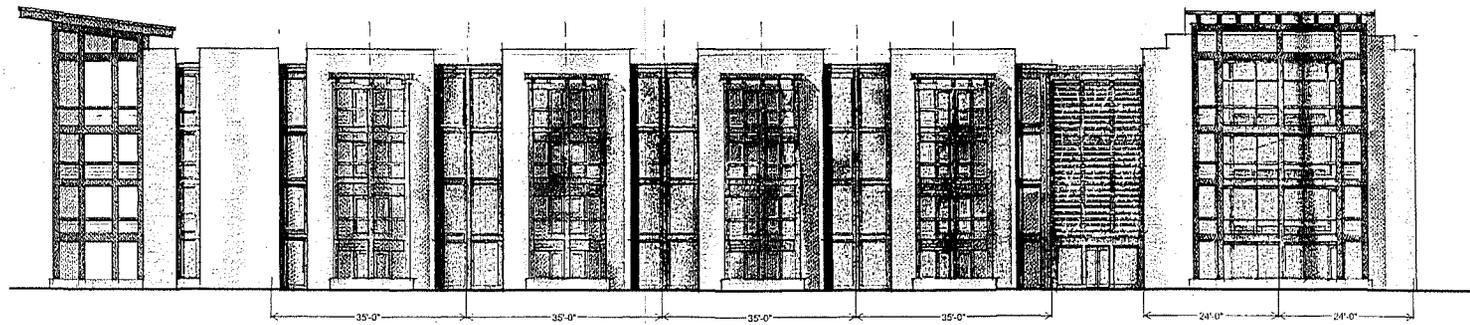
SOUTH 1/4 CORNER SECTION 20, T4N, R1W

SOUTHWEST CORNER SECTION 20, T4N, R1W

REVISIONS	COMMENTS	DATE	BY
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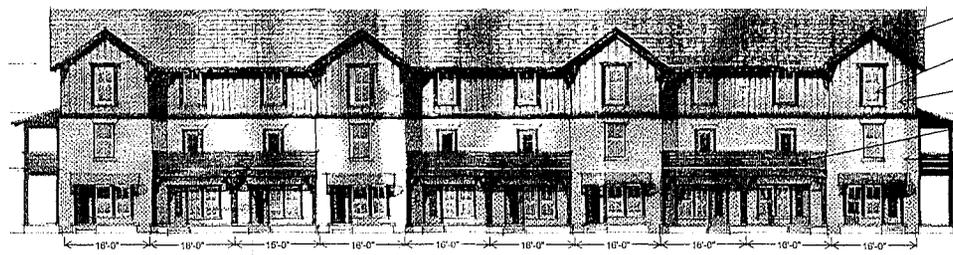
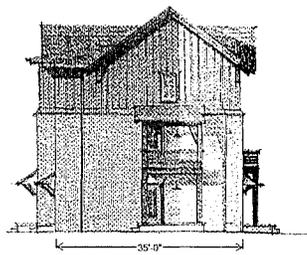
DRAWN BY		SECTION	
SLH	20	T4N	R1W

SHEET		JOB NUMBER	
11	01	90755	ALT

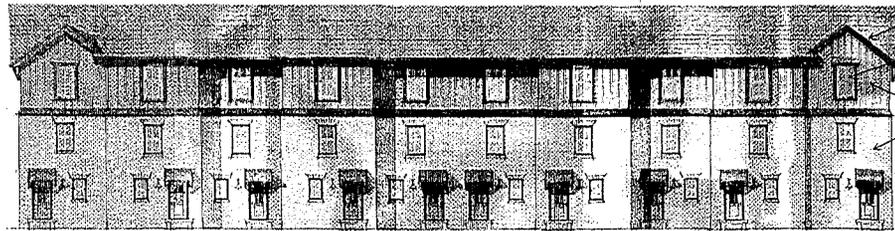


BUILDING 1

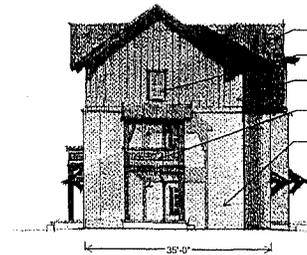
APR 24 2017



- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK



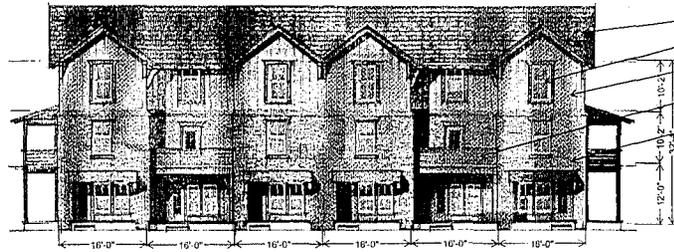
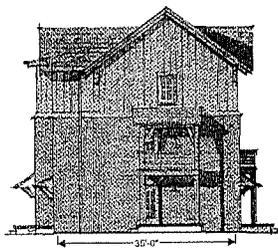
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK



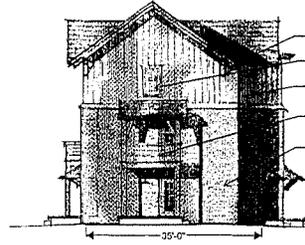
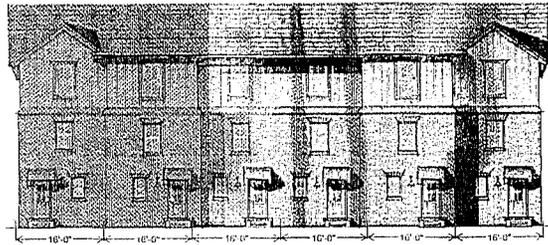
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK

10 UNIT NO GARAGE

BUILDING 2



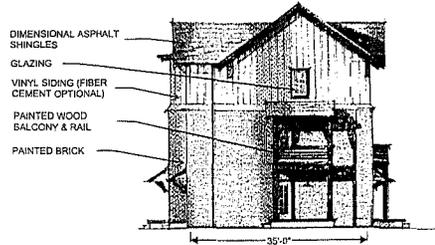
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- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK



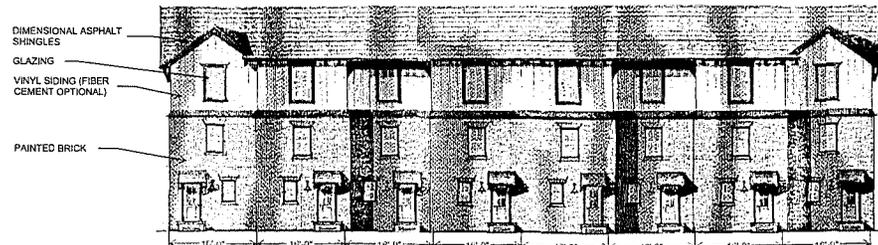
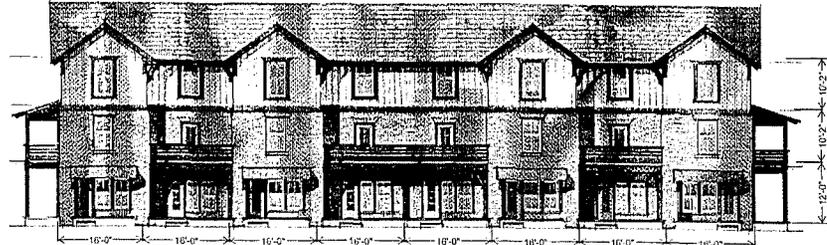
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK

6 UNIT - NO GARAGE

BUILDING 4



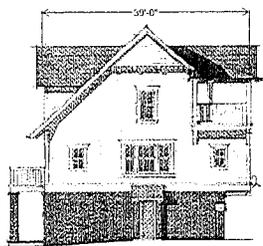
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- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED WOOD BALCONY & RAIL
- PAINTED BRICK



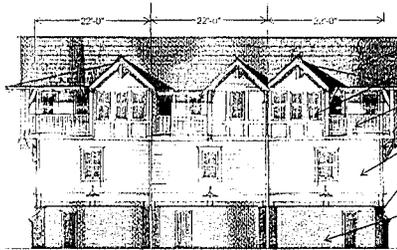
- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK

8 UNIT NO GARAGE

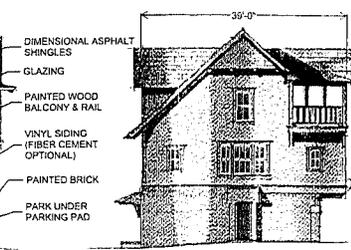
BUILDING 8



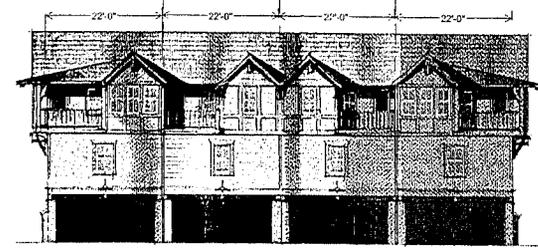
3 UNIT



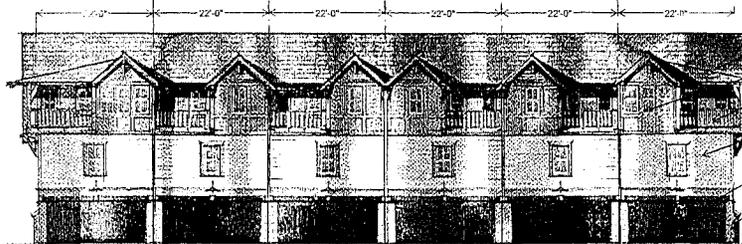
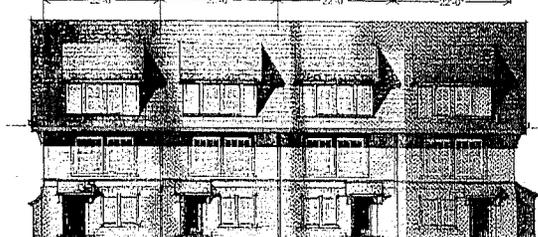
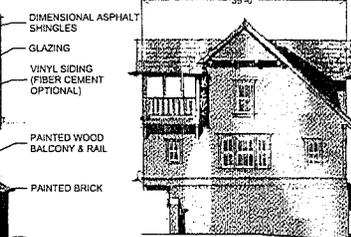
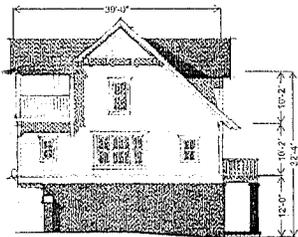
BUILDINGS 5 & 7



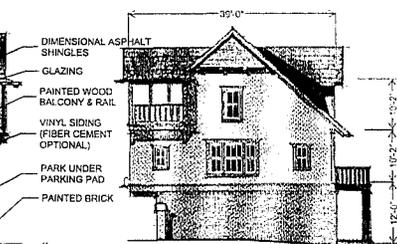
4 UNIT W/ STOOP



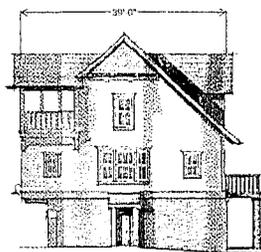
BUILDING 6



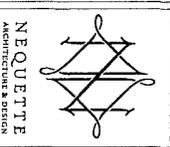
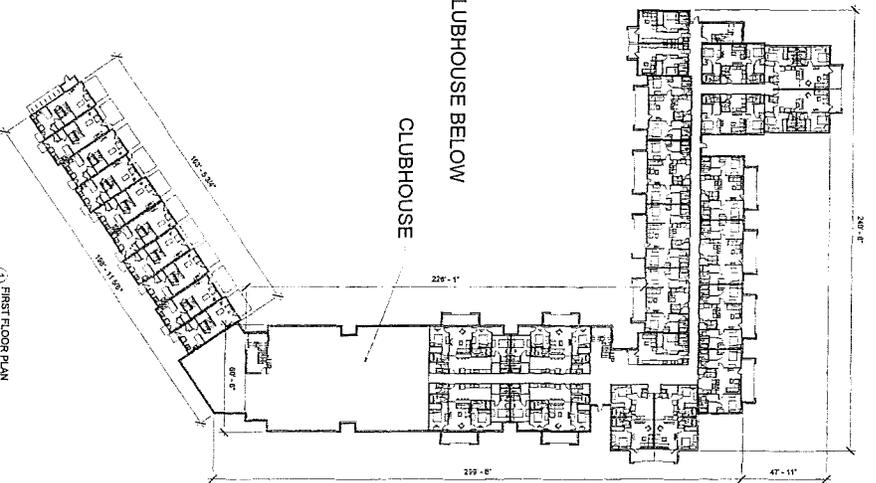
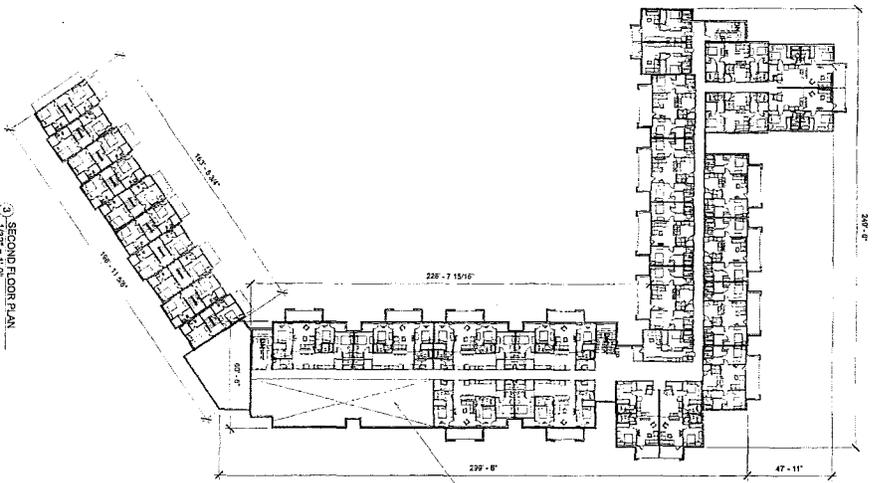
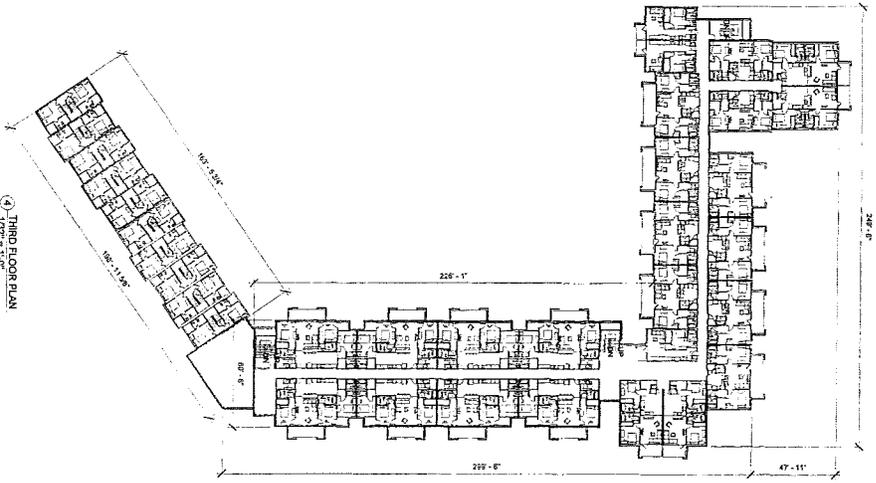
6 UNIT WITH PORCH



BUILDINGS 10 & 11



- DIMENSIONAL ASPHALT SHINGLES
- GLAZING
- PAINTED WOOD BALCONY & RAIL
- VINYL SIDING (FIBER CEMENT OPTIONAL)
- PAINTED BRICK

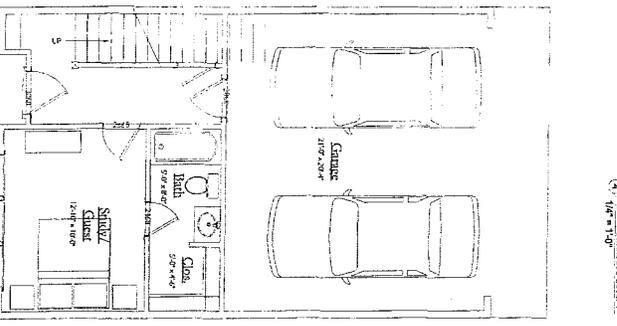
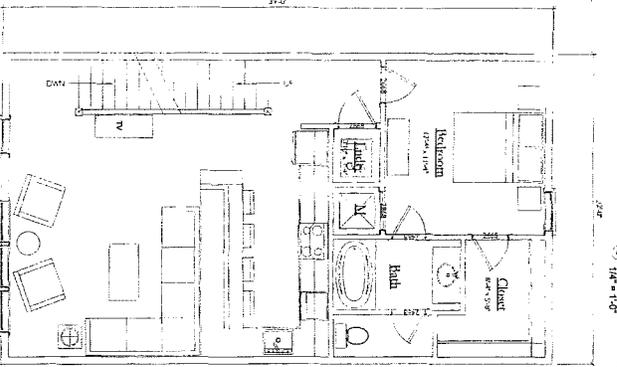
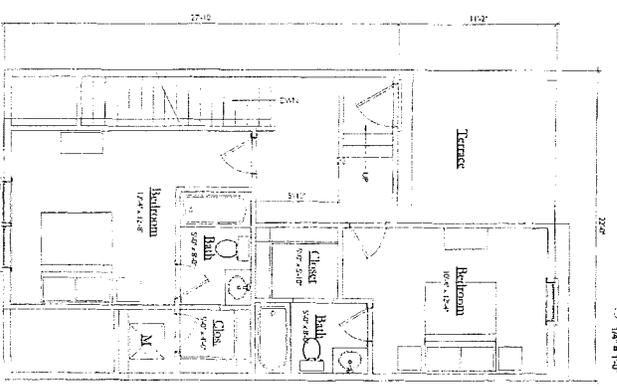
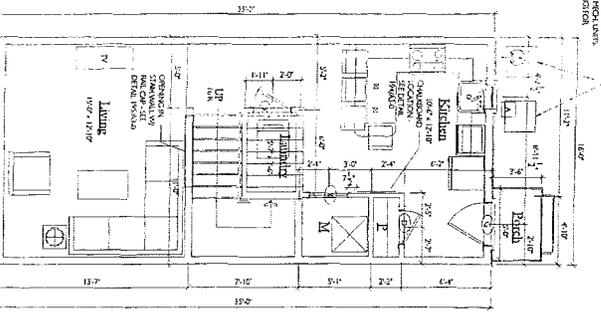
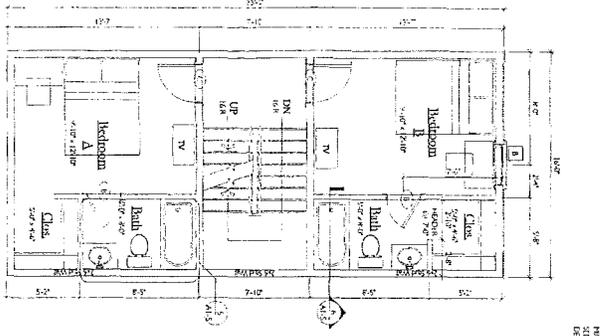
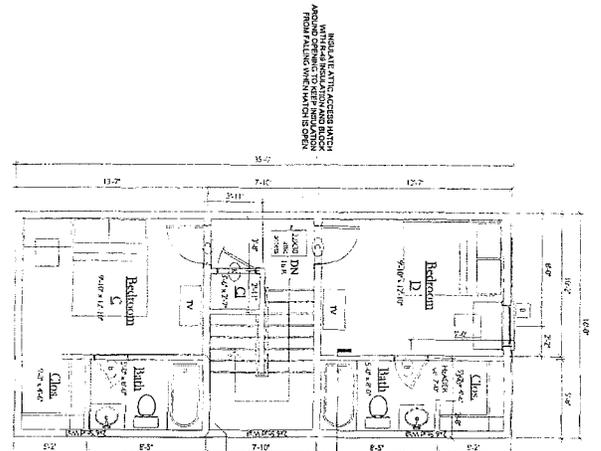


NEQUETTE
ARCHITECTURE & DESIGN

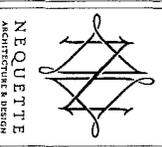
Hatfield Farms East

Author: 08/19/16
 Designer: 08/19/16
 Checker: 08/19/16
 Revisions:

Floor Plans
 A1.0



ATTACHED SCREENED WALL
SET IN ACCORDANCE WITH
RELEVANT REGULATIONS



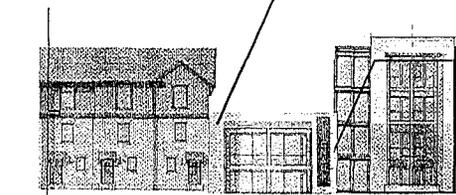
NEQUETTE
Architecture & Design

Hannah Farms East

Author: [Name]
Checked by: [Name]
REVISIONS

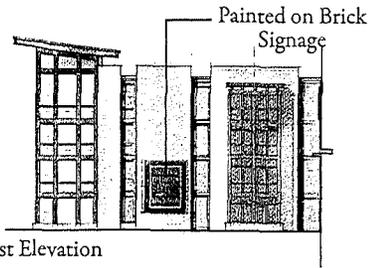
Unit Plans
A5.11

12" Metal Letters "CLUBHOUSE"

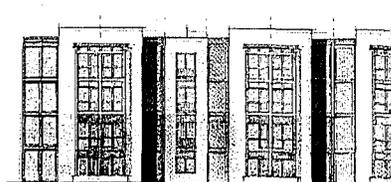


① West Elevation

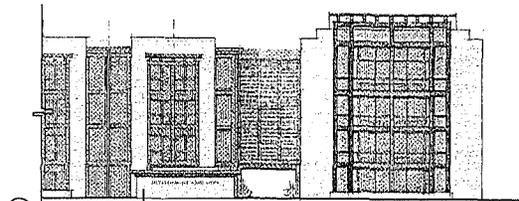
4'-0" by 20'-0"
Vertical Sign



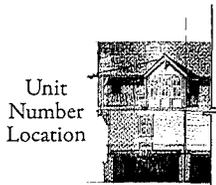
② East Elevation



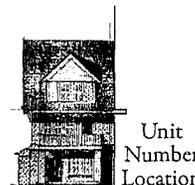
③ 12" Metal Letters "CLUBHOUSE"



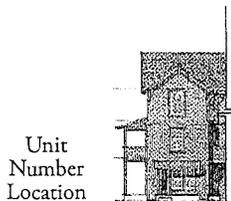
④ Wood and brick low wall monument sign facing Hannah Blvd



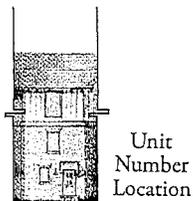
⑦ Rear Entry/Parking Townhouse Elevation



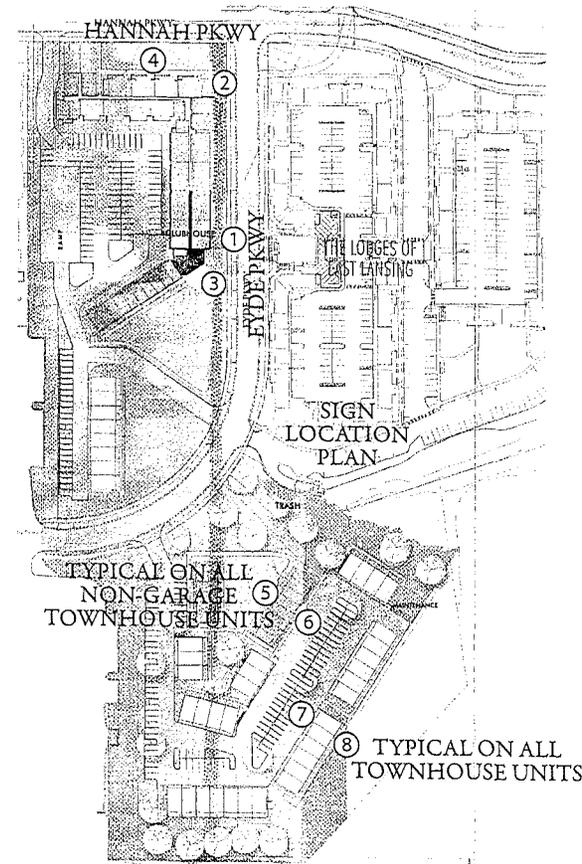
⑧ Front Door Townhouse Elevation



⑤ Front Door Townhouse Elevation



⑥





TO: Township Board

FROM:



Mark Kieselbach

Director of Community Planning and Development



Peter Menser

Senior Planner

DATE: April 25, 2017

RE: Rezoning #16060 (Summer Park Realty), rezone approximately 157 acres from RR (Rural Residential) to RAA (Single Family-Low Density) at 2874 Lake Lansing Road.

The Township Board last discussed Rezoning #16060 at its meeting on April 18, 2017. The consensus of the Board was to consider a resolution to deny the rezoning request at its next meeting. The attached resolution mirrors the resolution passed by the Planning Commission and was reviewed by the Township Attorney prior to submittal for the Township Board's consideration.

Township Board Options

The Township Board may approve or deny the proposed rezoning from RR (Rural Residential) to RAA (Single Family-Low Density). If the Board amends the proposal, the request may be referred back to the Planning Commission for a recommendation. A resolution to deny the rezoning request is provided.

- Move to adopt the resolution to deny Rezoning Petition #16060, a request to rezone approximately 157 acres from RR (Rural Residential) to RAA (Single Family-Low Density) at 2874 Lake Lansing Road.

Attachment

1. Resolution to deny

RESOLUTION TO DENY

**Rezoning #16060
Summer Park Realty
2847 Lake Lansing Road**

RESOLUTION

At a regular meeting of the Township Board of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 2nd day of May, 2017, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____.

WHEREAS, Summer Park Realty requested a rezoning of approximately 157 acres at 2847 Lake Lansing Road from RR (Rural Residential) to RAA (Single Family, Low Density); and

WHEREAS, the Planning Commission held a public hearing on November 14, 2016 and discussed the proposed rezoning at its meetings on November 14, 2016, November 21, 2016, January 23, 2017, February 27, 2017, and March 13, 2017 and recommended denial of the request (8-0) at its meeting on March 27, 2017; and

WHEREAS, the Township Board discussed the proposed rezoning at its meeting on April 18, 2017 and has reviewed the staff and Planning Commission material provided under a cover memorandum dated April 11, 2017; and

WHEREAS, maintaining the current RR (Rural Residential) zoning on the subject property will minimize negative impacts to the environmental features on the subject property; and to surrounding properties, including but not limited to wetlands, water features, unstable soils, storm water drainage, and wildlife habitat; and

WHEREAS, the current RR (Rural Residential) zoning on the subject property has been in place and has been under use as a golf course for many decades, during which time the surrounding properties have developed with reasonable reliance by the surrounding owners that the subject property would continue at a low density; and

WHEREAS, the current RR (Rural Residential) zoning on the subject property must be considered in connection with the applicant's additional acreage to the south of the subject property, which properties have for many years been used as a single parcel and which the applicant purchased as a single parcel, and considering the subject property and the additional property to the south as a single parcel that is already zoned RAA (Single Family, Low Density), the applicant has a reasonable opportunity to develop the combined single parcel at a total density that will allow the applicant a reasonable use of the entire property and a reasonable return on the investment the applicant has made in purchasing the subject property; and

Resolution to Deny
Rezoning #16060 (Summer Park Realty)
Page 3

I, the undersigned, the duly qualified and acting Clerk of the Township Board of the Township of Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Township Board on the 2nd day of May, 2017.

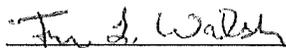
Brett Dreyfus
Township Clerk



12. B

To: Board Members

From:



Frank L. Walsh, Township Manager

Date: April 27, 2017

Re: 2017-2019 TPOAM Administrative Professional Employees Contract

After months of meaningful discussions, we have reached a tentative agreement with the Administrative Professional Employees. The team was led by Sandy Otto and Robin Faust. Our internal team consisted of Human Resources Director Joyce Marx, Assistant Township Manager Derek Perry, and Labor Counsel Helen Mills. This unit consists of 19 members. They have a defined benefit pension plan and are a part of the Municipal Employees' Retirement System (MERS).

The key changes to the current contract include:

Wages- A 2% increase for 2017, 2018, and 2019. In addition, an appreciation payment of \$400.00 will be paid to each member of the bargaining unit employed on the date of ratification and each year of the contract.

Pension-For current employees, the pension multiplier is reduced from 2.5 to 2.25. The employee contribution to the pension is increased from 3.9% to 5.0% (the amount of contribution made by employee to the pension system).

For new, transferred, or promoted employees in the MERS system, as of January 1, 2017, the pension multiplier will be 1.5 with a 5.0% employee contribution.

For all employees, the final average compensation shall only include base wages, overtime, and no more than 240 hours of other compensation at straight time.

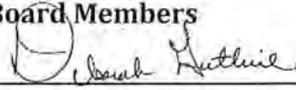
Holidays-Additional holiday added-President's Day

Sick Leave-Graduated reduction of sick leave sell back of a maximum of thirty (30) hours in 2017, twenty-five (25) hours in 2018, and twenty (20) hours in 2019.

The following motion is proposed for Board consideration:

MOVE TO APPROVE THE 2017-2019 COLLECTIVE BARGAINING AGREEMENT AS TENTATIVELY AGREED TO AND FURTHER RATIFIED BY THE TPOAM ADMINISTRATIVE PROFESSIONAL EMPLOYEES.



To: Board Members
From: 
Deborah Guthrie, Communications Director
Date: May 2, 2017
Re: Meridian Township Vision and Mission Statements

Following the March 17, 2017 meeting regarding proposed changes to the Meridian Township Vision and Mission Statements, staff took board member comments into consideration in drafting the following recommended changes:

Vision: Our vision is to achieve and maintain a welcoming community with the highest quality of life for our residents. We believe the highest quality of life encompasses sustained or enhanced natural environment, health and safety, prosperity, cultural heritage and diversity.

Mission: Providing a safe and welcoming sustainable prime community.

March 17, 2017 Meeting:

The Meridian Township Board adopted the Policy Governance Manual on July 24, 2001 to articulate its "Vision" for the direction of Meridian Township. Each January, the Board reviews the goals or "Ends Statements" and priorities listed in the Board Policy Manual. The Ends Statements appear in order of priority. These Ends adopted by the Township Board provide direction to Township Boards and commissions, manager and staff for their work in the coming year. The Township Manager then directs staff to establish goals and objectives that support the Township Board Global Ends (Township Budget).

Policy 1.0 Global Ends Statement defines the vision and mission statement as such:

Vision: Our vision is to achieve and maintain the highest quality of life for our residents. We believe the highest quality of life encompasses sustained or enhanced natural environment, health and safety, prosperity, cultural heritage, and diversity.

Mission Statement: Meridian Township exists to create a sustainable community through the most effective use of available resources in order to achieve the highest quality of life for its residents.

Working closely with the Township, M3 Group created clear, concise messaging highlighting the benefits and strengths of Meridian Township. This messaging will help bridge the community perception so that, as a whole, the message that is being shared throughout the community keeps Meridian Township moving forward and top of mind for potential residents and businesses. As a result of the research findings, part of that messaging includes a revised vision and mission statement.

Memo to Township Board
March 14, 2017
Re: Meridian Township Vision and Mission Statements
Page 2

A vision statement communicates the desired outcome for an organization in five years; it is the purpose and value of the organization. The mission statement describes the fundamental purpose of an organization and why it exists. It serves as a guidepost for the type of performance expected to achieve the desired results ultimately supporting the vision statement.

Staff is requesting the Township Board's approval to amend the Board Policy Manual with the proposed vision and mission statements.

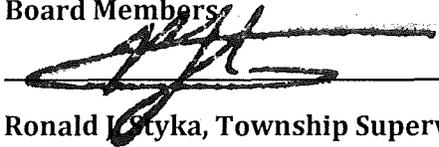
MOTION TO AMEND THE CURRENT VISION AND MISSION STATEMENT ADOPTED IN THE 2001 BOARD POLICY MANUAL TO READ AS FOLLOWS:

VISION: OUR VISION IS TO ACHIEVE AND MAINTAIN A WELCOMING COMMUNITY WITH THE HIGHEST QUALITY OF LIFE FOR OUR RESIDENTS. WE BELIEVE THE HIGHEST QUALITY OF LIFE ENCOMPASSES SUSTAINED OR ENHANCED NATURAL ENVIRONMENT, HEALTH AND SAFETY, PROSPERITY, CULTURAL HERITAGE AND DIVERSITY.

MISSION: PROVIDING A SAFE AND WELCOMING SUSTAINABLE PRIME COMMUNITY.



12. D

To: Board Members
From: 
Ronald J. Styka, Township Supervisor
Date: April 27, 2017
Re: Policy Regarding Minutes of the Township Board

At the Special Meeting held on April 25, 2017, the Board discussed at length a policy regarding minutes of the Board, drafted by the Supervisor. There appeared to be general consensus to adopt the policy. However, some legal questions were raised with regard to some of its proposed provisions. The Township legal counsel has reviewed the proposed policy and determined that its provisions are consistent with State law.

The Supervisor recommends that the Board adopt the Policy Regarding Minutes of the Township Board.

The following motion is proposed for Board consideration:

MOTION TO ADOPT THE POLICY REGARDING MINUTES OF THE TOWNSHIP BOARD.

Attachment:

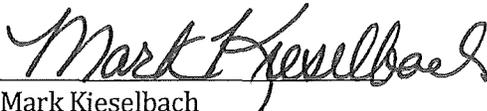
1. Proposed Policy Regarding Minutes of the Township Board

Proposed Policy Regarding Minutes of the Township Board

1. Minutes shall be produced by an assigned Township staff member, in accordance with this policy.
2. Minutes shall be brief and as concise as possible.
3. Minutes shall not be a substitute for a transcript of a meeting, but summarize the actions taken.
4. Minutes shall include a brief factual general summary of the positions for and against an action. They should not attempt to restate the exact comments made.
5. Minutes shall summarize public comment by subject and whether pro or con and not attempt to restate the exact comments made.
6. The draft of the minutes shall be reviewed and edited by the Clerk and the Supervisor, prior to being submitted to the Board for consideration and approval.
7. All proposed amendments or corrections to the minutes shall be distributed to the Board members in written form at or before the meeting of adoption, except for simple mistake or typographical corrections.



TO: Township Board

FROM: 
Mark Kieselbach
Director of Community Planning and Development


Peter Menser
Senior Planner

DATE: April 27, 2017

RE: Special Use Permit (SUP) #16111 (Capstone Collegiate Communities, LLC), construct group of buildings greater than 25,000 square feet in size at Hannah Boulevard/Eyde Parkway.

In conjunction with Mixed Use Planned Unit Development (MUPUD) #16024, a special use permit is required for constructing a group of buildings totaling more than 25,000 square feet in gross floor area. The total size of all buildings in the project is 273,459 square feet, which consists of 237,248 square feet of residential space, a 1,450 maintenance building, and a 34,760 square foot parking deck. The total project site is approximately 10.60 acres in size.

The Planning Commission held the public hearing on the special use permit request at its December 19, 2016 meeting and voted 7-0 to recommend approval of the request at its March 27, 2017 meeting, citing the following reasons for its decision:

- The proposed mixed use planned unit development has been designed to be harmonious and appropriate with the existing uses surrounding the site.
- The proposed mixed use planned unit development is in furtherance of Township Board Policy #1.5(2), which encourages diverse housing opportunities.
- The proposed project will establish residential units that exist in close proximity to commercial establishments and is within walking distance of Michigan State University
- Public water and sanitary sewer is available to serve the proposed mixed use planned unit development.

Staff memorandums outlining the request and minutes from the Planning Commission meetings at which the request was discussed are attached to the staff report for MUPUD #16024 for the Board's review.

Township Board Options

The Township Board may approve, approve with conditions, or deny the proposed special use permit. If the Board amends the proposal, the request may be referred back to the Planning Commission for a recommendation. A resolution will be provided at a future meeting.

G:\Community Planning & Development\Planning\SPECIAL USE PERMITS (SUP)\2016\SUP 16111 (Capstone)\SUP 16111.tb1.doc