

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
AGENDA**

**WORK SESSION
and
REGULAR MEETING**

NOVEMBER 14, 2016

**Town Hall Room
Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864**

Work Session Meeting

1. Call meeting to order at approximately 6:00 p.m.
2. Approval of agenda
3. Discussion
 - A. Master Plan Update
4. Public Remarks
5. Adjournment

NOTE: The work session may be recessed and reconvened after the regular meeting

Regular Meeting

1. Call meeting to order at approximately 7:00 p.m.
2. Approval of agenda
3. Approval of minutes
 - A. October 24, 2016 Regular Meeting
 - B. October 24, 2016 Work Session Meeting
4. Public remarks
5. Communications
 - A. Dr. Karen Renner RE: Rezoning #16060
 - B. William and Mary Triola RE: Rezoning #16060
 - C. Joseph D. Reid III RE: Rezoning #16060
 - D. Benjamin Louagie RE: Rezoning #16060

Planning Commission Agenda

November 14, 2016

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6. Public Hearings
 - A. Rezoning #16060 (Summer Park Realty), rezone approximately 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road.
 - B. Zoning Amendment #16050 (Township Board), amend Section 86-435 and Chapter 38, Article IV, Division 3 of the Code of Ordinances to add instructional centers, mobile food vending units, and outdoor seating as uses permitted in the Industrial (I) zoning district.
7. Unfinished Business
 - A. None
8. Other Business
9. Township Board, Planning Commission officer, committee chair, and staff comment or reports
 - A. New Applications - NONE
 - B. Update of Ongoing Projects
 - i. Site Plans Received - NONE
 - ii. Site Plans Approved - NONE
10. Public Remarks
11. Adjournment

Post Script: Richard Honicky

The Planning Commission's Bylaws state agenda items shall not be introduced for discussion or public hearing that is opened after 10:00 p.m. The chair may approve exceptions when this rule would cause substantial backlog in Commission business (Rule 5.14 Limit on Introduction of Agenda Items).

Persons wishing to appeal a decision of the Planning Commission to the Township Board in the granting of a Special Use Permit must do so within ten (10) days of the decision of the Planning Commission (Sub-section 86-189 of the Zoning Ordinance).

**TENTATIVE
PLANNING COMMISSION AGENDA**

**Work Session Meeting
and
Regular Meeting**

NOVEMBER 21, 2016

**Town Hall Room
Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864**

Work Session Meeting

1. Master Plan Update

Regular Meeting

1. Public Hearings
 - A. Special Use Permit #16101 (Gillett), install an outdoor barbeque smoker at 1754 Central Park Drive.
2. Unfinished Business
 - A. Rezoning #16060 (Summer Park Realty), rezone approximately 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road.
 - B. Zoning Amendment #16050 (Township Board), amend Section 86-435 and Chapter 38, Article IV, Division 3 of the Code of Ordinances to add instructional centers, mobile food vending units, and outdoor seating as uses permitted in the Industrial (I) zoning district.
3. Other Business

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM: 
Gail Oranchak, AICP

DATE: November 10, 2016

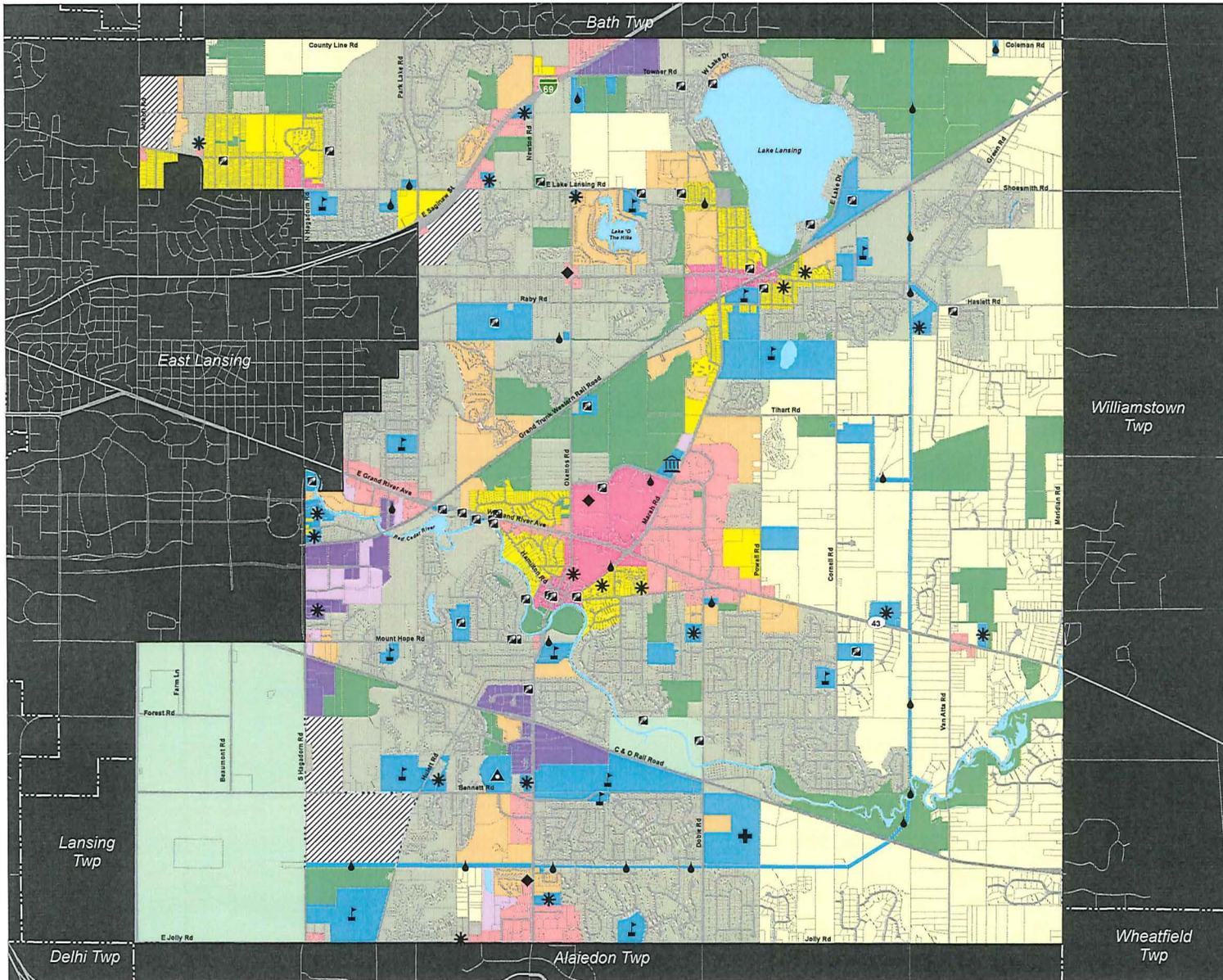
RE: Future Land Use Map

In response to comments made at various meetings, staff has updated the attached Future Land Use Map. Please review it and prepare comments for the November 14, 2016 work session.

Attachments

1. Draft Future Land Use Map dated November 20, 2016

G:\Planning\Master Plan Update\11-10-16 DRAFT FUTURE LAND USE MAPc



DRAFT

Future Land Use

Meridian Charter Township
Ingham County, Michigan

November 10, 2016

Legend

- AGRICULTURE/EDUCATIONAL
- R1-RESIDENTIAL 0.0-0.5 DU/A
- R2-RESIDENTIAL 0.5-3.5 DU/A
- R3-RESIDENTIAL 1.25-3.5 DU/A with Bonus Density Up to 5 DU/A
- MR-RESIDENTIAL 5.0-14.0 DU/A
- BUSINESS/TECHNOLOGY
- COMMERCIAL
- MUPUD
- MIXED USE CORE
- INSTITUTIONAL
- Cemetery
- County Medical Center
- Fire Station
- Meridian Township Municipal Center
- Public
- Religious Institution
- School
- Utility
- PARKS/LAND PRESERVATION
- COOPERATIVE AGREEMENT
- WATER

0 2,000 4,000 FEET

McKENNA
ASSOCIATES

Map Feature Source: Meridian Charter Township, 2016

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES**

DRAFT

**October 24, 2016
5151 Marsh Road, Okemos, MI 48864-1198
853-4000, Town Hall Room, 7:00 P.M.**

PRESENT: Commissioners DeGross, Honicky, Ianni, Jackson, Lane, Scott-Craig, Tenaglia, Van Coevering
ABSENT: Commissioner Opsommer
STAFF: Senior Planner Menser, Parks and Land Management Coordinator Greenway

1. Call meeting to order

Chair Scott-Craig called the regular meeting to order at 7:12 P.M.

2. Approval of agenda

Commissioner Honicky moved to approve the agenda. Seconded by Commissioner Jackson.

VOICE VOTE: Motion carried 8-0.

3. Approval of Minutes

Commissioner Tenaglia moved to approve the Work Session Minutes and Regular Meeting Minutes of October 10, 2016. Seconded by Commissioner DeGross.

VOICE VOTE: Motion carried 8-0.

4. Public Remarks

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

5. Communications

A. The White House, Washington, DC; RE: Housing Development Toolkit

Planning Commission and staff discussion:

- Information provided is a policy statement paper produced by the current administration
- Commissioner belief the Planning Commission should include these four actions contained in the document into Meridian Township's Master Plan as they are relevant to our community:
 - *Enact high-density and multi-family zoning*
 - *Allow accessory dwelling units*
 - *Establish density bonuses*
 - *Employ inclusionary zoning*
- Planning Commissioner preference for co-mingling of the wage-earner dwelling with a good amount of upscale/middle class dwellings
- Footnote contained in the toolkit states that children do better when they are in a mixed economic setting rather than all concentrated in one setting (e.g., low-income housing project)
- Recent information shows individuals, even if they are below the poverty level, survive longer when they reside in high-income locations rather than in a low income setting
- Commissioner preference for the dwelling configuration to be at a ratio of one wage-earner

- dwelling for every (10) units
- Commissioner belief Action #2: *Tax vacant land or donate it to non-profit developers* could be of interest as many residents are concerned about vacant and blighted properties within the Township
- Township is not facing the blight other communities are currently experiencing
- Areas of concern are Carriage Hills, Haslett Village Square and downtown Okemos
- Language in the inclusionary zoning section states inclusionary zoning policies perform best when both producing and preserving affordable housing

6. Public hearings

- A. Commission Review #16053 (Township Board), a Section 61 review of character, location and extent for a 2.251 acre Land Preservation purchase located east of Carlton Street and northwest of Lake Drive

Chair Scott-Craig opened the public hearing at 7:25 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 commission review as outlined in staff memorandum dated October 20, 2016.
- Planning Commission discussion:
Commissioner Jackson asked if the property was a donation.

Parks and Land Management Coordinator Greenway replied that while it was a donation, the Township must go through the environmental assessment process.

Chair Scott-Craig stated it is not possible for the subject property to be developed. He believed it will be a good acquisition for the wildlife corridor and our greenspace plan.

Chair Scott-Craig closed the public hearing at 7:33 P.M.

- B. Commission Review #16063 (Township Board), a Section 61 review of character, location and extent for a 13.25 acre Land Preservation purchase of property located east of Hagadorn Road and south of Mount Hope Road

Chair Scott-Craig opened the public hearing at 7:33 P.M.

- Summary of subject matter
Senior Planner Menser summarized the commission review as outlined in staff memorandum dated October 20, 2016.

Parks and Land Management Coordinator Greenway stated this application scored very high with the criteria used by the Land Preservation Advisory Board (LPAB) as it is a beautiful piece of property contiguous with the Southwest Meridian Uplands (Sturk) property, east of Hagadorn Road behind Bennett Woods Elementary School. She clarified the LPAB is the recommending body to the Township Board for acquisition.

- Planning Commission discussion:
Chair Scott-Craig noted that a portion of this property is a drain and asked if both the drain and the floodplain are protected.

Parks and Land Management Coordinator Greenway replied in the affirmative.

Chair Scott-Craig indicated a portion of this property is not protected and is of interest to the LPAB.

Parks and Land Management Coordinator Greenway replied that while a property or portion of a property can already be protected, the LPAB can improve on it in a variety of ways: invasive species management program, stewardship and management of land preserves and parks, etc. She added property acquisition near Lake Lansing provide buffer to the watershed.

Chair Scott-Craig stated he walked the upland portion of the property and has a nice neighborhood next to it. He expressed curiosity what features attract high LPAB scores when it evaluates a property.

Commissioner Jackson noted minutes from the Township Board meeting were included in the Planning Commission packet for both commission reviews, and included discussion of items which contribute to the value of these parcels.

Chair Scott-Craig closed the public hearing at 7:41 P.M.

7. Unfinished Business

- A. Rezoning #16040 (Sumbal), request to rezone approximately nine acres located at 2267 Saginaw Highway, 6217 Newton Road, and 6219 Newton Road from PO (Professional and Office), RD (Multiple Family), and RA (Single Family, Medium Density) to C-2 (Commercial).

Commissioner Ianni moved [and read into the record] NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Rezoning #16040 to rezone approximately 5 acres from PO (Professional and Office), RD (Multiple Family), and RA (Single Family, Medium Density) to C-2 (Commercial) with the voluntary offer of a condition to construct a berm with trees between the C-2 and RA zoning districts. Seconded by Commissioner DeGroff.

Planning Commission discussion:

- Rezoning is consistent with surrounding uses in a busy area of the Township
- There has been commercial interest in the past for this parcel

ROLL CALL VOTE: YEAS: Commissioners DeGroff, Honicky, Ianni, Jackson, Lane, Tenaglia, Van Coevering, Chair Scott-Craig

NAYS: None

Motion carried 8-0.

- B. Commission Review #16053 (Township Board), a Section 61 review of character location and extent for a 2.251 acre Land Preservation purchase located east of Carlton Street and northwest of Lake Drive

Commissioner DeGroff moved [and read into the record] NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN approves the location, character and extent of an approximate 2.251 acre parcel of land located west of Lake Drive and east of Carlton Street in Section 11 of the Township. Seconded by Commissioner Honicky.

Planning Commission discussion:

- Appreciation to the property owner for the donation of land
- Invasive species on the property can be controlled through LPAB ownership

ROLL CALL VOTE: YEAS: Commissioners DeGroff, Honicky, Ianni, Jackson, Lane, Tenaglia, Van Coevering, Chair Scott-Craig

NAYS: None

Motion carried 8-0.

- C. Commission Review #16063 (Township Board) a Section 61 review of character, location and extent for a 13.25 acre land preservation purchase of property located east of Hagadorn Road and south of Mount Hope Road

Commissioner Tenaglia moved [and read into the record] NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN approves the location, character and extent of 2849 Mt. Hope road, consisting of three parcels totaling 13.25 acres located on the south side of Mt. Hope Road, east of Berrytree apartments, west of Eastgate subdivision and north of the CSX railroad in Section 29 of the Township. Seconded by Commissioner Jackson.

Planning Commission discussion:

- Fits with the surrounding LPAB property
- Inquiry if the three (3) parcels all have the same address
- Staff preference to use the three (3) tax parcel numbers

ROLL CALL VOTE: YEAS: Commissioners DeGroff, Honicky, Ianni, Jackson, Lane, Tenaglia, Van Coevering, Chair Scott-Craig

NAYS: None

Motion carried 8-0.

8. Other Business (None)

- 9. Township Board, Planning Commission officer, committee chair, and staff comment or reports**
Commissioner Honicky inquired if pocket parks are allowed and, if so, is there criteria for them.

Senior Planner Menser responded there is a working definition of a pocket park as a small park in a neighborhood. He indicated they are an allowed use.

A. New Applications

1. Zoning Amendment #16050 (Planning Commission), to amend the I (Industrial) ordinance to add instructional centers, outdoor seating, and mobile food vending units as permitted uses

Rezoning #16060 (Summer Park Realty), to rezone 156 acres at 2874 Lake Lansing Road from RR (Rural Residential) to RAA (Single Family, Low Density)

B. Update of Ongoing Projects

i. Site Plans Received

1. Site Plan Review #16-12 (Gligrs), to construct a 5,500 square foot office furniture warehouse at 2076 Towner Road

ii. Site Plans Approved - NONE

10. Public remarks

Chair Scott-Craig opened and closed public remarks.

11. Adjournment

Chair Scott-Craig adjourned the regular meeting at 7:55 P.M.

Respectfully Submitted,

Sandra K. Otto
Recording Secretary

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
WORK SESSION MINUTES**

DRAFT

October 24, 2016

**5151 Marsh Road, Okemos, MI 48864-1198
Town Hall Room, 517-853-4560**

PRESENT: Chair Scott-Craig, Vice-Chair Jackson, Commissioners Honicky, Ianni, Tenaglia, Van Coevering, and Lane
ABSENT: Commissioners Opsommer and DeGroff
STAFF: Principal Planner Gail Oranchak

1. Call meeting to order

Chair Scott-Craig called the work session meeting to order at approximately 6:00 P.M.

2. Approval of agenda

Commissioner Honicky moved approval of the agenda. Seconded by Vice-Chair Jackson.

Voice vote. Motion carried unanimously

3. Discussion:

A. Form-Based Code Presentation

- Discussion of a possible session with consultants working on the model Grand River Corridor Form-Based Code to introduce the tool to elected and appointed officials.
- Planning Commissioners were interested in hosting such an event

B. Master Plan Update

- Public suggestion to include a glossary in the Master Plan
- Decision to change the Future Land Use Map designations for properties located on the east side of Hagadorn Road, north of Bennett and west of the 425 agreement with Lansing from proposed Commercial to R-2 Residential. The properties are currently designated Office and zoned Research Park.
- Discussion of possibly changing the Future Land Use Map designations of properties located south of Lake Lansing, north of Saginaw and east and (Marquette) west of Park Lake Road (church-owned). The proposed R-3 Residential designation was not changed. The properties are currently designated Residential 3.5-5 du/a and zoned RA.
- Considered a request from property owners and changed the FLUM designation for properties on the north side of Lake Lansing and east side of Saginaw from R-2 Residential to Commercial. The properties are currently designated Residential 1.25-3.5 and zoned RR with one site zoned C-2 (Commercial), PO (Professional and Office, RD (Multiple-Family, maximum 8 du/a) and RA.
- Discussed and changed the designation of properties on the west side of Saginaw east of Newton Road and extending to the Bath Township boundary from the proposed R-2 Residential to Commercial. The properties are currently designated Residential 1.25-3.5 and zoned RR.
- Discussed and changed the FLUM designation of properties east of Abbott Road and south of Lake Lansing from R2 Residential to R3. The properties are currently designated Residential 1.25-3.5 and zoned RA.

- Comments were made regarding the White House's Housing Development Toolkit and possible changes to the draft Master Plan were suggested.

4. Public remarks

- **Leonard Provencher, 5824 Buena Parkway**, commented on the process for notifying property owners of changes to the Future Land Use Map.

5. Adjournment

Chair Scott-Craig adjourned the regular meeting at approximately 7:05 P.M.

Respectfully Submitted,

Gail Oranchak
Principal Planner

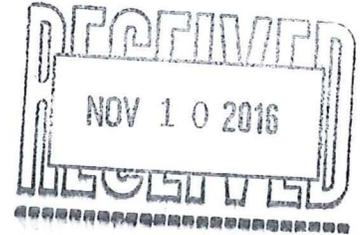
TO: Meridian Township Planning Commission

FROM: Karen Renner, Professor, Plant, Soil and Microbial Sciences, MSU

6270 Skyline Drive East Lansing, MI

November 10, 2016

RE: Walnut Hills Development by Schafer Development



I would like to call your attention to two important components of the proposed development of Walnut Hills Country Club. I live at 6270 Skyline Drive. My back property line abuts the golf course. I have read the proposed development plan and viewed the two sketches provided by the developer. The developer wrote:

“Plans call for **maintaining the current tree line along the rear of Skyline Hills homes** along golf course, **preserving the best trees, with a 35 to 50 foot buffer off the back of the trees.** Schafer said, “We’ll work with every abutting neighbor to assure their input and desires are heard, so we have a satisfactory result.”

I would like to make the following points to the Planning Commission for their consideration:

1. **“Best trees” is a subjective statement.** The decision of removing a tree should be made by the developer and the adjacent property owner. This should be rewritten to read: **“All trees unless agreed to by Skyline Owner and Developer.** This allows the developer to remove only those trees both interested parties deem acceptable.
2. **“...so we have a satisfactory result.”** This statement should be amended to read a “satisfactory result for current property owners and the developer”.
3. **The trees along the border** were planted when Walnut Hills opened. These trees are oaks and maples and quite large. The crown of most of the trees (the four on my property line and others on either side of me) are **very large and exceed 50 feet. Tree crowns and the area of root distribution are considered to be of similar size by commercial foresters.** To avoid disturbing these huge trees **the buffer must be a minimum of 75 feet** from the furthest tree into or closest to the golf course. I ‘paced’ the measurement of a 50 foot buffer and that is the edge of the current rough along the 14th fairway. The tree crowns are well past the 50 foot buffer.
4. **Consumers Energy has an easement** along the west side of the Walnut Hills golf course. This easement was not drawn in the development plans.
5. **When drainage changes, trees are at much higher risk of being killed,** and that just isn’t acceptable for these majestic border buffer trees. Removal of trees this size is very, very costly to the homeowner. Is the developer planning on paying for removal of any mature trees that die within the first five years of development due to construction and/or drainage issues? If trees on my property or the adjacent homeowner’s property are damaged it would cost over \$5000 per tree to have a tree and stump totally removed; this should be the developer’s responsibility for the five years following construction because these trees will not die overnight (or in the first year of development). How will we be guaranteed that funds are at least set aside to address this issue?

6. **The site plans shared by the developer are not adequate** for a decision to be made by the Planning Commission to rezone. **They are not drawn to scale; there are no units (feet) for the width of the roads, road rights-of-ways, the size of the lots, etc.** The roads as drawn are the width of a four lane highway (in comparison to current residential streets). The lot depth appears to be only twice that of the road width. The developer said some lots would be larger and some smaller but these are not drawn in. The developer wrote 'buffer' on the plans. This does not tell anyone a buffer **zone** size. It appears that the homes behind Skyline Drive along the 14th fairway will be built within 50 foot of the current lot line. The buffer may be 12 yards only and the other home built 12 yards farther to the east; very detrimental to property owners on the east side of Skyline Drive.

In closing, it appears to a concerned homeowner the drawing is not adequate for the Planning Commission to make an informed decision. I understand that the Walnut Hills property is for sale and the developer would like to build a planned community on the acres. **Meridian Township does not want to devalue the properties on Skyline Drive and other adjacent roads by placing new homes in the backyards of current homeowners. A 100 foot Buffer along the western edge of the development is needed.** As the FRIB and other economic developments bring more residents to Meridian Township and surrounding communities, it is imperative that the new building opportunities be attractive to these individuals. They do not want to have an existing home in their backyard; they too will desire a well-planned community with greenspace and neighbors that don't invade their space. Lots won't sell and homes won't be built if the community is crowded. The developer should provide to the Planning Commission drawings to scale; the lots platted with dimensions, the drainage and holding ponds and wetlands drawn to scale. The Consumers Energy easement needs to be shown on the plans; is the easement the suggested buffer strip? **The property values of those living on the east side of Skyline Drive will be severely impacted if homes are built close to the current lot line. I urge the Planning Commission to table their decision until a more detailed development, drawn to scale, is brought forward to the Planning Commission. This time is essential for the current homeowners to review, understand and for the Planning Commission to make an informed decision about this development project.** This should not be too much to ask; it is how all residents of Meridian Township would want to be treated if this was a new development that abutted your personal property.

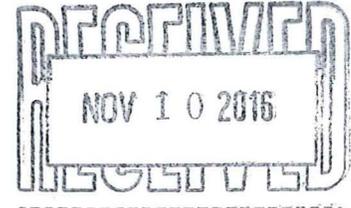
Respectfully submitted,
Dr. Karen Renner, MSU Professor & Concerned Homeowner



XX

Peter Menser

From: TRIOLAS@aol.com
Sent: Thursday, November 10, 2016 11:11 AM
To: Peter Menser; triolas@aol.com
Cc: beemetros@gmail.com; nitacprn@comcast.net
Subject: Proposed Land Development- Walnut Hills Country Club



To: Meridian Township Planning Commission

Re: Proposed Land Development- Walnut Hills Country Club

We ask that you consider the following before making a decision to allow rezoning and development of Walnut Hills Country Club:

1. DIMINISHED QUALITY OF LIFE

Noise, light and visual pollution will become an unwanted reality for the residents of this area of the township who choose live here for the peace and calm this area of the township offers. Walnut Hills CC is in a Priority Conservation Corridor detailed in the **Meridian Township Greenspace Plan**. We ask that you honor this and deny development of this prime and unique property.

2. SMART GROWTH

Low density residential development threatens open space, raises public service costs and, and degrades the environmental quality of the area. We ask that you adhere to new **Smart Growth Principals** to control sprawling land development by stopping the ongoing construction of dispersed, auto-dependent, single use residential areas throughout the township. Instead, to use these new principles towards building a healthier, more people- oriented community. A more compact urban residential/commercial design would offer healthier living areas where people could walk to obtain their daily needs, preserve our open green spaces, and accommodate future growth while upholding the values outlined in our Master Plan.

3. INCREASE IN TRAFFIC

Adding 250+ automobile- dependent residences with exclusive egress on Lake Lansing and Park Lake Road to the increase in regional traffic on these local, residential roads from the Costco Warehouse development is irresponsible community planning.

4. GREED Vs. NEED

As stated in the minutes of a 2012 township planning work session " A Master plan Update is needed that includes a general statement to show (the township) has ample capacity for at least the next twenty years. Without substantial growth or new development, the renovation and improvement of existing housing and the rehab and redevelopment of existing commercial areas" (should take priority), and that "Data is needed on significant chunks of undeveloped lots in

existing subdivisions." As is the case, there is no justification for allowing an out-of-town developer to use it for personal profit.

5. CONTESTED SALE OF PROPERTY

Sadly, the members of Walnut Hills had and still have, the desire, means and **Right of First Refusal** to purchase this 97 year old parcel and maintain it as a beautiful golf course/wildlife habitat, recreational facility but were sold out by an unfortunate series of events that ended with a foreclosure and quick turnover sale by the bank to Summer Hill Realty of Detroit before that or any option was honored.

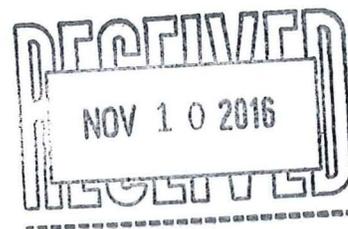
We appreciate your ongoing efforts to preserve what we have and love about our Township and to accommodate inevitable growth in the most appropriate and sensitive way.

William and Mary (Bill and Chris) Triola
6292 Skyline Drive
E. Lansing MI 48823
triolas@aol.com

Please confirm receipt of this letter.

Peter Menser

From: Joseph Reid III <jdreid3@accessbidco.com>
Sent: Thursday, November 10, 2016 9:32 AM
To: Peter Menser
Subject: Walnut Hills Rezoning Request



Mr. Menser,

I am a resident of Meridian Township, at 6340 Skyline Drive. I want to express to you my concern with the rezoning request proposed for Walnut Hills. Meridian Township has spent a large amount of taxpayer dollars in the last decade to create green space in the land surrounding Walnut Hills. At the time, with Walnut already a green space, I am sure it was thought that Walnut would continue as a golf course, which would contribute to the overall green space plan providing for animals and nature seekers.

Times change and development may not be avoidable. However, a rezoning without a committed development plan or PUD puts the cart before the horse. It is important not only for the residents of Skyline, the Greens, and White Hills Lakes to see the plan first, but it is important for Meridian Township so that the impact to the green space surrounding the course can be reviewed and its impact on wildlife and nature seekers measured.

The current zoning limits the number of homes that can be developed which is positive for the surrounding green space and neighbors. The proposal regarding a PUD must require that the zoning is contingent upon the PUD plan. Changing the zoning without any contingencies allows the developer the option of a bait and switch. This will cause great anxiety from the surrounding neighbors.

As one of the many residents who's property borders Walnut and as one of the many residents who relied upon the green space plan when purchasing my home, and with the requirement that a PUD maintain 50% undeveloped land, I am hopeful that great consideration will be given to locating a majority of the undeveloped land around the perimeter of the development, which will enhance the surrounding Meridian Township green space, enhance the residents property currently on the course by creating a buffer, and limit the amount of negative reaction this proposal will ultimately receive.

I hope the township will disallow a zoning change unless it is contingent upon a committed PUD and that the residents will have the opportunity to comment on the PUD prior to Meridian Township considering any zoning change.

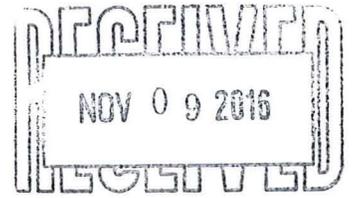
Thank you for your consideration.

Sincerely,

Joseph D. Reid III
President
Access BIDCO LLC
(517) 372-1376
jdreid3@accessbidco.com

Peter Menser

From: Benjamin <louagieb@hotmail.com>
Sent: Thursday, November 10, 2016 8:34 AM
To: Peter Menser
Subject: Rezoning Walnut Hills golf course



Re: Opposition to changes allowing Summer Park Realty to rezone approximately 157 acres of Walnut Hills Golf Course

I am writing to express my opposition to the changes in zoning from RR to RAA at 2874 Lake Lansing Road. I recently built a home that backs up to the property. The rezoning will have a significant impact on the character, quality, and value not only of my home but of our neighborhood as a whole. More importantly I am concerned about the safety of my children, other children in the neighborhood, and those attending the local elementary schools. Years of construction and the dramatic increases in traffic will be dangerous and not responsible for the Commission to allow. Finally, I believe that the proposed zoning change directly contradicts the comprehensive plan that the Township has in place. I urge you not to yield to the request of a single investor who seeks this zoning change, but rather to vote against the proposal.

Benjamin Louagie
6118 Skyline Drive

**Rezoning #16060
(Summer Park Realty)
November 14, 2016**

APPLICANT: Summer Park Realty
4000 Town Center, 7th Floor
Southfield, MI 48075

STATUS OF APPLICANT: Owner

REQUEST: Rezone 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density)

CURRENT ZONING: RR (Rural Residential)

LOCATION: 2874 Lake Lansing Road

AREA OF SUBJECT SITE: 157 acres proposed for rezoning out of 190 acre total site

EXISTING LAND USE: Walnut Hills Country Club

**EXISTING LAND USES
IN AREA:** North: Halmich Sod Farm, Single Family House
South: Single family residences
East: Single family residences
West: Single family residences

CURRENT ZONING IN AREA: North: Rural (Bath Township)
South: RA (Single Family, Medium Density)
East: RAA (Single Family, Low Density), RX (Duplex)
West: RAA (Single Family, Low Density)

**FUTURE LAND USE
DESIGNATION:** Residential 1.25-3.5 du/a

FUTURE LAND USE MAP: North: Agriculture/Residential 0-0.5 du/a
South: Residential 1.25-3.5 du/a
East: Residential 1.25-3.5 du/a, Residential 3.5-5.0 du/a
West: Agriculture/Residential 0-0.5 du/a, Residential 1.25-3.5 du/a

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM:

Peter Menser

Peter Menser
Senior Planner

DATE: November 8, 2016

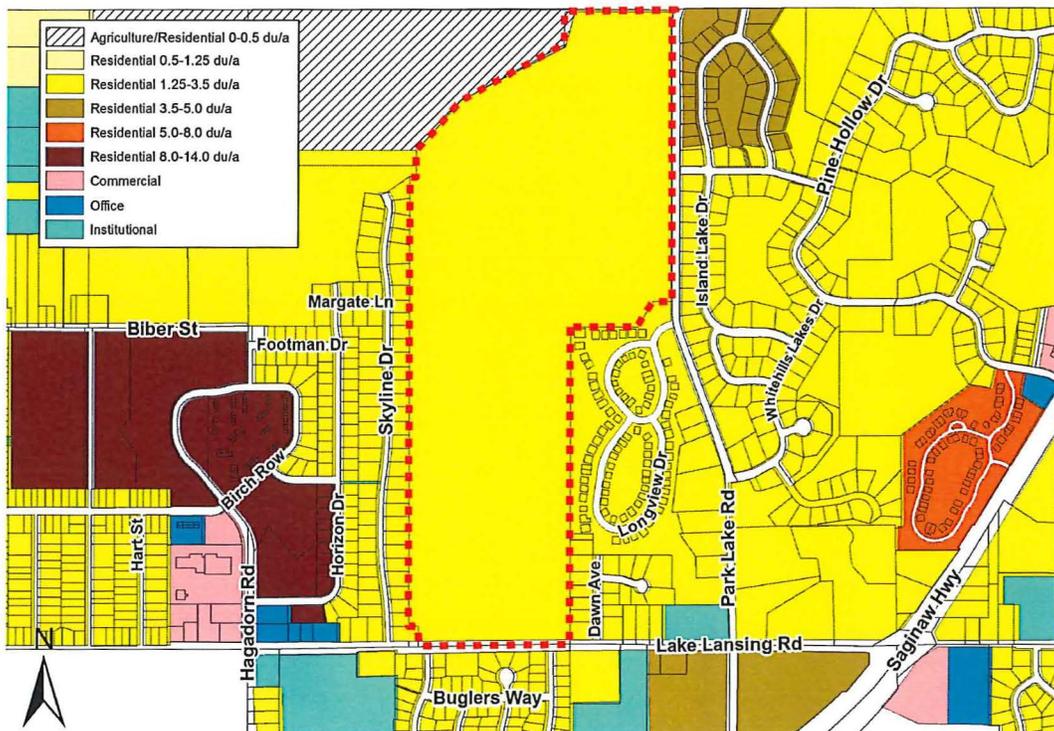
RE: Rezoning #16060 (Summer Park Realty), request to rezone approximately 157 acres from RR (Rural Residential) to RAA (Single Family, Low Density) at 2874 Lake Lansing Road

Summer Park Realty has requested the rezoning of approximately 157 acres at 2874 Lake Lansing Road from RR (Rural Residential) to RAA (Single Family, Low Density). The property is occupied by the Walnut Hills Country Club, which offers an 18-hole golf course, swimming pool, tennis facility, driving range, and dining facilities. The total size of the parcel is approximately 190 acres, of which the southern 33 acres adjacent to Lake Lansing Road is zoned RAA (Single Family, Low Density).

Master Plan

The 2005 Master Plan designates the subject site in the Residential 1.25 – 3.5 dwelling units per acre category.

FUTURE LAND USE MAP



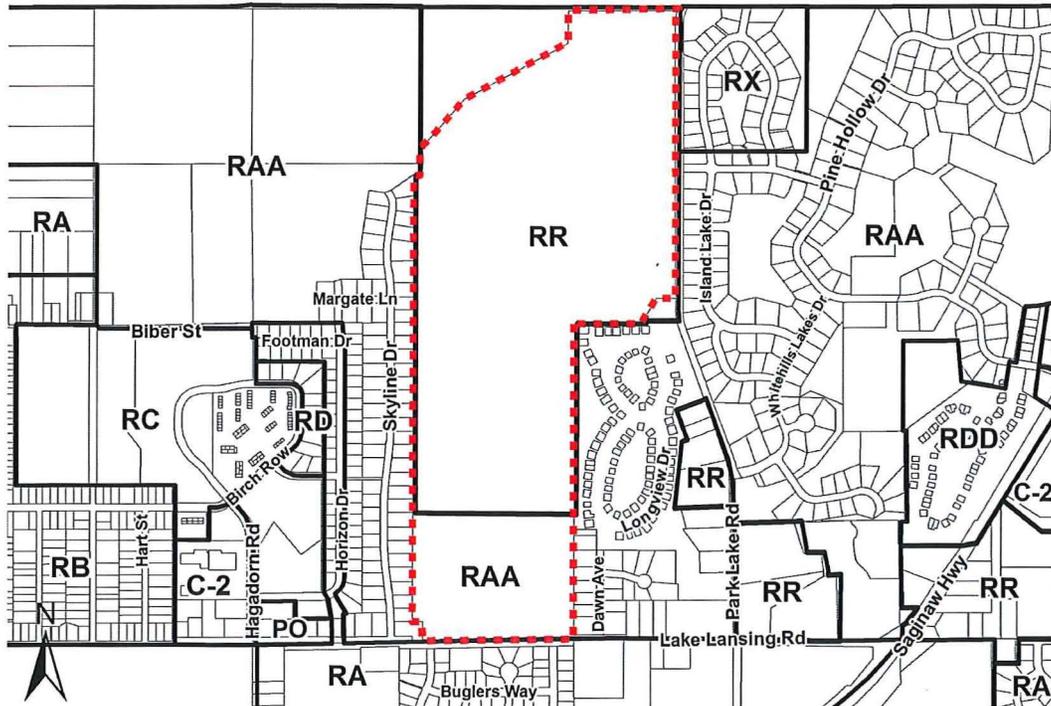
Zoning

The property is zoned both RR (Rural Residential) and RAA (Single Family, Low Density). Approximately 33 acres of the 190 acre property are zoned RAA and 157 acres are zoned RR. The property has approximately 1,252 feet of frontage on Lake Lansing Road and 2,375 feet of frontage on Park Lake Road. The following table illustrates the minimum lot area and lot width requirements for the RR zoning district and proposed RAA zoning district:

Zoning District	Minimum Lot Area	Minimum Lot Width
RR	40,000 square feet	200 feet
RAA	13,500 square feet	90 feet

The parcel exceeds the minimum lot area and lot width requirements for both the RR and RAA zoning districts.

ZONING MAP



Physical Features

The property has been used as a country club since 1929 and is occupied primarily by an 18-hole golf course with associated fairways, putting greens, and a driving range. A 24,220 square foot clubhouse with dining facilities is located in the central portion of the property. Other buildings on the site include a 4,536 square foot pro shop adjacent to the clubhouse, a 5342 square foot maintenance building south of the tennis courts, and a 8,920 square foot garage at the north end of the property. A two-story, 2,564 square foot single family house built in 1893 is also located on the property along Lake Lansing Road. The house is unoccupied.

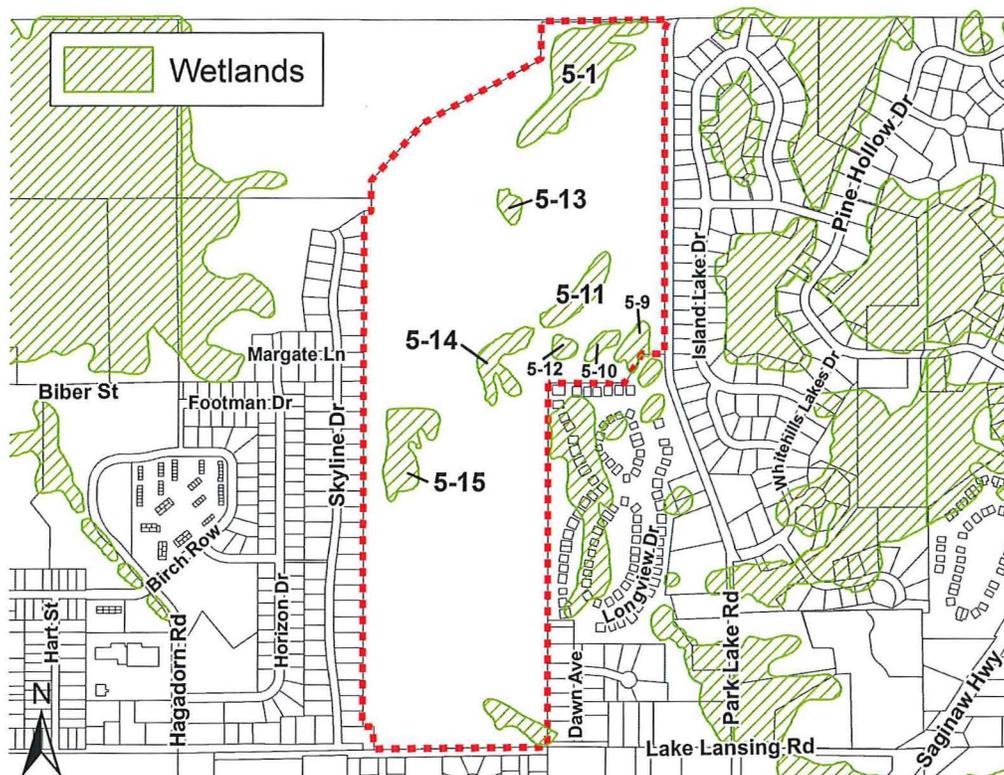
The topography on the site is rolling, with elevations ranging from the high point of 900 feet above mean sea level near the clubhouse to a low point of approximately 840 feet above mean sea level at the north end of the property. The Flood Insurance Rate Map (FIRM) for Meridian Township shows that the property is not located in a floodplain.

Wetlands

The Township Wetland Map depicts several wetlands on the site. When a development project is proposed a wetland delineation report will be required to determine the boundary and size of each wetland. Future development of the site will be required to comply with the wetland protection ordinance and water features setbacks as applicable.

WETLAND NUMBER	SIZE (ACRES)	TYPE OF WETLAND
5-15	2.53	Open Water, Emergent, Shrub/Scrub
5-14	1.15	Open Water, Emergent
5-13	0.46	Scrub/Shrub, Emergent
5-12	0.23	Open Water
5-11	0.92	Open Water, Emergent
5-10	0.23	Open Water
5-9	0.92	Open Water
5-1	4.82	Scrub/Shrub, Emergent

WETLAND MAP



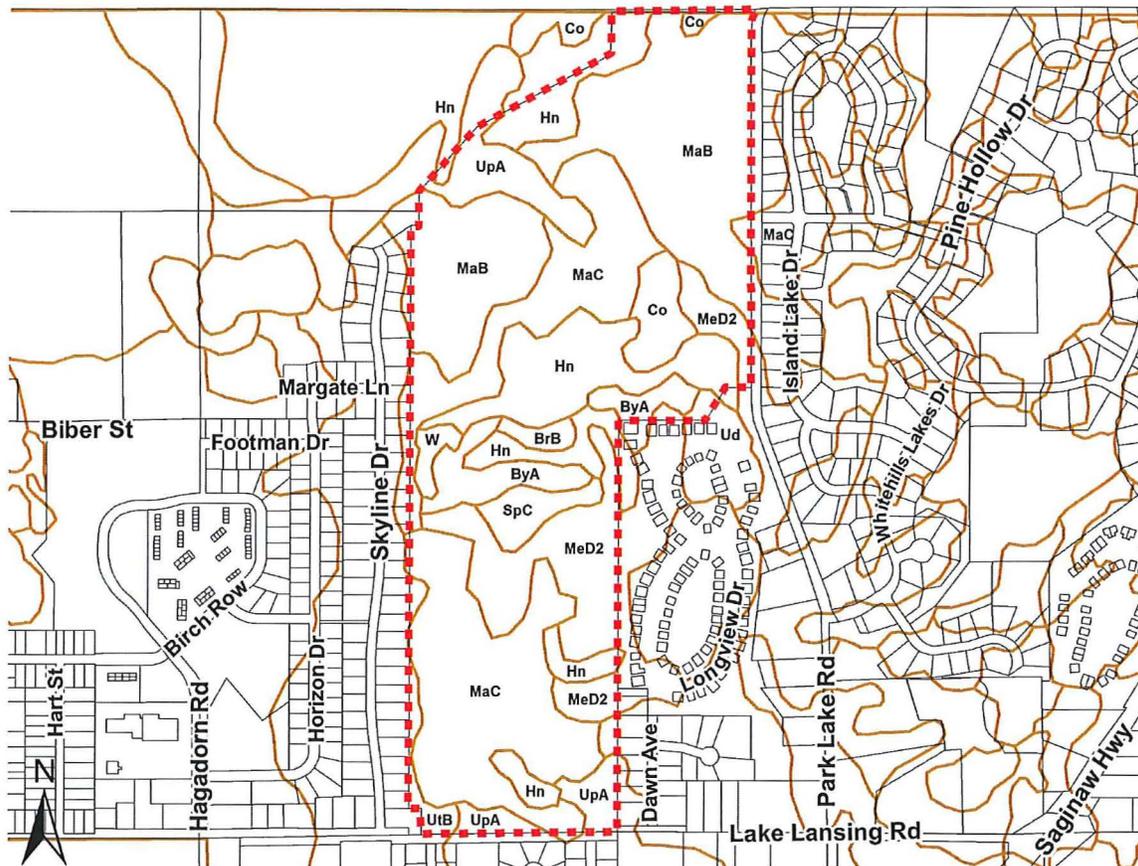
Soils

The following predominant soil types are found at the subject site:

SOIL ASSOCIATION	SEVERE LIMITATIONS
UpA (Urban Land - Capac)	Wetness
UtB (Urban Land - Marlette)	None
Co (Colwood)	Ponding
Hn (Houghton)	Subsides, Ponding, Low Strength
ByA (Brady)	Wetness
MaB (Marlette)	Slope
MeD2 (Marlette)	Slope
MaC (Marlette)	Slope
SpC (Spinks)	Slope

Source: Soil Survey of Ingham County, Michigan. 1992.

SOILS MAP



Streets and Traffic

The site has frontage on Lake Lansing Road and Park Lake Road, both of which are public roads and classified as arterial streets on the Township’s Street Setbacks and Service Drives Map, Section 86-365 of the Code of Ordinances. Both Lake Lansing Road and Park Lake Road are four lanes wide. A seven foot wide bicycle/pedestrian pathway is along the Lake Lansing Road frontage. The Township’s Pedestrian/Bicycle Master Plan calls for a paved shoulder along the Park Lake Road frontage and a cross country pathway along the north side of the property.

A 2005 traffic count by the Ingham County Road Department (ICRD) on Lake Lansing Road just west of the subject site showed an average of 5,332 vehicles per day traveled eastbound and 4,684 traveled westbound in a 24 hour period. A 2010 ICRD count on Park Lake Road adjacent to the subject site showed a total of 3,540 vehicles, 1,715 northbound and 1,825 southbound.

The applicant submitted a traffic impact study which provides information on the estimated traffic that could be generated from the development of the subject property. The study looks at one particular development scenario, a potential housing development consisting of 353 single family homes with entrances on both Lake Lansing Road and Park Lake Road. Typically, a rezoning traffic study will provide information on traffic generated by the existing land use in the existing zoning district and compare it to the potential traffic generation under the proposed zoning district. In this case the applicant’s traffic consultant prepared a traffic study that focuses on traffic related to a potential development. The submitted traffic analysis will be reviewed in detail when a development project is proposed.

To supplement the submitted traffic study, staff has estimated traffic generation using the ITE Trip Generation Manual (8th Edition). The estimates are based on a public 18-hole golf course; traffic generation information is not available for a private course. The following table compares estimated traffic generation for the current use of the property as a golf course with the information provided in the traffic study for a future potential development.

	Proposed Development	Existing Golf Course (Weekday)	Existing Golf Course (Saturday)	Existing Golf Course (Sunday)
Peak Hour	257 (a.m.) 327 (p.m.)	54 (a.m.) 64 (p.m.)	83	80
Total Vehicle Trips	3,351 (weekday)	643	731	711

The trip generation estimates shown above consist of both arrivals and departures to and from the property. For example, on a Sunday, a golf course can expect 80 trips generated by the property during a peak hour (40 arrivals and 40 departures). On a Sunday 711 trips are expected for the day, approximately 355 arrivals and 355 departures.

REZ #16060 (Summer Park Realty)
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The Township's Traffic Consultant reviewed the submitted traffic impact study and made comments based on the proposed development of the property as described in the study. When a development project is proposed, the submitted traffic impact study, the Township's Traffic Consultant comments on the study, and comments from the Ingham County Road Department (ICRD), which has jurisdiction over the road network in the vicinity of the subject property, will be reviewed in detail.

Utilities

Public sanitary sewer and water service are available in the vicinity of the subject property to serve future development. The location, design, and capacity of utilities will be evaluated when a future development is proposed.

Staff Analysis

The applicant has requested the rezoning of approximately 157 acres at 2874 Lake Lansing Road from RR (Rural Residential) to RAA (Single Family, Low Density). When evaluating the request, the Planning Commission should consider all uses permitted by right and by special use permit in the current and proposed zoning districts, as well as the reasons for rezoning listed on page two of the rezoning application.

A development project for the subject property has not yet been proposed, nor has detail been provided on the future use of the clubhouse on the property. The proposed RAA zoning will match the zoning of the Skyline Hills subdivision to the west and the Skyline Heights, Greens at Walnut Hills, and Whitehills Lakes subdivisions to the east. The portion of the Whitehills Lakes subdivision located north of Meadows Woods Drive is zoned RX (Duplex) but was constructed as single family homes.

To determine potential density of any given residential zoning district a factor called maximum dwelling units per acre (du/a) is used that considers minimum lot sizes permitted in the zoning district and reductions for road rights-of-way. The number of units produced using this calculation is just a guide to help identify potential future density, it does not factor in wetland areas, topography, site layout, or other factors that may limit buildable area. The proposed rezoning to RAA and the resulting density of 2.64 dwelling units per acre (du/a) meets the 2005 Master Plan designation of Residential 1.25-3.5 du/a. The following offers an evaluation of potential density under the current zoning arrangement and proposed rezoning to RAA:

Development under current zoning

157 acres of RR zoning x 0.98 maximum dwelling units per acre (du/a) = 153 lots
33 acres of RAA zoning x 2.64 du/a = 87 lots
153 lots under RR + 87 lots under RAA = 240 total lots

Development under RAA zoning

157 acres of RAA zoning x 2.64 du/a = 414 lots
33 acres of RAA x 2.64 du/a = 87 lots
414 lots + 87 lots = 501 total lots

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Planning Commission Options

The Planning Commission may recommend approval or denial of the request or it may recommend a different zoning designation than proposed to the Township Board. A resolution will be provided for a future meeting.

Attachments

1. Application and supporting materials
2. Township traffic consultant letter dated November 8, 2016

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



REZONING APPLICATION

Part I, II and III of this application must be completed. Failure to complete any portion of this form may result in the denial of your request.

Part I

- A. Owner/Applicant Summer Park Realty
Address of applicant 4000 Towncenter 7th Floor Southfield, MI 48075
Telephone: Work (248) 386-0300 Home n/a
Fax n/a Email dstobb@cienahmi.com
If there are multiple owners, list names and addresses of each and indicate ownership interest. Attach additional sheets if necessary. If the applicant is not the current owner of the subject property, the applicant must provide a copy of a purchase agreement or instrument indicating the owner is aware of and in agreement with the requested action.
- B. Applicant's Representative, Architect, Engineer or Planner responsible for request:
Name / Contact Person Steven Schafer
Address 31400 Northwestern Hwy # H Farmington Hills, MI 48334
Telephone: Work (248) 613-6262 Home n/a
Fax (248) 932-0128 Email steve@schafer-dev.com
- C. Site address/location ²⁸⁷⁴2847 Lake Lansing Rd. East Lansing, MI 48823
Legal description (Attach additional sheets if necessary) See Attached Sheets for Legal Description.
Parcel number 33-02-02-05-326-004 Site acreage +/- 156.60 Acres
- D. Current zoning RR Requested zoning RAA
- E. The following support materials must be submitted with the application:
1. Nonrefundable fee.
 2. Evidence of fee or other ownership of the subject property.
 3. A rezoning traffic study prepared by a qualified traffic engineer based on the most current edition of the handbook entitled *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation, is required for the following requests:
 - a. Rezoning when the proposed district would permit uses that could generate more than 100 additional directional trips during the peak hour than the principal uses permitted under the current zoning.
 - b. Rezoning having direct access to a principal or minor arterial street, unless the uses in the proposed zoning district would generate fewer peak hour trips than uses in the existing zoning district.
(Information pertaining to the contents of the rezoning traffic study will be available in the Department of Community Planning and Development.)
 4. Other information deemed necessary to evaluate the application as specified by the Director of Community Planning and Development.

Part II

REASONS FOR REZONING REQUEST

Respond only to the items which you intend to support with proof. Explain your position on the lines below, and attach supporting information to this form.

A. Reasons why the present zoning is unreasonable:

- 1) There is an error in the boundaries of the Zoning Map, specifically: Spot Zoned
- 2) The conditions of the surrounding area have changed in the following respects: _____
The Golf Course operations are no longer economically viable
- 3) The current zoning is inconsistent with the Township's Master Plan, explain:
Surrounding Properties are zoned RAA
- 4) The Township did not follow the procedures that are required by Michigan laws, when adopting the Zoning Ordinance, specifically: _____
- 5) The Township did not have a reasonable basis to support the current zoning classification at the time it was adopted; and the zoning has exempted the following legitimate uses from the area: _____
- 6) The current zoning restrictions on the use of the property do not further the health safety or general welfare of the public, explain: _____

B. Reasons why the requested zoning is appropriate:

- 1) Requested rezoning is consistent with the Township's Master Plan, explain:
Surrounding properties are zoned RAA.
- 2) Requested rezoning is compatible with other existing and proposed uses surrounding the site, specifically: South Portion of site is zoned RAA, as well as, adjacent property to the west and east.
- 3) Requested rezoning would not result in significant adverse impacts on the natural environment, explain: Current golf course is main development. Wetlands will not be negatively impacted.
- 4) Requested rezoning would not result in significant adverse impacts on traffic circulation, water and sewer systems, education, recreation or other public services, explain: Proposed development does not exceed the density for this property as shown on the Meridan Townships Future Land Use Map.
- 5) Requested rezoning addresses a proven community need, specifically: There is demand for housing in this area.
- 6) Requested rezoning results in logical and orderly development in the Township, explain: The requested zoning matches the zoning of the surrounding areas.
- 7) Requested rezoning will result in better use of Township land, resources and properties and therefore more efficient expenditure of Township funds for public improvements and services, explain: Requested zoning and subsequent development will increase the tax base.

Part III

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

Signature of Applicant

10/7/2016
Date

Steve Schafer
Type/Print Name


Steven Schafer

Fee: \$8284.00

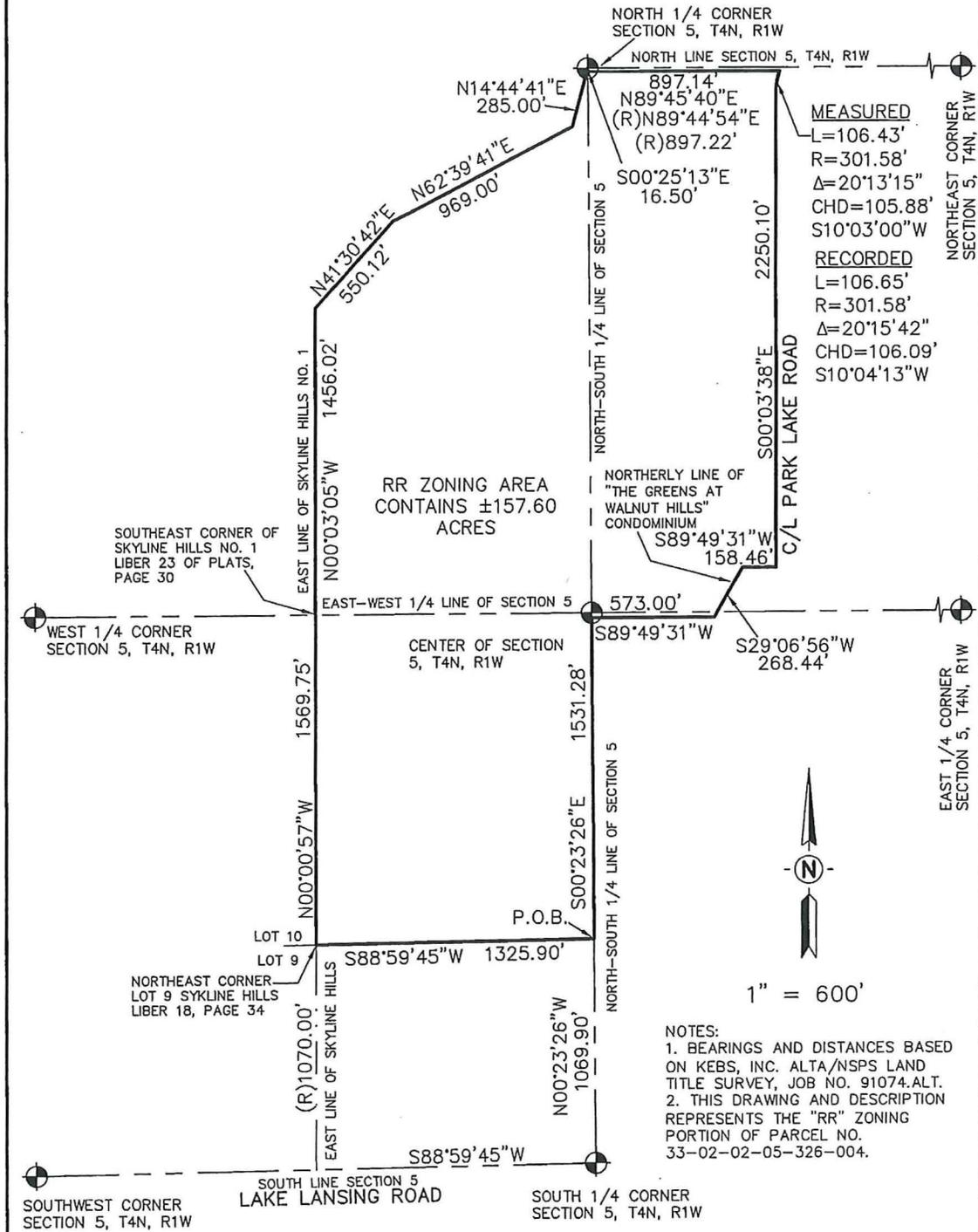
#6,980

Received by/Date: _____

Peter Menser
10-17-16

ZONING DESCRIPTION

For:
Summer Park Realty, LLC



MEASURED
L=106.43'
R=301.58'
Δ=20°13'15"
CHD=105.88'
S10°03'00"W

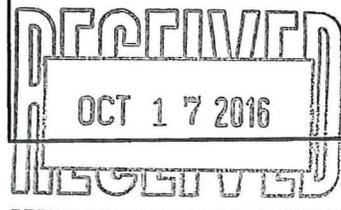
RECORDED
L=106.65'
R=301.58'
Δ=20°15'42"
CHD=106.09'
S10°04'13"W

NOTES:
1. BEARINGS AND DISTANCES BASED ON KEBS, INC. ALTA/NSPS LAND TITLE SURVEY, JOB NO. 91074.ALT.
2. THIS DRAWING AND DESCRIPTION REPRESENTS THE "RR" ZONING PORTION OF PARCEL NO. 33-02-02-05-326-004.

1" = 600'

This plan was made at the direction of the parties hereon and intended solely for their immediate use and no survey has been made and no property lines were monumented, all easements recorded or unrecorded may not be shown, unless specifically noted, and no dimensions are intended for use in establishing property lines.

R = Recorded Distance
— = Description Line
- - - = Distance Not to Scale



KEBS, INC. KYES ENGINEERING
BRYAN LAND SURVEYS

2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047

13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

DRAWN BY SLH	SECTION 5, T4N, R1W
FIELD WORK BY - - -	JOB NUMBER:
SHEET 1 OF 2	91074.ENG

ZONING DESCRIPTION

RR ZONING AREA DESCRIPTION FOR PARCEL NO. 33-02-02-05-326-004:

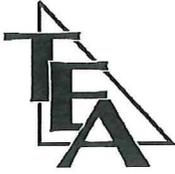
An area of land located in Section 5, T4N, R1W, Meridian Township, Ingham County, Michigan, the limits of said area described as: Commencing at the South 1/4 corner of said Section 5; thence N00°23'26"W along the North-South 1/4 line of said Section 5 a distance of 1069.90 feet to the point of beginning; thence S88°59'45"W parallel with the South line of said Section 5 a distance of 1325.90 feet to the Northeast corner of Lot 9 of Skyline Hills Subdivision as recorded in Liber 18 of Plats, Page 34, Ingham County Records; thence N00°00'57"W along the East line of said Skyline Hills Subdivision 1569.75 feet to the Southeast corner of Skyline Hills No. 1, as recorded in Liber 23 of Plats, Page 30, Ingham County Records; thence N00°03'05"W along the East line of said Skyline Hills No. 1 and its extension, a distance of 1456.02 feet; thence N41°30'42"E 550.12 feet; thence N62°39'41"E 969.00 feet; thence N14°44'41"E 285.00 feet to the North 1/4 corner of said Section 5; thence S00°25'13"E along the North-South 1/4 line of said Section 5 a distance of 16.50 feet; thence N89°45'40"E (recorded as N89°44'54"E) parallel with the North line of said Section 5 a distance of 897.14 feet (recorded as 897.22 feet) to the centerline of Park Lake Road; thence along said centerline Southwesterly 106.43 feet along a curve to the left, said curve having a radius of 301.58 feet, a delta angle of 20°13'15", and a chord of 105.88 feet bearing S10°03'00"W (said curve was previously recorded as L=106.65', R=301.58', Delta=20°15'42", CHD=106.09', S10°04'13"W); thence S00°03'38"E along said centerline 2250.10 feet to the Northerly line of The Greens at Walnut Hills Condominium as recorded in Ingham County Subdivision Plan No. 76; thence along the Northerly line of said Condominium the following three course: S89°49'31"W 158.46 feet, S29°06'56"W 268.44 feet, and S89°49'31"W 573.00 feet to the North-South 1/4 line of said Section 5; thence S00°23'26"E along said North-South 1/4 line 1531.28 feet to the point of beginning; said area contains 157.60 acres, more or less.


DANE B. PASCOE

PROFESSIONAL SURVEYOR NO. 54434

10/4/16
DATE:

	KEBS, INC.	KYES ENGINEERING BRYAN LAND SURVEYS
	2116 HASLETT ROAD, HASLETT, MI 48840 PH. 517-339-1014 FAX. 517-339-8047 13432 PRESTON DRIVE, MARSHALL, MI 49068 PH. 269-781-9800 FAX. 269-781-9805	
DRAWN BY SLH	SECTION 5, T4N, R1W	
FIELD WORK BY ---	JOB NUMBER:	
SHEET 1 OF 2	91074.ENG	



TRAFFIC IMPACT STUDY

For The Proposed

Walnut Hills Subdivision

Meridian Charter Township, Ingham County, MI

October, 2016

Prepared by:

**Traffic Engineering
Associates, Inc.**

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

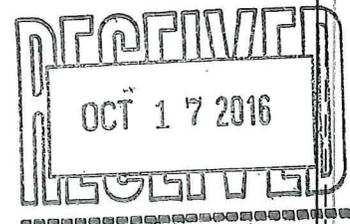


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EXECUTIVE SUMMARY

Traffic Engineering Associates, Inc. (TEA) conducted a traffic impact study for the proposed Walnut Hills Subdivision development, in Meridian Charter Township, Ingham County, Michigan. The purpose of this study is to determine the impact of traffic to be generated on the surrounding road system. The new development will consist of 353 single family homes and will be located at the existing Walnut Hills Country Club.

The new subdivision will be located north of Lake Lansing Road and west of Park Lake Road. The proposed subdivision will have two (2) public road connections, one (1) on Lake Lansing Road at approximately the same location as the existing Walnut Hills Country Club driveway, and one (1) on Park Lake Road across from Meadow Woods Drive. The proposed development is expected to be completed and fully occupied by the end of 2022 (six years).

The existing weekday AM and PM peak hour traffic volumes are 7:30 – 8:30 AM and 5:00 – 6:00 PM at the key locations, respectively. All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) except one (1) movement. During the AM peak hour, the eastbound to westbound median cross-over on Saginaw Highway northbound left turn movement operates at a LOS E with a vehicle delay of 35.1 seconds.

Background traffic represents future volumes without the traffic generated by the proposed Walnut Hills Subdivision development. The background conditions included background growth for six (6) years and the proposed new Costco Wholesale development. Under background conditions, all studied intersections are projected to operate at an acceptable level of service (LOS D or better). It is anticipated that all movements will operate at an acceptable level of service (LOS D or better) except for the following;

Saginaw Highway and Park Lake Road

- During the PM peak hour the northbound right turn movement from Park Lake Road to eastbound Saginaw Highway is expected to operate at a LOS E with a vehicle delay of 78.5 seconds, an increase of 54.4 seconds from existing conditions.

Saginaw Highway and East Median Cross-Over

- During the AM peak hour the east median cross-over left turning movement from eastbound Saginaw Highway to westbound Saginaw Highway is expected to operate at a LOS F with a vehicle delay of 129.4 seconds, an increase of 94.3 seconds from existing conditions.

The ITE trip generation rates for Single-Family Detached Housing (Land Use Code 210) were selected to represent the proposed 353 units. It is projected that the proposed Walnut Hills Subdivision development will generate 257 vehicle trips in the AM peak hour, 327 vehicle trips in the PM peak hour, and 3,351 weekday trips. Under future conditions, all studied intersections are projected to operate at an acceptable level of service (LOS D or



better). It is anticipated that all movements will operate at an acceptable level of service (LOS D or better) except for the following movements;

Lake Lansing Road and Hagadorn Road

- During the AM peak hour the westbound left-thru-right movement on Lake Lansing Road is expected to operate at a LOS E with a vehicle delay of 65.5 seconds, an increase of 35.1 seconds from background conditions.

Saginaw Highway and Park Lake Road

- During the AM peak hour the southbound right turn movement from Park Lake Road to westbound Saginaw Highway is anticipated to operate at a LOS E with a vehicle delay of 58.9 seconds, an increase of 12.7 seconds from background conditions.

Saginaw Highway and Park Lake Road

- During the PM peak hour the northbound right turn movement from Park Lake Road to eastbound Saginaw Highway is anticipated to operate at a LOS E with a vehicle delay of 78.5 seconds, the same as under background conditions.

Saginaw Highway and East Median Cross-Over

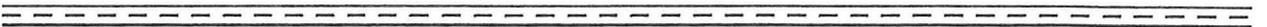
- During the AM peak hour the east median cross-over left turning movement from eastbound Saginaw Highway to westbound Saginaw Highway is expected to operate at a LOS F with a vehicle delay of 136.7 seconds, an increase of 7.3 seconds from background conditions.

The findings of this study show that there are no recommendations to the existing road system except for a recommendation for a right turn taper for southbound Park Lake Road at the new proposed roadway/Meadow Woods Drive. The traffic signal at the intersection of Lake Lansing Road and Hagadorn Road will need to be retimed in the future as the Walnut Hills Subdivision develops.

The Michigan Department of Transportation should consider conducting a traffic signal warrant analysis at the eastbound to westbound median cross-over on Saginaw Highway east of Park Lake Road once the new Costco Wholesale development is completed and opened and the Walnut Hills Subdivision has partial completion and occupation. It is estimated that the Walnut Hills Subdivision development will take six (6) years to fully develop and be completely occupied.



INTRODUCTION



PROJECT DESCRIPTION

The purpose of this study is to determine the impact of traffic to be generated by the proposed Walnut Hills Subdivision to be located in Meridian Charter Township, Ingham County, Michigan. The new development will consist of 353 single family homes. The new development will be located at the existing Walnut Hills Country Club.

The new subdivision will be located north of Lake Lansing Road and west of Park Lake Road. The proposed subdivision will have two (2) public road connections, one (1) on Lake Lansing Road at approximately the same location as the existing Walnut Hills Country Club driveway, and one (1) on Park Lake Road across from Meadow Woods Drive. The proposed development is expected to be completed and fully occupied by the end of 2022 (six years).



SCOPE OF WORK

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

- Analysis of existing traffic conditions on the adjoining street system, including the following intersections;
 - Park Lake Road and Lake Lansing Road
 - Park Lake Road and Meadow Woods Drive
 - Park Lake Road and Saginaw Highway
 - Lake Lansing Road and Hagadorn Road
- Analysis of background traffic conditions on the adjoining street system, which includes the above listed intersections, for the future year 2022 volumes without the proposed Walnut Hills Subdivision development. Also included is the background development for Costco Wholesale.
- Projection of future traffic volumes to be generated by the proposed Walnut Hills Subdivision development for the future year.
- Analysis of the impact of future traffic for the proposed Walnut Hills Subdivision development at the above listed intersections.
- Determination of what roadway and traffic control improvements, if any, will be needed to accommodate future traffic volumes for the proposed Walnut Hills Subdivision development.





Aerial Site Map



EXISTING CONDITIONS



ROADWAYS AND INTERSECTIONS

Roadways

Park Lake Road is a north-south, two-lane roadway in the project area with gravel shoulders and sidewalk on the east side. The posted speed limit is 35 mph. The roadway is under the jurisdiction of the Ingham County Road Department. There are no bicycle lanes on Park Lake Road.

Lake Lansing Road is an east-west, four-lane roadway with curb and gutter and sidewalk on the north side. The posted speed limit is 35 mph. The roadway is under the jurisdiction of the Ingham County Road Department. There are no bicycle lanes on Lake Lansing Road.

Intersections

Park Lake Road and Lake Lansing Road

The intersection of Park Lake Road and Lake Lansing Road is controlled by a traffic signal. The north and south approaches on Park Lake Road have two (2) lanes; one (1) left-thru-right lane and one (1) outbound lane. The east and west approaches on Lake Lansing Road are four (4) lanes with one (1) thru-right lane, one (1) left-thru lane and two (2) outbound lanes. There are no marked pedestrian crosswalks or pedestrian crossing signals.

Lake Lansing Road and Hagadorn Road

The intersection of Lake Lansing Road and Hagadorn Road is controlled by a traffic signal. The north and south approaches on Hagadorn Road have five (5) lanes; one (1) exclusive left turn lane, one (1) thru-right lane, one (1) thru lane and two (2) outbound lanes. The east and west approaches on Lake Lansing Road are four (4) lanes with one (1) thru-right lane, one (1) left-thru lane and two (2) outbound lanes. There are marked pedestrian crosswalks at all four approaches with pedestrian crossing signals.

Park Lake Road and Saginaw Highway

The intersection of Park Lake Road and Saginaw Highway is controlled by a traffic signal. The eastbound and westbound lanes on Saginaw Highway are separated by a grass median. The north and south approaches on Park Lake Road have three (3) lanes; one (1) exclusive right turn lane, one (1) thru lane and one (1) outbound lane. The east and west approaches on Saginaw Highway have six (6) lanes; one (1) exclusive right turn lane, two (2) thru lanes and two (2) outbound lanes. All four approaches have restricted "NO LEFT TURN" and traffic is expected to turn right and use the median cross-overs east and west of the intersection. There are no marked crosswalks or pedestrian signals at this intersection.



LAND USE

The proposed Walnut Hills Subdivision development will consist of single family residential units and will be located on the property of the existing Walnut Hills Country Club.

The surrounding land use is single family residential, with an elementary school at the intersection of Lake Lansing Road and Hagadorn Road. There is a commercial retail development on Lake Lansing Road north of Hagadorn Road.



EXISTING TRAFFIC VOLUMES

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

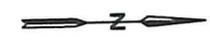
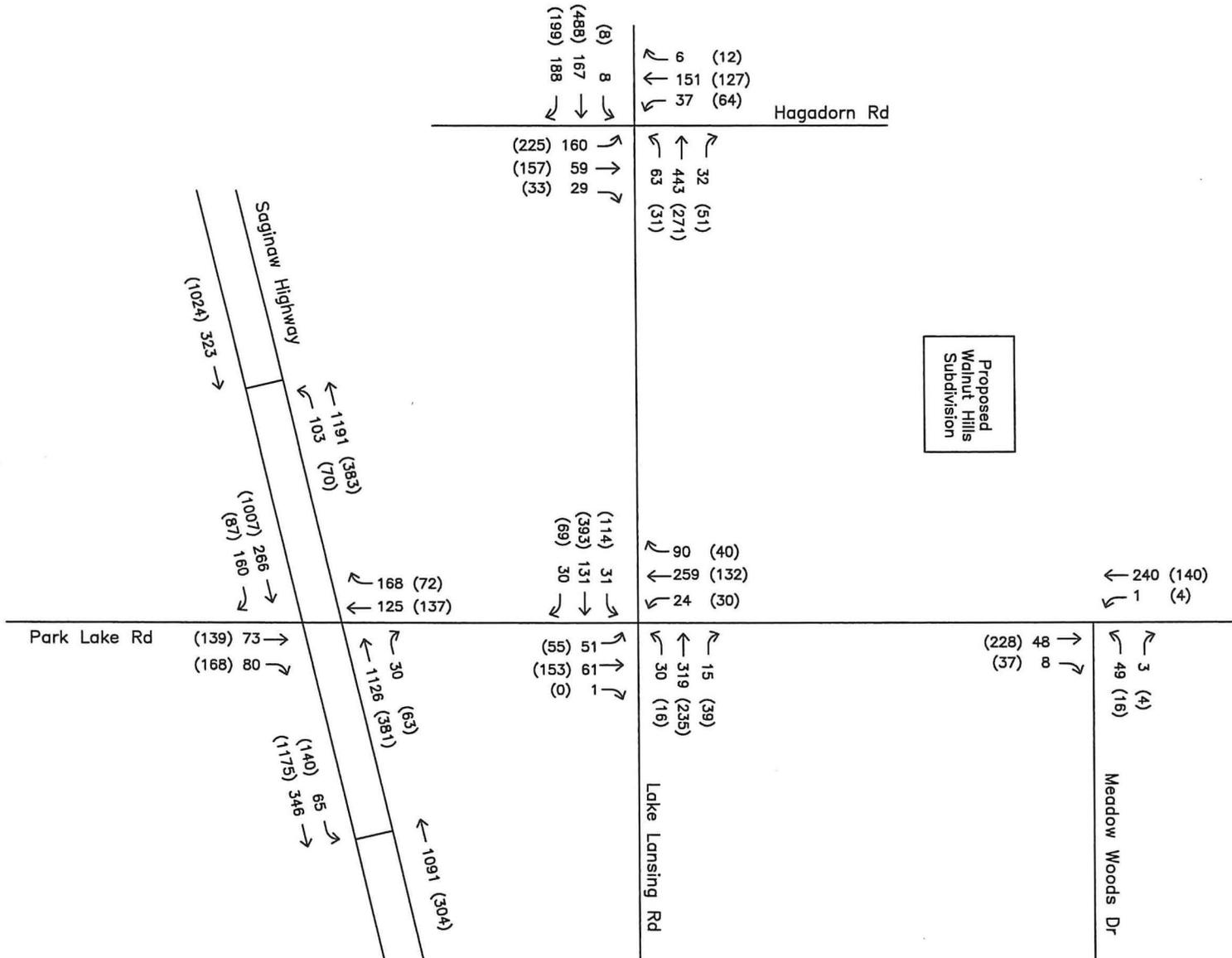
- Lake Lansing Road and Park Lake Road
- Lake Lansing Road and Hagadorn Road
- Park Lake Road and Meadow Woods Drive

TEA, Inc. used vehicle turning movement surveys that included traffic counts during the morning and afternoon peak periods from the Hubble, Roth and Clark traffic impact study for the proposed Costco retail store at the following intersection;

- Park Lake Road and Saginaw Highway

The existing weekday AM and PM peak hour traffic volumes are 7:30 – 8:30 AM and 5:00 – 6:00 PM at the key locations, respectively. The existing volumes are illustrated in **Figure 1**.





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 XXX AM Pk Hr (7:30-8:30 AM) Volumes
 (XXX) PM Pk Hr (5:00-6:00 PM) Volumes

Figure 1: Existing Traffic – Peak Hours

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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 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.

The Level of Service analysis for existing traffic at the subject intersections during the peak hours is summarized in **Table 1**.

All existing turning movements at the studied intersections operate at an acceptable level of service (LOS D or better) except one (1) movement. During the AM peak hour, the eastbound to westbound median cross-over on Saginaw Highway northbound left turn movement operates at a LOS E with a vehicle delay of 35.1 seconds.



Table 1
Level of Service (LOS) Summary
Existing Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Lake Lansing Road	EB Left-Thru-Right	8.7	A	10.7	B
	WB Left-thru-Right	11.2	B	8.1	A
	NB Left-Thru-Right	13.0	B	15.6	B
	SB Left-Thru-Right	17.5	B	12.5	B
	Intersection	13.0	B	11.2	B
Park Lake Road and Meadow Woods Drive	WB Left-Right	11.5	B	11.8	B
	NB Thru-Right	Free	-	Free	-
	SB Left-Thru	0.0	A	0.3	A
Lake Lansing Road and Hagadorn Road	EB Left-Thru-Right	7.5	A	14.0	B
	WB Left-Thru-Right	17.8	B	12.0	B
	NB Left	35.1	D	32.8	C
	NB Thru-Right	20.0	B	21.9	C
	SB Left	22.8	C	23.9	C
	SB Thru-Right	29.6	C	27.6	C
	Intersection	18.7	B	18.2	B

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



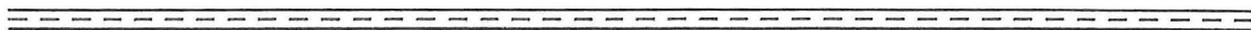
Table 1 (Continued)
Level of Service (LOS) Summary
Existing Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Saginaw Highway	EB Thru	6.2	A	11.4	B
	EB Right	1.2	A	1.7	A
	WB Thru	11.5	B	8.4	A
	WB Right	0.7	A	1.9	A
	NB Thru	48.9	D	46.5	D
	NB Right	10.3	B	24.1	C
	SB Thru	52.6	D	44.4	D
	SB Right	52.5	D	9.9	A
	Intersection	18.3	B	15.2	B
Saginaw Highway and East Median Cross-Over	NB Left	<u>35.1</u>	<u>E</u>	13.2	B
Saginaw Highway and West Median Cross-Over	SB Left	10.3	B	14.4	B

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



BACKGROUND CONDITIONS



BACKGROUND TRAFFIC VOLUMES – GROWTH RELATED

Background traffic represents future volumes without the traffic generated by the proposed Walnut Hills Subdivision development. The target year for completion is the end of 2022; therefore, a six (6) year growth rate was applied to the existing traffic volumes.

According to the US Census Bureau, the total population growth for Ingham County from 2010 to 2014 was one point three percent (1.3%). The US Census Bureau also shows that the total population growth for Meridian Charter Township from 2010 to 2014 was five point zero percent (5.0%). The Meridian Charter Township growth rate was calculated to be an annual average rate of one point two eight percent (1.28%), which was utilized for the background growth period to project traffic to the build out date to the end of 2022 (six years). The proposed growth related background weekday AM and PM peak hour traffic volumes are illustrated in **Figure 2A**.

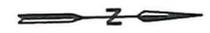
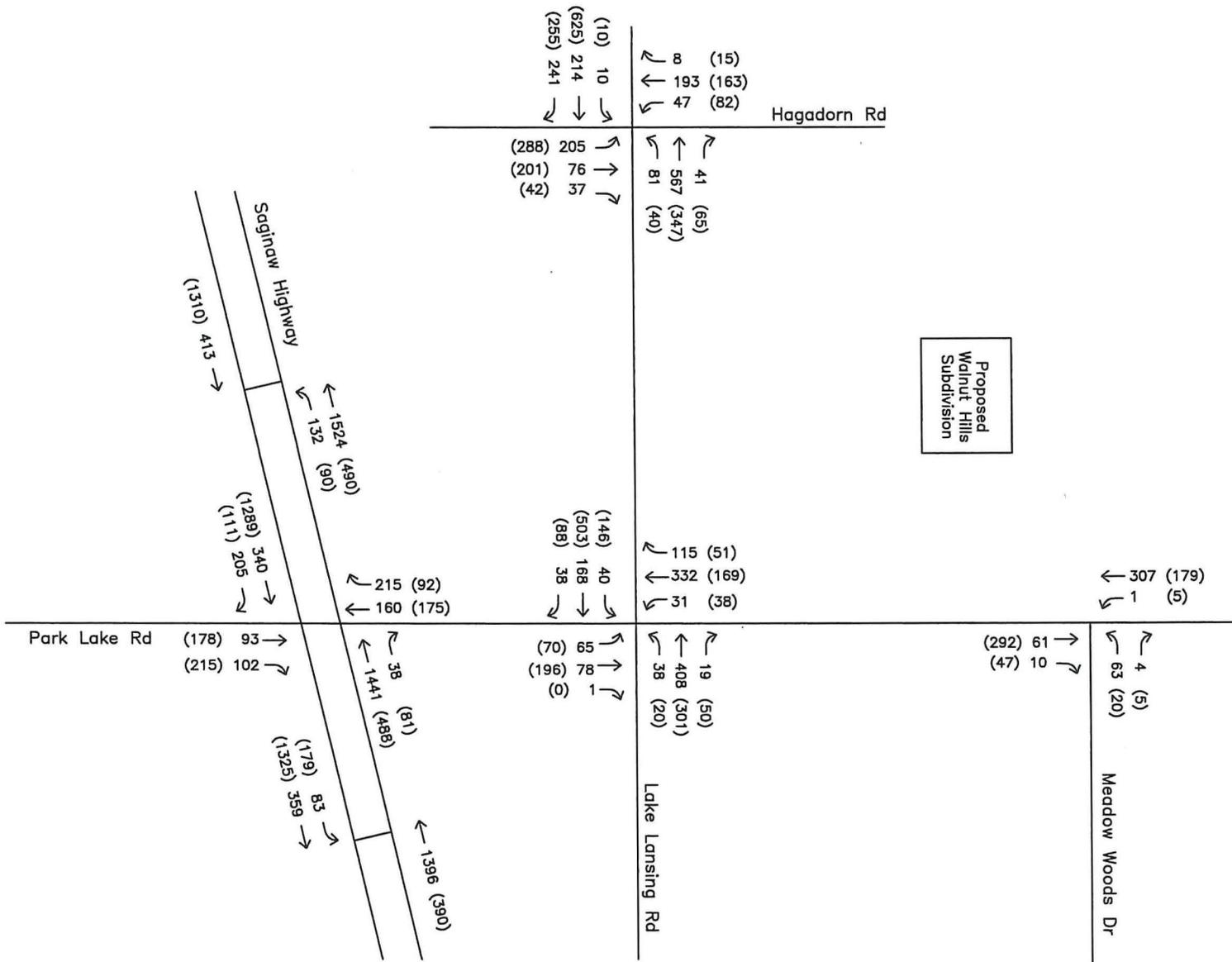
BACKGROUND TRAFFIC VOLUMES – DEVELOPMENT RELATED

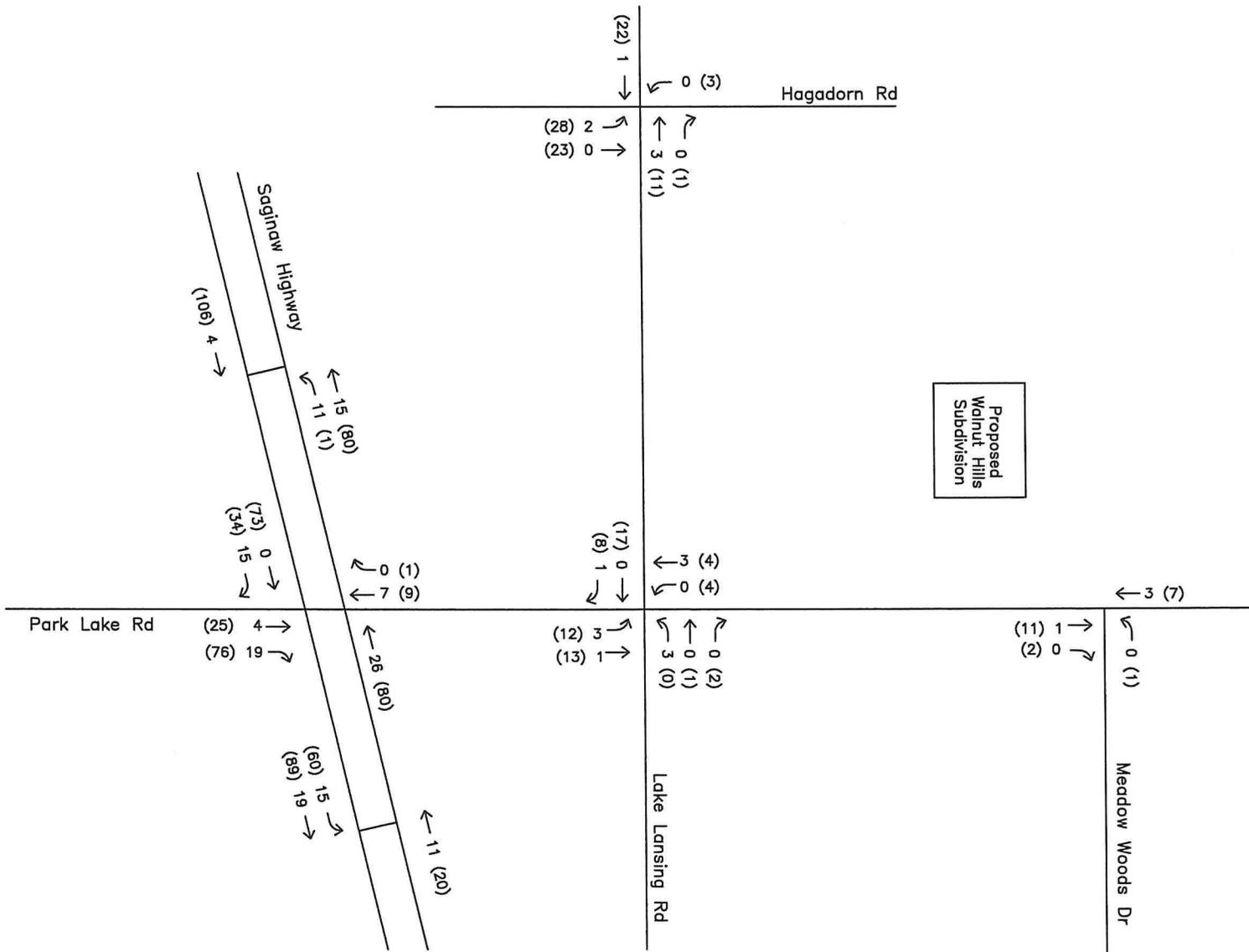
There was only one (1) new development in the area that will add new traffic to the studied intersections, which is the proposed Costco Wholesale development. The Costco Wholesale development will be located at the southeast corner of Park Lake Road and Saginaw Highway on the property of the old Par Mar Golf Course. This development will consist of a 156,000 square feet commercial building, 16 fueling positions, and three outlots on approximately 64.48 acres. The three outlots are not being developed at this time so they were not included in the traffic impact study. Trip generation values were obtained from the Hubble, Roth & Clark, Inc. traffic impact study dated August 5, 2016.

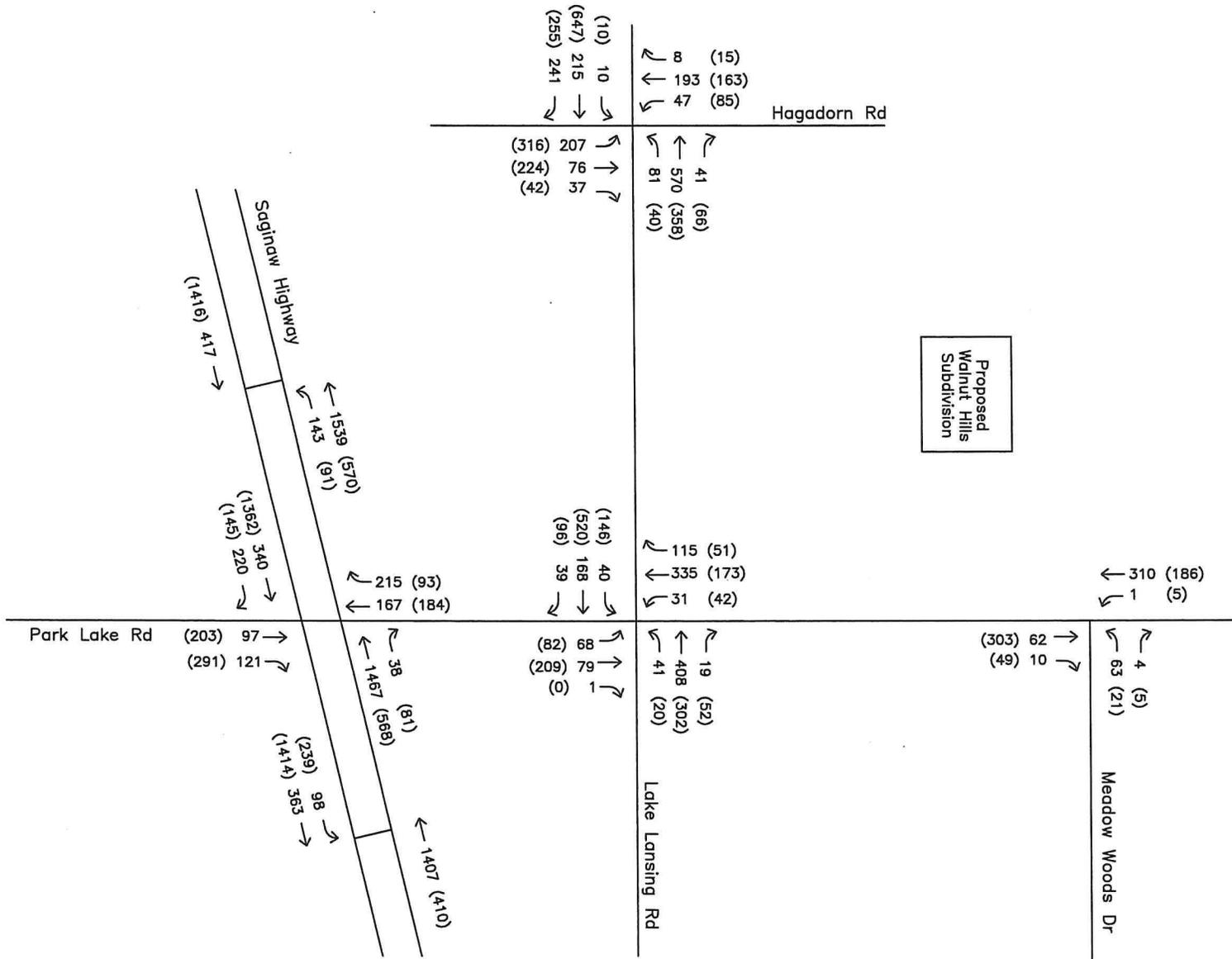
The proposed development background weekday AM and PM peak hour traffic volumes are illustrated in **Figure 2B**.

Adding the traffic volumes from the proposed Costco Wholesale development (Figure 2B), to the background growth related traffic volumes (Figure 2A) represents the total background traffic. The total AM and PM peak hour background traffic is shown in **Figure 2C**.









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 XXX AM Pk Hr (7:30-8:30 AM) Volumes
 (XXX) PM Pk Hr (5:00-6:00 PM) Volumes

Figure 2C: Total Background Traffic - Peak Hours

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LEVEL OF SERVICE ANALYSIS FOR BACKGROUND TRAFFIC

The level of service analysis for background 2022 traffic is summarized in **Table 2**. All existing roadway geometrics and traffic control devices were utilized for the background analysis except for the following;

Saginaw Highway and Park Lake Road

- The Hubble, Roth & Clark, Inc. traffic impact study for the proposed Costco Wholesale development recommended a revised traffic signal timings. These timings were installed as background conditions.

Under background conditions, all studied intersections are projected to operate at an acceptable level of service (LOS D or better). It is anticipated that all movements will operate at an acceptable level of service (LOS D or better) except for the following;

Saginaw Highway and Park Lake Road

- During the PM peak hour the northbound right turn movement from Park Lake Road to eastbound Saginaw Highway is expected to operate at a LOS E with a vehicle delay of 78.5 seconds, an increase of 54.4 seconds from existing conditions.

Saginaw Highway and East Median Cross-Over

- During the AM peak hour the east median cross-over left turning movement from eastbound Saginaw Highway to westbound Saginaw Highway is expected to operate at a LOS F with a vehicle delay of 129.4 seconds, an increase of 94.3 seconds from existing conditions.



Table 2
Level of Service (LOS) Summary
Background Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Lake Lansing Road	EB Left-Thru-Right	9.5	A	15.4	B
	WB Left-thru-Right	13.4	B	9.8	A
	NB Left-Thru-Right	15.7	B	18.2	B
	SB Left-Thru-Right	24.5	C	13.7	B
	Intersection	16.6	B	14.4	B
Park Lake Road and Meadow Woods Drive	WB Left-Right	13.0	B	13.6	B
	NB Thru-Right	Free	-	Free	-
	SB Left-Thru	0.0	A	0.3	A
Lake Lansing Road and Hagadorn Road	EB Left-Thru-Right	8.7	A	25.1	C
	WB Left-Thru-Right	30.4	C	17.4	B
	NB Left	39.0	D	31.3	C
	NB Thru-Right	19.1	B	24.3	C
	SB Left	22.5	C	22.4	C
	SB Thru-Right	29.7	C	28.3	C
	Intersection	24.7	C	24.4	C

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



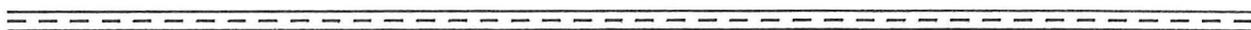
Table 2 (Continued)
Level of Service (LOS) Summary
Background Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Saginaw Highway	EB Thru	9.1	A	15.6	B
	EB Right	1.5	A	1.6	A
	WB Thru	28.0	C	9.9	A
	WB Right	1.6	A	1.9	A
	NB Thru	42.6	D	49.9	D
	NB Right	7.7	A	<u>78.5</u>	<u>E</u>
	SB Thru	46.2	D	44.9	D
	SB Right	50.5	D	8.7	A
	Intersection	29.7	C	26.7	C
Saginaw Highway and East Median Cross-Over	NB Left	<u>129.4</u>	<u>F</u>	19.3	C
Saginaw Highway and West Median Cross-Over	SB Left	11.1	B	20.0	C

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



FUTURE CONDITIONS



SITE TRAFFIC GENERATION

The trip generation rates for the proposed Walnut Hills Subdivision development were derived from the ITE TRIP GENERATION MANUAL (9th edition). The ITE trip generation rates for Single-Family Detached Housing (Land Use Code 210) were selected to represent the proposed 353 units. The ITE description of Single-Family Detached Housing is as follows:

Single-family detached housing includes all single-family homes on individual lots. A typical site surveyed is a suburban subdivision.

It is projected that the proposed Walnut Hills Subdivision development will generate 257 vehicle trips in the AM peak hour, 327 vehicle trips in the PM peak hour, and 3,351 weekday trips. The projected traffic to be generated by the Walnut Hills Subdivision development is summarized in **Table 3**.



Table 3
Vehicle Trip Generation Summary
Walnut Hills Subdivision Development

Land Use	Size	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Single-Family Detached Housing, Land Use Code 210	353 Units	64	193	257	206	121	327	3,351
Total Trips		64	193	257	206	121	327	3,351



SITE TRAFFIC DISTRIBUTION

Traffic distribution for the proposed Walnut Hills Subdivision development was distributed based on both the proposed site layout and the surrounding roadway patterns. Traffic was first distributed based on the subdivision road system layout. The proposed Walnut Hills Subdivision will have one (1) new roadway onto Park Lake Road and one (1) new roadway onto Lake Lansing Road. It was determined that approximately 75% of the residents will go south to Lake Lansing Road, and approximately 25% will go to the north roadway leading out to Park Lake Road.

Traffic was then further distributed by traffic patterns on Lake Lansing Road and Park Lake Road. Typically, a residential facility has a traffic pattern where vehicles are exiting in the morning and entering in the evening; therefore, the existing exiting traffic pattern on the roadway system during the morning and the entering traffic pattern during the evening generated the distribution for this study. The distribution for the residential generated traffic is as follows.

Lake Lansing Road Distribution

Direction of Approach and Departure	AM Peak Hour	PM Peak Hour
To/From the WEST on Lake Lansing Road	34%	64%
To/From the EAST on Lake Lansing Road	66%	36%

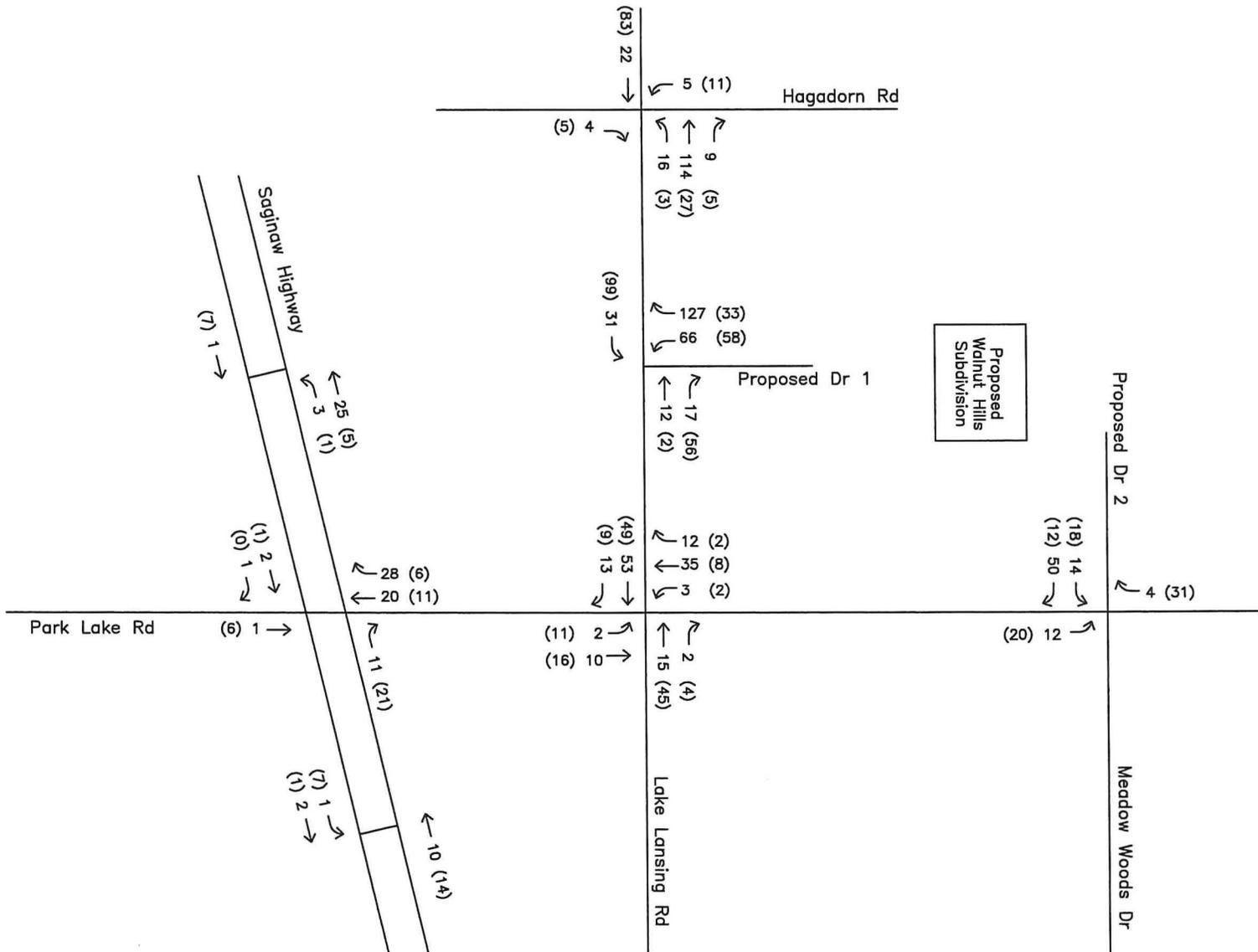
Park Lake Road Distribution

Direction of Approach and Departure	AM Peak Hour	PM Peak Hour
To/From the NORTH on Park Lake Road	22%	60%
To/From the SOUTH on Park Lake Road	78%	40%

The new site traffic was then distributed through the road system by the existing turning movement percentages at each major intersection.

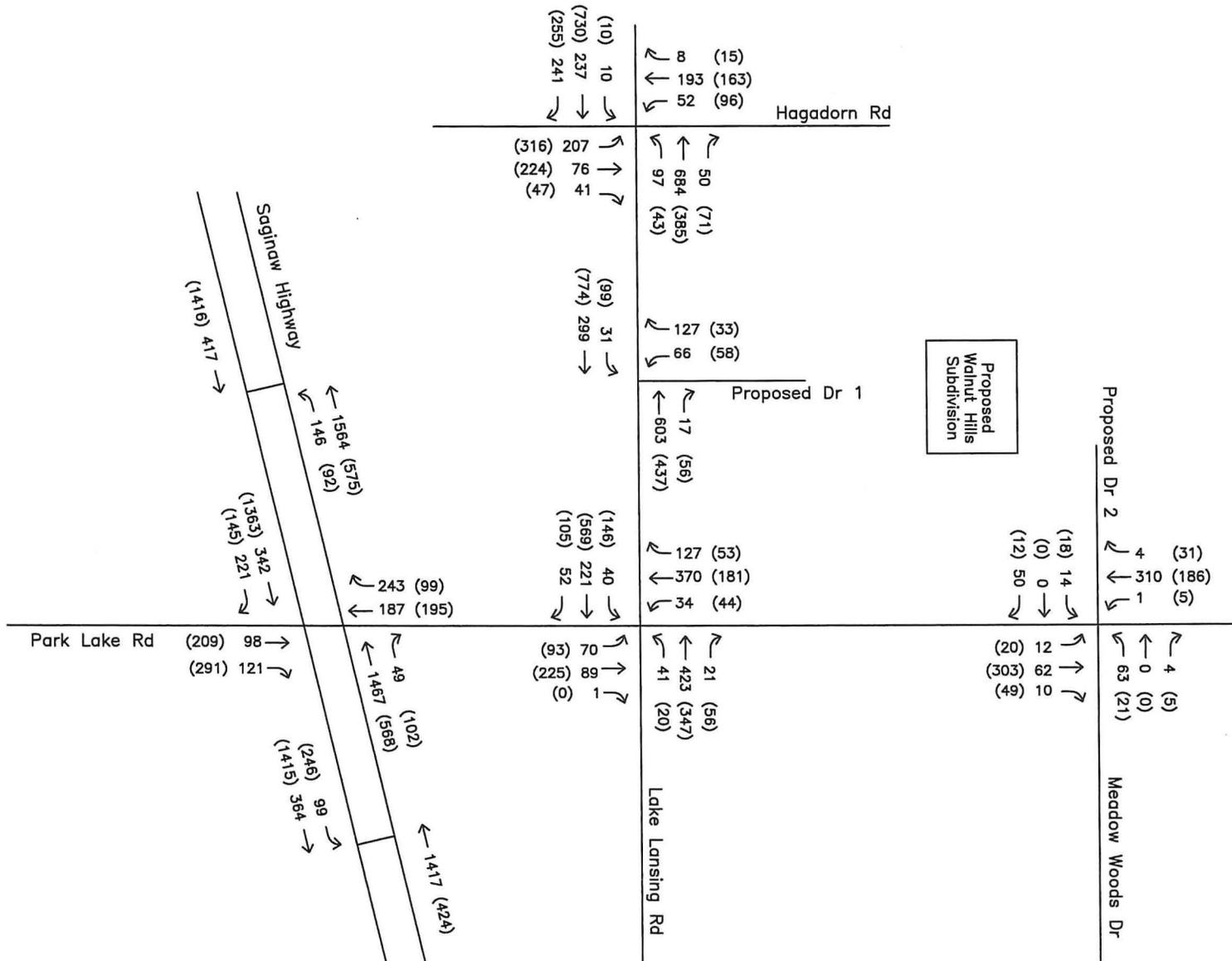
The total estimated site generated traffic for the proposed Walnut Hills Subdivision development during the AM and PM peak hours is illustrated in **Figure 3**.



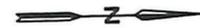


Proposed Walnut Hills Subdivision





Proposed Walnut Hills Subdivision



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LEGEND

XXX AM Pk Hr (7:30-8:30 AM) Volumes
 (XXX) PM Pk Hr (5:00-6:00 PM) Volumes

Figure 4: Future Traffic - Peak Hours

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LEVEL OF SERVICE ANALYSIS FOR FUTURE TRAFFIC

The level of service analysis for future traffic is summarized in **Table 4**. Comparing future level of service conditions to background level of service conditions determines the impact that can be expected from the addition of traffic generated from the Walnut Hills Subdivision development.

All background geometrics and traffic control were utilized for the future conditions. The two (2) proposed new roadways were modeled as a single lane with full access entering and exiting. Under future conditions, all studied intersections are projected to operate at an acceptable level of service (LOS D or better). It is anticipated that all movements will operate at an acceptable level of service (LOS D or better) except for the following movements;

Lake Lansing Road and Hagadorn Road

- During the AM peak hour the westbound left-thru-right movement on Lake Lansing Road is expected to operate at a LOS E with a vehicle delay of 65.5 seconds, an increase of 35.1 seconds from background conditions.

Saginaw Highway and Park Lake Road

- During the AM peak hour the southbound right turn movement from Park Lake Road to westbound Saginaw Highway is anticipated to operate at a LOS E with a vehicle delay of 58.9 seconds, an increase of 12.7 seconds from background conditions.

Saginaw Highway and Park Lake Road

- During the PM peak hour the northbound right turn movement from Park Lake Road to eastbound Saginaw Highway is anticipated to operate at a LOS E with a vehicle delay of 78.5 seconds, the same as under background conditions.

Saginaw Highway and East Median Cross-Over

- During the AM peak hour the east median cross-over left turning movement from eastbound Saginaw Highway to westbound Saginaw Highway is expected to operate at a LOS F with a vehicle delay of 136.7 seconds, an increase of 7.3 seconds from background conditions.



Table 4
Level of Service (LOS) Summary
Future Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Lake Lansing Road	EB Left-Thru-Right	10.2	B	18.5	B
	WB Left-thru-Right	13.9	B	10.6	B
	NB Left-Thru-Right	17.1	B	19.5	B
	SB Left-Thru-Right	30.9	C	13.6	B
	Intersection	19.1	B	16.1	B
Park Lake Road and Proposed Road 1	EB Left-Thru	2.7	A	3.3	A
	WB Thru-Right	Free	-	Free	-
	SB Left-Right	19.7	C	29.8	D
Park Lake Road and Proposed Road 2/ Meadow Woods Drive	EB Left-Thru-Right	12.1	B	14.1	B
	WB Left-Thru-Right	16.7	C	16.2	C
	NB Left-Thru-Right	1.0	A	0.5	A
	SB Left-Thru-Right	0.0	A	0.2	A
Lake Lansing Road and Hagadorn Road	EB Left-Thru-Right	9.2	A	31.6	C
	WB Left-Thru-Right	<u>65.5</u>	<u>E</u>	18.9	B
	NB Left	39.0	D	31.3	C
	NB Thru-Right	18.5	B	24.1	C
	SB Left	22.9	C	22.9	C
	SB Thru-Right	29.7	C	28.3	C
	Intersection	41.2	D	27.6	C

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



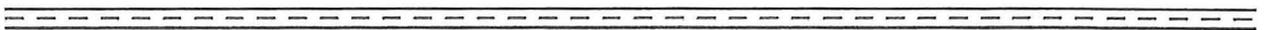
Table 4 (Continued)
Level of Service (LOS) Summary
Future Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Park Lake Road and Saginaw Highway	EB Thru	9.1	A	15.6	B
	EB Right	1.5	A	1.6	A
	WB Thru	28.0	C	9.9	A
	WB Right	2.4	A	1.8	A
	NB Thru	42.8	D	50.7	D
	NB Right	7.7	A	<u>78.5</u>	<u>E</u>
	SB Thru	48.1	D	45.7	D
	SB Right	<u>58.9</u>	<u>E</u>	8.5	A
	Intersection	31.0	C	26.7	C
Saginaw Highway and East Median Cross-Over	NB Left	<u>136.7</u>	<u>F</u>	20.3	C
Saginaw Highway and West Median Cross-Over	SB Left	11.2	B	20.1	C

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



SIGNIFICANT FINDINGS



INTERSECTION IMPROVEMENT CONSIDERATIONS

Saginaw Highway and Park Lake Road

The significant increase in the vehicle delays at the northbound right turn lane on Park Lake Road can be attributed to the increase in the new Costco Wholesale development traffic which is included in the background growth. There are no recommended improvements for this movement.

Saginaw Highway and East Median Cross-Over

The significant increase in the vehicle delays at the eastbound to westbound Saginaw Highway median cross-over can be attributed to the increase in the new Costco Wholesale development, the addition of the Walnut Hills Subdivision development traffic and the background growth which increases the westbound thru traffic on Saginaw Highway and reduces the number of acceptable gaps. The Michigan Department of Transportation should consider conducting a traffic warrant analysis at this median cross-over after all the new developments are fully built and occupied.

Lake Lansing Road and Hagadorn Road

The significant increase in the vehicle delays for the westbound left-thru-right movement on Lake Lansing Road can be attributed to the increase in traffic generated by the Walnut Hills development traffic.

For mitigation purposes, the traffic signal timing was modified from the existing 70 second cycle length to an 80 second cycle length with an optimization in the splits. The westbound level of service for future conditions improved from a LOS E in the AM peak hour to a LOS D with a decrease in vehicle delays of 27.7 seconds. 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 Mitigated Traffic

Location	Movement	Weekday AM Peak Hour		Weekday PM Peak Hour	
		Avg. Delay	LOS	Avg. Delay	LOS
Lake Lansing Road and Hagadorn Road	EB Left-Thru-Right	8.2	A	31.6	C
	WB Left-Thru-Right	37.8	D	18.9	B
	NB Left	45.8	D	31.3	C
	NB Thru-Right	21.2	B	24.1	C
	SB Left	28.4	C	22.9	C
	SB Thru-Right	35.3	D	28.3	C
	Intersection	29.8	C	27.6	C

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



DRIVEWAY ANALYSIS FOR A TURN LANE OR TAPER

The Ingham County Road Department (ICRD) has roadway standards to determine the necessity of left turn passing flares or right turn lanes/tapers at intersections. These standards are found in their "Rules, Standards and Procedures for Driveways, Banners and Parades Upon or Over Ingham County Road Commission Right of Way". The proposed new roadway on Park Lake Road is across from Meadow Woods Drive and will be a four-way intersection. Under that premise, the MDOT Traffic and Safety Note 605A, Traffic Volume Guidelines for Left-Turning Lanes at Unsignalized Intersections could also be applied at this location. Using the ICRD standards and the MDOT Traffic and Safety Note, an analysis was conducted for the new proposed roadway on Park Lake Road across from Meadow Woods Drive.

Using the MDOT guidelines for left turn lanes, the results show that a left turn volume does not meet the guidelines for a left turn lane at this intersection. Using the ICRD guidelines for right turn lanes or tapers, it shows that southbound Park Lake Road meets the guidelines for a right turn taper at this intersection.

The proposed roadway on Lake Lansing Road was not reviewed for a left turn lane as there are currently two approach lanes for eastbound traffic. Using the ICRD guidelines for right turn lanes or tapers, it shows that southbound Park Lake Road meets the guidelines for a right turn taper at this intersection, however, as Lake Lansing Road is a four-lane roadway the ICRD will need to make a determination if a right turn taper is needed.

NON-MOTORIZED TRANSPORTATION

There are no non-motorized transportation facilities on Park Lake Road. Lake Lansing Road has the Meridian Township non-motorized transportation sidewalk along the north side of the roadway.

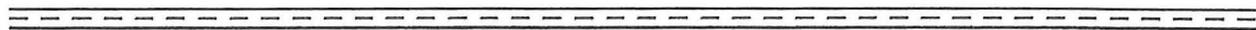
SIGHT DISTANCE

The proposed roadway on Park Lake Road across from Meadow Woods Drive is located just south of the Ingham/Clinton county line. To the south, towards Lake Lansing Road there is no issue with sight distance. To the north, towards the Clinton County Line there is a slight rise to Park Lake Road. A field review shows that the sight distance is approximately 500 feet, which is within the ICRD guidelines for a 35 MPH roadway.

The proposed new on Lake Lansing Road will be located at the same location as the existing Walnut Hills Country Club. A field review shows that the sight distance to the east towards Park Lake Road is adequate and the sight distance to the west towards Hagadorn Road has a slight rise, but also meets the ICRD guidelines for intersection sight distance. The sight distance requirements are met.



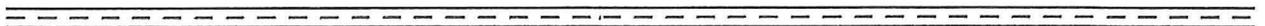
It is recommended that the existing dense trees and overgrowth on Park Lake Road where the proposed roadway will be located opposite Meadow Woods Drive be cleared out to allow for appropriate sight triangles for exiting traffic.



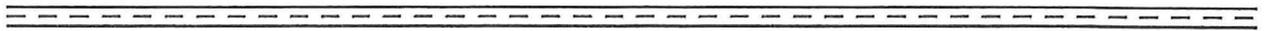
RECOMMENDATIONS

The findings of this study show that there are no recommendations to the existing road system except for a recommendation for a right turn taper for southbound Park Lake Road at the new proposed roadway/Meadow Woods Drive. The traffic signal at the intersection of Lake Lansing Road and Hagadorn Road will need to be retimed in the future as the Walnut Hills Subdivision develops.

The Michigan Department of Transportation should consider conducting a traffic signal warrant analysis at the eastbound to westbound median cross-over on Saginaw Highway east of Park Lake Road once the new Costco Wholesale development is completed and opened and the Walnut Hills Subdivision has partial completion and occupation. It is estimated that the Walnut Hills Subdivision development will take six (6) years to fully develop and be completely occupied.

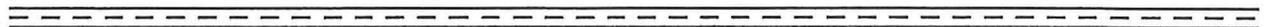


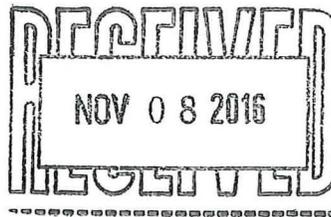
SUPPLEMENTAL INFORMATION



Supplemental Information

Site Plan
Vehicle Volume Counts
Timing Plans
ICRD Sight Distance Tables
ICRD Guidelines for Right-Turn Lanes and Tapers
MDOT Guidelines for Left-Turn Lanes
LOS Computations





MEMO

To: Mark Kieselbach, Director of Community Planning and Development Meridian Charter Township
From: Jean M Hartline, PE, PTOE Senior Traffic Engineer
CC: Kevin Mc Devitt, Project Manager
Date: November 7, 2016

Project #: M4150001
Re: Walnut Hills Traffic Impact Study

The Mannik & Smith Group, Inc was engaged to review the Traffic Impact Study for the Proposed Walnut Hills Subdivision in Meridian Charter Township Michigan. The study is dated October 2016.

The study was reviewed for compliance to the standards and guidelines of the Michigan Department of Transportation (including and not limited to Traffic and Safety Notes 603A Traffic Volume Guidelines for Passing Flares, 604A Right Turn lanes and Tapers, 605A Traffic Volumes Guidelines for Left turn Lanes and Passing Flares Unsignalized Intersections and 607C Traffic Impact Studies) and Institute of Transportation Engineers (ITE) Trip Generation.

- The traffic study did not include appendices which would provide details including the field conducted traffic counts, trip generation calculation, lane warrants and Highway Capacity Summary Reports. The lack of this technical back up material does not enable the reviewer to confirm the technical material presented in the report.
- The traffic study did not include a site plan although the study did describe two proposed access points; Proposed Drive 1 on Lake Lansing Road and Proposed Drive 2 on Park Lake Road (and in alignment with Meadow Woods Drive an existing subdivision roadway). Both access points appear to be proposed as two lanes (one entering and one exiting). It should be noted that the Park Lake Road access was identified in the report with a level of service (LOS) D in Table 4. Please note table 4 appears to have incorrectly labeled the Proposed (Site) Road 1 at Park Lake Road instead of Lake Lansing Road. While LOS D is often considered acceptable, given the opportunity to provide two (2) exit lanes and improve the LOS D at the onset of this development such should be considered. Site Road 2 noted LOS of C or better. Meadow Woods Drive is a 36' wide road. The Proposed Road 2 was identified in the study as a 2 lane (24') road. The westbound Meadow Woods Drive LOS was noted to reduce from B to C with the addition of the fourth leg to the intersection (Proposed Road 2). Providing a three lane drive (one entering lane and two 2 existing lanes) might mitigate this impact and should be considered.
- The study did not identify the precise location of Proposed Road 1 although the study did indicate it would be in the approximate location of the existing Walnut Hills Country Club drive. The location of this proposed road should be identified and addressed in terms of access management regarding spacing to the existing intersections involving Highgate Avenue and Patriots Way.
- The background traffic (without site) included a 1.28% annual traffic growth to the full build out year of 2022. The background traffic also included the anticipated site traffic for the proposed Costco to be located on the southeast corner of Saginaw Highway and Park Lane Road. This is consistent with industry standards and provides a conservative analysis for the potential site impacts by providing realistic accounting for future traffic growth.
- The site predicted traffic, "Trip Generation" presented in Table 3 appears to be correct and consistent with ITE Trip Generation Manual.
- Right turn lane warrants were not presented in the study (as noted in item 1 above) although the study did recommend a right turn taper for southbound Park Lake Road at Proposed Road 2. A right turn taper was not identified for Proposed Road 1 on Lake Lansing Road with this right turn movement being higher than Proposed Drive 1 (56 versus 31 vehicles in the peak hour). Additionally, the Lake Lansing Road through movements are considerably

higher than Park Lane Road. The higher through volumes also point to a need to provide a right lane or a right taper for Proposed Road 1. Our review of the MDOT Traffic and Safety Note 604A for Traffic Volume Guide for Right Turn Lanes and Tapers indicates that Proposed Road 1 would warrant a right turn taper and Proposed Road 2 would not.

- Left turn lane warrants were not presented in the report. Our review of MDOT Traffic and Safety Note 605A Traffic volume Guide for Left Turn Lanes and Passing Flares at Unsignalized Intersections indicates that a left turn lane would be warranted for eastbound Lake Lansing Road at Proposed Road 1.
- The study identified some capacity constraints involving the Saginaw Highway east U-Turn and northbound Park Lake Road at Saginaw Highway. The site is adding 63 and 45 vehicles to the intersection in the AM /PM peak hours respectively. This intersection is carrying over 2,000 vehicles in each of the peak hours. This is only a 2.5% traffic increase over current traffic volumes. The Costco is likely having significantly higher traffic impacts to this intersection although the volume of added traffic from the Costco could not be discerned from the background traffic presented in the study. The project impacts to this intersection are negligible.
- The Lake Lansing Road and Hagadorn Road intersection was identified with capacity constraints for the westbound movement which declined from a LOS C to E and the overall intersection LOS which declined from C to D. The study should address means to mitigate these impacts.

MEMORANDUM

TO: Planning Commission

FROM: 
Peter Menser
Senior Planner

DATE: November 10, 2016

RE: Zoning Amendment #16050 (Planning Commission)

At its regular meeting on September 26, 2016, the Planning Commission voted 6-0 to initiate a zoning amendment to the Code of Ordinances to add instructional centers, mobile food vending units, and outdoor seating as uses permitted in the I (Industrial) zoning district. Since that meeting, staff published a legal notice for the zoning amendment and scheduled the public hearing.

The request for the zoning amendment originated from discussions with two Meridian Township businesses located in the (I) Industrial zoning district, both of which presented initiatives to staff designed to grow their businesses that do not fit into the uses currently permitted in the zoning district. The Meridian Company, a plumbing, HVAC, and remodeling contractor located at 1999 Saginaw Highway, is requesting to add a skilled trades instructional center to their property. The instructional center will be used to train workers in the skilled trades. Ellison Brewery, located at 4903 Dawn Avenue, has requested to add outdoor seating for brewery patrons and to allow mobile food vending units to provide service to the brewery.

The Code of Ordinances lists "instructional centers for business, trade, music, art, dance, craft, martial arts, or other places of instruction" as a use permitted by right in the C-1 (Commercial), C-2 (Commercial), and C-3 (Commercial) zoning districts. The zoning amendment will add instructional centers as a use permitted by right in the I (Industrial) zoning district.

At its meeting on January 5, 2016, the Township Board adopted ordinance language allowing mobile food vending units to operate in the C-1 (Commercial), C-2 (Commercial), C-3 (Commercial), CR (Commercial Recreation), RP (Research Park), and PO (Professional and Office) zoning districts. The mobile food vending unit regulations are located in Chapter 38, Article IV, Division 3 of the Code of Ordinances. The regulations outline the requirements that must be met to operate a mobile food vending unit. The proposed zoning amendment will add the I (Industrial) zoning district to the list of zoning districts where mobile food vending units can operate.

Outdoor seating associated with a restaurant or other eating establishments which serves food or beverages for consumption on the premises or for carryout is permitted by right, subject to site plan review, in the C-1 (Commercial), C-2 (Commercial), and C-3 (Commercial) zoning districts. The outdoor seating has to be either attached to or immediately adjacent to the principal building to which the outdoor seating is accessory. The proposed zoning amendment would allow outdoor seating for any use permitted in the I (Industrial) zoning district, subject to site plan review and it being attached or immediately adjacent to the principal building to which the outdoor seating is accessory.

Zoning Amendment #16050 (Planning Commission)
Planning Commission (11/14/16)
Page 2

A draft ordinance incorporating the proposed changes to the I (Industrial) zoning district (Chapter 86-435 of the Code of Ordinances) and mobile food vending unit regulations (Chapter 38, Article IV, Division 3) of the Code of Ordinances is attached. Proposed changes are noted in bold.

Planning Commission Options

The Planning Commission may recommend approval as written, recommend approval of a revised version, or recommend denial of the proposed zoning amendment. A resolution will be provided at a future meeting.

Attachment

1. Draft ordinance dated September 19, 2016
2. Minutes from September 26, 2016 Planning Commission meeting
3. Letter from Meridian Township Economic Development Corporation (EDC)

Chapter 86 ZONING

ARTICLE IV, DISTRICT REGULATIONS

DIVISION 4. OTHER DISTRICTS.

Sec. 86-435. I District: Industrial District

- (a) Purpose. The I district is established for the purpose of encouraging within it the development of light manufacturing, processing, storage, and office establishments wholly compatible with adjacent residential areas. It is established as one in which the principal use of the land is for industrial activities wholly compatible with all other uses permitted in this district and commercial establishments not engaging in retail sales as a principal use. The specific intent of this section is to prohibit, for the benefit of the types of uses for which this district is designed, any and all other uses, such as residential, retail commercial, and industrial, not compatible with all other uses in this district. This section applies to the I district.
- (b) Uses permitted by right. In this district, no building, structure, or land shall be used and no building or structure shall be hereafter erected, structurally altered, or enlarged except for the following uses:
- (1) Any production, processing, cleaning, testing, repair, storage, and distribution of materials, goods, or foodstuffs.
 - (2) Contractor's establishment.
 - (3) **Instructional centers for business, trade, music, art, dance, craft, martial arts, or other places of instruction.**
 - ~~(3)~~(4) Accessory uses clearly appurtenant to the main use of the lot and customary to and commonly associated with the main use such as:
 - a. Restaurant or cafeteria facilities for employees.
 - b. Caretakers residence if situated upon a portion of the lot complying with all of the requirements of residential districts.
 - c. Office facility.
 - d. Wholesale or retail sales related to the principal use.
 - e. **Outdoor seating. An outdoor seating area is permitted, subject to site plan approval. The outdoor seating area shall be either attached or immediately adjacent to the principal building to which the outdoor seating area is accessory.**

- (c) Uses permitted by special use permit.
 - (1) Public garage, motor vehicle repair shop, or automobile paint and bump shop.
 - (2) Child care centers.
 - (3) Public utility structures, publicly owned, and operated buildings and uses.
- (d) Site plan review. All uses in this district are subject to site plan review as prescribed in Article II, Division 5 of this chapter. Applications for site plan review for projects in this district shall, in addition to the requirements of Article II, Division 5 of this chapter, also include the following:
 - (1) A description of the operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards or safety hazards, or the emission of any potentially harmful or obnoxious matter or radiation.
 - (2) Engineering and architectural plans for the treatment and disposal of sewerage and industrial waste tailings or unusable by-products.
 - (3) Engineering and architectural plans for the handling of any excessive traffic congestion, noise, glare, air pollution, water pollution, fire or safety hazards, or the emission of any potentially harmful or obnoxious matter or radiation.
 - (4) The proposed number of shifts to be worked and the maximum number of employees on each shift.
- (e) Use requirements:
 - (1) **Except for approved outdoor seating areas or mobile food vending units,** activities in this district shall be carried on in completely enclosed buildings. Storage may be permitted out-of-doors but shall be effectively screened by a solid, uniformly finished wall or fence with solid entrance and exit gates, which wall or fence shall in no case be lower than the enclosed storage. Such storage shall not be deemed to include the parking of licensed motor vehicles under 1 1/2-ton-rated capacity.
 - (2) Noise emanating from a use in this district shall not exceed the level of ordinary conversation at the boundaries of the lot. Short intermittent noise peaks may be expected if they do not exceed normal traffic noise peaks at any point on the lot boundaries.
 - (3) Uses in this district shall be such that they:
 - a. Emit no obnoxious, toxic, or corrosive fumes or gases, except for those produced by internal combustion engines under design operating conditions.

- b. Emit no odorous gases or other odorous matter in such quantities as to be humanly perceptible at or beyond any point on the boundary of the use parcel; provided, that any process which may involve the creation or emission of any odors shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail.
- c. Emit no smoke, other than that produced by normally operating heating equipment.
- d. Discharge into the air no dust or other particulate matter created by any industrial operation or emanating from any products stored prior to or subsequent to processing.
- e. Produce no heat humanly perceptible at or beyond the lot boundaries.
- f. Utilize all lighting in a manner which produces no glare on public streets or on any other parcel.
- g. Produce no physical vibrations humanly perceptible at or beyond the lot boundaries.
- h. Produce no electromagnetic radiation or radioactive emission injurious to human beings, animals, or vegetation or of any intensity that interferes with the lawful use of any other property.
- i. Do not engage in the production or storage of any material designed for use as an explosive, nor in the use of such materials in production.

(f) Site development requirements.

- (1) Minimum lot area: one acre.
- (2) Minimum lot width: 100 feet.
- (3) Maximum lot coverage. All buildings, including accessory buildings, shall not cover more than 40% of the lot area.
- (4) Minimum yard dimensions.
 - a. Front yards. In accordance with the setback requirements of § 86-367 for the type of street upon which the lot fronts.
 - b. Side and rear yards. Ten percent of the width and depth, respectively, of the lot, but need not exceed 40 feet each nor shall they be less than 10 feet.

- c. Side and rear yards adjacent to residential district zone lines. No structure shall be less than 100 feet from any residential district zone line. Side and rear yards may be used for passenger vehicle parking except for a strip 40 feet in width along the side and rear boundaries of the development. This forty-foot transition strip shall be used for screening purposes and shall be composed of interlocking trees and/or foliage and other appropriate ground cover. The maintenance of this transition area shall be a continuing obligation of the owner of such area.
 - d. Corner lots. A front yard shall be maintained on each street side of a corner lot. Setbacks shall be equal to those required in § 86-367 for the type of street or streets upon which the lot has frontage and all regulations applicable to front yards shall apply.
- (5) Maximum building height. Forty feet unless each yard is increased one foot for each foot of height above 40 feet.
 - (6) Signs. In accordance with the requirements specified in Article VII of this chapter. No banners, flags, streamers, or similar devices for advertising or promotion purposes shall be permitted.
 - (7) Off-street parking and loading requirement. Motor vehicle parking and loading, and bicycle parking requirements for this district are specified in Article VIII of this chapter.
 - (8) Landscaping. Landscaping shall be maintained in all required front and side yards, in accordance with plans approved by the Planning Commission. A landscape plan showing locations and varieties of plant materials shall be submitted for site plan review as prescribed in Article II, Division 5 of this chapter. All landscaped areas shall be planted with suitable living plant materials and replaced as necessary. Landscaped areas shall be watered, weeded, and generally maintained.
 - (9) Other requirements.
 - a. Lighting shall be accomplished in a manner such that no illumination source is visible beyond the property lines of the lot upon which the use is located and such that no illumination shall adversely affect the welfare of an adjacent property.
 - b. Side or rear yards may not be used for storage.
 - c. Trash containers shall be enclosed by a covered structure on at least three sides. The property shall be maintained free from litter.
 - d. Air conditioning units, heating oil, storage tanks, or similar appurtenances shall be properly screened as approved by the Planning Commission.

Chapter 38

LICENSES, PERMITS, AND MISCELLANEOUS REGULATIONS

ARTICLE IV, VENDORS

DIVISION 3. MOBILE FOOD UNITS.

Sec. 38-165. Title.

This article shall be known and cited as the Mobile Food Unit Ordinance of the Charter Township of Meridian.

Sec. 38-166. Definitions.

The following words, terms, and phrases when used in this article shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning.

1. *Mobile Food Vending* shall mean vending, serving, or offering for sale food and/or beverages from a mobile food vending unit.

2. *Mobile Food Vending Unit* shall mean any motorized or non-motorized vehicle, trailer, stand, cart, or other device designed to be portable and not permanently attached to the ground from which food is vended, served, or offered for sale.

3. *Vendor* shall mean any individual engaged in the business of mobile food vending; if more than one individual is operating a motorized or non-motorized vehicle, trailer, stand, cart, or other device designed to be portable, then vendor shall mean all individuals operating such motorized or non-motorized vehicle, trailer, stand, cart, or other device designed to be portable.

4. *Operate* shall mean all activities associated with the conduct of business, including set up and take down and/or actual hours where the mobile food vending unit is open for business.

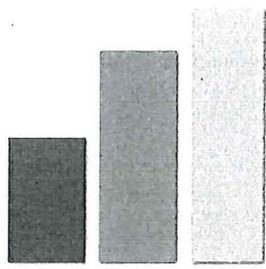
Sec. 38-167. Purpose.

In the interest of allowing and encouraging mobile food units that add to the vibrancy and desirability of Meridian Township, while providing a framework under which such businesses operate.

Sec. 38-168. Location.

Mobile food vending shall be permitted in the C-1 (Commercial), C-2 (Commercial), C-3 (Commercial), CR (Commercial Recreation), RP (Research Park), **I (Industrial)**, and PO (Professional and Office) zoning districts.

Sec. 38-169 through 38-180 remains as written.



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MERIDIAN

Economic Development Corporation

September 19, 2016

To: Meridian Township Board & Meridian Township Planning Commission

From: Meridian Township Economic Development Corporation

Re: Proposed changes for "Industrial" zoning district

Good Afternoon,

I am writing you in support of the enclosed proposed revision of our Industrial district. At our July EDC meeting, the EDC passed the following motion:

MOTION BY MEMBER LEDEBUHR TO DRAFT AMENDMENT TO INDUSTRIAL ZONING DISTRICT ORDINANCE LANGUAGE AND FORWARD TO PLANNING COMMISSION FOR REVIEW. SUPPORTED BY MEMBER OLSON. MOTION PASSES 8-0.

At the request of established and successful business owners currently operating within these districts, we submit these three revisions for your review.

1. Add Instructional centers as a use allowed, by right, in Industrial zoning (in this case skilled trades at the Meridian Company)
2. Add Industrial to the zoning districts where food trucks can operate
3. Allow public outdoor seating in Industrial zoning (in this case, adjacent to Ellison brewery)

It is important to listen to the requests of our business partners and ensure we revise language, as reasonable, to ensure their success and ultimately the success of the Township. The EDC appreciates your consideration!

Sincerely,

Chris

Chris Buck
Chair, Meridian Township Economic Development Corporation
chris.buck@comcast.net
517-528-4770