

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
AGENDA**

**WORK SESSION MEETING
AND
REGULAR MEETING**

August 10, 2015

**Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864**

Work Session Meeting – Administrative Conference Room

1. Call meeting to order at approximately 6:00 p.m.
2. Approval of agenda
3. Discussion
 - A. 2005 Master Plan RFP
 - B. ZA #14010 (Township Board) Medical Marihuana ordinance
 - C. Future agenda
4. Public Remarks
5. Adjournment

Regular Meeting – Town Hall Room

1. Call meeting to order at approximately 7:00 p.m.
2. Approval of agenda
3. Approval of minutes
 - A. July 27, 2015 Regular Meeting
4. Public remarks
5. Communications

Communications received and distributed at the July 27, 2015 meeting and placed on file:

- A. Wm. K Miller & Judith St. King RE: REZ #00150 (St. King)
- B. Ashley McFarland RE: SUP #15081 (Judge)
6. Public Hearings

Planning Commission Agenda

August 10, 2015

Page 2

- A. Mixed Use Planned Unit Development #15024 (Forsberg) request develop a mixed use planned unit development north of Jolly Road, west of Jolly Oak Road, and north of Farrins Parkway with a possible decision the same night as the public hearing
- B. Special Use Permit #15101 (T.A. Forsberg, Inc, and WestPac Michigan), request to construct a group of buildings totaling more than 25,000 square feet in gross floor area
7. Unfinished Business
 - A. Special Use Permit #15081 (Judge), request to open a light manufacturing business at 1870 Grand River Ave.
 - B. Rezoning #15030 (Sumbal), request to rezone approximately 1.4 acres addressed as 1998 Jolly Road from RR (Rural Residential) to RA (Single Family, Medium Density)
8. Other Business
9. Township Board, Planning Commission officer, committee chair, and staff comment or reports
 - A. Future Projects/New Applications
 - i. Rezoning #00150 (St. King) request to rezone 4660 Marsh Road from RC (Multiple Family, Medium Density) to PO (Professional and Office)
 - ii. Mixed Use Planned Unit Development #15034, (Meridian Investment Group), request to redevelop office buildings into retail space and apartments at 4970-5030 Northwind Drive
 - iii. Special Use Permit #15121 (Meridian Investment Group), request to redevelop a group of buildings greater than 25,000 square feet in gross floor area at 4970-5030 Northwind Drive
 - iv. Special Use Permit #15111 (Williams), request to construct a deck in the floodplain at 2568 Tekonsha
 - B. Update of Ongoing Projects
 - i. Site Plans Received – NONE
 - ii. Site Plans Approved - NONE
10. Public Remarks
11. Adjournment

Post Script: Tom Deits

Planning Commission Agenda

August 10, 2015

Page 3

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
August 24, 2015**

**Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864**

Work Session Meeting – Administrative Conference Room

- A. 2005 Master Plan Update

Regular Meeting – Town Hall Room

- 1. Public Hearings
 - A. Special Use Permit #15111 (Williams), request to construct a deck in the floodplain at 2568 Tekonsha
 - B. Rezoning #15050 (Stockwell Development Group), request to rezone approximately nine acres located on the northwest corner of Grand River Avenue and Powell Road from PO (Professional and Office) to C-3 (Commercial)
 - C. Rezoning #15040 (Mayberry Homes), request for conditional rezoning of approximately 25.5 acres located on Powell Road from RR (Rural Residential) and CR (Commercial Recreation) to RAA (Single Family-Low Density)
 - D. Mixed Use Planned Unit Development #15034, (Meridian Investment Group), redevelop office buildings into retail space and apartments at 4970 to 5030 Northwind Drive
 - E. Special Use Permit #15121 (Meridian Investment Group), for a group of buildings greater than 25,000 square feet in gross floor area at 4970-5030 Northwind Drive
- 2. Unfinished Business
- 3. Other Business

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES
July 27, 2015**

DRAFT

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

PRESENT: Commissioners DeGroff, Ianni, Jackson, Scott-Craig, Tenaglia, Van Coevering
ABSENT: Commissioners Cordill, Deits, Honicky
STAFF: Principal Planner Oranchak

1. Call meeting to order

Chair Scott-Craig called the regular meeting to order at 7:00 P.M.

2. Approval of agenda

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

VOICE VOTE: Motion carried 6-0.

3. Approval of Minutes

Commissioner Jackson moved to approve the amended Regular Meeting Minutes and Work Session Minutes of July 13, 2015. Seconded by Commissioner Van Coevering.

VOICE VOTE: Motion carried 6-0.

4. Public Remarks

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

5. Communications

- A. Neil Bowlby, 6020 Beechwood Drive, Haslett; RE: PRD #15-97014
- B. Lori Reyes, 4211 Southport Circle, Apt. 2C, Okemos; RE: SUP #15061 (Jacobs Engineering)
- C. Robert L. Trezise, Jr., President & CEO, Lansing Economic Area Partnership, 1000 South Washington Avenue, Suite 201, Lansing; RE: SUP #15081 (Judge)

Communications received and distributed at the July 13, 2015 meeting and placed on file:

- D. Ginger Yang, owner of Lotus Voice Integrative Therapies, LLC, 4994 Park Lake Road, East Lansing; RE: SUP #15061 (Jacobs Engineering)

6. Public hearings

- A. Special Use Permit #15081 (Judge), request to open a light manufacturing business at 1870 Grand River Avenue

Chair Scott-Craig opened the public hearing at 7:08 P.M.

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

- Summary of subject matter
Associate Planner Menser summarized the special use permit request as outlined in staff memorandum dated July 24, 2015.
- Applicant
Lawrence Judge, Mitten State Malt, LLC, 2401 Graystone Drive, Okemos, explained malting, a three step process which takes place over a week period of time. He itemized the pieces of equipment to be used within the process. Mr. Judge intends to lease the proposed space for approximately two (2) years, with the intent to move to a larger facility once customers drive greater production.
- Planning Commission discussion:
Commissioner Jackson inquired about the equipment which will be used for the one shipment once the barley is harvested, usually mid-August.

Mr. Judge responded he approximates the five to six tons of barley will be transported onto the site on a trailer behind his pickup stored in super sacks, which holds approximately one ton per sack. He indicated the finished product will leave the site in 50 pound bags via his pickup truck.

Commissioner Jackson inquired as to how the barley will be stored on site.

Mr. Judge replied it will stay in the supersacks which sit on pallets.

Commissioner Jackson indicated her mapping software did not clearly delineate the location of the building.

Mr. Judge responded the building is not easily visible from the road.

Commissioner Jackson noted the parcel has a Grand River address, but believed there is no frontage on Grand River Avenue.

Associate Planner Menser responded in the affirmative, stating there are no qualitative records to show how the building became its own "island" since it was originally constructed in 1931.

Commissioner Jackson thanked the applicant for his thorough and comprehensive explanation of the malting process.

Commissioner Tenaglia stated she believed the proposed SUP is a good use of the land. She inquired if time was of the essence, since the applicant stated the barley is harvested in August.

Mr. Judge responded the barley needs to sit for approximately two months after it is harvested before the malting process can commence.

Chair Scott-Craig inquired if the applicant was considering a building expansion in the future, as he was concerned about larger truck accessibility to the site.

Mr. Judge replied he did not believe a larger truck could ~~not~~ access the building and the site would not work well to expand. He voiced appreciation there is access to a municipal water source as he viewed difficulty with establishing a food grade business with a well.

Chair Scott-Craig confirmed with the applicant that he would be renting the "back corner" of the building.

Mr. Judge responded in the affirmative, indicating the other tenant (sports facility) occupies the entire east side of the building. He indicated his facility will be walled off from the rest of the building. Mr. Judge stated water lines and drainage will need to be ~~input in~~ put in, as well as an overhead external door.

Chair Scott-Craig asked about the necessary venting which will need to be installed.

Mr. Judge responded there will be two vents needed, one for venting the kiln and the other for the heat source of the kiln, both with minimal malt smell during the use of the kiln. He stated during the steeping and germinating portion of the process, there are no odors emitted. Mr. Judge noted the faint malt smell may surface during the last two hours of the kilning process.

Mr. Judge offered information regarding the two types of barley grown in the United States: six row and two row (which refer to the number of kernels in the head of the barley). He grows two row, a product used exclusively by craft brewers.

Chair Scott-Craig inquired as to Mr. Judge's customer base.

Mr. Judge stated it is craft brewers and possibly home brewer supply stores. He noted there currently is no large-scale malter in Michigan.

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

- B. Rezoning #15030 (Sumbal), request to rezone approximately 1.4 acres addressed as 1998 Jolly Road from RR (Rural Residential) to RA (Single Family, Medium Density)

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

- Summary of subject matter
Principal Planner Oranchak summarized the rezoning request as outlined in staff memorandum dated July 23, 2015.
- Applicant
Ghulam Sumbal, 1998 Jolly Road, Okemos, indicated he would like to use the second home on this parcel through provision of a shared driveway or an easement in order to avoid the position of attempting to purchase frontage for the home in the rear to obtain access from Summergate Lane. He stated it is his desire to split the parcel east to west.
- Planning Commission discussion:
Commissioner DeGroff inquired as to the history of this "strange" situation.

Mr. Sumbal responded that approximately a year ago, he met with the Township Manager and Director Kieselbach regarding connecting the home in the rear to Township sewer. He stated he was instructed that he needed an eight inch 8" sewer line to the home in the rear but not to connect it.

Principal Planner Oranchak added this is a long standing non-conforming situation, as both structures were built in 1955. She indicated rezoning the property to provide an option for a lot split would make the property conforming and provide the owner the opportunity to use the second residence on the site.

Commissioner Ianni inquired as to the Township's position on splitting the lot east to west and granting an easement since the two (2) structures already exist.

Ms. Oranchak responded the Township's ordinance specifically states the frontage of a lot must be on a public street, so that option may require a variance. She added the Township has strict regulations on private roads and primary access through another parcel.

Commissioner Van Coevering asked if a curb cut on Jolly Road would be required if the lot was split north to south.

Principal Planner Oranchak specified that would generally be the case, as each residence is required to have its own access drive. She noted the applicant may need to obtain a variance to allow for a shared driveway. Ms. Oranchak was uncertain how the lots would be configured as it would require 80 feet of frontage on the west side of the parcel in order to access the home in the rear, and no scalable survey has been submitted.

Commissioner Van Coevering inquired of Commissioner Jackson (Planning Commission representative to the Zoning Board of Appeals (ZBA)) if she believed this issue was self-created, as that determination is one of the criteria used by the ZBA to ascertain whether a variance would be granted.

Commissioner Jackson offered her perspective ~~that it is her view it is not like a self-created situation~~ it's a self-created situation.

Principal Planner Oranchak added the surrounding area is consistent with the request, although the next phase will be challenging if the rezoning is granted.

Commissioner Jackson identified one possibility as a north-south split with a variance request for the frontage.

Ms. Oranchak stated at this time, that is the only viable option. She indicated a variance would also be required for the shared driveway.

Commissioner Jackson noted the shared driveway could be available through the variance process, adding retaining the two residences on a single parcel is considered a non-conforming use and would no longer be "available."

Commissioner Scott-Craig inquired if the rezoning is granted, would the subsequent issues take place as part of staff's process.

Principal Planner Oranchak responded the land division to create the second parcel would be a staff level function and any variances required would go before the ZBA.

Commissioner Scott-Craig inquired if any other portion of the process would come back before the Planning Commission.

Principal Planner Oranchak responded it would not.

Chair Scott-Craig stated if the parcel was divided north to south with access onto Summergate Lane, the land would provide for a more saleable property in the future.

Principal Planner Oranchak acknowledged it will be a challenging process to persuade the subdivision organization to sell some of its land defined as common space.

Chair Scott-Craig added Mr. Sumbal's application indicated he would be willing to offer property to make a connection between existing sidewalks. He noted this would provide young children walking to the elementary school with a preferred alternative to the temporary asphalt sidewalk close to the curb on Jolly Road.

Principal Planner Oranchak stressed that the Chair's suggestion is not something the ZBA can consider in its deliberations.

Mr. Sumbal expressed he was not interested in a north-south division, but has been working with the Township to give them five (5) feet of land to create a sidewalk connection along Jolly Road.

Commissioner Jackson stressed it is not within the Planning Commission's purview how the house on the back lot obtains access, as only the rezoning is before the Planning Commission.

Commissioner Ianni agreed the only issue before the Planning Commission this evening is the rezoning request. He stated the adjacent parcels are zoned RA and no harm would be caused to the surrounding parcels if the rezoning took place.

Commissioner DeGroff concurred it made sense to rezone the parcel to RA.

Commissioner Tenaglia expressed support for the rezoning and thanked Mr. Sumbal for his donation of property to Ferguson Park in the past.

Chair Scott-Craig closed the public hearing at 8:03 P.M.

7. Unfinished Business (None)

8. Other Business (None)

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

A. Future Projects/New Applications

- i. Mixed Use Planned Unit Development #15054 (Forsberg), request for a MUPUD consisting of 21 apartment buildings (378 apartments), a leasing office and fitness center
- ii. Special Use Permit # 15051 (Forsberg) request for a group of buildings greater than 25,000 square feet in floor area (435,372 square feet)
- iii. Rezoning #15050 (Stockwell Development Group), request to rezone approximately nine acres located on the northwest corner of Grand River Avenue and Powell Road from PO (Professional and Office) to C-3 (Commercial)

B. Update of Ongoing Projects

- i. Site Plans Received – NONE
- ii. Site Plans Approved
 1. Site Plan Review #15-06 (Evan Neal), renovate the building and site at 2703 Grand River for occupancy by an O'Reilly Auto Parts store

10. Public remarks

Chair Scott-Craig opened and closed public remarks.

14. Adjournment

Chair Scott-Craig adjourned the regular meeting at 8:05 P.M.

Respectfully Submitted,

Sandra K. Otto
Recording Secretary

**Mixed Use Planned Unit Development #15024
(T.A. Forsberg, Inc. and WestPac Michigan)
August 7, 2015**

APPLICANT: T.A. Forsberg, Inc. and WestPac Michigan
919 West University Drive Suite 700
Rochester, MI 48307

STATUS OF APPLICANT Owner (Forsberg Family)

REQUEST: Construct a mixed use planned unit development project

CURRENT ZONING: C-2 (Commercial)*

LOCATION: North of Jolly Road, north and west of Jolly Oak Road and north of Farrins parkway

AREA OF SUBJECT SITE: Approximately 33.73 acres

EXISTING LAND USE: Industrial/Office/Warehouse buildings and Undeveloped

FUTURE LAND USE: Residential 5.0-8.0 dwelling units per acre (du/a) and Office

**EXISTING LAND USES
IN AREA**

North: Coyote Creek condominiums & Consumers Energy
Right-of-Way
South: Commercial and Farrins Parkway
East: Office building and hotel
West: Single-family residential

CURRENT ZONING IN AREA: North: RD (Multiple Family, 8 units per acre)
South: C-2 (Commercial)
East: PO (Professional and Office)
West: RR (Rural Residential) and RA (Single family,
Medium Density) residential

FUTURE LAND USE MAP: North: Institutional
South: Commercial and Office
East: Commercial, Office, & Residential 5.0-8.0 du/a
West: Residential 0.5-1.25 du/a & Res. 1.25-3.5 du/a

MEMORANDUM

TO: Planning Commission

FROM: Martha Wyatt
Martha Wyatt
Associate Planner/Landscape Architect

DATE: August 7, 2015, 2015

RE: MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan) request to develop a mixed use planned unit development in Section 33 (north of Jolly Road, west of Jolly Oak Road, and north of Farrins Parkway)

T.A. Forsberg, Inc. and WestPac Michigan have submitted a proposal to establish a mixed use planned unit development (MUPUD) on multiple parcels located north of Jolly Road, west of Jolly Oak Road, and north of Farrins Parkway. The site, approximately 33.73 acres, is zoned C-2 (Commercial) and is located in Section 33 of the Township. The subject area was rezoned from PO (Professional and Office), I (Industrial), RR (Rural Residential) and C-2 (Commercial) to C-2 (Commercial) under Rezoning #15010, making the entire site zoned C-2. The rezoning was approved with a voluntary offer of a condition limiting development to a mixed use planned unit development with a restriction of no more than 18 units per acre as allowed under the density bonus provisions in the MUPUD ordinance (Section 86-440).

The project, called Okemos Pointe, consists of 21 multi-story apartment buildings, a stand-alone leasing office/club house, and a fitness center (Lifestyle Community Center), utilizing the existing building at 2362 Jolly Oak Road, which is to be renovated for the fitness center. The site has frontage on one public street, Jolly Oak Road but can be accessed from Farrins Parkway (private Road), Water Lily Way (road status undetermined), and Jolly Road at the existing Forsberg Commercial Real Estate Agency entrance drive at 2446 Jolly Road.

A mix of studio, one, two, and three bedroom apartments is shown, with a total of 378 apartment units and 642 beds. The proposed density is approximately 11.2 dwelling units per acre (378 dwelling units over 33.73 acres). The applicant intends to construct the development in two phases. The first phase includes 10 apartment buildings in the southwest section of the site (Meadow group), leasing office, and fitness center. The second phase includes the construction of the remaining 11 apartment buildings.

The residential portion of the project is approximately 546,500 square feet. The commercial space includes the leasing office (3,000 square feet) and fitness center (up to 30,000 square feet) which totals approximately 33,000 square feet. The combined total of all 23 buildings is approximately 579,500 gross square feet.

The proposed amenities include significantly increased pervious surfaces; rehabilitation of degraded sites; foot and bicycle pathways and sidewalks that connect with the Township pedestrian/bicycle pathway system; covered bicycle parking/storage; bike repair station; first floor awnings and upper floor balconies; porches; public recreation services; public cultural venues; public art; outdoor gathering spaces for residents and public; underground utilities; and LED light fixtures for outdoor lighting.

MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 2

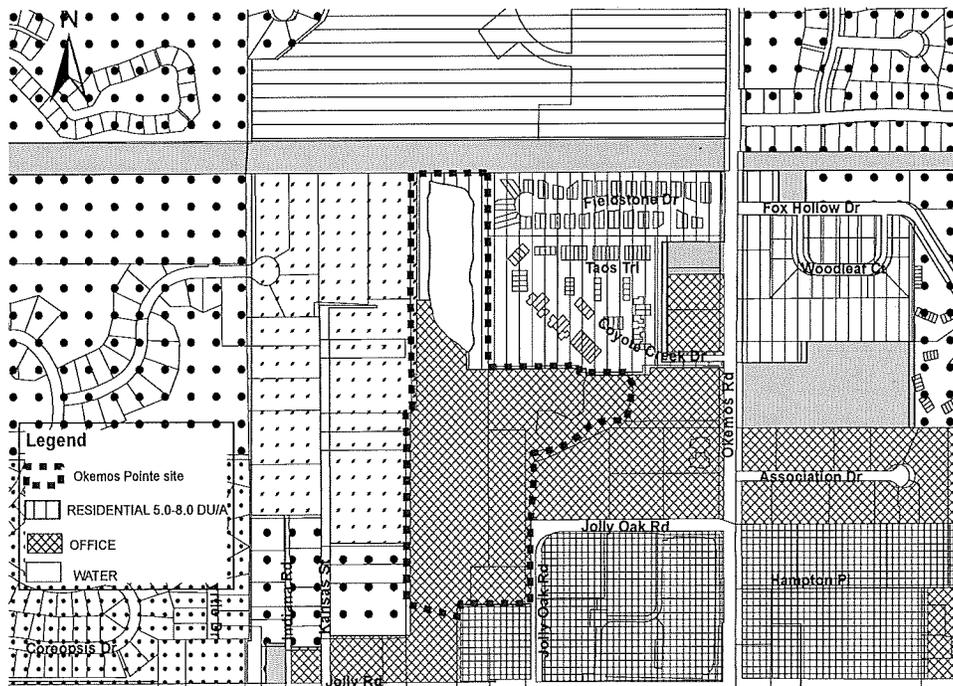
Additional amenities will be discussed in the Staff Analysis section of this memorandum.

A special use permit (SUP #15101) is also required for a building or group of buildings greater than 25,000 square feet in gross floor area; it is being processed concurrently with the MUPUD. The Planning Commission will make recommendations to the Township Board on both requests.

The applicant has requested a decision from the Planning Commission the same night as the public hearing for MUPUD #15024 and SUP #15101.

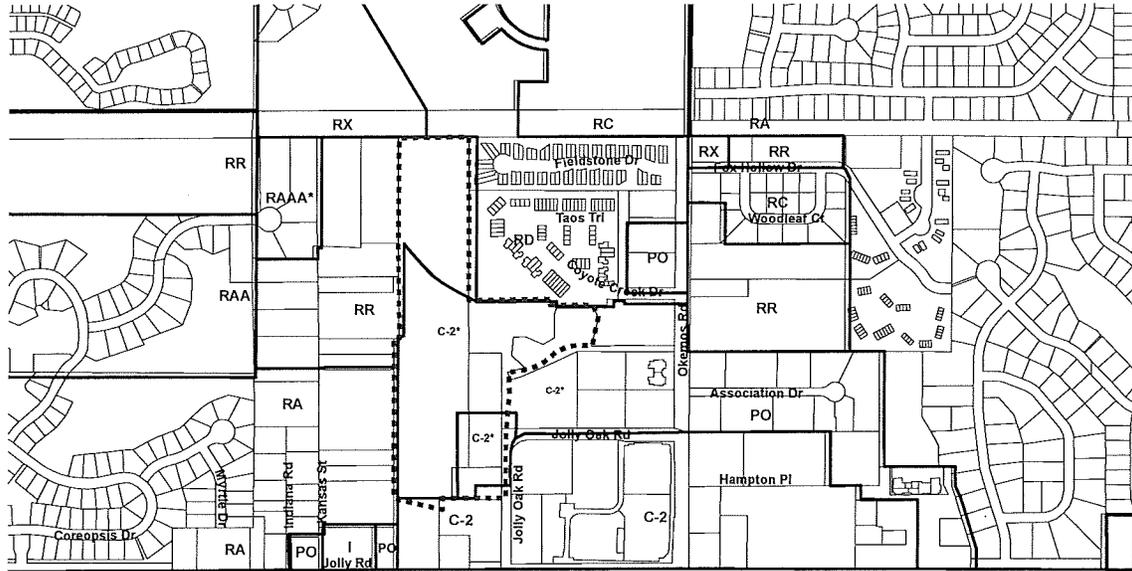
As an informational note, the site plans prepared by KEBS, Inc. do not include the acreage generally associated with the wetlands on the east end of the property, thus the size of the project area as stated on Sheet 1 is 31.53 acres. The actual project area is the same area as rezoned under REZ #15010, and is 33.73 acres in size.

FUTURE LAND USE MAP



The properties in the project area are designated on the Future Land Use Map of the 2005 Master Plan as Residential 5.0-8.0 dwelling units per acre (du/a) and Office.

ZONING MAP



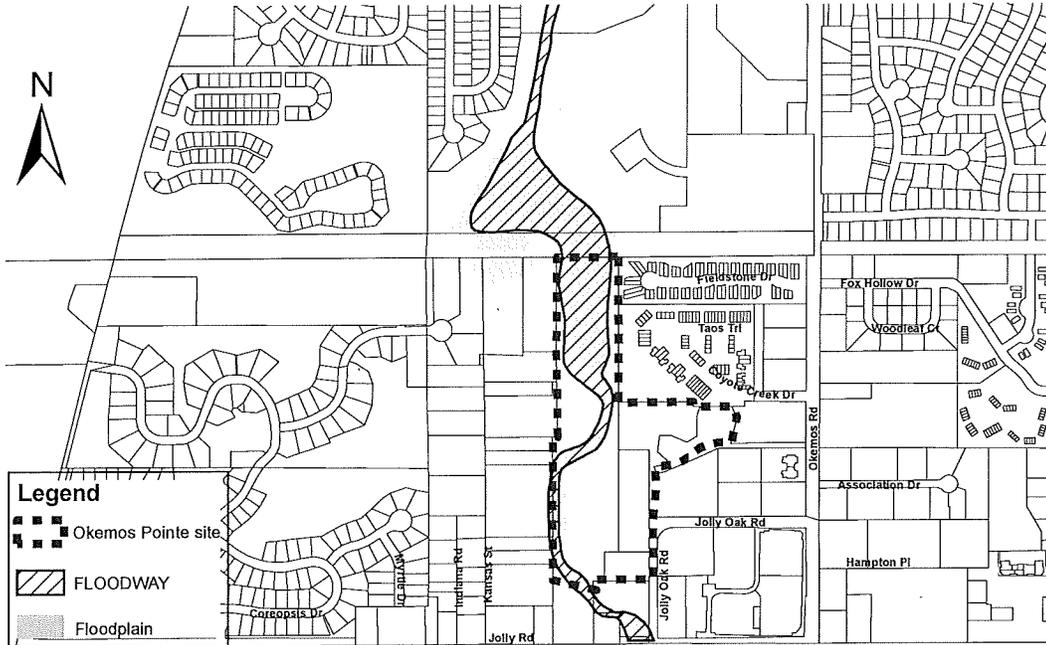
The subject site is conditionally zoned C-2* (Commercial). The C-2 zoning district requires a minimum lot area of 4,000 square feet and 100 feet of lot width. At approximately 33.73 acres, the subject site exceeds the minimum lot area and also exceeds the lot width with approximately 420 feet of frontage along Jolly Oak Road.

Physical Features

The majority of the site is undeveloped. Three structures, a 19,500 square foot industrial/light manufacturing building (2362 Jolly Oak Road), a 9,040 square foot office/warehouse/storage building and a 2,400 square foot storage/warehouse building (both addressed as 2360 Jolly Oak Road) currently occupy the approximate three acre site (formerly zoned Industrial) located on Jolly Oak Road. The area behind the three buildings has been used to park and store construction equipment and semi-trailers associated with industrial uses. Wooded areas occur near the west property line and to the east and north of Farrins Parkway. The Smith Drain pond is located on land furthest to the north. Three wetland areas are located in the northeastern portion of the site, north of Farrins Parkway.

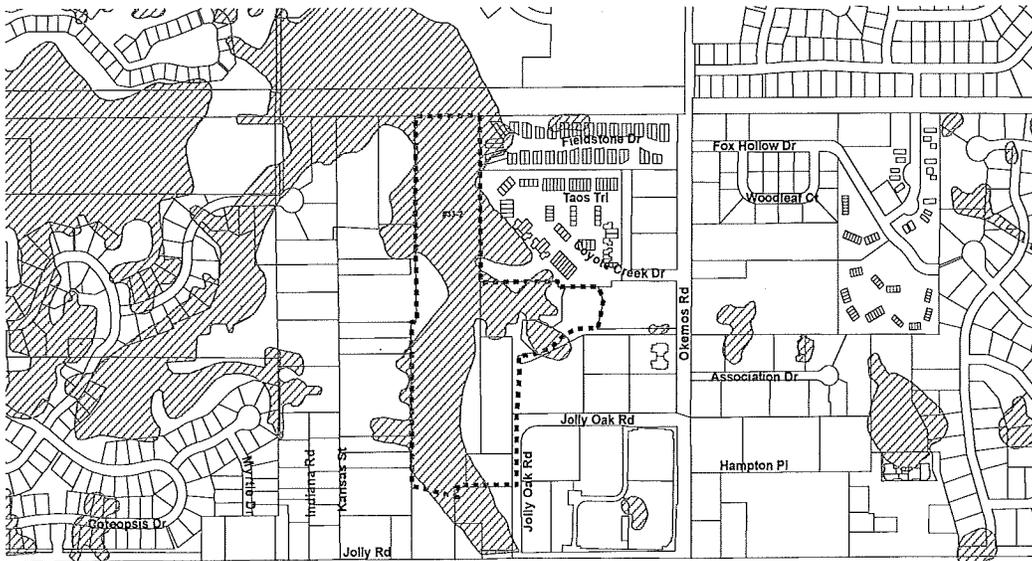
Topographically, the site is gently sloping east of the Smith Drain with elevations ranging from 866.4 feet above mean sea level to approximately 875 feet above mean sea level. South of the Smith Drain pond and west of the drain, elevations rise to a high of 884 feet above mean sea level.

Floodplain



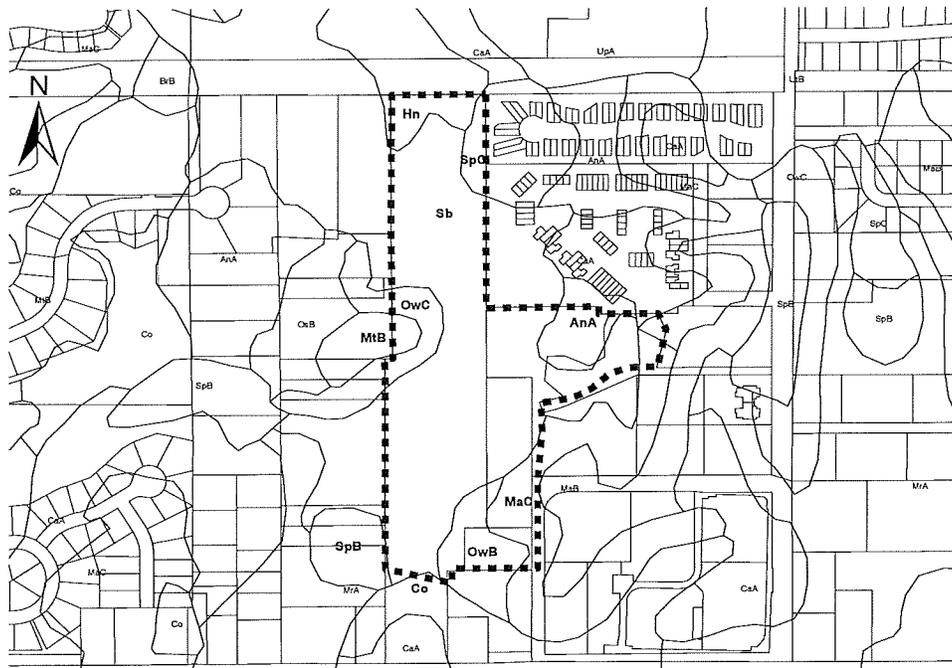
Flood Insurance Rate Maps (FIRM) for Meridian Township show floodway and floodway fringe areas are present on the site, in areas associated with the Smith Drain and Smith Drain pond. Two drain crossings were constructed in the Smith Drain as part of the expansion of the Smith Drain pond in 1991. The drain crossings are shown on the site plans, however details have not been provided regarding any improvements to the crossing as part of the proposed MUPUD project, such as widening the crossings, adding guardrails, curb and gutter, or other improvements that may involve work in the floodway or floodplain. Separate approvals are required for work in the floodway and floodway fringe.

Wetlands



The Township Wetland Map shows a portion of Wetland #33-2 occurring on the site, however the wetland areas shown in the map above may be considerably smaller than depicted. Based on the applicant's Natural Features Assessment Report, four separate wetland areas were found on the site. Two wetlands are located north of Farrins Parkway and are interconnected by a swale. The third wetland is west and north of the two connected wetlands and may be part of a larger off-site wetland on the Coyote Creek Condominium property. The fourth wetland area is located around the periphery of the north end of the detention pond. As a point of information, the Smith Drain pond was constructed as a detention pond in the 1990's and is not a considered a regulated wetland.

Soils

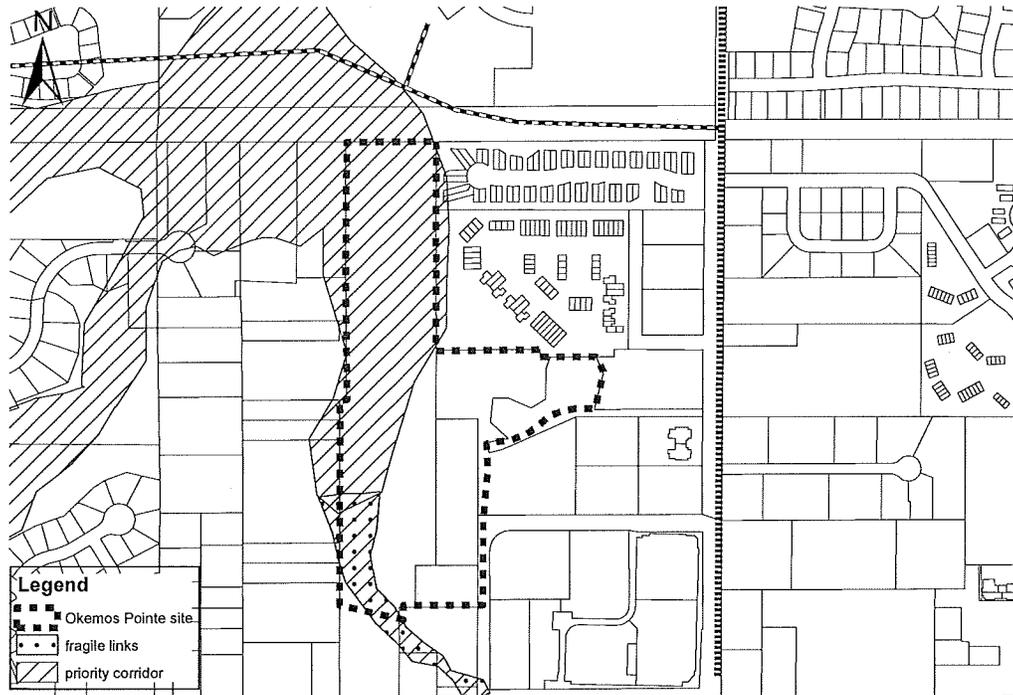


The following chart summarizes soil information for the site:

SOIL ASSOCIATION	SEVERE LIMITATIONS
AnA (Aubbeenaubbee)	Wetness
Co (Colwood)	Low Strength, Ponding
Hn (Houghton)	Subsides, Ponding, Low Strength
MaC (Marlette)	Slope
MtB (Metea)	None
OwB (Owosso)	None
OwC (Owosso)	None
Sb (Sebewa)	Ponding
SpC (Spinks)	Slope

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

Greenspace Plan



The Township Greenspace Plan shows a Priority Corridor running north to south along the Smith Drain, including the detention pond. The southern portion of the Priority Corridor is also considered a Fragile Link.

The Township Greenspace Plan, like the Township Wetland Map, is a guide; it is not intended to serve as a detailed map at the parcel level. Instead it should be used as a general guide in determining where priority corridors and fragile links should be located.

Streets and Traffic

The site has frontage on Jolly Oak Road which is a public street. The two-lane Jolly Oak Road is designated as a local street on the Street Setbacks and Service Drives Map, Section 86-365 of the zoning ordinance. It connects with both Okemos Road to the east of the site and Jolly Road south of the site.

Water Lily Way is shown on the plans as providing access to the site however it is unclear as to its designation as being a public or private street. In 1999 the Planning Commission authorized the extension of Jolly Oak Road to the north, as a public street to be named Water Lily Way. In recent years, curb and gutter have been installed but the road has not been paved. A final core of asphalt is required. The Ingham County Road Department (ICRD) will not accept the road as public until it is completed to its standards and inspected. The applicant has not indicated if the street will be public or private.

MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 7

Access to the site is also provided via Jolly Road at the existing Forsberg Commercial Real Estate Agency entrance drive at 2446 Jolly Road.

Farrins Parkway intersects with Water Lily Way and is a private road serving sites in the Okemos Pointe Office Park condominium. Design of the road received site plan review (SPR #08-08) approval in 2008. A wetland use permit was required to fill a portion of Meridian Township Wetland #33-2 to construct the road as designed. The road has received a base course of asphalt but the final course has not been installed.

Internal drives provide access to the apartment buildings, parking areas, fitness center, and other destination points in the development. A covered loading ramp is shown west of the fitness center in the parking lot.

A revised Traffic Impact Study, dated April 13, 2015, prepared by Bergmann Associates, was provided by the applicant under REZ #15010. The revised study reflected the reduction in acreage of the original rezoning request and the number of anticipated residential units (250 units reduced to 191 units per phase). Comments from the Ingham County Road Department were also addressed. A summary of the revisions appears in the front of the revised traffic study.

The applicant sent copies of the development plans to the Ingham County Road Department (ICRD) for their review. Written comments from the ICRD were not provided prior to the completion of this memorandum.

Utilities

The Department of Public Works and Engineering has indicated municipal water and sanitary sewer are available to serve the site. The utility plans will be finalized during site plan review. The site plan shows a schematic layout for stormwater management which includes pretreatment areas scattered throughout the development. A more thorough stormwater management plan including calculations will be required during site plan review. The Smith Drain Study is currently underway in the subject area and recommendations from the study may impact the conceptual stormwater plans. Review and approval from the Ingham County Drain Commissioner's office will also be required.

The applicant sent copies of the development plans to the Ingham County Drain Commissioner's office (ICDC) for their review. Written comments from the ICDC were not been provided prior to the completion of this memorandum.

Staff Analysis

The proposed project is a request to redevelop a portion of the site and establish a mixed use planned unit development (MUPUD) on an approximate 33.73 acre site. The project includes 21 multi-story apartment buildings, a 1-story leasing office, and a renovated industrial manufacturing building to become a fitness center. The apartment buildings are predominately 3-stories (in the middle) and the end units are 4-stories. The total height is 47'-0" as measured to the highest point on the apartment building (staircase towers). The 378 apartments include a mix of studio, 1 bed, 2 bed, and 3 bedroom units. Sample floor plans are provided. The total square footage of the 21 residential buildings is approximately 546,500 square feet

MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 8

The leasing office/clubhouse is approximately 3,000 square feet. Perspective views of the building are provided. Details on the clubhouse such as floor plans and types of services offered in the clubhouse were not submitted.

The fitness center will be housed in the remodeled industrial building, which is 2-stories tall in the front half of the building. An upper level track may be located on the second floor. An outdoor swimming pool is located north of the fitness center and may be covered for winter use. The fitness center may reach up to 30,000 square feet in size per the applicant, if a 2nd level fitness track is added. The pool and pool deck are included in the 30,000 square foot figure..

Approximately two acres of the site are dedicated to the leasing office and fitness center. Parking is provided around the leasing office and the fitness center for their patrons.

The project will be constructed in two phases as shown on the phasing plan. Phase 1 includes the construction of 7 apartment buildings (Buildings M1-M6 and M10), the leasing office, and fitness center. The remaining 14 apartment buildings will be completed in Phase 2. A phasing plan for the proposed amenities was not provided. The residential portion of the project (21 apartment buildings) covers approximately 16 acres of the site, including parking. Surface lot parking and 21 carports are provided for the residents.

Although the plans show the floodplain, floodplain elevations are not provided. A proposed grading plan has not been provided either; therefore staff could not determine if work or structures are proposed within the 100-year floodplain. A special use permit would be required for work in the 100-year floodplain, with approvals and permits from the Township and the Michigan Department of Environmental Quality (MDEQ).

The MUPUD ordinance generally waives the standard requirements for lot size, yards, frontage requirements, building, parking, wetland setbacks, maximum impervious surface regulations, and type and size of dwelling unit, provided the purpose and intent of the ordinance are incorporated into the overall development plan. The MUPUD ordinance provides flexibility for the Planning Commission and Township Board to set appropriate standards during the review process (Section 86-440(f)(1)).

The following waivers are assumed:

Building and Parking Setbacks (Commercial adjacent to Residential Zoning)

Section 86-404(b)(3) requires a 100 foot rear or side yard setback, or a 60 foot setback if a double row of conifer trees is provided, when a commercially zoned property is adjacent to residential zoning. The setback applies to a building, parking, access drive, or other structure. The properties to the west are zoned RR (Rural Residential) and the properties located north of the subject site (Coyote Creek Condominiums) are zoned RD (Multiple Family, Low Density). Several of the apartment buildings and three carport structures do not meet the required setback as summarized below:

Building	Proposed Setback
F3	48.14 feet
M2	91.95 feet
M3	93.48 feet
M7	96.13 feet
P6	19.91 feet
P7	9.93 feet
P8	30 feet
2 Carports (NW corner of site)	35 feet
1 Carport (S. of Bldg. F3)	70 feet

The parking areas south of Building F3, P6, and P7 do not meet the 100 foot setback from a residential zoning district.

Building setbacks from the street

The required front yard setback for a building along Joly Oak Road is 25 feet from the street right-of-way (ROW). The leasing office is located 5 feet from the ROW. For buildings located along Water Lily Way, Building P1 is 10 feet from the property line and Building P2 is 21 feet from the property line. Typically the same front yard setback for a public street is used for a private street, thus the front yard setback along Water Lily Way is 25 feet from the property line, or right-of-way.

Parking Area Setbacks

The required setback for parking or its associated internal access drive is 20 feet where adjoining a public street. The parking area south of the leasing building is 5 feet from the street ROW.

Where adjoining the same or other nonresidential district, the setback for parking is 15 feet. The parking area south of the fitness center is 2.81 feet from the property line.

Setback from water features

Section 86-471 outlines requirements for setbacks from water features. Water features setbacks are associated with the Smith Drain; a 50 foot wide structure and grading setback and a 25 foot wide natural vegetation strip, as measured from the top of the bank of the Smith Drain. The setbacks are not shown on the submitted plans. Waivers can be granted should work be proposed within the 50 foot water features setbacks from a county drain.

The applicant will be required to delineate the four wetlands, which will be reviewed by the Township's Environmental Consultant. Once the wetlands delineations are finalized, the wetlands and associated setbacks (structure and grading, and natural vegetation strip) can be shown on the site plans. Waivers can be granted should work be proposed within the water features setbacks.

Any drainage into or out of a regulated wetland may require a wetland use permit from the Township and the State. The applicant has not provided sufficient information on the plans for staff to determine potential impacts to the wetlands which may require waivers, separate approvals, or permits.

The following may require variances:

Architectural design

Section 86-440(f)(2)b.2. of the MUPUD ordinance states that buildings wider than 50 feet shall be divided into increments of not more than 50 feet through articulation of the façade. Scaled building elevations have not been provided thus staff could not confirm the status of the articulation.

Building Height. The maximum building height for a MUPUD project is 45 feet. The apartment buildings are 47'-0", to the top of the staircase towers. A mean height elevation was not provided on the elevations.

Window coverage

Per Section 86-440(f)(1)b.3., a minimum 50 percent window coverage must be provided on street level façades of a non-residential building. Detailed elevation drawings of the fitness center and leasing office were not provided to determine if the buildings meet this standard.

Other

Parking Requirements

The MUPUD ordinance states the number of required off-street parking spaces shall comply with Section 86-755 however the Township Board may reduce the required number per Section 86-440(f)(3)b of the MUPUD ordinance. Standard motor vehicle parking requirements for commercial uses and multiple-family uses in Section 86-755 are as follows:

Motor Vehicle Parking:

Multiple-Family Use	2 spaces for each dwelling unit plus 25% for future parking
Commercial	4 to 4½ spaces per 1,000 gross square feet (25,000 gross square feet or greater)

A typical 378 multiple family housing project would be required to construct 756 parking spaces and reserve an area where 189 additional parking spaces could be constructed if the need arose. Parking for commercial uses requires a minimum of 4 spaces and a maximum of 4.5 spaces per 1,000 gross square feet of commercial space.

The commercial uses include the 3,000 square foot leasing office/clubhouse and the 30,000 square foot fitness center, for a total of 33,000 square feet. A minimum of 132 and a maximum of 149 parking spaces would be required.

The proposed project, including 189 future residential parking spaces, would require a combined (minimum) total of 1,077 parking spaces (residential plus commercial uses). The plan shows 692 parking spaces thus the site is short 385 parking spaces using the traditional parking standards. The number of required motor vehicle parking spaces could be reduced up to 10% (108 parking spaces) when bicycle parking is provided, thus the total number of required motor vehicle parking would be 956 spaces. A reduction of one motor vehicle parking space is allowed for every two bicycle parking spaces provided on-site, but no more than 10% of the required number of motor vehicle parking spaces (Section 86-760).

Twenty-nine on-street parallel parking spaces are shown along the west side of Jolly Oak Road and Water Lily Way. On-street parking on a public street is subject to the review and approval by the Ingham County Road Department. On-street parking on a private street will be reviewed by Township staff for appropriate design standards and safety (Fire Department).

Landscaping Requirements

Landscaping should generally comply with the provisions of the Code of Ordinances per Section 86-440(f)(4) of the MUPUD ordinance.

Section 86-758 outlines the typical landscape requirements for off-street parking areas including: landscaped islands at least 10 feet in width, a minimum of 200 square feet of interior landscaping for every ten parking spaces and two interior canopy trees per ten parking spaces. Section 86-473 provides standards for street trees. A landscape plan has not been provided for the proposed development thus staff could not determine if the project generally complies with the typical landscaping requirements.

The following information summarizes the project's compliance with other MUPUD ordinance standards and standards for development in the C-2 district.

Location. The project site is zoned C-2 (Commercial). Any use permitted by right or by special use permit in the underlying zoning as well as residential uses, is permitted in the MUPUD.

Uses and Density. Single- and multiple-family uses are allowed up to a density of 14 dwelling units per acre when a site is being redeveloped for a use permitted by right or by special use permit in the underlying district and on the same parcel of land (Section 86-440(c)(2)c.). The plan shows a total of 378 residential units spread over approximately 33.73 acres, resulting in an overall residential density of approximately 11.2 dwelling units per acre (du/a). The rezoning of the property (REZ #15010) was approved with a voluntary offer of a condition limiting development to a mixed use planned unit development with a restriction of no more than 18 units per acre as allowed under the density bonus provisions in the ordinance.

Amenities. One or more amenities are required for every MUPUD project and should represent multiple categories from the list: Conservation; Environment; Accessibility; Parks, Recreation and Culture; Social Interaction; and Site and Building Design. Guidelines for acceptable amenities are found in Section 86-440(e)(2) of the MUPUD ordinance.

The site plan lists the following amenities on Sheet 10:

1. Recycle center
2. Township path system
3. Covered bicycle parking/storage
4. Pocket parks (with one pavilion shown in a pocket park)
5. Public eating plaza
6. Uncovered bicycle racks
7. Public art
8. Bike repair station
9. Rehabilitation of a degraded site
10. 1st floor awnings and upper floor balconies
11. Underground utilities
12. Consolidation of multiple land parcels

MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 12

The applicant listed the following additional amenities in the project summary:

- Internal foot and bicycle pathways and sidewalks that connect with the Township's pedestrian/bicycle pathway system
- Porches
- Public recreation services
- Public cultural venue with open area, stage, and gazebo
- Outdoor gathering spaces for residents and public
- LED light fixtures for outdoor lighting.

A fishing pier is proposed on the east side of the detention pond.

Building materials. Sample building materials will be provided at the public hearing. Per the building elevations, the exterior finish materials may include stone veneer, vertical corrugated metal siding, vinyl siding, fiber cement panels, Corten metal siding, and exposed steel. Some drawings indicate a reduction of the stone veneer, pipe railings, and the use of more vinyl siding in place of the vertical corrugated metal siding. The mixed use ordinance discourages the use of vinyl and metal siding.

Railings, benches, trash receptacles, or bicycle racks. Accessory items shall be of commercial quality and complement the building design and style, per Section 86-440(f)(2)b.5. Bicycle racks and enclosed bike parking facilities are planned however specific details have not been provided for consideration (bike rack specifications and elevations of the bike parking facilities). Pipe railings are shown on the balconies. Specifications on benches or seating have not been provided.

A recycling center is proposed near the fitness center (southwest corner of the building) however elevation drawings of the enclosure were not provided.

Bicycle Parking. Section 86-440(f)(3)d. states bicycle parking shall be separated from automobile parking in visible locations. The site plan states 244 bicycle parking spaces (122 bicycle racks) are provided which includes covered bicycle parking (60 spaces in 5 different locations).

Location of parking areas. The MUPUD ordinance encourages parking to be located on the side or rear of a building, per Section 86-440(f)(3)c. The site plan shows parking on the front and rear sides of the buildings. Additional parallel parking spaces are shown on Jolly Oak Road, Water Lily Way, and on internal access drives.

Lighting. The MUPUD ordinance indicates site lighting shall comply with the Outdoor Lighting Ordinance, Section 38-371 and street lighting intended to provide illumination for pedestrians on the sidewalk shall not exceed 15 feet in height. A photometric plan has been submitted showing LED lighting (outdoor lighting), however specification sheets for the light fixtures have not been submitted.

Signs. A sign program is generally required as part of the MUPUD application showing the style, size, number and location of signs, as outlined in Section 86-440(f)(6) of the ordinance. The Director of Community Planning and Development may be authorized to approve the entire sign program, or any part of the sign program, as part of the site plan review process.

MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 13

A sign program has been submitted but sign drawings were not provided. One freestanding sign (Welcome sign), is located at the intersection of Jolly Oak Road (E-W) and Water Lily Way. The stated size is up to 40 square feet and up to 5 feet high. Two wall signs are proposed on the fitness center, listed as 100 square feet on the front and 200 square feet on the side.

Sidewalks.

Sidewalk standards are outlined in Section 86-440(f)(7). In general sidewalks should be a minimum of five feet in width. Seven foot wide sidewalks are required when a sidewalk is located immediately adjacent to an off-street parking area or when it is part of the Township's Pedestrian/Bicycle Pathway system. The 7-foot wide Pedestrian/Bicycle pathway along the east side of Jolly Oak Road will be extended north through the proposed apartment complex (near Building P4 and P6), turn west and then north along the detention pond, to connect to the existing Township pathway system located in the Consumers Energy easement (north of the subject site).

Internal circulation is provided via 5 foot and 7 foot wide sidewalks around the proposed buildings, with connections to the pathway, playgrounds and open space areas.

Development Review Committee comments:

The Township Development Review Committee reviewed the plans and offered the following comments.

Fire Department:

- A fire suppression system is required for the proposed buildings.
- Fire alarms are required.
- Access for fire and safety vehicles appears to be adequate throughout the site.
- Additional fire hydrants may be required dependent on the fire suppression system.
- The fitness center may require fire suppression.

Engineering

- If a restaurant is proposed for the fitness center, an exterior grease interceptor is required.
- Special fees for the proposed sanitary sewer system are required (upstream benefit charges related to the Smith Drain).
- Easements for the existing water main and sanitary sewer mains on Water Lily Way are required.
- Work in the 100-year floodplain is proposed. Separate approvals are required from the Township, MDEQ, and FEMA.

Planning Commission Options

The Planning Commission may approve, approve with conditions or deny the special use permit. A resolution to approve the mixed use planned unit development is provided.

**MUPUD #15024 (T.A. Forsberg, Inc. & WestPac Michigan)
Planning Commission (8/7/15)
Page 14**

Attachments

1. Resolution to Approve
2. Application and supporting materials
3. Communication from Brent Forsberg, dated August 5, 2015
4. Phasing Plan
5. Building Elevations/Perspective Drawings and Floor Plans
6. Site Plans

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RESOLUTION TO APPROVE

**Mixed Use Planned Unit Development #15024
(T.A. Forsberg, Inc. and WestPac Michigan)
Jolly Oak Road and Farrins Parkway**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 10th day of August, 2015 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, T.A. Forsberg, Inc. and WestPac Michigan have submitted a request to establish an approximate 579,000 square foot mixed use planned unit development north of Jolly Road, north and west of Jolly oak Road and north of Farrins Parkway, incorporating the existing industrial building at 2362 Jolly Oak Road to be remodeled as a fitness center, with the construction of a leasing/clubhouse building and 21 apartment buildings consisting of 378 studio, one, two, and three bedroom apartment units on an approximate 33.73 acre site; and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on August 10, 2015 and has reviewed and discussed staff material forwarded under staff memorandums dated August 7, 2015; and

WHEREAS, the subject site is conditionally zoned C-2 (Commercial), with a voluntary offer of a condition limiting development to a mixed use planned unit development with a restriction of no more than 18 dwelling units per acre as allowed under the density bonus provisions in the mixed use planned unit ordinance; and

WHEREAS, the C-2 zoning district allows for a mixed used planned unit development; and

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

WHEREAS, the proposed mixed use planned unit development is in furtherance of Township Board policy #1.5.2 which encourages diverse housing opportunities; and

WHEREAS, the proposed mixed use planned unit development is adequately served by essential public facilities and services, such as police, fire, stormwater drainage, and existing roadways; and

WHEREAS, the proposed mixed use planned unit development is adequately served by public water and sanitary sewer; and

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

**Resolution to Approve
MUPUD #15024 (T.A. Forsberg, Inc. and WestPac Michigan)
August 7, 2015
Page 2**

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Mixed Use Planned Unit Development (MUPUD) #15024, subject to the following conditions:

1. The recommendation for approval is based on the Cover Sheet, Site and Utility Plans (North and South), and Amenities Plan, prepared by KEBS, Inc., dated July 27, 2015, and building elevations prepared by Zehren and Associates, Inc., dated June 12, 2015, subject to revisions as required.
2. MUPUD #15014 (T.A. Forsberg, Inc. and WestPac Michigan), a request to establish a mixed use planned unit development with the existing industrial building, a leasing office/clubhouse, and 21 multiple family apartment buildings with a total of 378 studio, one, two, and three bedroom apartment units, shall be contingent on the approval of Special Use Permit (SUP) #15101 (T.A. Forsberg, Inc., and WestPac Michigan).
3. Approval is subject to one or more amenities. The applicant proposes the following amenities as identified on the Amenities Plan (Sheet 10) and in the applicant's project summary: recycle center; Township pathway system; covered bike parking/storage; public pocket parks; uncovered bike parking; public art; bike repair station; rehabilitation of a degraded site; 1st floor awnings and upper floor balconies; underground utilities; consolidation of multiple parcels into one; foot and bicycle pathways and sidewalks that connect to the Township's pedestrian/bicycle pathway system; porches; public recreational service; public cultural venues; outdoor gathering spaces for residents and public; and LED light fixtures for outdoor lighting.
4. Waivers shall be granted as follows: building (apartment buildings and carports) and parking setbacks where adjacent to residential zoning; front yard building setback from a street; number of parking spaces; and wetland setbacks.
5. Any work in the 100-year floodplain shall require separate applications, reviews, permits, and approvals from the Township and the Department of Environmental Quality.
6. The applicant shall apply for and receive all applicable approvals and permits for work or drainage into or out of a regulated wetland.
7. Future site plans shall show the delineated wetlands and floodplain elevations.
8. Any future building additions or expansions to the buildings will require modification to the MUPUD #15024 and SUP #15101.
9. Building materials should include, but are not limited to, wood, brick, clapboards, glass, and stone. Other materials, such as vinyl, aluminum, and other metals should be avoided. The character and quality of the building materials and general architectural design of the buildings shall be consistent on all four sides of each building.
10. The final building elevations and building materials shall be subject to the approval of the Director of Community Planning and Development.

**Resolution to Approve
MUPUD #15024 (T.A. Forsberg, Inc. and WestPac Michigan)\
August 7, 2015
Page 3**

11. Unless the building elevations are revised, the applicant will be required to receive a variance from the Zoning Board of Appeals for non-compliance with Section 86-440(f)(2)b.2., stating, "Buildings greater than 50 feet in width shall be divided into increments of no more than 50 feet through articulation of the façade," Section 86-440-(f)(1)b., stating, "Maximum building height shall be no higher than 45 feet," and Section 86-440(f)(2)b.4., stating, "Windows shall cover no less than 50 percent of nonresidential street level facades."
12. No more than three unrelated persons may occupy an apartment unit.
13. All utility service distribution lines should be installed underground.
14. The final design of the recycling enclosure shall be subject to the approval of the Director of Community Planning and Development.
15. Site accessories such as railings, benches, trash and recycling receptacles, exterior lighting fixtures, and bicycle racks shall be of commercial quality, and complement the building design and style. Final design and location shall be subject to the approval of the Director of Community Planning and Development.
16. Landscaping shall generally comply with the provisions of the Code of Ordinances, including the mixed use planned unit development standards as outlined in Section 86-440(f)(4) and other applicable sections of the Ordinance pertaining to landscaping.
17. Site and building lighting shall comply with Article VII in Chapter 38 of the Code of Ordinances and shall be subject to the approval of the Director of Community Planning and Development, including the height of any new parking lot light pole.
18. A final sign program shall be submitted as part of site plan review and shall be subject to the review and approval of the Director of Community Planning and Development.
19. All mechanical, heating, ventilation, air conditioning, and similar systems shall be screened from view by an opaque structure or landscape material (if at street level) selected to complement the building. Such screening is subject to approval by the Director of Community Planning and Development.
20. The applicant shall obtain all necessary permits, licenses, and approvals from the Michigan Department of Environmental Quality, Ingham County Road Department, Ingham County Drain Commissioner, and the Township. Copies of all permits and approval letters shall be submitted to the Department of Community Planning and Development.
21. The utility, grading, and storm drainage plans for the site shall be subject to the approval of the Director of Public Works and Engineering and shall be completed in accordance with the Township Engineering Design and Construction Standards.
22. A copy of the site plan information that exists in a computer format for the development project and construction plans shall be provided to the Township Engineering staff in an AutoCAD compatible format.

**Resolution to Approve
MUPUD #15024 (T.A. Forsberg, Inc. and WestPac Michigan)\
August 7, 2015
Page 4**

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified and acting Chair of the Planning Commission of the Charter Township Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Planning Commission on the 10th day of August 2015.

John Scott-Craig, Chair
Planning Commission

G:\commun plng & dev\plng\mixed use planned unit development\2015\mupud 15024 (Okemos Pointe)\staff reports\mupud 15024 pc1 res approve

T.A. Forsberg, Inc.

Land Development Sales Project Management

July 17th, 2015

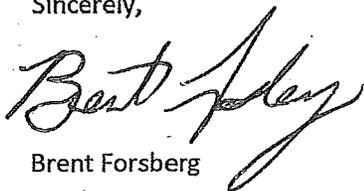
Mark Kieselbach
Meridian Township
Community planning & development
5151 Marsh Road
Okemos, MI 48864

Dear Meridian Township Planning Commission,

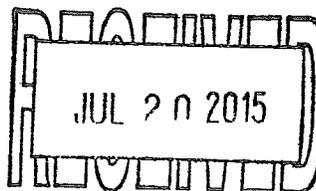
On August 10th, 2015 the Okemos Pointe mixed use planned unit development and subsequent special use permits will be on your discussion and action agenda. We would like to formally request that you consider taking action and voting on this project the same night. We indicated this at our concept hearing on July 13th and have not made any major changes to our project or site plan since that time.

It is our desire to receive project approval this fall, and taking action on this item the on August 10th would be greatly appreciated. We feel due to the fact that we have been before you and the Township Board several times since January that we have sufficiently addressed all concerns within the community. Many of our contentious issues were addressed and solved through our rezoning process, which was contingent on being developed as an MUPUD. The public is aware of our intentions, and we have taken every effort to address public concerns. As a result, we feel we have a project that the community can be proud of. This was demonstrated by our ability to ease community apprehension and as you saw there were no objections to our rezoning at the Township Board level. If there are segments of the project you feel need further discussion than can be achieved in one meeting, we understand that a single meeting and vote will not be feasible. We appreciate your consideration.

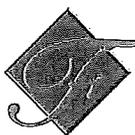
Sincerely,



Brent Forsberg
President



BF/mw



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

MIXED USE PLANNED UNIT DEVELOPMENT APPLICATION

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

Part I

A. Applicant T.A. Forsberg, Inc. & WestPac Michigan
Address of Applicant 2422 Jolly Road - Suite 200
Telephone - Work (517)349-9330 E-Mail Brent@taforsberg.com Fax (517) 349-7131
Interest in property (circle one): Owner Tenant Option Other _____
(Please attach a list of all persons with an ownership interest in the property.)

B. Site address / location / parcel number north of Jolly Road, west and north of Jolly Oak Road and north of Ferrins Parkway
Legal description (please attach if necessary) See attachment 1
Current zoning C-2 (Condition that it be developed as a MUPUD)
Project name _____

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

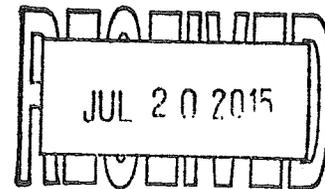
D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
Name KEBS Engineering - Jeff Kyes
Address 2116 Haslett Road, Haslett, MI, 48840
Telephone(s) (517) 339-4040 ~ 1014 E-Mail jkyes@kebs.com Fax (517) 339-8047

E. Acreage of all parcels in the project: Gross 33.73 Net 33.73

F. Proposed Uses and Site Amenities:

1. Non-residential uses:
 - a. Type Fitness, health and lifestyle facility & a leasing center
 - b. Percent of project area ~7.6%
 - c. Total square feet for non-residential uses 33,000
 - d. Usable floor area 40,000
 - e. Number of employees TBD
 - f. Hours of operation TBD

2. Residential Uses:
 - a. Percent of project area ~90%
 - b. Total dwelling units 370-390 - subject to change
 - c. Dwelling unit mix:
 - i. Number of single family detached: for Rent _____ Condo _____
 - ii. Number of duplexes: for Rent _____ Condo _____
 - iii. Number of townhouses: for Rent _____ Condo _____
 - iv. Number of garden style apartments: for Rent 378 Condo _____
 - v. Number of other dwellings: for Rent _____ Condo _____



3. Parking:
 - a. Non-residential uses _____
 - b. Residential uses 656

4. Proposed Amenities: Type Rehabilitation of degraded site
 (General) Type Foot and Bicycle pathway connecting to Twp. system
 Type Covered bicycle parking
 Type Public recreation services

- Proposed Amenities: Type See attachment 2
 (Density Bonus) Type _____
 Type _____
 Type _____

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

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

10. A Traffic Study (if the project will exceed 100 vehicle trips during the peak hours of the roadway(s), prepared by a qualified traffic engineer, based on the most current edition of *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation. Attachment 9
11. Natural Features Study for previously undeveloped properties which includes a written description of natural features proposed to be retained, removed, or modified. Natural features shall include, but are not limited to, wetlands, floodways, floodway fringe, waterbodies, significant stands of trees or individual trees greater than 12 inches dbh, identified groundwater vulnerable areas, slopes greater than 20 percent. Attachment 10
12. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
13. A sign program illustrating size and location of each proposed sign type. Attachment 11
14. A lighting plan (see Chapter 38, Article VII). Attachment 12
15. Copies of comments from reviewing agencies such as, but not limited to, the following:
 - Ingham County Road Commission
 - Ingham County Drain Commission
 - Michigan Department of Transportation (if applicable) See attachment 13
 - Michigan Department of Environmental Quality (if applicable)
 - The appropriate school board (as applicable) See attachment 14

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

Part II

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

Yes No (Please check one)

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

Brent Forsberg
Signature of Applicant

July 20, 2015
Date

Brent Forsberg
Type/Print Name

Fee: \$2,390.00

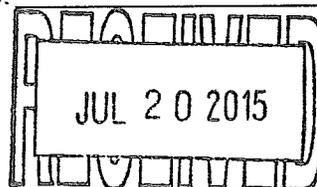
Received by: *Martha Wyatt*

Date: 7/20/15

Pre-Application Meeting Held: 6/3/15 Date

Application Complete: 7/21/15 Date

By: _____ Staff



**CHARTER TOWNSHIP OF MERIDIAN
HEALTH IMPACT ASSESSMENT**

Revision Date: March, 2012

Please provide written responses to each applicable question. For those questions which are not applicable, please indicate so on the form. Attach additional sheets if more space is necessary to respond fully to the questions. Submit completed form with your project/development application.

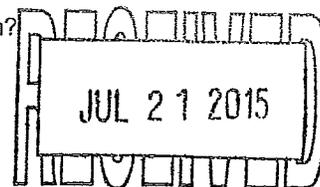
Project Name: Ormos Pointe, Address/Location: Solly OAC Case # _____
 Type of Project: Residential Commercial Office Public

Water Quality Considerations/Impacts

- | | | |
|-------------------------------------|-------------------------------------|---|
| YES | NO | |
| | | What is the source of water for the proposed project/development? _____ |
| | | What is the estimated daily water demand? _____ |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | If public water, is there available capacity to handle this project in the municipal facilities? |
| <input type="checkbox"/> | <input type="checkbox"/> | If private well, is the water considered potable (safe)? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the project/development within existing municipal service areas? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there nearby sources of potential water contamination? IF YES LIST _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there underground storage tanks? IF YES LIST _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Are their gasoline or oil pipelines? IF YES LIST _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is there a nearby known source of contaminated soil? IF YES LIST _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there abandoned wells on the site? IF YES LIST <u>2 wells in front of 2300/2362 Solly Creek Road</u> are active |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Will the water supply require on-site treatment, such as iron removal? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Are there any wetlands on the site?
If YES what is/are the size(s) of the wetland(s)? _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | If wetlands are being impacted, is adequate mitigation being proposed? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the project located in a known floodplain? <u>partly lot in Phase II does encroach on 100' flood plain</u> |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Will the proposed project affect groundwater recharge? |
| | | What percentage of the parcel is covered by impervious surfaces? _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the project affect the overall percentage of impervious surfaces in the watershed? |

Wastewater Considerations/Impacts

- | | | |
|-------------------------------------|-------------------------------------|--|
| YES | NO | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the project/development require an on-site wastewater system? |
| <input type="checkbox"/> | <input type="checkbox"/> | If YES, are the soils appropriate to support a septic system? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is project/development within the service area of the municipal sewage system? |



Air Quality Considerations/Impacts

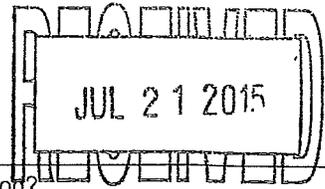
- | | | |
|-------------------------------------|-------------------------------------|--|
| YES | NO | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Does the project/development entail demolition activities? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | If YES, has the site been examined for asbestos and/or lead? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there plans for mitigating dust? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Will the project/development result in increased stationary air emissions? |
| <input type="checkbox"/> | <input type="checkbox"/> | If YES, are emissions controlled contaminants? PLEASE LIST _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | Has the applicant obtained necessary permits? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Will the project result in increased air emissions from cars?
What is the increase in traffic volume projected for peak hours? <u>See traffic study</u> |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the proposed use compatible with adjacent uses? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the site near known areas affected by radon? |

Solid & Hazardous Waste Disposal

- | | | |
|-------------------------------------|-------------------------------------|--|
| YES | NO | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the proposed project/development located near any facility handling or disposing of hazardous waste? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Will the proposed project/development provide on-site recycling? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is there historic evidence of solid or hazardous waste disposal or releases on or adjacent to the site? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are there plans in place to prevent the release of hazardous materials into the environment in the case of fire?
If YES describe _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Does the project entail hazardous waste disposal?
If YES is the proposed waste handling or disposal activity compatible with adjacent use and/or zoning? |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Is the proposed waste handling or disposal activity compatible with the Ingham County Solid Waste Management Plan? |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Is the facility near vulnerable resources (e.g. nursing homes) that may require contingency planning for extra protection in the event of an on-site fire? IF ANY LIST _____ |

Noise Considerations/Impacts

- YES NO
 Is the project/development likely to generate noises that will create a nuisance to neighboring uses?
 If YES please list type of noise(s) and hours _____
 Are there engineered or non-engineered measures that can be employed to mitigate nuisance noises?
 If YES please list _____
 Does the generated noise violate the noise ordinance?



Social Capital

- YES NO
 Does the project/development promote interaction between neighbors?
 If Yes please list Trails, Parks, Public Art, Rowles
 Is the physical design of the project harmonious with the overall neighborhood?

Physical Activity and Injury Prevention

- YES NO
 Does the project/development provide mobility options for those who cannot drive?
 Does the project/development have sidewalks that lead to local destinations?
 If YES what is the proposed width of the sidewalks? 4', 5', 7' on main (road)
 Does the project/development have or connect to a trail system for walking or biking?
 Does the project/development contain elements that enhance the feeling of neighborhood safety?
 Are local streetlights being provided?
 Are houses oriented toward the street to provide "eyes on the street?"
 Can a child walk safely to school?
 Are there sidewalks/pathways along the route to the school(s)?
 What is the walking distance to the area's schools? 3/4 mile to high school
 Is the visibility at intersections good?/Can drivers see short children?
 Does the route contain known dangerous intersections?
 If YES please list _____
 Are there crossing guards at these intersections?
 Will the project/development contain a significant elderly population?
 Can the elderly walk to important destinations (i.e. banks, post office, and library)?
 What is the walking distance to these destinations? _____
 Are there sidewalks/pathways along the routes to these destinations?
 Does the route contain known dangerous intersections?
 Does the project contain design elements to calm traffic such as speed humps, extended corners, raised street crossings, or similar features? IF ANY LIST _____
 Does the project/development present unsafe conditions or deter access and free mobility for the physically handicapped?
 For projects/development on arterial streets does the plan include pedestrian crossing signals and/or mid-street islands? N/A
 Is public transportation available? If YES where and how close is the nearest bus stop? Near Olmos/Elly Inter.
 Does the nearest bus stop have a shelter?
 Does the nearest the bus stop have a bench?

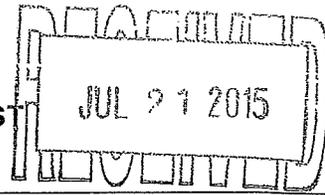
Health Equity/Food Systems (HOUSING PROJECTS ONLY)

- YES NO
 Does the project provide for a diversity of housing types to accommodate a variety of income groups?
 What is the square footage of the smallest dwelling unit? _____
 What is the estimated market price? _____
 Does this price represent an "affordable house" given the area median income?
 Is the proposed project/development located in an area that provides easy access to healthy foods?
 What is the distance to the nearest full service grocery store? 3 miles
 What is the distance to the nearest convenience store? 1/2 mile
 Will dwelling units (multiple family housing projects) be smoke-free?
 Does the neighborhood have a disproportionate number of liquor/party stores?
 Is the project/development located in a neighborhood or region characterized by concentrated poverty?
 Are affected residents involved in the planning process?
 Are disadvantaged populations at greater risk of exposure to environmental hazards?.

Growth Objectives/Regional Growth Project

- YES NO
 Is the project located within the designated growth area of the Tri-County Regional Growth Project?

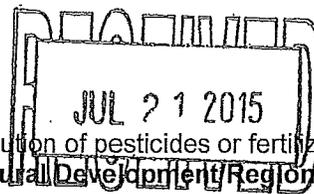
CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL PERMITS CHECKLIST



Name: Okemos Pointe Apartments (TA Eversberg, LLC)
Mailing Address: 2420 Kelly Road
Telephone: 349 9330 Fax: 349 9131 E-Mail: loranta@taforsberg.com
Type of Business (if applicable): Development
Owner/Manager: Brent Farley
Date: 7-21-15 Signature: [Signature]

Circle (Y/N) the items that may pertain to your project or facility; then contact the office(s) listed to determine specific requirements. Return a copy of this checklist to the Department of Community Planning & Development as part of your project or development submittal – even if the approvals have not yet been obtained. This list includes the most common permits and approvals related to water and air quality, waste, and the environment. Other permits and approvals, including Township approvals may also be necessary.

1. Y N Will the project involve the discharge of any type of wastewater to a storm sewer, drain, lake, wetland, or other surface water? Contact: MDEQ/Water Resources @ (517) 241-8993; MDEQ/Land & Water Features Programs @ (517) 373-9244; Meridian Township Dept. of Community Planning and Development @ (517) 853-4560.
2. Y N Will the project involve any construction work, fill with any material, or soil disturbance in the 100-year floodplain? Contact: MDEQ Land & Water Featured Programs @ (517) 373-9244 and Meridian Township Dept. of Community Planning & Development @ (517) 853-4560.
3. Y N Will the project involve the direct or indirect discharge of waste, waste effluent, wastewater, pollutants, and/or cooling water into the groundwater or on the ground? Contact: MDEQ/Groundwater Permits Program @ (517) 373-8148.
4. Y N Will the project involve construction or alteration of any sewage collection or treatment facility? Contact: MDNRE/Water Bureau @ (517) 335-4176. For discharging to surface waters; Contact: MDEQ/Water Resources @ (517) 241-1346. For discharging to groundwater; Contact: MDEQ/Groundwater Permits Program, @ (517) 373-8148.
5. Y N Will the project or facility store or use chemicals, petroleum products, or salt? Depending on the type of substance, secondary containment and a Pollution Incident Prevention Plan (PIPP) may be required. Contact: MDEQ/Water Resources, Part 5 Rules Program @ (517) 373-1623; Ingham County Health Department; Environmental Health Division @ (517) 887-4312; Meridian Township Fire Admin. @ (517) 853-4700.
6. Y N Will the project involve the installation, operation, or removal of an underground or above ground storage tank containing a petroleum product or hazardous substance? Contact: MDEQ/Storage Tank & Solid Waste Section @ (517) 335-7211 and Meridian Township Fire Administration @ (517) 853-4700.
7. Y N Will the project involve liquefied petroleum gas storage tanks, container filling station, or a compressed natural gas dispensing station? Contact: MDEQ/Storage Tank & Solid Waste Section @ (517) 335-2690.
8. Y N Will the project involve the generation of hazardous waste or medical waste? Hazardous Waste Contact: MDEQ/Waste & Hazardous Materials @ (517) 335-9875. Medical Waste Contact: MDEQ/Medical Waste Program @ (517) 335-1146.
9. Y N Will the project involve the on-site treatment, storage, or disposal of hazardous waste? Contact: MDEQ/Waste & Hazardous Materials @ (517) 335-2690.
10. Y N Will the project involve the transport of hazardous waste or non-hazardous liquid industrial waste? Contact: MDEQ/Waste & Hazardous Materials @ (517) 335-2690.
11. Y N Will the project involve landfilling, transferring or processing solid non-hazardous wastes on site? Contact: MDEQ/Waste & Hazardous Materials @ (517) 335-2690.
12. Y N Will the project involve the installation, construction, reconstruction, relocation, or alteration of any process or process equipment (including air pollution control equipment) which could emit air contaminants, such as boilers, generators, and sandblasting. Contact: MDEQ/Air Quality @ (517) 373-7023.



13. Y N Will the project or facility involve the storage, mixing, or distribution of pesticides or fertilizers in bulk quantities? Contact: Michigan Department of Agriculture Rural Development/Region 6 Pesticide & Plant Pest Management @ (517) 335-1830.
14. N Will the project involve a manmade change in the natural cover (land clearing) and/or topography of land, such as cut/fill activities that may contribute to soil erosion/sedimentation? Contact: Meridian Township Dept. of Public Works & Engineering @ (517) 853-4440 and MDEQ/Land & Water Feature Programs @ (517) 373-9244.
15. N Will the project involve any dredging, filling with any material, or construction in, across, under, or within 500 feet of a river, stream, creek, ditch, drain, lake, pond, swamp, or wetland(s)? Contact: MDEQ/Land & Water Feature Programs @ (517) 373-9244 and Meridian Township Dept. of Community Planning & Development (517) 853-4560.
16. Y N Will an on-site wastewater treatment system or septic system be installed?
For subsurface sanitary sewage disposal in quantities of 10,000 gallons per day or less: For any subsurface discharge or sanitary sewage in quantities equal to or greater than 10,000 gallons per day. Contact: MDEQ/Resource Management @ (517) 335-4035.

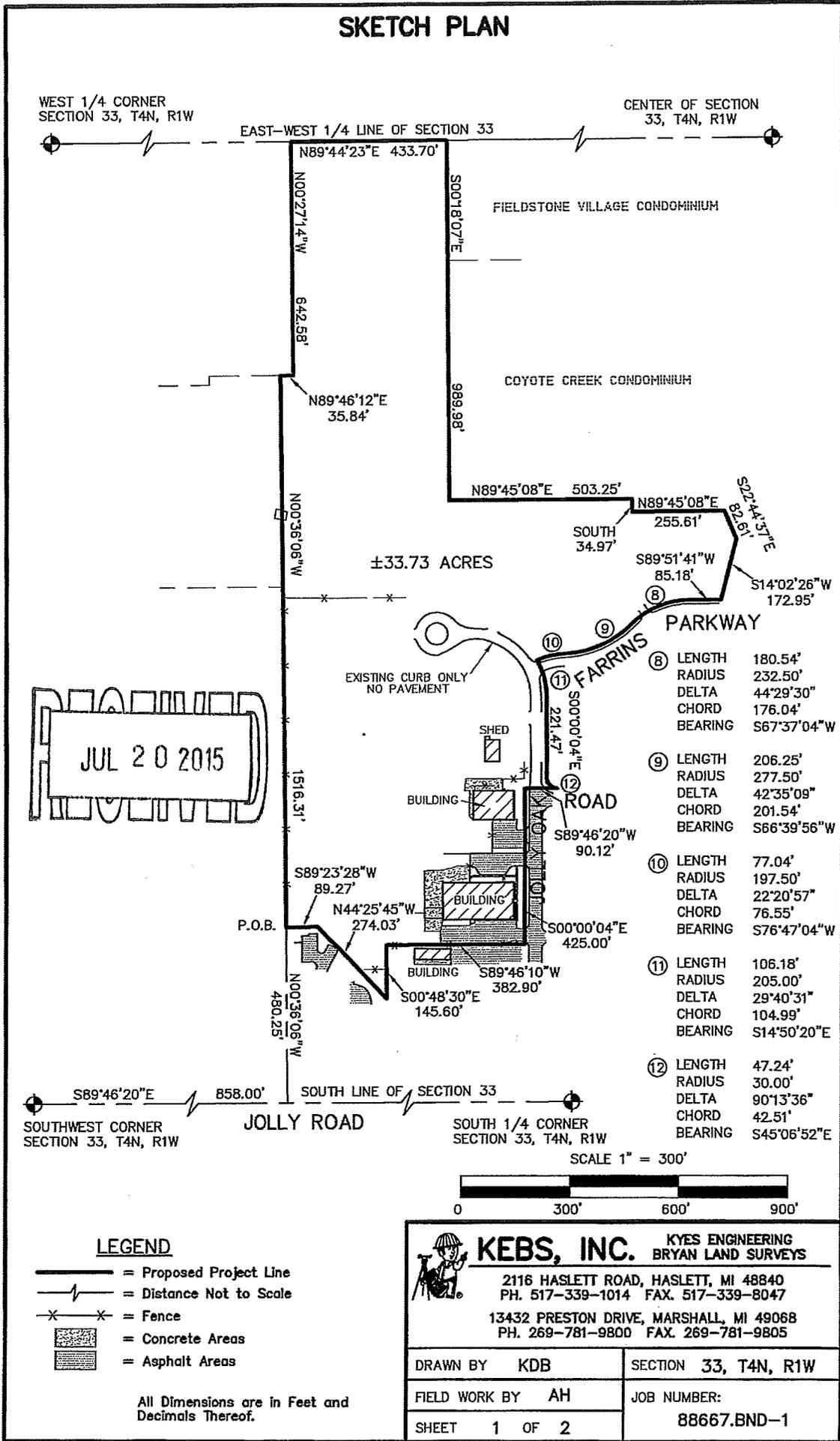
For subsurface disposal of sanitary sewage in quantities of 6,000 to 10,000 gallons per day: In addition to obtaining a construction permit from the Ingham County Health Department, submit a state wastewater discharge notification form. Flow monitoring and reporting are required. Contact: MDEQ/Resource Management @ (517) 335-4035.

For industrial or commercial wastewater (other than sanitary sewage) in any quantity. Contact: MDEQ/Waste & Hazardous Materials @ (517) 335-2690.
17. N Will the project involve construction of a water supply well or extension of a water supply service from an existing water system? Contact: MDEQ/Water Bureau @ (517) 335-6127 and Ingham County Health Dept./Environmental Health @ (517) 887-4312.
18. Y N Are there out-of-service water wells, abandoned water wells, or cisterns on the site? (drinking water, irrigation & monitoring wells). Contact: MDEQ/Water Bureau @ (517) 241-1377; Ingham County Health Dept./Environmental Health @ (517) 887-4312; and Meridian Township Department of Community Planning & Development @ (517) 853-4560.
19. Y N Will the project involve a subdivision or site condominium project utilizing individual on-site subsurface disposal systems or individual wells? Contact: Ingham County Health Dept./Environmental Health @ (517) 887-4312.
20. Y N Will the project involve the on-site storage of sanitary sewage prior to transport and disposal off-site (pump and haul)? Contact: MDEQ/Resource Management @ (517) 335-4035.
21. N Has the site/facility ever been subject to a remedial action, limited closure, or other environmental cleanup response under Part 201, Natural Resources and Environmental Protection Act (NREPA)? Is the property currently subject to a response action? Has a Baseline Environmental Assessment (BEA) been completed for the property? Contact: MDEQ/Remediation & Redevelopment @ (517) 373-8815 and/or MDEQ/Waste & Hazardous Materials @ (517) 335-9837.
22. Y N Will the project involve the installation of a seawall or bulkhead? Contact: MDEQ/Land & Water Feature Programs @ (517) 373-9244 and Meridian Township Dept. of Community Planning & Development @ (517) 853-4560.

Notes:

- For assistance with permits and approvals from the Michigan Department of Environmental Quality (MDEQ), including coordination among MDEQ divisions, contact the Office of Environmental Assistance at (517) 373-9244 or (800) 662-9278.
- For Spill/Release reporting to the MDEQ, call (517) 373-8481.
- For pollution emergencies, call the MDEQ at (800) 292-4706 in Michigan and (517) 373-7660 outside of Michigan.

SKETCH PLAN



WEST 1/4 CORNER
SECTION 33, T4N, R1W

CENTER OF SECTION
33, T4N, R1W

EAST-WEST 1/4 LINE OF SECTION 33

FIELDSTONE VILLAGE CONDOMINIUM

COYOTE CREEK CONDOMINIUM

±33.73 ACRES

PARKWAY

⑧ LENGTH 180.54'
RADIUS 232.50'
DELTA 44°29'30"
CHORD 176.04'
BEARING S67°37'04"W

⑨ LENGTH 206.25'
RADIUS 277.50'
DELTA 42°35'09"
CHORD 201.54'
BEARING S66°39'56"W

⑩ LENGTH 77.04'
RADIUS 197.50'
DELTA 22°20'57"
CHORD 76.55'
BEARING S76°47'04"W

⑪ LENGTH 106.18'
RADIUS 205.00'
DELTA 29°40'31"
CHORD 104.99'
BEARING S14°50'20"E

⑫ LENGTH 47.24'
RADIUS 30.00'
DELTA 90°13'36"
CHORD 42.51'
BEARING S45°06'52"E

JUL 20 2015

EXISTING CURB ONLY
NO PAVEMENT

SHED

BUILDING

ROAD

BUILDING

BUILDING

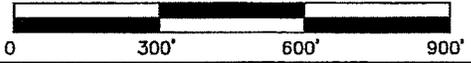
P.O.B.

SOUTHWEST CORNER
SECTION 33, T4N, R1W

JOLLY ROAD

SOUTH 1/4 CORNER
SECTION 33, T4N, R1W

SCALE 1" = 300'



LEGEND

- = Proposed Project Line
- = Distance Not to Scale
- = Fence
- = Concrete Areas
- = Asphalt Areas

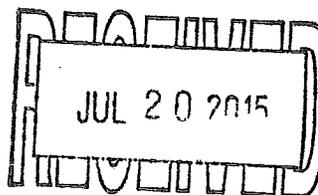
All Dimensions are in Feet and
Decimals Thereof.

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 KDB	SECTION 33, T4N, R1W
FIELD WORK BY AH	JOB NUMBER:
SHEET 1 OF 2	88667.BND-1

SKETCH PLAN

Site Plan Option 4 – Proposed Legal Description: A parcel of land in the Southwest 1/4 of Section 33, T4N, R1W, Meridian Township, Ingham County, Michigan, the boundary of said parcel described as: Commencing at the Southwest corner of said Section 33; thence N89°46'20"E along the South line of said Section 33 a distance of 858.00 feet; thence N00°36'06"W parallel with the West line of Section 33 a distance of 480.25 feet to the point of beginning of this description; thence continuing N00°36'06"W parallel with said West line 1516.31 feet; thence N89°46'12"E 35.84 feet; thence N00°27'14"W 642.58 feet to the East-West 1/4 line of said Section 33; thence N89°44'23"E along said East-West 1/4 line 433.70 feet to the West line of Fieldstone Village Condominium, Subdivision Plan No. 184, Ingham County Records; thence S00°18'07"E along said West line and the West line of Coyote Creek Condominium, Subdivision Plan No. 82, Ingham County Records, a distance of 989.98 feet; thence along the South line of said Coyote Creek Condominium the following three courses: N89°45'08"E 503.25 feet, South 34.97 feet and N89°45'08"E 255.61 feet to the Westerly line of Unit 1 of Okemos Pointe Office Park Condominium, Subdivision Plan No. 267, Ingham County Records; thence along said Westerly line the following two courses: S22°44'37"E 82.61 feet and S14°02'26"W 172.95 feet to the North line of Ferrins Parkway; thence along said North line the following four courses: S89°51'41"W 85.18 feet, Southwesterly 180.54 feet on a curve to the left, said curve having a radius of 232.50 feet, a delta angle of 44°29'30" and a chord length of 176.04 feet bearing S67°37'04"W, Southwesterly 206.25 feet on a curve to the right, said curve having a radius of 277.50 feet, a delta angle of 42°35'09" and a chord length of 201.54 feet bearing S66°39'56"W and Southwesterly 77.04 feet on a curve to the left, said curve having a radius of 197.50 feet, a delta angle of 22°20'57" and a chord length of 76.55 feet bearing S76°47'04"W to the East line of Water Lily Way; thence along said East line the following three courses: Southeasterly 106.18 feet on a curve to the right, said curve having a radius of 205.00 feet, a delta angle of 29°40'31" and a chord length of 104.99 feet bearing S14°50'20"E, S00°00'04"E 221.47 feet and Southeasterly 47.24 feet on a curve to the left, said curve having a radius of 30.00 feet, a delta angle of 90°13'36" and a chord length of 42.51 feet bearing S45°06'52"E to the North line of Jolly Oak Road; thence S89°46'20"W along the extension of said North line 90.12 feet to the West line of Jolly Oak Road; thence S00°00'04"E along said West line 425.00 feet; thence S89°46'10"W 382.90 feet; thence S00°48'30"E along a line parallel with the West line of Lots 1 and 2 of the plat of "Jolly-Okemos Industrial Park" as recorded in Liber 27 of Plats, Pages 20-21, Ingham County Records 145.60 feet; thence N44°25'45"W 274.03 feet; thence S89°23'28"W 89.27 feet to the point of beginning; said parcel containing 33.73 acres, more or less; said parcel subject to all easements and restrictions if any.



	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	KDB	SECTION 33, T4N, R1W
FIELD WORK BY	AH	JOB NUMBER:
SHEET	2 OF 2	88667.BND-1

Okemos Pointe MUPUD list of amenities

Environment

- Significantly increased pervious surface
- Rehabilitation of degraded sites

Accessibility

- Foot and bicycle pathways and sidewalks that connect with the Townships pedestrian/bicycle pathway system and routes identified in the Townships greenspace plan via a public right-of-way or public access easement
- Covered bicycle storage on site

Parks, recreation and culture for active and passive activities

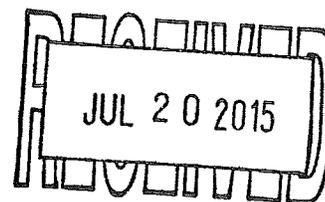
- Public recreation services
- Public cultural venues
- Public art

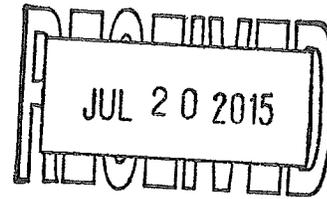
Social Interaction

- Outdoor gathering spaces or other outdoor eating spaces greater than 300 sq ft
- Public outdoor seating visible to public from the street
- Privately maintained courtyards, plazas, pocket parks, and rooftop gardens and similar features with public seating.

Site and building design

- Underground Utilities
- Combination of first floor awnings and upper floor balconies adjacent to public street
- Porches on any structure
- Innovative lighting – LED on all outside lights
- Consolidation of multiple land parcels into one to facilitate an integrated design





Summary

Project Definition

The development will consist of a mixture of 3 story multifamily apartment buildings totaling 350-400 units. The apartments will include a mix of studio, 1 bed, 2 bed, and 3 bedroom units. A Lifestyle Community Center Totaling about 30,000 square feet will be built in conjunction with the apartments, integrating Health and fitness, rehabilitation, and nutritional and dietary needs.

Development Summary

In total, the project includes 33 acres of property with 2 industrial buildings and land previously used as a construction yard for the Midwest Operations of T.A. Forsberg, Inc. The company was focused on road and infrastructure development from the early 50's until the mid-90's. The property is currently used by several industrial businesses and trucking companies. The property will be repurposed to the following uses. The residential portion of the project will cover approximately 16 acres of the site (including parking) with an additional 2 acres dedicated to the leasing office and fitness center.

Community Impact

Economic

A project of this size will bring a significant economic benefit to Meridian Township. Local businesses will see an increase in consumer spending power from these new residents. Potential spending in local businesses could reach \$10 Million¹. Total increase in annual property taxes is projected to be approximately \$1 Million². New K-12 students will mean more local education dollars in our schools.

Community/ Social

With current changes in the job market, the average time an employee is with their current employer 4.6 years³. Many people in the workforce are finding employment away from their families and the sense of community they had. Providing connectivity, social, and healthy lifestyle programs based around common interests of the residents and other Township amenities and resources will allow people to connect and be a part of the community instantly. This sense of community will provide the best living experience available for our new neighbors, even those that will be here only a few years. For those that decide to put their roots down and raise their families, it will have already tied them into the fabric of the community.

By redeveloping our outdated construction yard, Okemos Pointe provides a vital link between the existing residential communities in the vicinity of Okemos, Bennett, and Hulett Roads, and the commercial district located at the corner of Okemos and Jolly Roads. A natural progression of zoning will occur from commercial to residential from this development. This will complete the trail systems for this area as designed in the Meridian Township Trails map. These key connections will become part of the larger regional trail system when Meridian completes its connections to the MSU and Lansing Riverwalk Trail system.

¹ Based on average household income of \$50,000 and 466 residents as stated by Bowen Research

² Based on a taxable Value of approximately \$25 Million

³ As reported by the U.S. Bureau of Labor Statistics Employee Tenure in 2014

Collaboration

Westpac Michigan and T.A. Forsberg Inc. are working in a truly collaborative manner to engage in dialog with residents, business and community leaders on the design of the Okemos Pointe development plans. Local residents have been invited to and have attended town hall sessions for project presentations and open dialog opportunities. Meridian Township, the Ingham County Drain Commissioner, local school leaders, Lansing Economic Area Partnership, the Meridian Economic Development Corporation, local Meridian Businesses, Lansing Regional Chamber of Commerce, Greater Lansing Housing Coalition, Michigan Energy Options, the Michigan Efficient Energy Contractors Association, Gibbs & Associates, Zerhen Architects, Truscott Rossman, and more have all helped shape the design and program features. As the design process continues we hope to have our education and community outreach efforts extend into the community and schools to make educational internship opportunities available on wetland protection and green construction and operations. The main park system also will encourage access by all residents in the community to open community interaction so all neighbors in the vicinity get a chance to meet and enjoy each other's company.

Neighborhood Features

Architecture

Architecturally the theme is "Modern Mountain." There is a heavy focus on wood, cut stone, steel, with wood accents. Lots of glass will be used to allow maximum natural light that can be achieved while still being energy efficient.

Modern

The modern designed living spaces will emphasize efficient use of space for residents. Aesthetically, the new design is creative and unique, presenting a fresh new identity onto itself, while still having enough common design features with the surrounding community to enhance the streetscape, not demean it.

Green

Michigan Energy Options and the Michigan Energy Efficient Companies Association are working together to provide suggestions and approaches by incorporating industry best practices to balance the highest level of efficiency and sustainable building practices that are economically practical. The density proposed this will allow for features that may not have been feasible on smaller projects to be implemented.

Responsible

Given the constant rises in the cost of living outpacing worker compensation increases, it is more important than ever to look at how we can continue to attract and retain a higher level professional workforce through quality yet affordable housing. We are working with Greater Lansing Housing Coalition to design a program to have housing available for moderate income employees in the area.

Lifestyle

High levels of stress at work, constant demands of time for activities, constant media and instant communication have led to time being at a premium. This has led to higher percentages of health problems as people become sentient throughout the day and turn to fast options for food and energy.

Sometimes the 10 or 15 minutes to a workout facility makes it unfeasible to get a workout. Having a nutritionist available as well as exercise and lifestyle support program options integrated into the community can help change the trend of health in Michigan, which is ranked the 5th most obese state in the country⁴.

Development details

Phasing Plan

It is our anticipation that the development will be constructed in 2 phases. The first would include the meadow group (purple) buildings M1-M3, the leasing office and the fitness facility. The last lease in 2362 Jolly Oak Road expires January 2017, we will be working with the tenant to make sure we do not disrupt their business and will begin renovations in the first phase, with most of the work being completed upon the tenant moving out. Starting with building M1, we plan on a rolling start for each building, meaning once building M1 is complete construction will start on M2. This is to ensure that each building has demand as well as the proper unit count and type. Our buildings have been designed so that we can switch different unit types without redesigning the building; the idea is that if one unit type is extremely popular we have to option to build more of those in the next building without a complete redesign, allowing us to quickly and efficiently meet the market demands. (see map on next page)

Waivers

Parking: The Okemos Pointe developers are seeking a waiver to reduce the number of required on site (off street) parking spots. Typically in a development of 14 units per acre, or RC, 2 parking spaces are required for each dwelling unit. While this has been the standard in past developments, we feel that reducing our 1 bedroom units to require only 1 parking space will encourage a healthier lifestyle. This not only applies to individuals on a personal health basis, but also in the community sense. If households are encouraged to share cars and rides, this reduces the number of trips into the community and eases concerns for the nearby traffic. It would encourage more residents to utilize the local commercial assets and eliminate shorts unnecessary trips in the car. Being a family focused community, we anticipate that many of our shared 1 bedroom units will house a family or couple, as opposed to 2 unrelated individuals. Our 2 and 3 bedroom units will be marketed towards families and couples, meaning 2 cars should sufficiently serve this demographic. During our concept meetings and throughout our project development, we mentioned several times that we would like to see 2 car families living in this development be comfortable downsizing to one. With the opportunity to target large local employers, carpool options will also be encouraged and possibly facilitated by the community to create ride sharing situations.

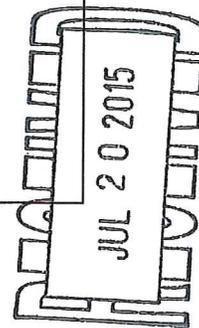
Based on the numbers above, we would have approximately 48 spaces for the JR 1 beds and 108 for the one bedroom, one per unit. The 2 and 3 bedrooms would require 444 spaces, leaving 40 for the fitness facility and leasing center.

If needed, we have explored the possibility of reducing width and length of parking spaces to fit more in the same area. Our plan currently shows 10' wide and 20' long with a 25' turn lane radius. We can add

⁴ As reported by the Centers for Disease Control

about 20 spaces by reconfiguring the size of the spaces, but have held off on making those changes before it has been discussed. This would require a major redesign of parking lot islands, but

	Mixed use planned unit development MUPUD		Multiple Family		Planned unit development PUD
	C-2	PO	RC	RCC	
Yard size, setback, lot size, type and size of dwelling unit, frontage and impervious surface regulations	Waived (except for setback from natural features)		50 ft setback from adjacent property	50 ft from adjacent property	RC/RCC
Max height	45 ft	35 ft (based on RR zoning to west) §86-440 - {(c)(1)b}	We currently have a 45 ft building 35ft Can be increased with added building spacing and adjusted setback requirements	waived	
Commercial use	Any allowed in C-2	Specific neighborhood use only	Incidental commercial uses for the principal use of the developments occupants	Maximum of 3% total buildable land area	
Open space	Integrated and harmonious with site plan		35% of the project must be open space	50% of project area used to determine density (excludes wetlands/floodplains)	
Parking	Discussed during site plan review – 650 proposed 1 per Jr. and 1 bedroom = 156 2 per 2 and 3 bedroom = 424 leasing center fitness facility = 70		2 per unit 380 x 2 = 760	2 per 1 bedroom (312) 3 per 2+ bedroom (636) (948)	760 minimum
Density	10-18 units per acre depending on redevelopment and amenities		14 units per acre	34 units per acre	N = D x C N = num. units permitted D = Allowable density from yield plan C = 1.0 = percent of site in wetland/floodplain expressed as decimal

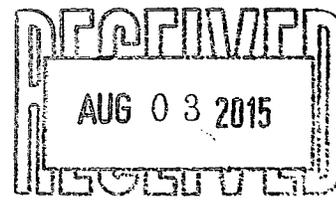


Amenities description

Recreational services: The development will feature several recreational amenities available to the public. The Township cross country pathway system will be linked to our own internal trail system, with distance and directional markers designed and set up to facilitate an on-site workout. Also included in this will be a bike repair station as you enter the property. This consists of several essential bike care items, such as a set of wrenches, Allen wrenches, screwdrivers, an air pump and any other tools needed to fix a bike on the road. This will allow people to make quick fixes and tweaks without having to cancel their trip and head home. Public bathrooms will also be located along the trail system for use by anyone passing through.

Public cultural venues: The large central park will serve as the hub of cultural activity on the property. There will be a large open area with a stage, as well as a separate gazebo. These, along with the many benches, bike parking, shaded pocket parks, and other outdoor gathering spaces will provide a sense of community and cultural staging area. Ideally there would be volunteers playing music and entertaining the crowds at these any of these spaces on any given night. This is intended to give a street performance type atmosphere, with various staging areas providing different atmospheres to perform.

Bike repair station: see next page for photo example



Bike repair station – example:



RECEIVED
AUG 03 2015
LIBRARY

Okemos Pointe waiver request 2.0 (8.3.15)

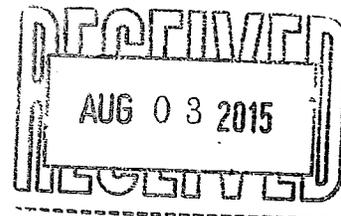
- 100 ft Setback from a residential district for all structures, parking lots and drives.
 - Buildings are closer than 100 feet to residential district
 - *[Building: Feet off property line (adjacent zoning)]*
 - M2: 91.95 feet (RR)
 - M3: 93.48 feet (RR)
 - M7: 96.13 feet (RR)
 - F3: 48.14 feet (RR) – adjacent undeveloped parcel is owned by Forsberg family
 - P6: 19.91 feet (RD)
 - P7: 9.93 (RD)
 - P8: ~30 feet (RD)
 - Parking lots near buildings F1-F3 and P5-P8 are closer than 100 feet to a residential property line. In this case, the F1-F3 area borders Forsberg owned property on Kansas. Buildings P5-P8 sit near the border adjacent to a medium density multifamily condominium development.

- Parking - Multifamily housing of similar density (RC) would require 2 spots per dwelling unit plus expansion of 25%. Based on this calculation, we would need 950 spaces for less than 700 beds.
 - We have proposed 692 spaces shown on the site plan

- Building height
 - C-2 allows for a structure up to 45ft
 - The stair towers on the building reach to a height of 47ft – there is no living space or accessible space above the 45 ft. mark, this feature is purely aesthetic.

- Floodplain:
 - The parking lot for building F3 sits partially in the 100 year floodplain. This is part of Phase II of the development and will be addressed at a later date.

- Wetland delineation
 - We ordered an update to our wetland delineation and expect the findings back this week.



Okemos Pointe sign program

The Okemos Pointe mixed use development will feature 2 signs on the property. One will serve as a welcome sign located at the entrance at Jolly Oak and Water Lilly Way (A). This will be a free standing sign and will conform to all setback and surface area regulations in the ordinance. No waivers or variances in regards to signage are being requested at this time.

The second sign (B) will be a wall sign on the fitness center. This sign will also conform to the ordinance and we are not asking for any waivers at this time. See map for location details.

A. Entrance/welcome sign – Jolly Oak entrance

Zoning: C-2 conditional on mixed use planned unit development

Sign type: Freestanding

Proposed sign size: up to 40 sqft

Proposed sign height: Up to 5 ft

Location: See attached site plan

B. Fitness Center sign – Remodeled industrial building (2360 Jolly Oak)

Zoning: C-2 conditional on mixed use planned unit development

Sign type: Wall sign

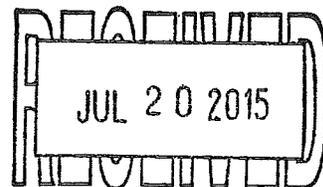
Proposed sign size:

Front: 100 sqft

Side: 200 sqft

Proposed sign height: Wall sign on building

Location: Fitness center – see attached

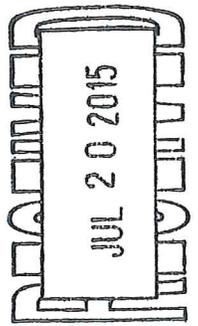




Bird's Eye View from Main Entrance

A

B



T.A. Forsberg, Inc.

Land Development Sales Project Management

July 21, 2015

Michigan Department of Environmental Quality
Land and Water Management Division
ATTN: Water Resources
P.O. Box 30458
Lansing, MI 48909

RE: Mixed Use Planned Unit Development, Okemos Pointe, Meridian Township

Enclosed is a copy of our plans for a Mixed Use Plan Unit Development in Meridian Township (10 engineering (24x36) sheets and 2 11x17 sheets). The project abuts Jolly Oak Road and Water Lily Way. It will access Jolly Road via a private unnamed road. Please review these plans for us and let us know your comments or questions. If you do have questions, please do not hesitate to call us at 517.349.9330

Thank you for your assistance.

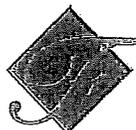
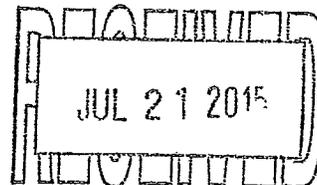
Sincerely,



Brent Forsberg
President

Enclosures

BF/mml



T.A. Forsberg, Inc.

Land Development Sales Project Management

July 21, 2015

Ingham County Road Department
P.O. Box 38
301 Bush Street
Mason, MI 48854

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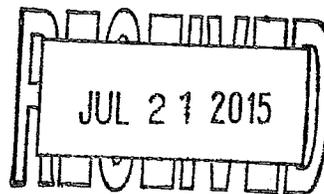
Sincerely,



Brent Forsberg
President

Enclosures

BF/mml



T.A. Forsberg, Inc.

Land Development Sales Project Management

July 21, 2015

Ingham County Drain Commissioner
P.O. Box 220
707 Buhl Avenue
Mason, MI 48854

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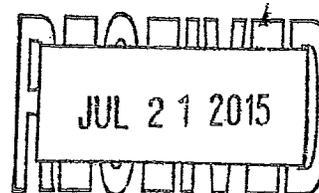
Sincerely,



Brent Forsberg
President

Enclosures

cc Dave Love
BF/mml



Comments from reviewing agencies

Ingham County Drain Commission

- Conducting study on Smith drain
 - Approved by Township Board at May 7th meeting
 - Scheduled to be completed July 2015
 - Drain Commission has given preliminary indications that our development will not need additional on-site retention capacity
 - Required us to provide pre-treatment or “scrubbing” of 1st inch of rainfall over property – which is shown on our plans
- Will give written statement once Smith drain study is complete

Ingham County Road Commission

- Discussed project with them end of 2014
- They indicated they would like to see Jolly Oak/Water Lilly Way/ and our entrance form a 4 way intersection instead of the current offset
- This was one reason we needed to remove building at 2360 Jolly Oak

Michigan Department of Transportation

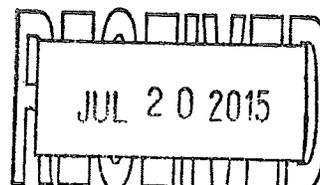
- No comment

Michigan Department of Environmental Quality

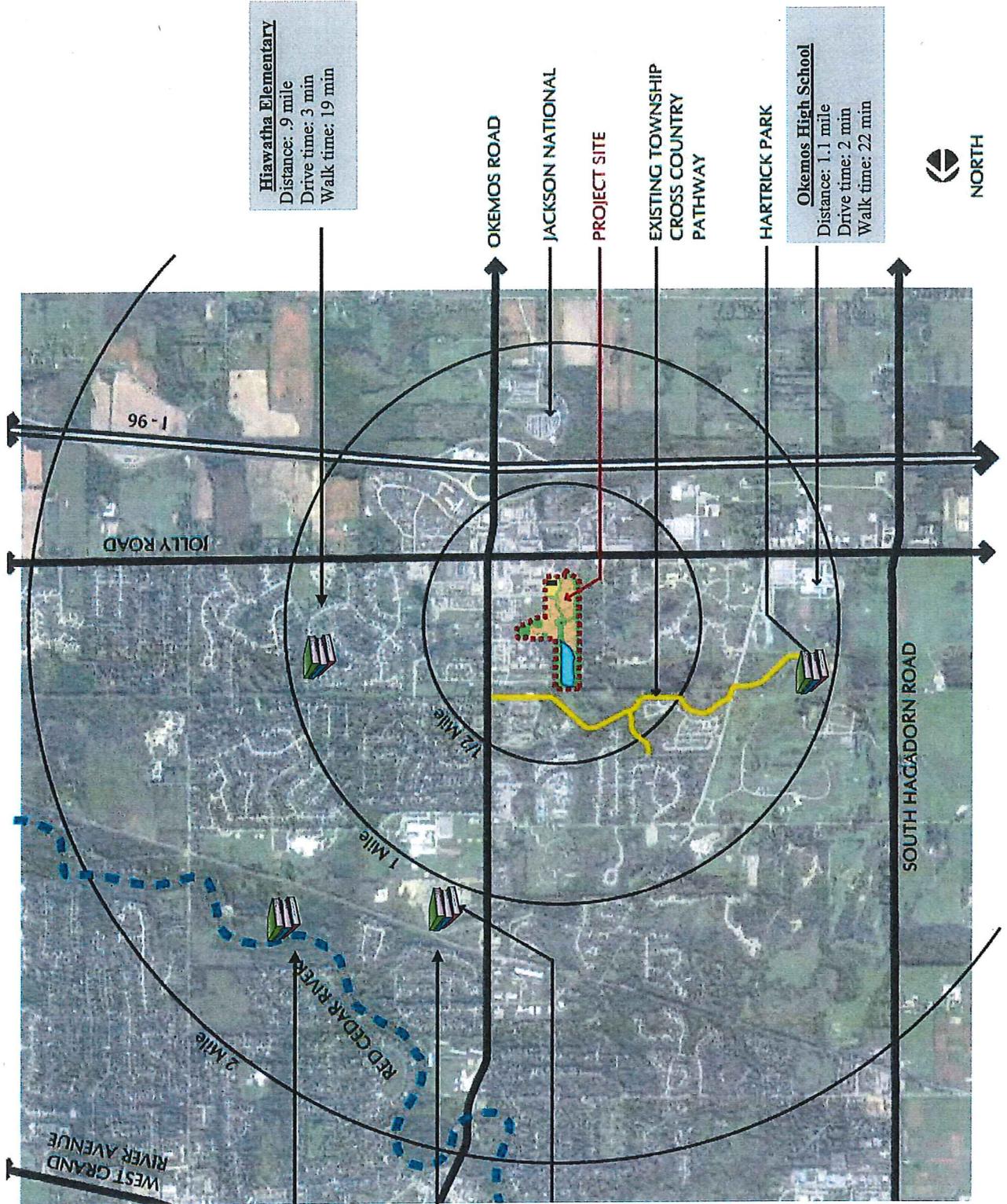
- No comment

Okemos School Board

- Presented the project to them in March 2015 at school board meeting
- They were supportive of the project
- Liked having this type of lifestyle community within walking distance of several area schools
 - See attachment 6
- Encouraged by opportunity for family atmosphere, more kids in the district and places for young families to plant their roots in Meridian Township
- Open to the concept of having an interactive study rain garden for interaction with local students



Attachment 6: Okemos Schools



Hiawatha Elementary
 Distance: .9 mile
 Drive time: 3 min
 Walk time: 19 min

Okemos High School
 Distance: 1.1 mile
 Drive time: 2 min
 Walk time: 22 min

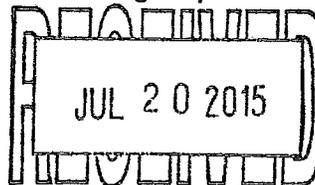
Kinawa Middle School
 Distance: 1.8 mile
 Drive time: 4 min
 Walk time: 34 min

Chippewa Middle School
 Distance: 1.1 mile
 Drive time: 3 min
 Walk time: 22 min

PREPARED
 JUL 20 2015

Summary of Changes to the WestPac Campus Communities Housing Development Traffic Study – 4/27/15

- Per comments received from the ICRD, the speed limit on Jolly Oak Road was changed from 25 mph to 35 mph in the Synchro models. Very little if any changes to the traffic analysis resulted from this change.
- A description detailing the existing Okemos Road/Jolly Road intersection traffic volume development and a comparison table which compares the volumes used at this intersection for the WestPac study against the volumes used at this intersection for the MSUFCU study was added to pages 6 and 7 of the report.
- The traffic volumes projected to be generated by the approved Jackson National Life office expansion project and the All-Suites Hotel development were added to the 2016 No-Build, 2016 Build, 2018 No-Build, and 2018 Build traffic volumes. These revised volumes are shown in the traffic volumes shown on pages 11, 12, 16, and 17 of the report. Analysis of the traffic operations with these additional background traffic volumes showed poor operations and queuing at the Okemos Rd/Jolly Rd intersection in No-Build conditions without mitigation. Therefore, the signal timings were modified at this intersection to reduce overall intersection delays and reduce vehicle queuing. These signal timing modifications were detailed in the No-Build analysis discussions, and a separate LOS diagram showing the LOS with the proposed signal timing modifications was added with a title including "With Mitigation" (pages 23 & 28).
- Per comments received from the ICRD, analysis of the Okemos Road/Jolly Road intersection with a southbound right-turn lane was added to the 2018 No-Build discussion (page 26-28). In addition, this southbound right-turn lane was shown in the 2018 Build analysis (page 29-31).
- A discussion of northbound Okemos Road queuing at the Jolly Road intersection was added to the 2018 Build conditions discussion per ICRD request (page 29).
- The proposed project size was reduced from 250 units being constructed in each phase (total 2 phases of construction) to 191 units being construction in each phase of construction (2 phases of construction). This reduced number of units reduced the number of projected trips generated by the proposed development by 28 trips in the morning peak hour and 32 trips in the evening peak hour. In addition, this reduced number of trips is less than the projected number of trips generated by 170,000 sft of general office building as permitted by right.



Original Project - v - Current project - v - by right PO project

Bergmann & Associates of East Lansing Michigan was engaged by WestPac and T.A. Forsberg, Inc. to conduct a traffic study analysis for a future multi-family residential project at Okemos Pointe in Meridian Township Michigan. The traffic study report by Bergmann, based on a proposed 378 unit Okemos Pointe project plan, indicates that traffic patterns during peak AM/morning rush hour and PM/evening rush hour periods will generate a total of 442 trips coming in and going out of the proposed development site neighborhood.

The original Okemos Pointe residential development plan had called for a project total of approximately 500 units. At the original proposed 500 unit project level, it was estimated that traffic patterns during peak AM/morning and PM/evening rush hour periods would generate a total of 562 trips coming in and going out of the new Okemos Pointe site.

Bergmann Associates also was asked to estimate the traffic patterns associated with a professional office site totaling approximately 170,000 square feet at the Okemos Pointe location. Their study of professional office space at the forecasted 170,000 square foot use level, indicates that traffic patterns during peak AM/morning and PM/evening rush hour periods also generates a total of 562 trips coming in and going out of an Okemos Pointe commercial or professional office park.

		AM Peak			PM peak			Peak hour trips (AM & PM)
Use	Density	In	Out	Total	In	Out	Total	Total
Multi-Family	378 Units	40	156	196	160	86	246	442
	500 Units	52	200	252	202	108	310	562
Professional Office	170,000SF	258	35	293	46	223	269	562



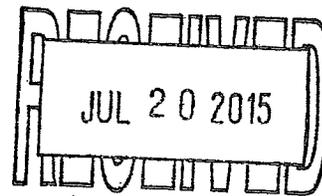
"Enhancing the Quality of Life in the Communities We Serve"





***WestPac Campus
Communities Housing
Development
Traffic Study***

April 13, 2015



 **Bergmann**
associates
architects // engineers // planners

1427 W. Saginaw, Suite 200
East Lansing, MI 48823
517.272.9835 phone
517.272.9836 fax

Table of Contents

I. PURPOSE AND SCOPE.....	1
II. EXISTING CONDITIONS	3
A. Study Area Roadways.....	3
B. Study Area Intersections (Listed east to west, south to north)	4
III. TRAFFIC VOLUMES.....	6
A. Existing Traffic Volumes.....	6
B. Background Traffic Volumes	10
C. Trip Generation	13
D. Trip Distribution and Assignment	13
E. Projected Traffic Volumes with Development.....	15
IV. TRAFFIC OPERATIONS ANALYSIS	18
A. Existing (2015) Conditions	18
B. Future No-Build (2016) Conditions.....	21
C. Future Build (2016) Conditions – Phase 1	23
D. Future No-Build (2018) Conditions.....	26
E. Future Build (2018) Conditions – Phase 2	28
F. Proposed Site Driveways Right Turn Lane Warrants	31
V. OKEMOS ROAD/JOLLY ROAD INTERSECTION OPERATIONS	31
VI. SUMMARY AND CONCLUSIONS	33
VII. RECOMMENDATIONS	33

Appendices

Appendix A – Proposed Site Plan

Appendix B – Traffic Count Information

Appendix C – Level of Service Definitions

Appendix D – Synchro Level of Service Intersection Reports

Appendix E – Trip Generation Information

Appendix F – Right-Turn Lane Warrants

I. PURPOSE AND SCOPE

WestPac Campus Communities, LLC is proposing a new apartment complex in Meridian Township, Ingham County, MI. This Traffic Impact Study (TIS) has been prepared to document the existing traffic conditions of the study area and to evaluate the estimated future traffic conditions and impacts as a result of the proposed development. The development assumptions under which this study was conducted was that the proposed development would consist of two phases as follows:

Table 1: Proposed Construction

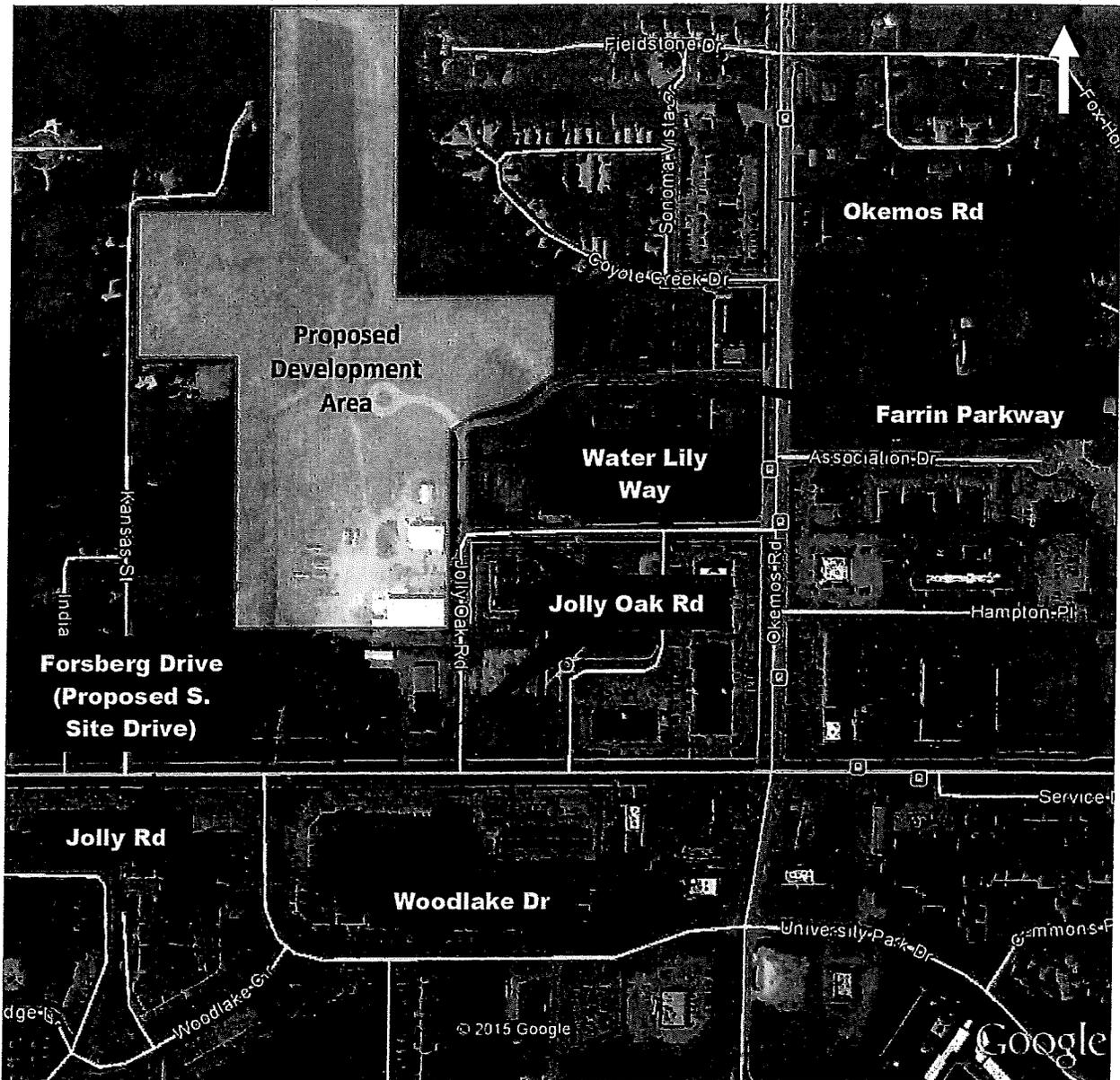
Development Type	Number of Additional Units	Estimated Time of Completion
Phase 1: Apartments	191 Units	2016
Phase 2: Apartments	191 Units	2018

The project site is located in the northwest quadrant of the Okemos Road and Jolly Road intersection (See Figure 1). Please refer to Appendix A for the proposed site plan for the development. The intent of this traffic impact study is to document the existing traffic conditions and evaluate the potential transportation impacts of the proposed development on the surrounding roadway transportation system, if any.

The following methodology was used to conduct this study:

1. Conduct site visits to obtain roadway geometry and observe traffic operations.
2. Perform manual turning movement counts at study area intersections and summarize the existing weekday morning and evening peak hour traffic volumes.
3. Project the existing traffic volumes to the proposed construction years. Phase 1 is estimated to be completed in 2016 and Phase 2 in 2018. Each phase will consist of the construction of 191 apartment dwelling units.
4. Estimate the number of new trips generated by the proposed development, distribute the trips on the surrounding roadways, and add the projected trips to the background traffic volumes.
5. Evaluate the traffic operations of study area intersections under existing traffic conditions and future traffic conditions, with and without the proposed project for both Phase 1 and Phase 2.
6. Summarize existing and future traffic operational deficiencies, potential impacts of the proposed development on the roadway system and identify mitigation measures for future deficiencies caused by the proposed development, if any.

Figure 1: Project Area Map



II. EXISTING CONDITIONS

A. Study Area Roadways

1. Okemos Road

Okemos Road is classified as a north-south minor arterial within the study area however, it functions as a major arterial. From its intersection with Jolly Road north thru the study area, Okemos Road consists of two (2) 12-foot wide concrete travel lanes in each direction with a 12-foot, two-way center left-turn lane.

The pavement along Okemos Road in the study area is in good condition. The posted speed limit is 45 mph within the study limits. Land use along Okemos Road in the study area is primarily commercial.

2. Jolly Road

Jolly Road is an east-west minor arterial that consists of two (2) 12-ft wide HMA travel lanes in each direction with a 12-ft two-way center left turn lane within the study area. The travel lanes are bounded by curb and gutter and enclosed drainage. The existing pavement is in good condition.

A speed limit of 45 mph is posted on Jolly Road within the study area. Land use along Jolly Road is primarily commercial thru the study area.

3. Jolly Oak Road

Jolly Oak Road is a collector roadway that provides access to commercial properties in the NW quadrant of the Okemos Road & Jolly Road intersection. This roadway connects to Okemos Road and consists of two (2) 16-ft wide HMA travel lanes with curb and gutter and enclosed drainage. The pavement was noted as being in good condition during field review. Pursuant to a recent Traffic Control Order issued by the Michigan State Police, the speed limit on Jolly Oak Road is to be signed at 35 mph.

4. Farrin Parkway

Farrin Parkway is a collector roadway that provides access to commercial properties north of Jolly Oak Road. The roadway currently connects to Okemos Road and Water Lily Way and consists of two (2) lanes with widths that vary from 10-ft to 12-ft. No speed limit was posted on this roadway however was assumed to be 25 mph for the purposes of this study.

5. Water Lily Way

Water Lily Way is a collector roadway that connects Farrin Parkway to Jolly Oak Road and consists of two (2) 16-ft wide HMA travel lanes with curb and gutter and enclosed drainage. The pavement was noted as being in fair condition during field review. The speed limit was not posted along this roadway however was assumed to be 25 mph for the purposes of this study.

6. Forsberg Commercial Access Drive

The Forsberg Commercial Access Driveway currently provides access to a small strip mall on Jolly Road. Per the site plan for the apartment complex, this driveway is proposed to be extended to provide access to the proposed development from Jolly Road. Currently, this driveway consists of two (2) lanes with widths that vary from 12-ft to 16-ft. Limited parking exists along the driveway. The pavement was noted as being in good condition during field review. No speed limit is posted on this driveway however was assumed to be 25 mph for the purposes of this study.

7. Woodlake Drive

Woodlake Drive is a collector roadway that provides access to commercial properties and businesses in the SW quadrant of the Okemos Road & Jolly Road intersection. This roadway connects to both Jolly Road and Okemos Road and consists of two (2) 16-ft wide HMA travel lanes with curb and gutter and enclosed drainage. The pavement was noted as being in good condition during field review. The speed limit was not posted along this roadway however was assumed to be 25 mph for the purposes of this study.

B. Study Area Intersections (Listed west to east, south to north)

1. Jolly Road & Woodlake Drive / Forsberg Driveway

Woodlake Drive and the commercial Forsberg Driveway connect to Jolly Road via an unsignalized intersection. The eastbound and westbound Jolly Road approaches are free flow and consist of one exclusive thru lane, one shared right-turn/thru lane and a shared two-way left-turn lane. On the west approach, the two-way left-turn lane ends approximately 250 ft west of the intersection. On the east approach, the two-way left-turn lane continues east beyond the intersection. All lane widths are 12-ft wide.

The stop controlled southbound approach (Forsberg Driveway) does not have pavement markings denoting lane assignments however, based upon field review, it was determined that the approach consisted of a shared right-turn/thru lane and an exclusive left-turn lane. Lane widths on this approach are approximately 11-ft wide to accommodate the lane usage.

The stop controlled northbound approach (Woodlake Drive) consists of a marked exclusive left-turn lane and a shared right-turn/thru lane with 12-ft wide lanes. Approximately 95 ft of vehicle storage is provided by the existing left-turn lane.

2. Jolly Road & Jolly Oak Road

Jolly Road meets Jolly Oak Road at an unsignalized intersection. Both the eastbound and westbound Jolly Road approaches are free flow and consist of one exclusive thru lane, one shared right-turn/thru lane and a shared two-way left-turn lane. All lane widths are 12-ft wide.

The stop controlled southbound Jolly Oak Road approach consists of one exclusive right-turn lane and one exclusive left-turn lane. Approximately 100 ft of vehicle storage is provided for the existing left-turn lane. All lane widths are 12-ft wide.

3. Okemos Road & Jolly Road

Okemos Road intersects Jolly Road at a signalized intersection. The existing traffic signal is owned and operated by the Ingham County Road Department. All intersection approaches consist of one shared right-turn/thru lane, one exclusive thru lane and one exclusive left-turn lane. All lane widths are 12-feet. All of the existing exclusive left-turn lanes extend beyond the intersection as continuous two-way left-turn lanes.

4. Okemos Road & Jolly Oak Road

Jolly Oak Road meets Okemos Road at an unsignalized intersection. The northbound Okemos Road approach consists of two exclusive thru lanes and a shared two-way left-turn lane that extends beyond the intersection. The southbound approach consists of an exclusive right-turn lane, two exclusive thru lanes, and a shared two-way left-turn lane that extends beyond the intersection. Approximately 90 ft of vehicle storage is provided for the existing right-turn lane. The northbound and southbound (Okemos Road) approaches are free flow. All lane widths are 12-ft wide.

The stop controlled eastbound Jolly Oak Road approach does not have pavement markings denoting lane assignments however, based upon field review, it was determined that the approach consisted of an exclusive right-turn lane and an exclusive left-turn lane. Lane widths on this approach are approximately 12-ft wide to accommodate the noted lane usage.

5. Okemos Road & Farrin Parkway

Farrin Parkway meets Okemos Road at an unsignalized intersection. The northbound Okemos Road approach consists of two exclusive thru lanes and a shared two-way left-turn lane that extends beyond the intersection. The southbound approach consists of a shared right-turn/thru lane, an exclusive thru lane and a shared two-way left-turn lane that extends beyond the intersection. The northbound and southbound (Okemos Road) approaches are free flow. All lane widths are 12-ft wide.

The stop controlled eastbound Farrin Parkway approach does not have pavement markings denoting lane assignments however, based upon field review, it was determined that the approach consisted of an exclusive right-turn lane and an exclusive left-turn lane. Lane widths on this approach are approximately 10-ft wide to accommodate the noted lane usage.

6. Jolly Oak Road & Water Lily Way

Jolly Oak Road meets Water Lily Way at an uncontrolled intersection. The northbound Jolly Oak Road approach consists of a shared right-turn/thru lane, the southbound Water Lily Way approach consists of a shared left-turn/thru lane and the westbound Jolly Oak Road approach consists of a shared right-turn/left-turn lane. Lane widths vary from approximately 12-ft to 16-ft.

III. TRAFFIC VOLUMES

A. Existing Traffic Volumes

Manual turning movement counts were performed by Bergmann Associates at five of the six study area intersections on Wednesday, January 6, 2015 and Thursday, January 7, 2015. The counts for the Okemos Road and Jolly Road intersection were collected by Bergmann Associates on Tuesday, June 4, 2013 and Wednesday, June 5, 2013. It is important to note that per the guidance document “Evaluating Traffic Impact Studies – A Recommended Practice for Michigan Communities”, traffic count data up to two years old is acceptable to use in traffic studies. In addition, the traffic volumes for this intersection were compared to the existing conditions volumes utilized at this intersection in the recently approved Michigan State Federal Credit Union (MSUFCU) development in this same area. See Tables 2 and 3 for comparisons of the existing morning and evening condition, respectively, MSUFCU volumes with the existing condition volumes utilized in this analysis. As shown, the volumes utilized in this analysis are more conservative than those used in previous studies. Based upon this information and the guidance provided in “Evaluating Traffic Impact Studies – A Recommended Practice for Michigan Communities” these volumes were deemed acceptable for use in this analysis.

Table 2: Morning Peak Hour Volume Comparison – Jolly Rd & Okemos Rd Intersection

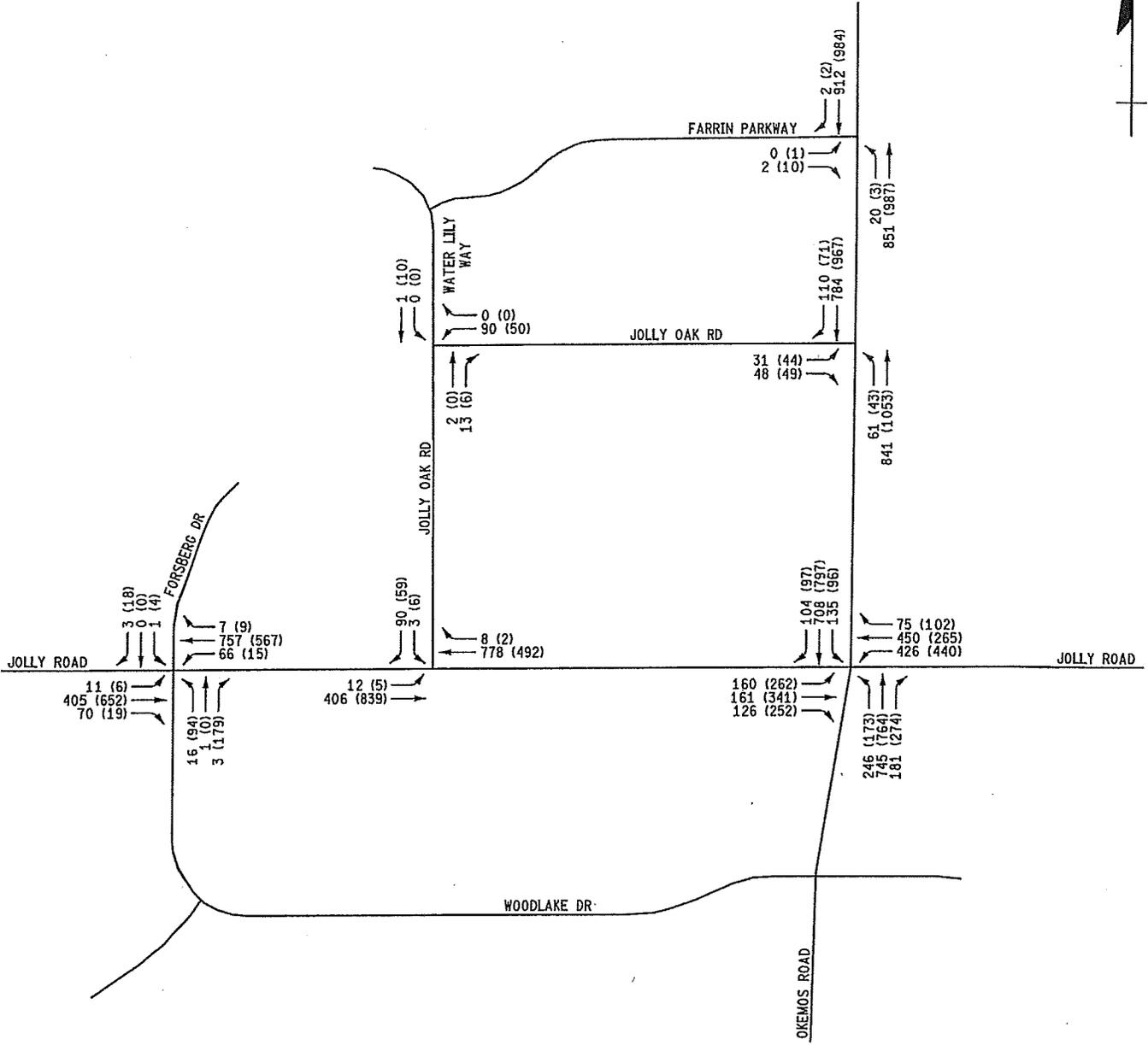
Intersection Approach		MSUFCU Analysis Volume	WestPac Study Volume	Percent Increase / Decrease from MSUFCU Study
Northbound	Left-Turn	194	246	+26.8%
	Through	689	745	+8.1%
	Right-turn	149	181	+21.5%
Southbound	Left-Turn	61	135	+121.3%
	Through	650	708	+8.9%
	Right-turn	91	104	+14.3%
Eastbound	Left-Turn	105	160	+52.4%
	Through	162	161	-0.6%
	Right-turn	107	126	+17.8%
Westbound	Left-Turn	464	426	-8.2%
	Through	534	450	-15.7%
	Right-turn	57	75	+31.6%
Total Intersection Volume		3263	3517	+7.8%

Table 3: Evening Peak Hour Volume Comparison – Jolly Rd & Okemos Rd Intersection

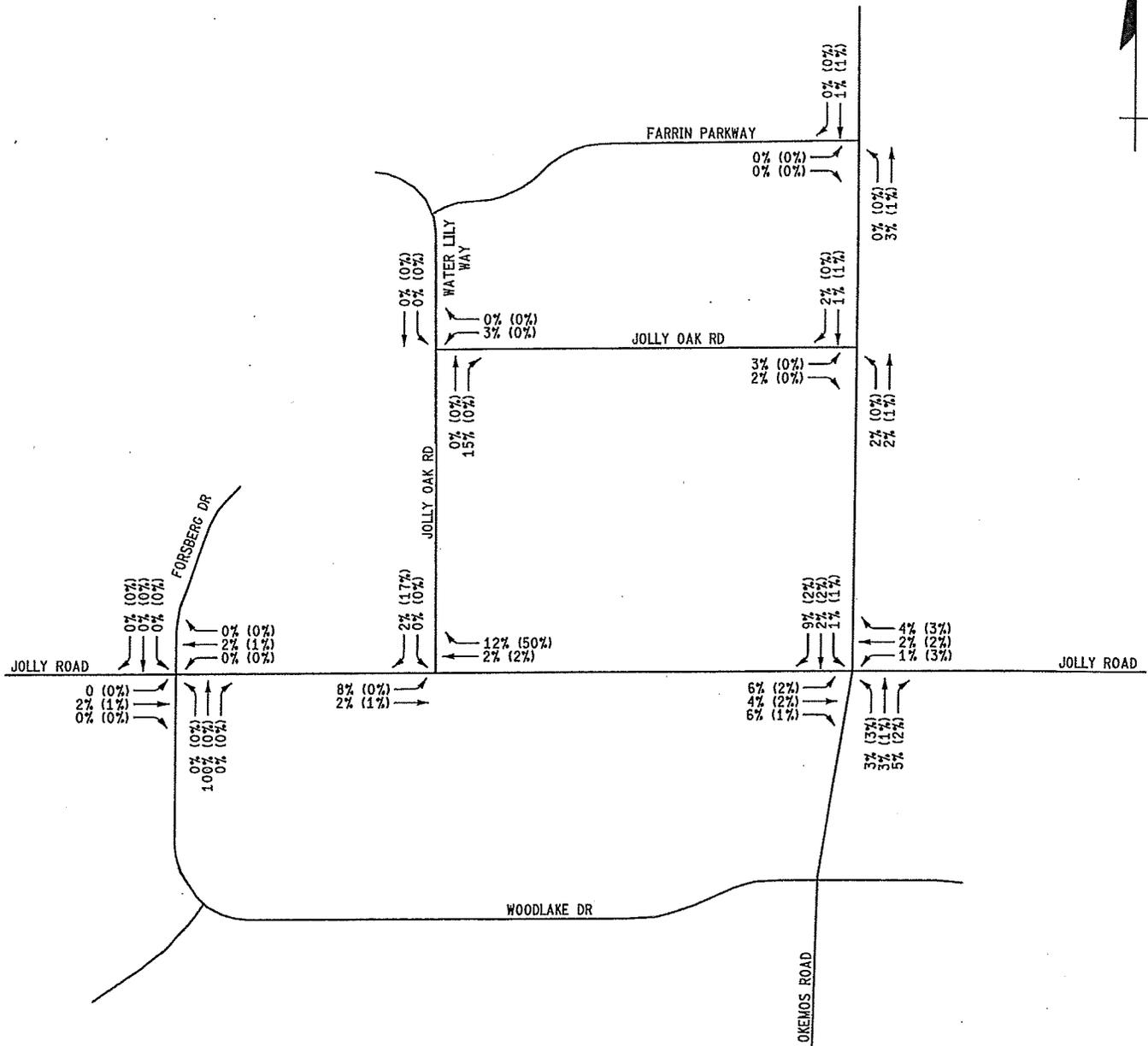
Intersection Approach		MSUFCU Analysis Volume	WestPac Study Volume	Percent Increase / Decrease from MSUFCU Study
Northbound	Left-Turn	137	173	+26.3%
	Through	668	764	+14.4%
	Right-turn	250	274	+9.6%
Southbound	Left-Turn	91	96	+5.5%
	Through	710	797	+12.3%
	Right-turn	89	97	9.0%
Eastbound	Left-Turn	218	262	+20.2%
	Through	289	341	+18.0%
	Right-turn	237	252	+6.3%
Westbound	Left-Turn	350	440	+25.7%
	Through	230	265	+15.2%
	Right-turn	74	102	+37.8%
Total Intersection Volume		3343	3863	+15.6%

The counts were recorded in 15-minute intervals to enable the identification of the peak hour and traffic peaking characteristics and heavy vehicle activity within that hour. Morning and evening count hours lasted from 7:00 to 9:00 AM and from 4:00 to 6:00 PM, respectively each count day. Counts conducted during the mid-week represent the most typical patterns of average commuter traffic.

The weekday morning peak hour generally occurred from 7:15 to 8:15 AM. The evening peak generally occurred between 4:30 and 5:30 PM. Turning movement volumes for each of the study area intersections were reasonably balanced where appropriate. The existing weekday morning and evening peak hour traffic volumes are shown in Figure 2. The percent commercial traffic for each individual movement is shown in Figure 3.



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 2	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
		2015 EXISTING TRAFFIC VOLUMES		DRAWING SHEET
				8



LEGEND
 xxx = AM PEAK VOLUME
 (xxx) = PM PEAK VOLUME

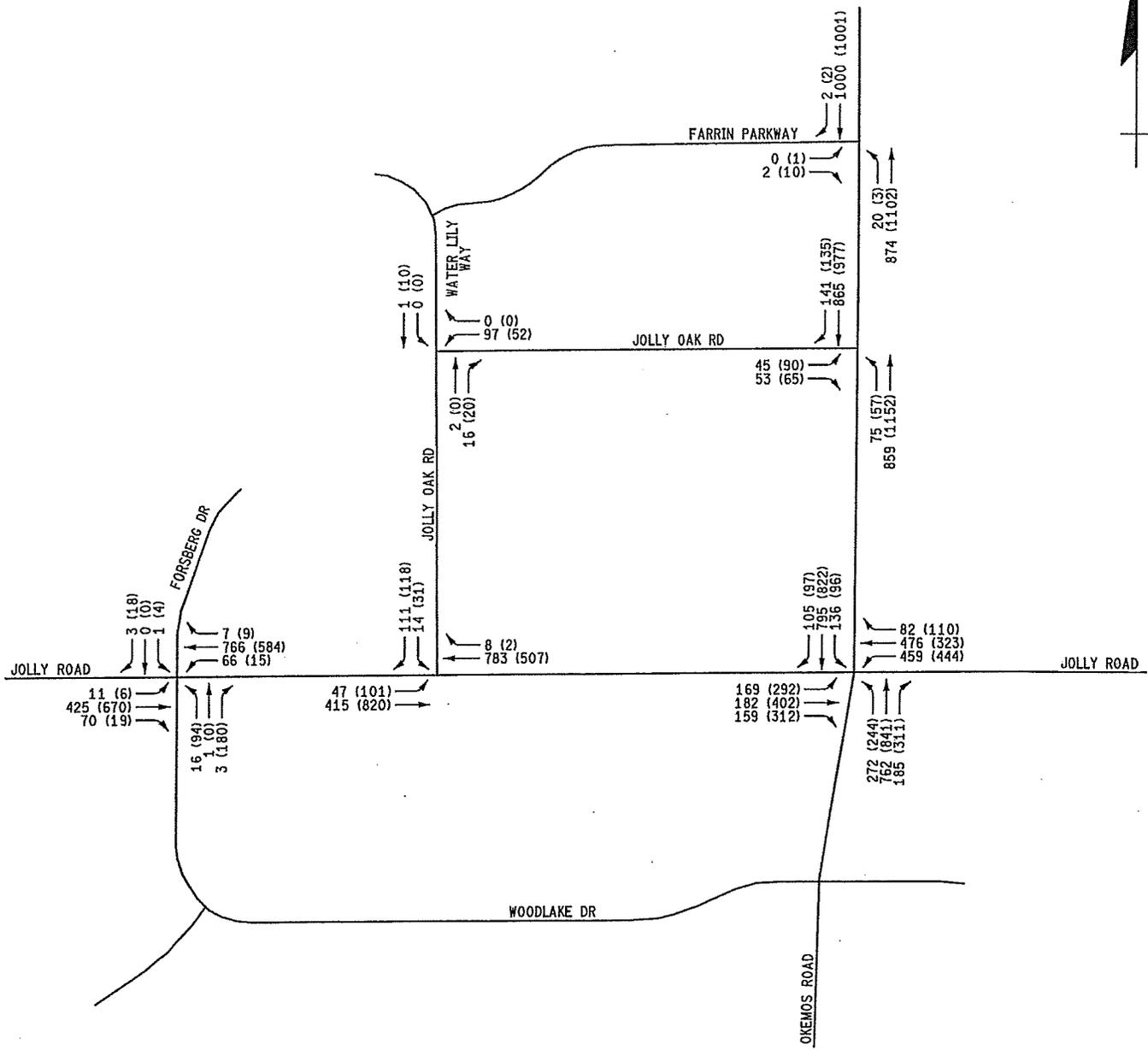
FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15	
		CS:	FIGURE 3		DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY		
			2015 PERCENT TRUCKS BY MOVEMENT		9

B. Background Traffic Volumes

The estimated time of completion (ETC) for this project is 2018 with the total project to be constructed in two phases. The first phase is estimated to be completed in 2016 and the second phase in 2018. Based upon the proposed completion dates, a background growth rate of 0.50% per year (compounded annually) was utilized to develop background traffic volumes. This growth rate is based upon historic traffic volumes and studies in the immediate vicinity of the project area.

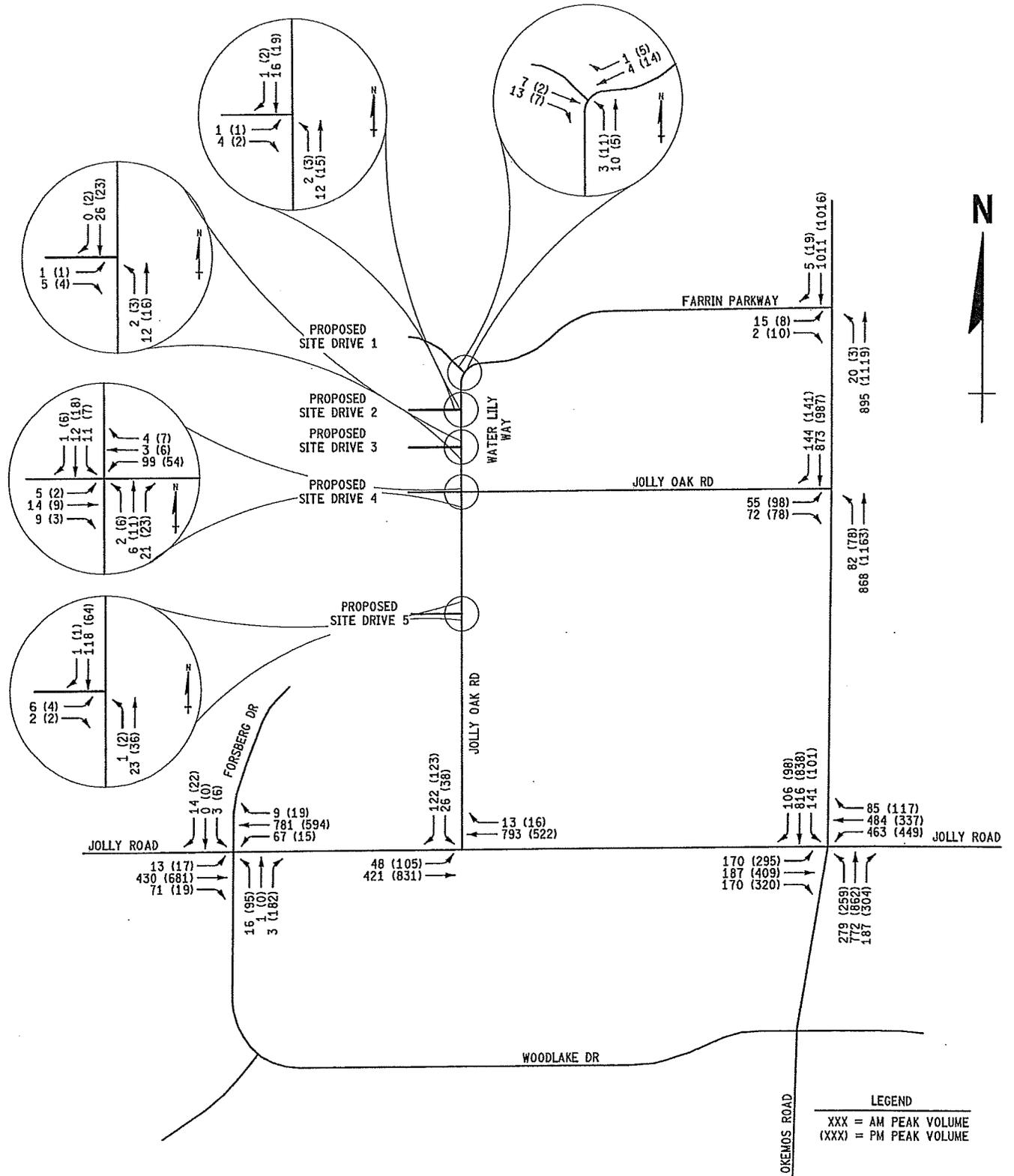
Committed projects in the area that are anticipated to be completed within this study period include an MSU Federal Credit Union (MSUFCU), an All-Suites Hotel, and a Jackson National Life office expansion. Generated trips for each of these projects have been added into the No-Build traffic volumes for Phases 1 and 2 of this project based upon applicable traffic studies.

It is important to note that the anticipated traffic volumes generated by the proposed development for Phase 1 (2016) were also added to the Phase 2 (2018) No-Build traffic volumes to reflect the actual traffic volumes with the Phase 1 construction complete but, prior to the completion of the Phase 2 construction. The resulting No-Build traffic volumes for Phase 1 (2016) and Phase 2 (2018) are shown in Figures 4 and 5.



LEGEND
 XXX = AM PEAK VOLUME
 (XXX) = PM PEAK VOLUME

FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 4	DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY 2016 NO BUILD TRAFFIC VOLUMES	11



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 5	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
		2018 NO-BUILD TRAFFIC VOLUMES		DRAWING SHEET
				12

C. Trip Generation

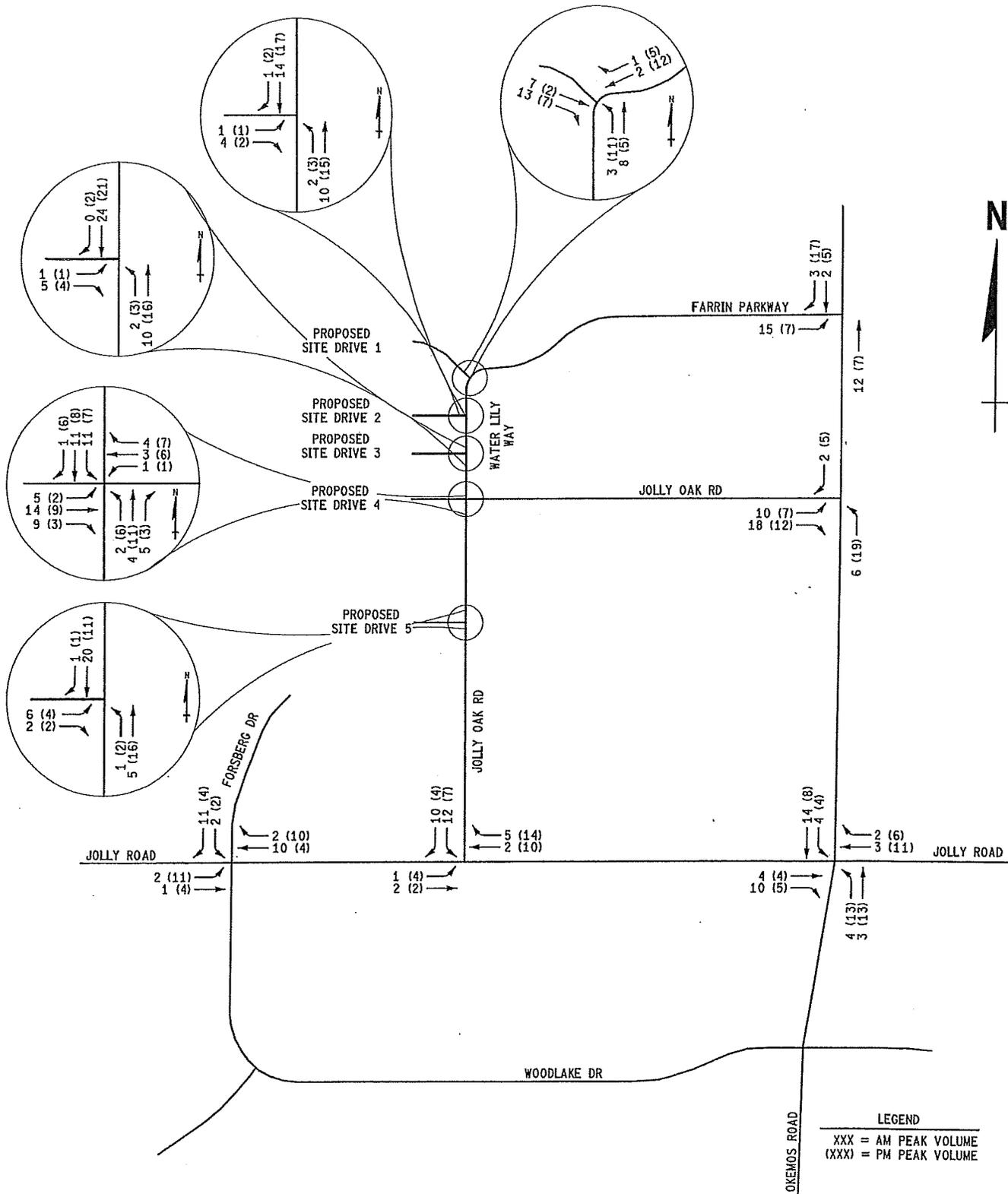
The Institute of Transportation Engineers (ITE) Report, Trip Generation, 9th Edition, was utilized for the trip generation analysis of the proposed development. This report is a compilation of trip data for various land uses as collected by the transportation professionals throughout the United States in order to establish the average number of trips generated by those land uses. It is the intent of this project to construct the total development in two phases. Each phase is proposed to consist of the construction of 191 dwelling units. In order to estimate the maximum amount of generated traffic, it was assumed that each dwelling unit within the development is occupied. The overall trip generation results are summarized in the following table:

Table 4: Generated Trips for Subject Site

Development Information			Generated Trips					
Land Use	ITE Code	Size	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
Phase 1								
Apartment	220	191 Units	20	78	98	80	43	123
Phase 2								
Apartment	220	191 Units	20	78	98	80	43	123

D. Trip Distribution and Assignment

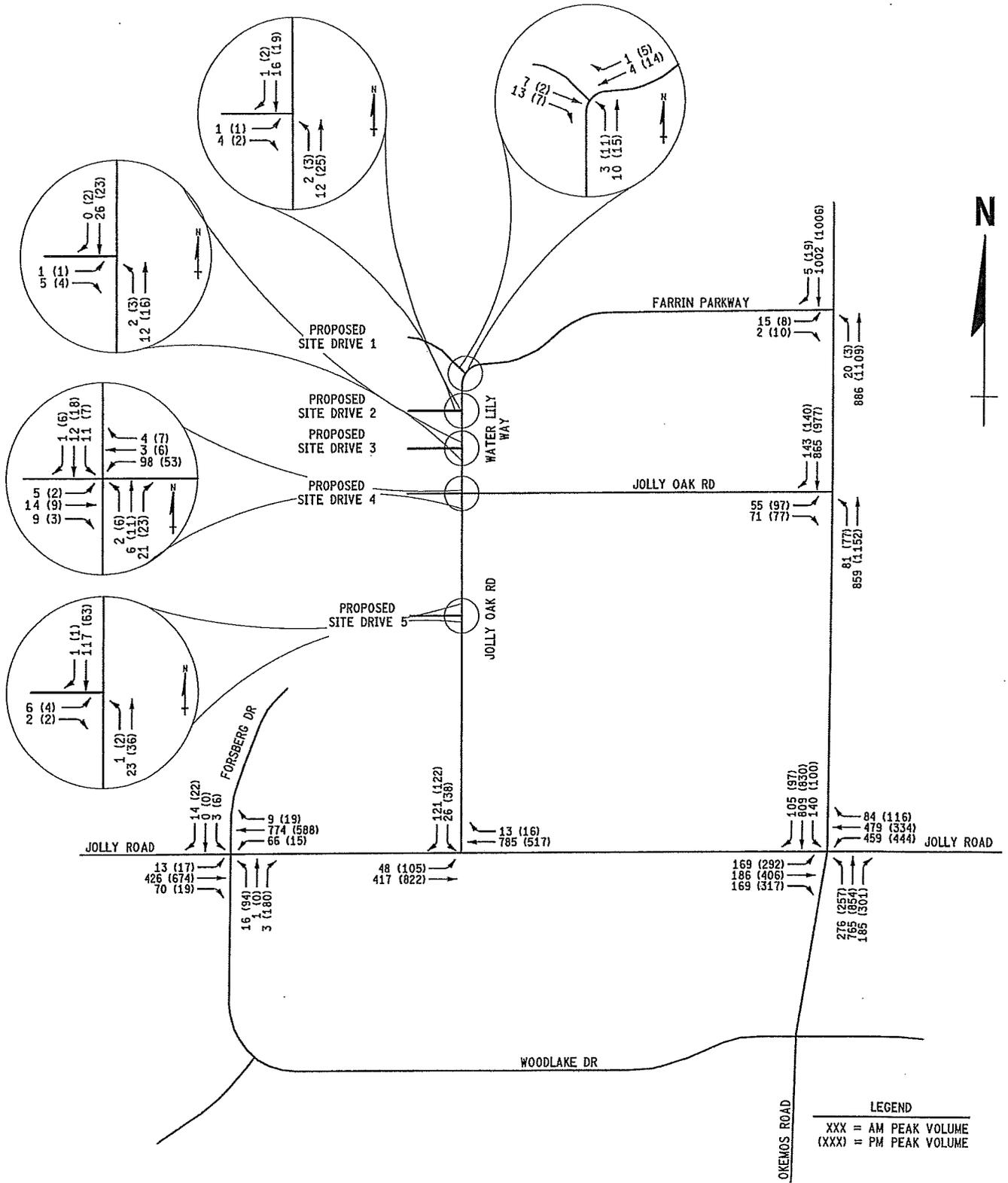
The generated trips, as shown in the table above, were distributed to the surrounding project area intersections based upon the existing traffic movements into and out of the project area. There are six driveways providing inbound and outbound access to the proposed development as shown in Appendix A. Trips were distributed to these driveways based on the intended direction of the vehicles and proximity of the driveways to the population centers of the proposed development. The trip distributions of site generated traffic volumes for the AM and PM peak hours are shown in Figure 6. The volumes in the figure detail the generated trips for a single phase (191 units) of construction. Because both proposed construction phases consist of the same number of apartment dwelling units, the distribution of generated trips in Figure 6 reflect trips generated during both Phase 1 and Phase 2.



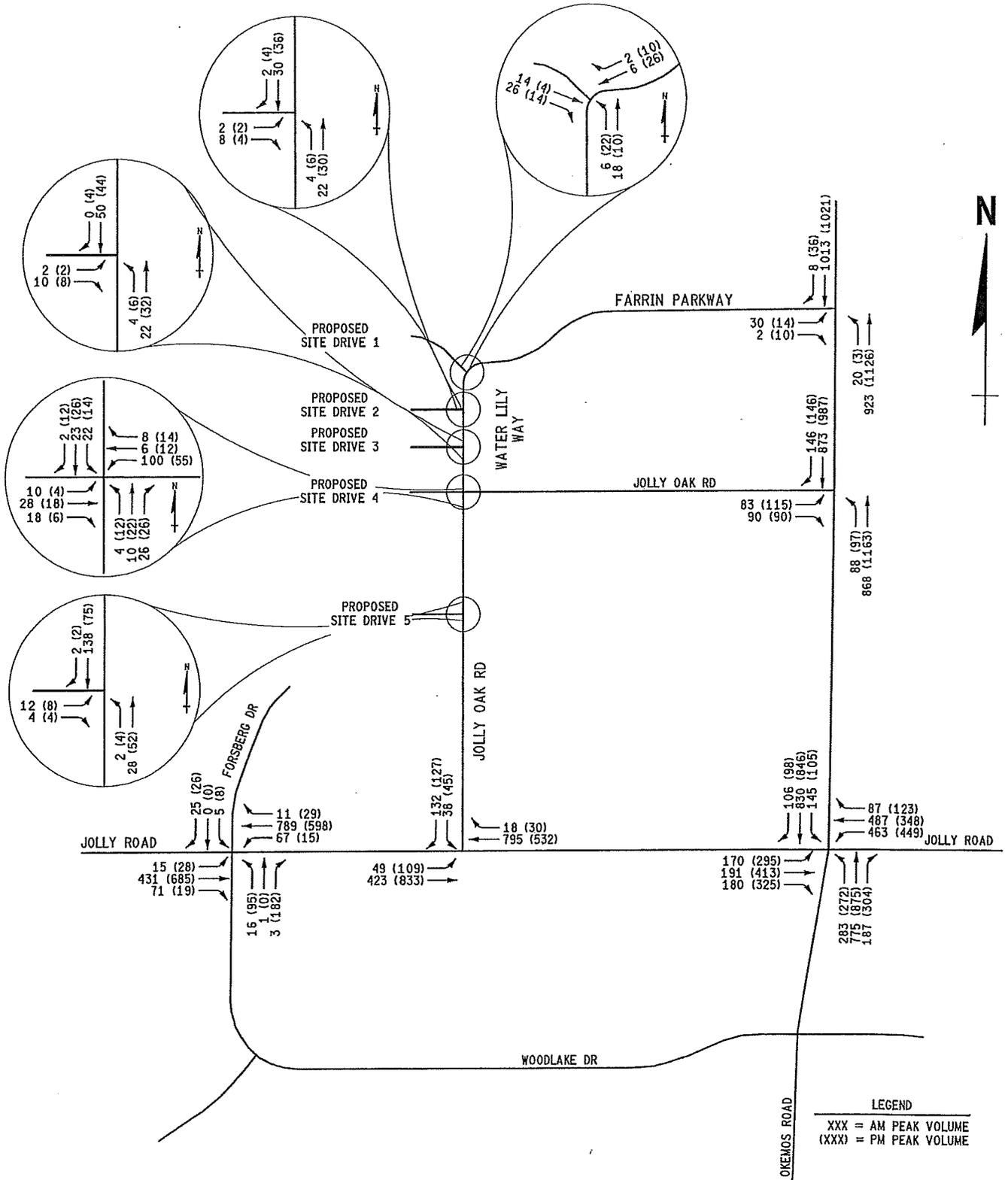
FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 6	DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY PROPOSED DEVELOPMENT TRIP DISTRIBUTION	14

E. Projected Traffic Volumes with Development

The total projected Build traffic volumes for each phase were determined by adding the No-Build traffic volumes (existing & background growth) to the projected development traffic. The projected volumes for the weekday morning and evening peak hours after construction of Phase 1 (2016) and Phase 2 (2018) of the proposed development are provided in Figures 7 and 8.



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 7	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2016 BUILD TRAFFIC VOLUMES	
				16



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 8	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2018 BUILD TRAFFIC VOLUMES	
			DRAWING	SHEET
				17

IV. TRAFFIC OPERATIONS ANALYSIS

Based on the traffic counts, traffic volume projections, traffic peaking characteristics, and intersection geometry, a level of service analysis was conducted for the following traffic conditions:

- Existing (2015)
- Future No-Build Phase 1 (2016)
- Future Build Phase 1 (2016)
- Future No-Build Phase 2 (2018)
- Future Build Phase 2 (2018)

This analysis is necessary to determine the ability of an intersection or roadway to accommodate traffic. Level of service (LOS) is a qualitative measure that describes motorist satisfaction with various factors influencing the degree of traffic congestion. These factors include travel time, speed, maneuverability, and delay.

The level of service analysis methodology for analyzing signalized and unsignalized intersections is documented in the Highway Capacity Manual (HCM) (Transportation Research Board, Washington D.C., 2010). Levels of service range from A to F. LOS A describes operations with little or no delay while LOS F describes highly congested conditions with substantial delays. LOS D or better is generally considered acceptable for peak hours of traffic under urban peak hour conditions similar to the study area intersections.

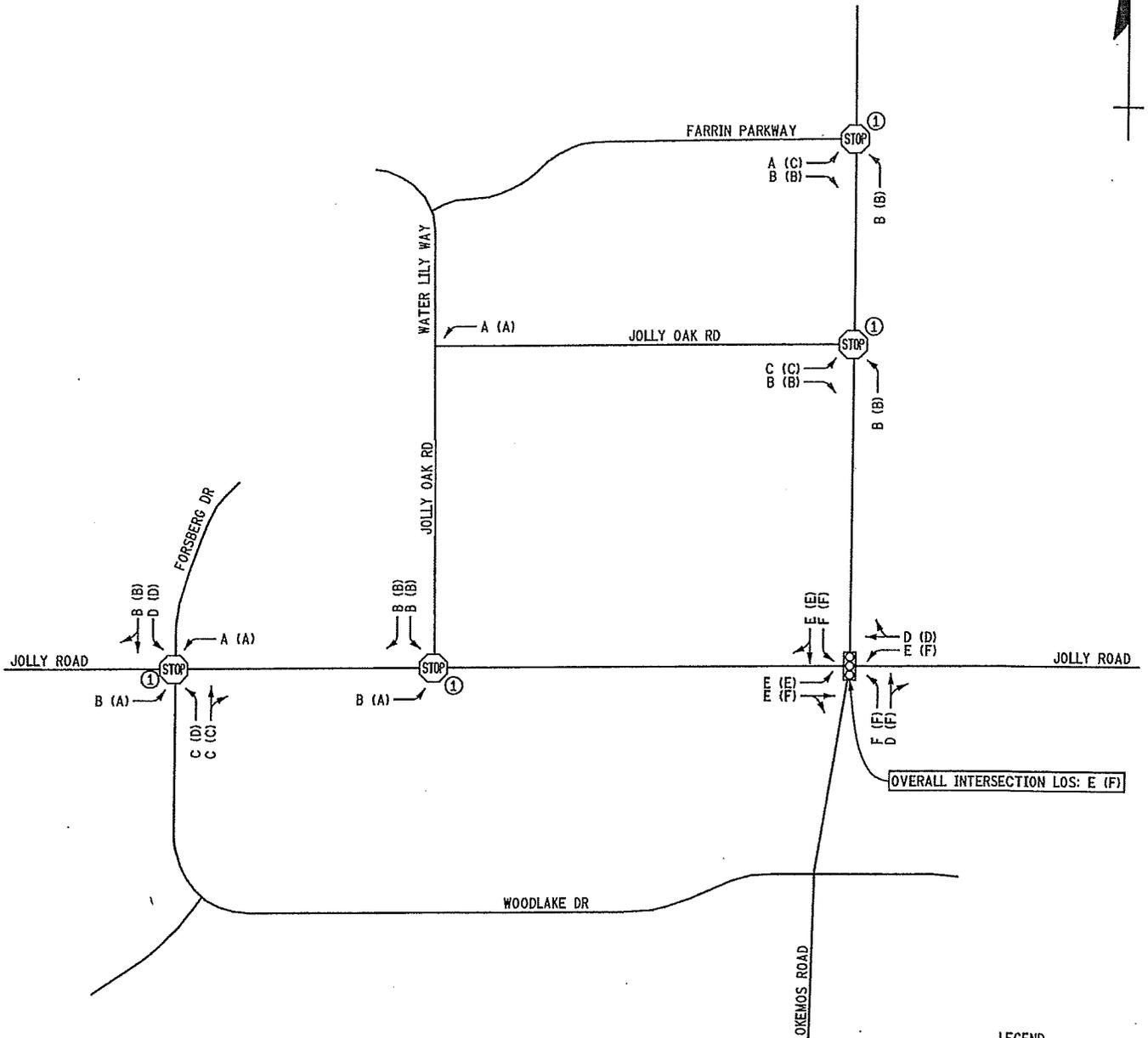
Synchro software was used to analyze the traffic operations at both the signalized and unsignalized intersections. Synchro allows for the analysis and optimization of isolated signals and coordinated traffic signal systems. The Synchro model accounts for the affects upstream intersection operations have on individual intersections when developing Levels of Service. A base model of the traffic operations network was developed for the study area which included signal timing data provided by the MDOT and Ingham County Road Department (ICRD) and existing roadway characteristics.

A. Existing (2015) Conditions

The level of service results for existing AM and PM peak hours are shown in Figure 9. Results are shown for the overall intersection and each lane group at signalized locations. Levels of service for the critical movements are shown at each unsignalized location. Corresponding values of control delay in seconds per vehicle (s/veh) are summarized in tables included in Appendix D. As shown, all of the intersection approaches within the study area are currently operating at acceptable levels of service (LOS D or better) during both the morning and evening peak hours with the exception of the Okemos Road/Jolly Road intersection.

Analysis of the Okemos Road/Jolly Road intersection shows significant capacity constraints within the intersection. In general, the left-turn movements throughout the intersection account for the majority of the intersection delays, however, the shared through/right-turn movements on each bound also experience significant delays with only the northbound and

westbound shared through/right-turn movements currently calculated to operate at acceptable levels of service (LOS D) during the morning peak and only the westbound shared through/right-turn movement calculated to operate at an acceptable LOS during the evening peak. As shown in the following figure, the overall intersection is calculated to operate at LOS E under the morning peak hour and LOS F under evening peak hour conditions. Please refer to *Section V. Okemos Road/Jolly Road intersection Operations* for further information regarding the operations at this intersection.



LEGEND
 XXX = AM PEAK LOS
 (XXX) = PM PEAK LOS
 ① MINOR ROADWAY STOP CONTROL

FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 9	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			EXISTING LEVEL OF SERVICE	
				20

B. Future No-Build (2016) Conditions

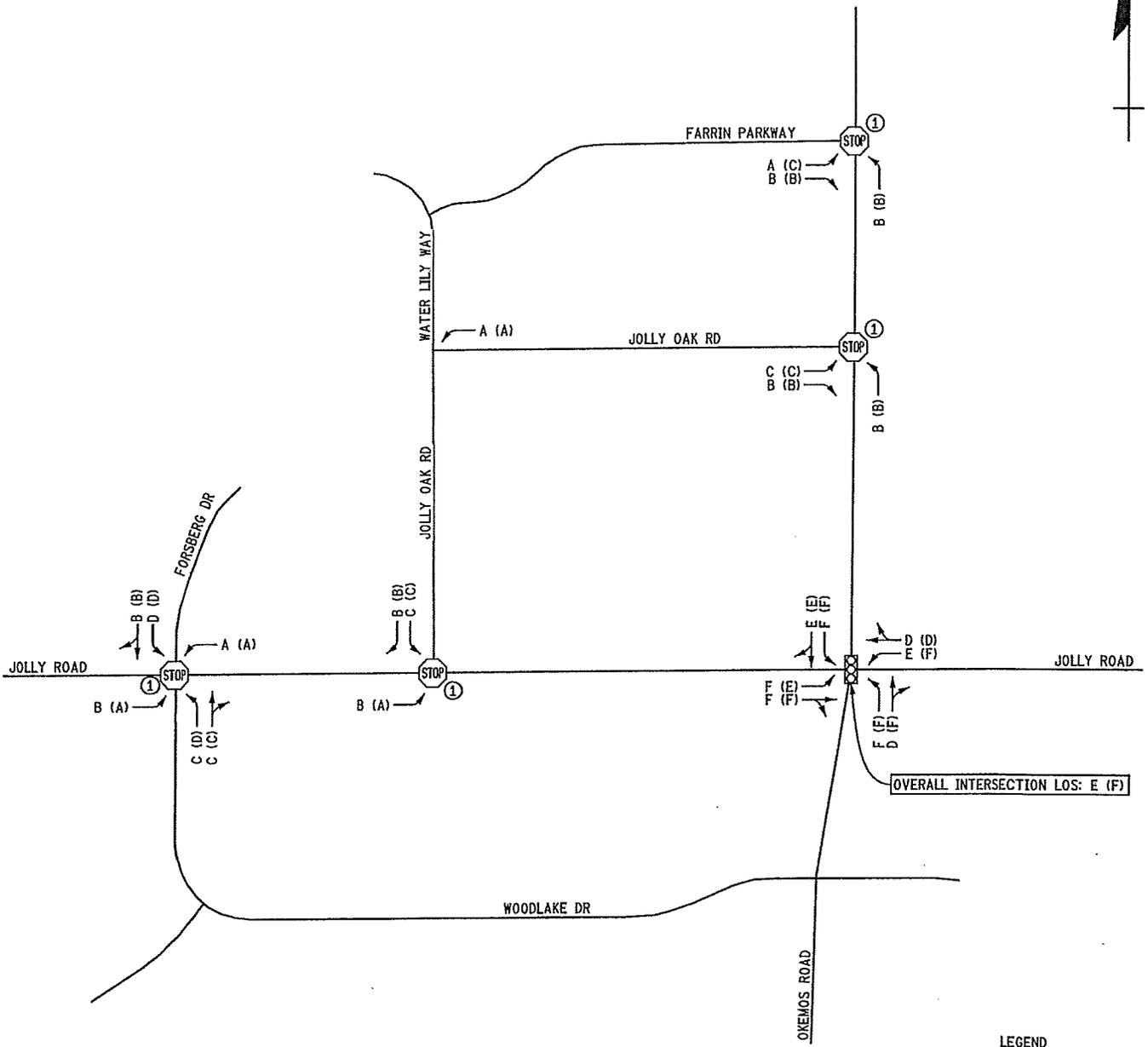
The level of service results for future No-Build (2016) conditions are shown in Figure 10. Results are shown for the overall intersection and each lane group at signalized locations. Levels of service for the critical movements are shown at each unsignalized location. Corresponding values of control delay in seconds per vehicle (s/veh) are summarized in tables included in Appendix D.

As shown, all of the intersection approaches within the study area are projected to continue to operate at the same LOS as existing conditions with the exception of the following movements:

- Jolly Oak Road/Jolly Road intersection
 - Southbound left-turn movement (AM and PM peak)
- Okemos Road/Jolly Road intersection
 - Eastbound left-turn (AM Peak)
 - Eastbound shared through/right-turn (AM Peak)

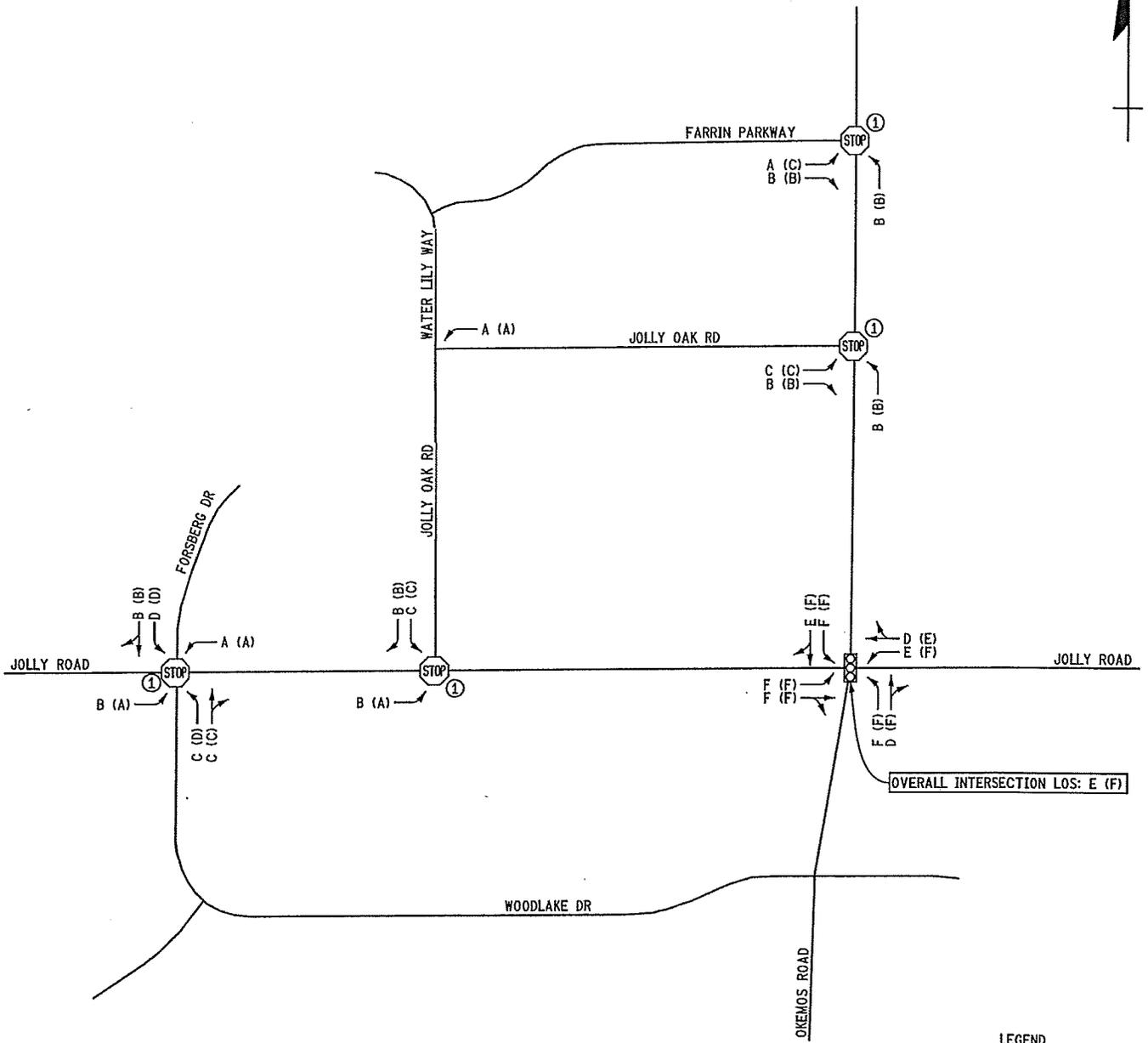
The southbound left-turn movement at the Jolly Oak Road/Jolly Road intersection is projected to continue to operate at an acceptable LOS however, operations are projected to degrade from a LOS B to a LOS C during both the morning and evening peak hours.

The eastbound approach (left-turn and shared through/right-turn lanes) to the Okemos Road/Jolly Road intersection is projected to degrade during the morning peak hour only from LOS E to LOS F under No-Build (2016) conditions. As shown, the overall intersection LOS for the morning and evening peak hours are E (77 seconds delay) and F (140 seconds delay), respectively. Review of the SimTraffic analysis shows that significant queues are expected on the northbound and southbound Okemos Road approaches during the morning peak hour and on the northbound and eastbound approaches during the evening peak hour with the current traffic signal timings in place. Therefore, signal timing adjustments are suggested as a potential mitigation to not only decrease queuing on these approaches, but also decrease the overall delay at this intersection. The current cycle length of 140 seconds was retained for the morning peak hour but was adjusted to 160 seconds for the evening peak hour. As shown in Figure 11, with the signal timings adjusted the eastbound left-turn and westbound shared through/right-turn movements LOS are reduced in the evening peak hour however, the overall intersection delay is reduced from 140 second/vehicle to 117 seconds/vehicle during the evening peak hour. Please refer to *V. Okemos Road/Jolly Road intersection Operations* for further information regarding the operations at this intersection.



LEGEND
 XXX = AM PEAK LOS
 (XXX) = PM PEAK LOS
 ① MINOR ROADWAY STOP CONTROL

FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 10	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2016 NO-BUILD LEVEL OF SERVICE	
				22



LEGEND
 XXX = AM PEAK LOS
 (XXX) = PM PEAK LOS
 ① MINOR ROADWAY STOP CONTROL

FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 11	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2016 NO-BUILD LOS WITH MITIGATION	
				23

C. Future Build (2016) Conditions – Phase 1

The level of service results for future Build (2016) conditions are shown in Figure 12. Results are shown for the overall intersection and each lane group at signalized locations. Levels of service for the critical movements are shown at each unsignalized location. Corresponding values of control delay in seconds per vehicle (s/veh) are summarized in tables included in Appendix D.

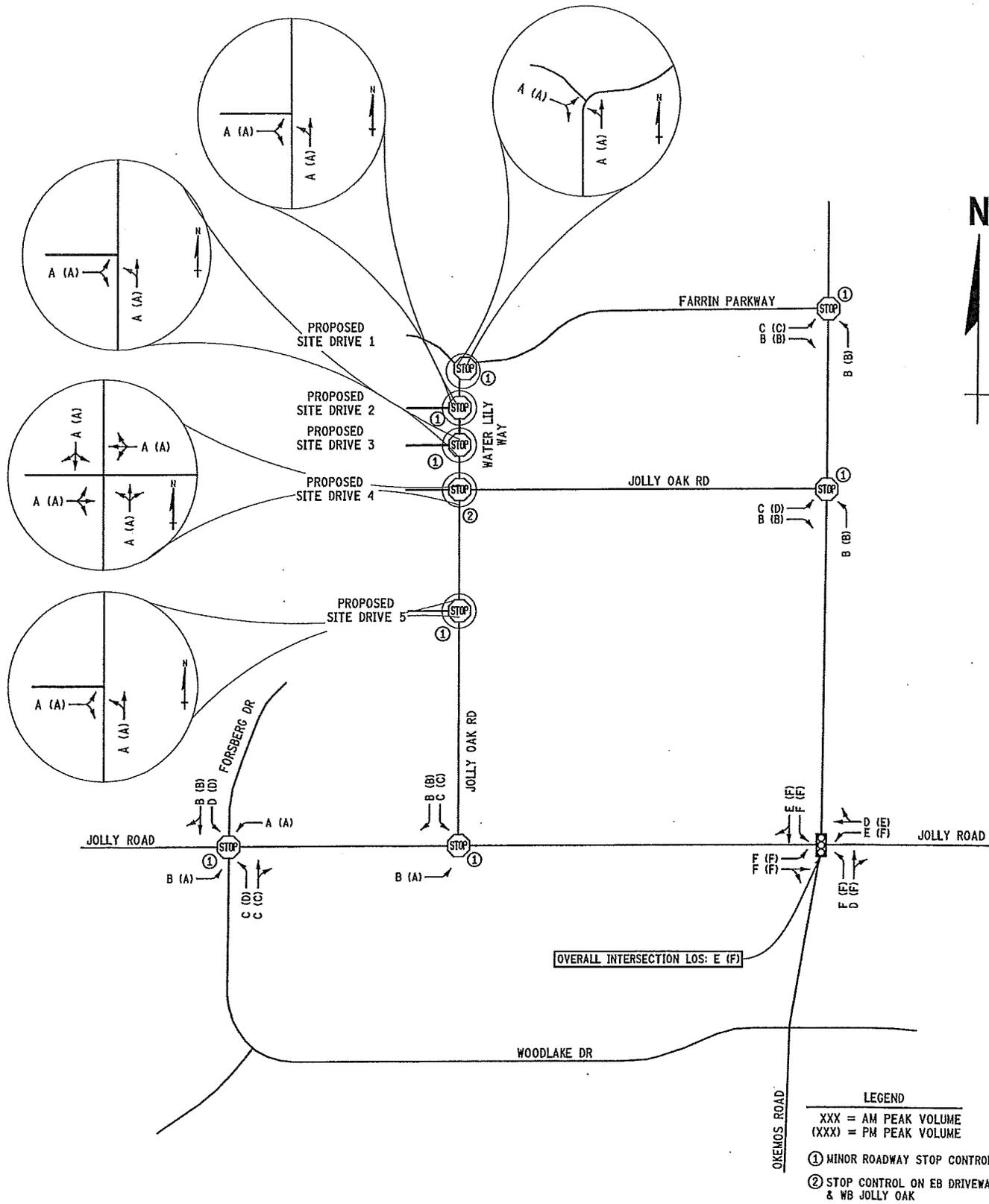
As shown in Figure 12, all of the intersection approaches within the study area are projected to operate at acceptable levels of service (LOS D or better) during the 2016 Build morning and evening peak hours with the exception of the Okemos Road/Jolly Road intersection. As shown, the Okemos Road/Jolly Road intersection remains at an overall intersection LOS E for the morning peak and a LOS F for the evening peak, similar to existing conditions. In addition, the LOS for each individual movement at this intersection is projected to operate at the same LOS as shown for 2016 No-Build conditions. Minor signal timing adjustments will be required at the Jolly Road/Okemos Road intersection within the signal cycle lengths suggested under No-Build (2016) conditions. Please refer to *V. Okemos Road/Jolly Road Intersection Operations* for further information regarding the operations at this intersection.

As noted in Section II.B of this document, the Jolly Oak/Water Lily Way intersection is currently uncontrolled. Due to the proximity of the proposed Site Driveway #4, both the proposed Site Driveway #4 and the Jolly Oak Road approach should be stop sign controlled while the northbound and southbound movements would be free flow. Each bound should consist of a single, shared left/thru/right-turn lane.

As shown in Figure 12, all of the intersection approaches within the study area are projected to continue to operate at the same LOS as No-Build (2016) conditions with the exception of the following movement:

- Okemos Road/Jolly Oak Road
 - Eastbound left-turn (PM peak)
- Okemos Road/Farrin Parkway
 - Eastbound left-turn (AM Peak)

The eastbound left-turn movement at the Okemos Road/Jolly Oak Road intersection is projected to continue to operate at an acceptable LOS however, operations are projected to degrade from a LOS C to a LOS D during the evening peak hour. Utilizing SimTraffic software to analyze the roadway system, it was noted that left turning vehicles queue attempting to turn left thru the heavy Okemos Road traffic while no queues develop at the Okemos Road/Farrin Parkway intersection directly north of this intersection. It is anticipated that as more vehicles utilize these roadways, generated trips will spread evenly between these two intersections, decreasing the queue length experienced on Jolly Oak Road.



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 12	
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2016 BUILD LEVEL OF SERVICE	
				25

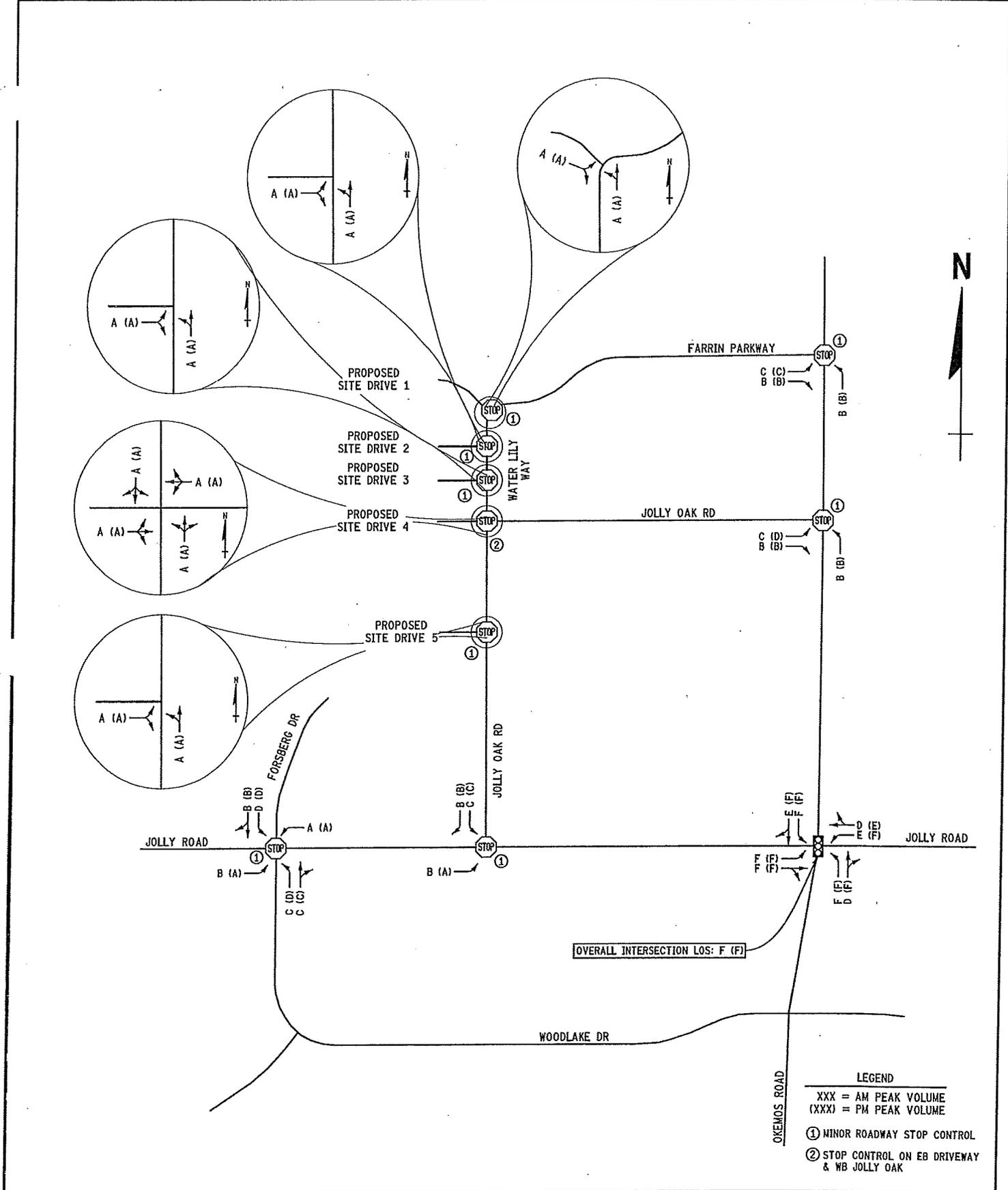
In addition, the eastbound left-turn movement at the Okemos Road/Farrin Parkway intersection is projected to continue to operate at an acceptable LOS however, operations are projected to degrade from a LOS A to a LOS C during the morning peak hour. As shown in Figure 6, the proposed development is projected to add 15 vehicles to this approach during the morning peak hour. Utilizing SimTraffic software to analyze the roadway system, no queuing issues were observed and vehicles were able to enter the traffic stream efficiently. The levels of service for the remaining study area intersection movements remained the same between the 2016 No-Build and Build conditions.

D. Future No-Build (2018) Conditions

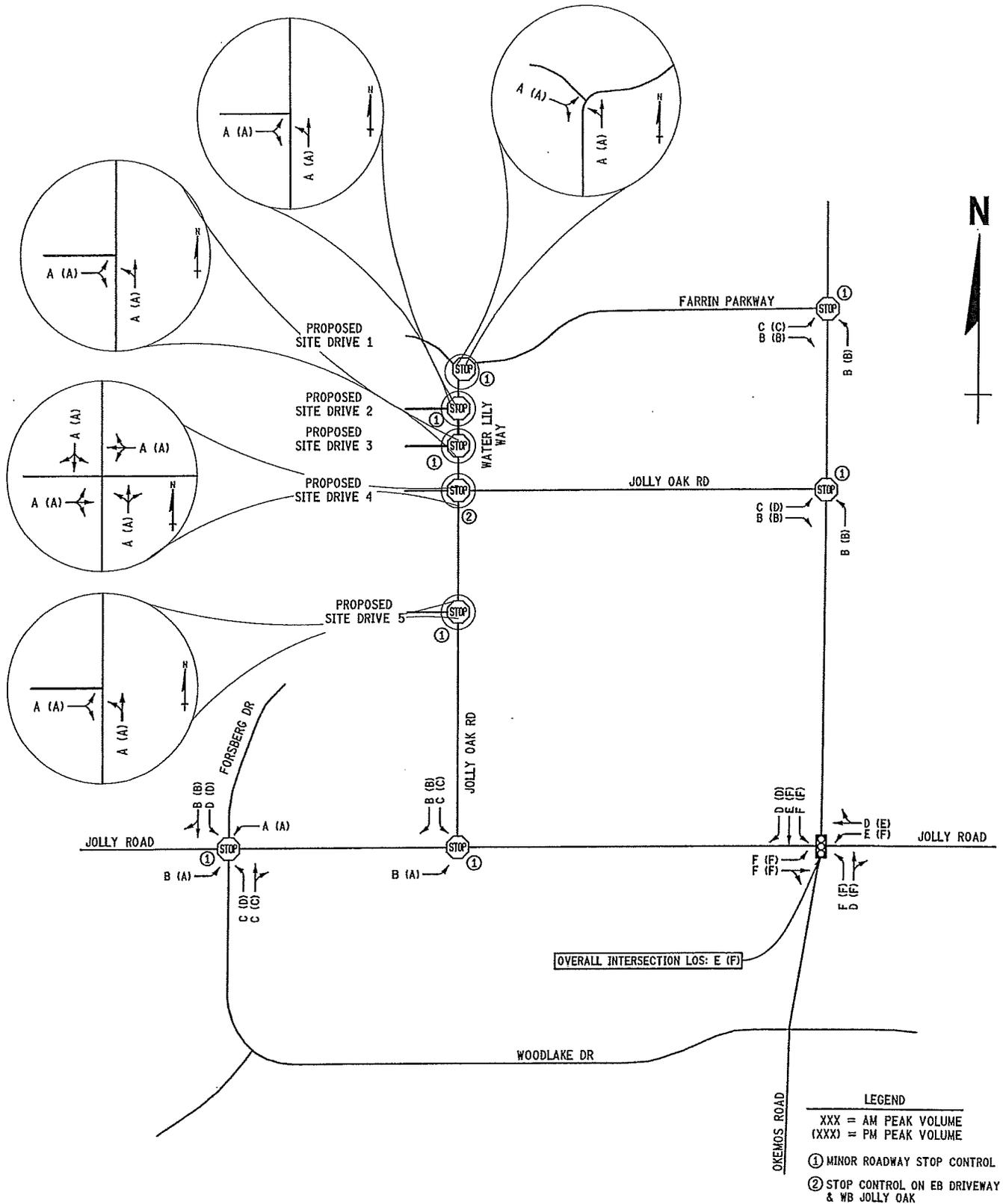
The level of service results for future No-Build (2018) conditions are shown in Figure 13. Results are shown for the overall intersection and each lane group at signalized locations. Levels of service for the critical movements are shown at each unsignalized location. Corresponding values of control delay in seconds per vehicles (s/veh) are summarized in tables included in Appendix D.

Similar to the previous analyses, all of the intersection approaches within the study area are projected to continue to operate at acceptable levels of service (LOS D or better) during the 2018 No-Build morning and evening peak hours with the exception of the Okemos Road/Jolly Road intersection. As shown, although all of the individual movement LOS remain as shown for the 2016 Build conditions, the overall intersection LOS for the morning peak hour is shown to degrade from LOS E to LOS F. Signal timing adjustments are suggested as a potential mitigation to lessen the overall intersection delay at this intersection. In addition, per coordination with the Ingham County Road Department, construction of a southbound right-turn lane at this intersection is anticipated in 2018 and has been included in this analysis.

The proposed cycle lengths from the 2016 No-Build conditions of 140 seconds and 160 seconds were retained for the morning and evening peak hours, respectively. As shown in Figure 14, adjusting the signal timings and adding a southbound right-turn lane modified the overall intersection level of service for the morning peak hour from a LOS F to a LOS E while the evening peak remained at a LOS F. It is important to note that while levels of service did not change to acceptable levels (LOS D or better) the overall intersection delay was reduced from 81 seconds to 77 seconds in the morning peak hour and from 124 seconds to 117 seconds in the evening peak hour. In addition, proposed the right-turn lane is projected to operate with an acceptable LOS D. Please refer to *V. Okemos Road/Jolly Road Intersection Operations* for further information regarding the operations at this intersection.



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 13	DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2018 NO-BUILD LEVEL OF SERVICE	27



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 14	DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2018 NO-BUILD LOS WITH MITIGATION	28

E. Future Build (2018) Conditions – Phase 2

The level of service results for future Build (2018) conditions are shown in Figure 15. Results are shown for the overall intersection and each lane group at signalized locations. Levels of service for the critical movements are shown at each unsignalized location. Corresponding values of control delay in seconds per vehicle (s/veh) are summarized in tables included in Appendix D.

With minor traffic signal timing adjustments within the signal cycle lengths suggested under 2018 No-Build conditions, all of the intersection approaches within the study area are projected to continue to operate at acceptable levels of service (LOS D or better) during the morning and evening peak hours with the exception of the Okemos Road/Jolly Road intersection. As shown, the Okemos Road/Jolly Road intersection remains at an overall intersection LOS E for the morning peak and a LOS F for the evening peak. This analysis assumed that the southbound right-turn lane at the Okemos Road/Jolly Road intersection is in place prior to the addition of traffic generated by the WestPac apartment complex.

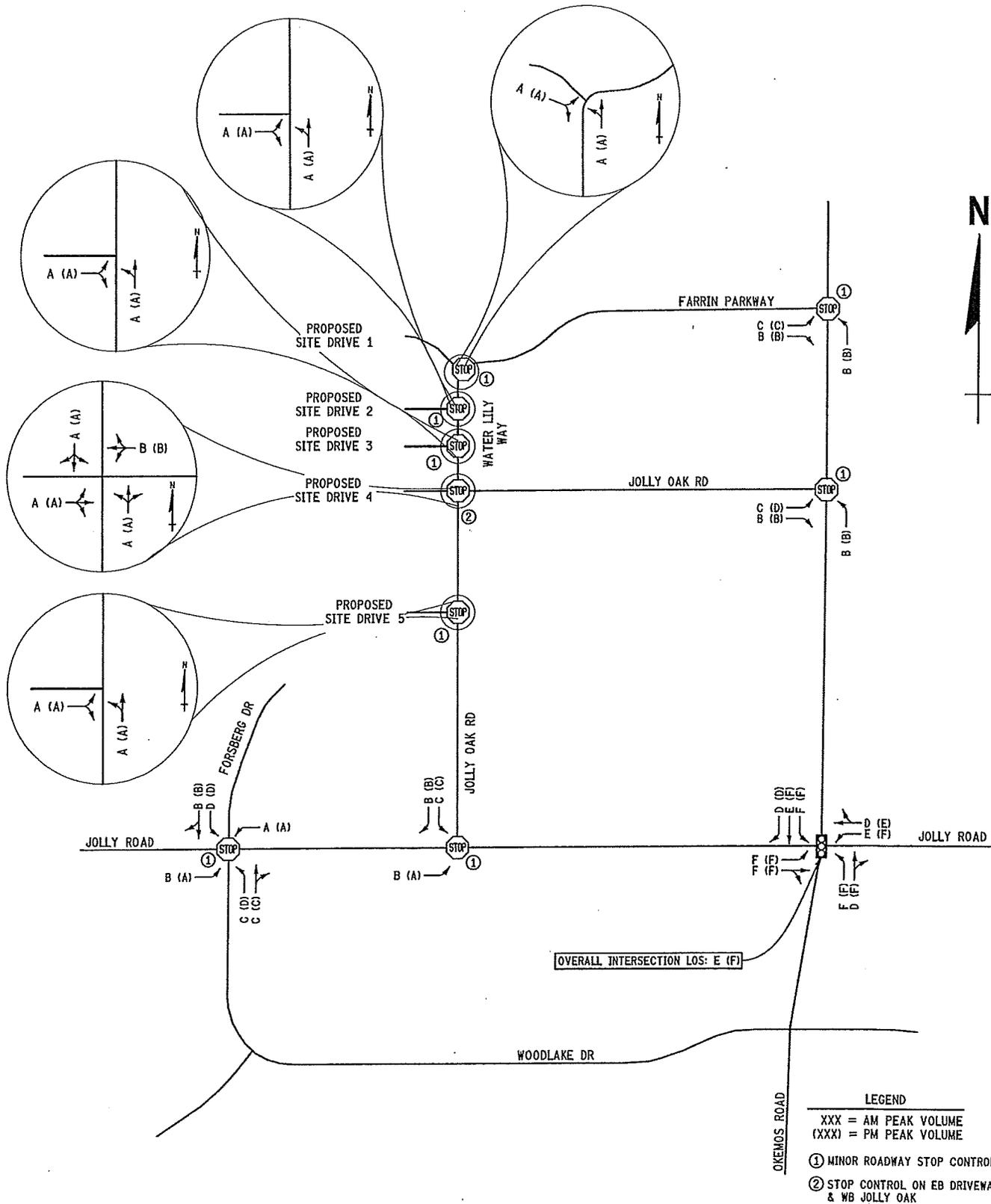
The westbound I-96 entrance/exit ramp terminals are located approximately 1,000 feet south of the Okemos Road/Jolly Road intersection, and queue lengths on northbound Okemos Road were investigated to determine if queues at the intersection would impact the interchange ramp operations. Based upon SimTraffic analysis, 95th percentile queue values on this approach are calculated to be 717 feet for the northbound shared thru/right-turn movement and 557 feet for the northbound left-turn movement. Based upon this analysis, northbound queues are not anticipated to impact operations at the westbound I-96 exit ramp terminal. Please refer to *V. Okemos Road/Jolly Road Intersection Operations* for further information regarding the operations at this intersection.

As discussed previously, both the proposed Site Driveway #4 and the Jolly Oak Road approach to Water Lily Way should be stop sign controlled while the northbound and southbound movements should be free flow with the build conditions due to the proximity of the proposed Site Driveway #4 to the existing Jolly Oak/Water Lily Way intersection. Each bound should consist of a single, shared left/thru/right-turn lane.

Review of the LOS diagrams shows that all of the intersection approaches within the study area are projected to continue to operate at the same LOS as No-Build (2018) conditions with the exception of the following:

- Jolly Oak/Water Lily Way
 - Westbound left/thru/right-turn (AM & PM Peak)

An additional 8 trips (AM peak) and 14 trips (PM peak) were assigned to the westbound left/thru/right-turn movement at the Jolly Oak/Water Lily Way intersection. As shown, this movement is projected to continue to operate at an acceptable LOS however, it is shown to lower from a LOS A to LOS B with a 1 second increase in control delay for the morning peak hour and a less than 1 second increase for the evening peak hour. Based upon the minor control delay increase, this movement is not shown to be significantly impacted by Phase 2 of the proposed development.



FILE:	NO SCALE	DESIGN UNIT:	TSC:	DATE: 04/09/15
		CS:	FIGURE 15	DRAWING SHEET
		JN:	WESTPAC CAMPUS COMMUNITIES TRAFFIC STUDY	
			2018 BUILD LEVEL OF SERVICE	30

It is also important to note that while the LOS for the eastbound left-turn movement at the Jolly Oak Road / Okemos Road intersection is projected to remain at the same level as calculated for the 2016 Build conditions, it was noted in the SimTraffic analysis that, similar to the 2016 Build conditions, the left-turning vehicles queue attempting to turn left thru the heavy Okemos Road traffic while no queues develop at the Okemos Road/Farrin Parkway intersection directly north of this intersection. It is anticipated that as more vehicles utilize these roadways, generated trips will spread evenly between these two intersections, decreasing the queue length experienced on Jolly Oak Road.

F. Proposed Site Driveways Right Turn Lane Warrants

The need for right-turn lane tapers or deceleration lanes at the proposed site driveways (as detailed in Appendix A) were investigated per the Rules, Standards and Procedures for Driveways, Banners and Parades Upon or Over Ingham County Road Commission Right of Way. Based upon the guidelines set forth in this document, the right-turn movements do not meet the warrants for a right-turn lane deceleration lane or taper. Please refer to Appendix F for the warrants for right-turn deceleration lanes or tapers.

V. OKEMOS ROAD/JOLLY ROAD INTERSECTION OPERATIONS

As shown in this report, the existing Okemos Road/Jolly Road intersection is currently operating at an overall intersection LOS E during the morning peak and LOS F during the evening peak, with the majority of the individual lane groups also operating at LOS F. Existing Okemos Road queues have been observed to extend to adjacent intersections on all approaches due to these poor operations but have not been shown to extend thru exit or entrance ramp terminals at the I-96/Okemos Road interchange. Based upon analysis at this intersection, many of the movements have volume to capacity (v/c) ratios calculated near or above 1.00. When the v/c ratio for a movement is greater than 1.00, the movement is operating above capacity, meaning that some vehicles may be required to wait multiple signal cycle lengths before clearing the intersection. When an intersection is operating at or above capacity like the Jolly Road/Okemos Road intersection is, minor variations in traffic flows may disrupt traffic operations through the intersection significantly. As these traffic flow variations occur, the traffic operations of the intersection begin to breakdown. Queues may develop during the red phase which are not serviced during the green phase. This creates longer queues for the following signal cycle. As these queues become greater and greater in length, motorists are forced to wait through multiple signal cycles before clearing the intersection.

Significant improvements would be required at this intersection to improve operations to within acceptable ranges and reduce vehicle queuing regardless of the proposed WestPac Housing Development. Based upon the projected trip distribution shown in Figure 6 of this report, the proposed WestPac development will add less than 2% more traffic to this intersection during both the morning and evening peak hours. Regardless of the additional traffic generated by the proposed development, this intersection will continue to operate at unacceptable levels of service unless mitigations are implemented.

Region-wide improvements may be required to mitigate existing operational deficiencies at this intersection which are beyond the scope of this project. Potential improvements include construction of a new I-96 interchange at Meridian Road or Hagadorn Road. Construction of an interchange at Meridian Road could re-distribute traffic from the Okemos Road corridor to the less densely developed corridors of Meridian Road, Jolly Road (east of Okemos Road), and Grand River Avenue (east of Okemos Road). Construction of an interchange at Hagadorn Road could re-distribute Okemos Road corridor traffic to the less densely developed corridors of Hagadorn Road, Jolly Road (west of Okemos Road), Bennett Road (west of Okemos Road), Mt. Hope Road (west of Okemos Road), and Grand River Avenue (west of Okemos Road). Re-distribution of this traffic will likely not only improve operations of the Okemos Road/Jolly Road intersection but, improve operations throughout the Okemos Road and Jolly Road corridors as a whole.

VI. SUMMARY AND CONCLUSIONS

Based on the projected traffic volumes and all analyses detailed in this report, the following conclusions are formulated:

- The level of service results comparing each of the Phase 1 and 2 Build scenarios with their respective year No-Build scenarios suggest that the proposed development is not expected to create significant operational impacts to the surrounding roadway network.
- The Okemos Road/Jolly Road intersection currently operates at a LOS E & F for the morning and evening peak hours, respectively. Significant improvements which are beyond the scope of this project would be required at this intersection to improve operations to within acceptable ranges prior to construction of the proposed WestPac Housing Development. While minor increases in specific movement delays at this intersection result from the proposed development, these delay increases are exaggerated by the current capacity constraints at this intersection and should not significantly impact the current operations of the intersection.

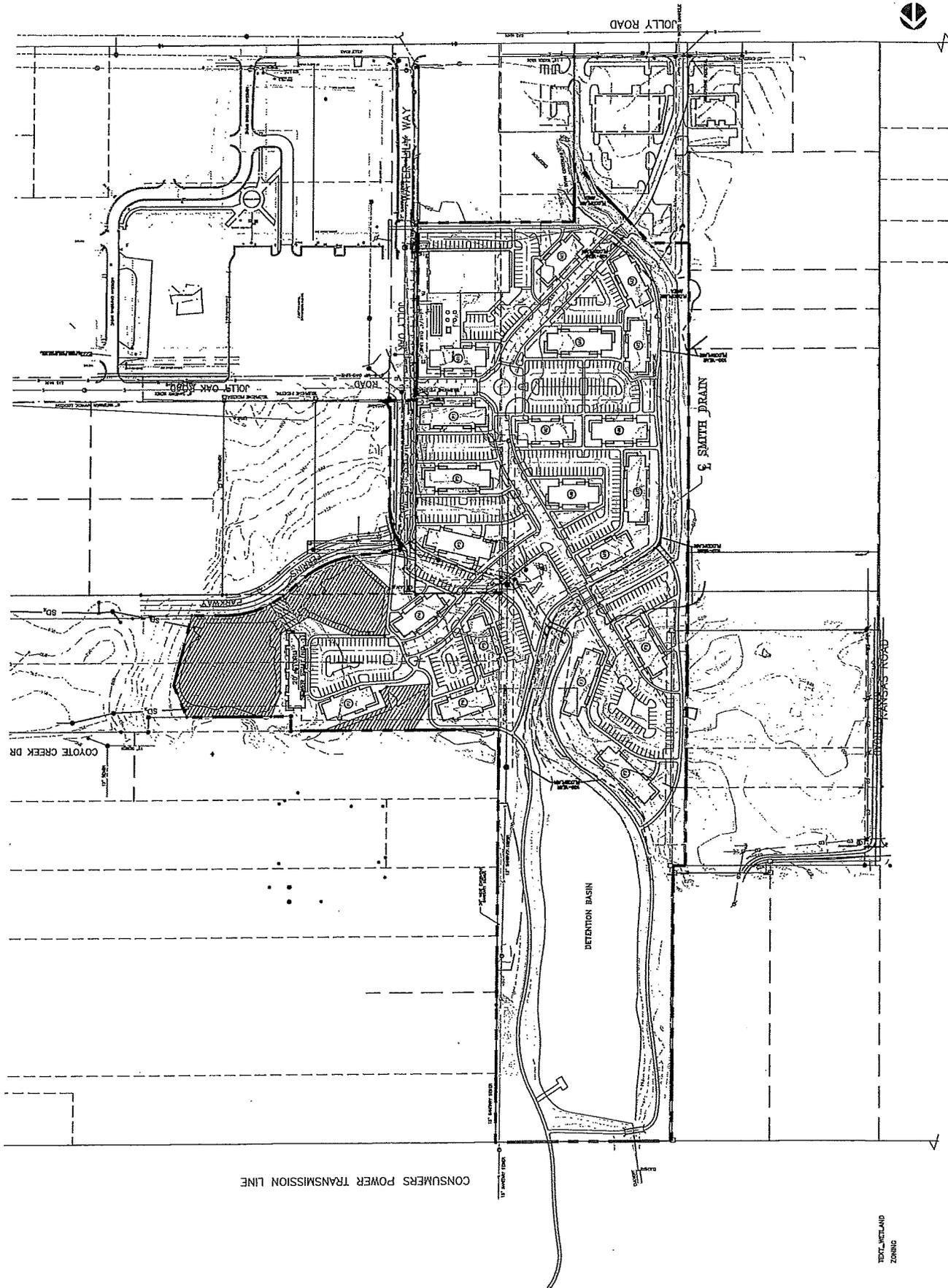
VII. RECOMMENDATIONS

The following recommendations are suggested as a result of this analysis:

- All of the proposed site driveways should be stop sign controlled. The proposed Site Driveways #1 thru #5 should be constructed with one inbound and at least one outbound lane.
- The proposed southern site driveway (existing Forsberg Driveway) should be stop sign controlled; with the proposed development access drive stopping for Jolly Road traffic. The existing laneage for this driveway with one inbound and two outbound lanes should be retained.
- The existing uncontrolled Jolly Oak/Water Lily Way/Farrin Parkway intersection should be stop sign controlled; with the westbound Jolly Oak Road traffic stopping for northbound/southbound traffic.
- Minor traffic signal timing adjustments at the Jolly Road / Okemos Road intersection, including extending the cycle length from 140 seconds to 160 seconds during the evening peak hour should be reviewed.

Appendix A
Proposed Site Plan

OPTION 4
04/01/15
SCALE: 1"=100'-0"
0 50 100 200



CONSUMERS POWER TRANSMISSION LINE

TEXT_AJTLAND
ZONING



MARX
WETLANDS
LLC

NATURAL FEATURES ASSESSMENT

for the

**Okemos Pointe Development
Jolly Oak Road
SW ¼ Section 33, Meridian Township
Ingham County, Michigan**

Prepared for:

**WestPac Campus Communities
505 Bath Street
Santa Barbara, CA 93101**

Prepared by:

Marx Wetlands LLC – Project No. 15010

May 26, 2015

2990 Lake Lansing Rd.
Suite 201
East Lansing, MI 48823
Tel: 517.333.8833
Mobile: 517.898.4187
e-mail
gmarx@marxwetlands.com

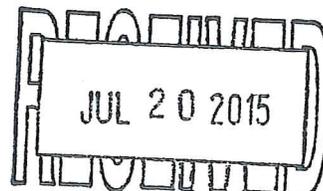


TABLE OF CONTENTS

Table of Contents

1.0 INTRODUCTION3
2.0 SITE LOCATION AND PROJECT DESCRIPTION3
3.0 METHODS4
4.0 RESULTS, FINDINGS, AND DISCUSSION4
4.1 Existing Structures, Materials, and Adjacent Land use.....4
4.2 Topography5
4.3 Vegetation5
4.4 Significant Tree Inventory.....8
4.5 Wetlands8
4.6 Special Flood Hazard Area10
4.7 Floodways11
4.8 Water Bodies11
4.9 Soils11
4.10 Identified Areas of Groundwater Vulnerability12
4.11 Slopes Greater than 20 Percent12
4.12 Wildlife.....13
5.0 CONCLUSIONS AND RECOMMENDATIONS.....14

APPENDICES

APPENDIX 1

- Figure 1: Site Location Map in Appendix 1
- Figure 2: Aerial Imagery Map in Appendix I.
- Figure 3: Presettlement Vegetation/MNFI ca. 1800 map in Appendix I
- Figure 4: Existing Wetland Areas in Appendix I
- Figure 5: National Wetland Inventory Map in Appendix I.
- Figure 6: Flood Insurance Rate Map in Appendix I
- Figure 7 and 7a: NRCS Soils Survey Map in Appendix I
- Figure 8: Identified Areas of Groundwater Vulnerability in Appendix I

APPENDIX 2: Vegetation Lists

APPENDIX 3: Tree Survey List

APPENDIX 4: Photo Log



1.0 INTRODUCTION

Marx Wetlands LLC (Marx) was contracted by WestPac Campus Communities to perform a natural features assessment for an approximately 34 acre parcel in Meridian Township, Ingham County, Michigan.

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

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

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

2.0 SITE LOCATION AND PROJECT DESCRIPTION

The approximately 34-acre subject site (hereafter referred to as the Site) is located along the north side of Jolly Road, west and north of Jolly Oak Road in the southwest $\frac{1}{4}$ of Section 33, Meridian Charter Township, Ingham County, Michigan. Please refer to *Figure 1: Site Location Map* in Appendix 1. WestPac Campus Communities (Developer) is proposing to construct apartments or mixed use units on the Site. The proposed structures and parking facilities on this parcel will be completed in one phase. Prior to site clearing and grading, soil erosion and sediment control measures will be installed and will be inspected and maintained during the construction project. All soil erosion and sedimentation control measures will be removed upon completion of construction and stabilization.



The Site is +/- 34 acres in size and is currently vacant. It is bordered by Jolly Road and Jolly Oak Road and privately owned developed lands. The topography of the Site is gently rolling. The eastern portion of the Site contains several spoil or dirt piles. The Smith Drain traverses the site from south to north and a large inline pond in the drain at the north end of the property. The Site contains field vegetation, forested areas, wetlands, and developed areas. Refer to the *Figure 2: Aerial Imagery Map* in Appendix I.

3.0 METHODS

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

On May 21, 2015 Marx conducted an on-Site assessment. A tree survey was conducted along with Kebs, Inc. The on-Site assessment consisted of a site walkthrough to conduct a current and prior land use evaluation, habitat type determination, habitat quality evaluation, preliminary wetland assessment, wildlife observations, and floodplain or other special concern observations.

The tree survey consisted of identifying the species and dbh (diameter-breast-height) of each tree on the subject site with a dbh of 12 inches or larger, and collecting a GPS location point.

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

4.0 RESULTS, FINDINGS, AND DISCUSSION

4.1 Existing Structures, Materials, and Adjacent Land use

There are three existing structures on the site, all in the south end of the site. They include one office/warehouse facility, an older cinder block office, and a small pole barn/garage. To the west of all three is an unpaved gravel parking and work area. The two larger buildings have adjacent parking areas and utilities.



Much of the land area immediately surrounding the Site is already developed. There is a retail shopping center to the southeast at the corner of Okemos Road and Jolly Road. Just east of the eastern part of the site is a new office building, and north of that is an apartment complex, Coyote Creek. West of the site are individual residential properties located along Kansas Road. Refer to *Figure 2: Aerial Imagery Map* in Appendix I.

Small soil piles that range in height from about three to seven feet are present near the wetlands on the east end of the site. The age of the piles is unclear, though from vegetation growth patterns they do not appear to have been placed recently. The Site contains small amounts of scattered windblown trash.

4.2 Topography

The Site varies in elevation from about 860 feet to 882 feet MSL. Excluding spoil piles, the Site is gently rolling and includes the drain which is 8 - 10 feet in width and a berm north of the buildings approximately six feet in height (refer to *Figure 1: Site Location Map* in Appendix I).

4.3 Vegetation

A vegetation assessment was conducted during the Site survey. Marx found five distinct community types present on the Site. The south part of the Site contains mowed grass and gravel work areas around the buildings (see Appendix 4, Figure 11). There are also un-mowed Field/Scrub areas, which are characterized by herbs, grasses, shrubs, and scattered trees or clusters of trees. There are three Wetland areas on the east part of the site, with emergent, scrub and forested vegetation. There is a mature Forested area along the middle of the west boundary of the site located on a small hill. At the north end of the site is a Pond of approximately 3.6 acres, which was constructed in the drain as detention capacity for stormwater events. The pond includes a wetland area around its periphery of varying widths up to approximately 50 feet from the pond edge. The pond is within a county drain easement which extends 50 feet from the ordinary high water mark of the pond, and includes most of the wetland area.

The species identified in these areas during the field investigation are provided in tables (refer to Appendix II).

The Field/Scrub area (refer to Appendix 4, Figure 12) is dominated by species which are associated with disturbed lands in the Great Lakes



region. These include non-native species, invasive species, native species that are tolerant of human land uses, and native pioneer species that normally colonize land after activities are abandoned. Examples of these species present on the Site include Tartarian honeysuckle and wild carrot (non-native), multiflora rose (invasive), tall goldenrod and wild strawberry (native but tolerant of human land uses), and staghorn sumac (pioneer species recolonizing an abandoned site). The Vegetation ca. 1800 map produced by the Michigan Natural Features Inventory shows the Site to be part of an extensive beech-maple forest that extended many miles southward from the Red Cedar River (refer to Figure 3: Presettlement Vegetation/MNFI ca. 1800 map in Appendix I). Prior to extensive land clearing these shady forests were common on the flatter till plains of mid-Michigan. They often contained a wide variety of tree species, such as sugar maple, red maple, red oak, white oak, American beech, white ash, basswood, tulip tree, walnut, and hop hornbeam. These forests were commonly cleared to enable agricultural production, and it is likely that most of the Site was cleared many decades ago for this purpose. As twentieth century commercial development began to fill in lands in Okemos, the Site was probably eventually left idle due to commercial property expectations and to the infeasibility of continuing agriculture on a small scale. Whether the Site had been used for hay or crops, the cessation of this use would have spurred numerous plant species to colonize (or recolonize) from field edges and the surrounding landscape. The resulting native and non-native plants currently present are adept at this type of recolonization. This recolonization has progressed and the Site has become brushier, with several species of shrub colonizing these areas. Trees have begun to colonize in the field, and the final result is a field with grasses, sedges, herbaceous plants, shrubs, and scattered trees. The Field/Scrub habitat's low native mean Coefficient of Conservatism of 0.1 is an overall indicator that this Site was heavily disturbed in the past.

The Wetland areas are dominated by wetland plants common to relatively disturbed wetlands in mid-Michigan. The assemblage includes both native and non-native species. Examples of the species present in the wetland areas include broadleaf cattail, sandbar willow, common horsetail, reed canary grass (non-native), pussy willow, silky dogwood, strict sedge, buttonbush, sensitive fern and fowl manna grass (refer to Appendix 4, Figures 1-8). These wetlands are typical of those that have developed in depressions in agriculture production areas and have largely been left to develop due to the expense and the advent of wetland regulations in the 1980's. The wetland areas include intermixed emergent and shrub areas, as well as both



immature and more mature forested wetland areas. The larger wetland area to the east includes an immature forest area including trees such as cottonwood, silver maple, American elm and green ash, all among the most common tree species in this area. The more mature forested wetland to the north and west includes larger trees, including all the same species. There are many dead green ash trees standing and fallen in this area, likely due to the emerald ash borer infestation, which now encompasses most of southern Michigan. The north part of the forested wetland area was also characterized by standing water up to 12 inches in depth over up to 50 percent of its area. The Wetland habitat's low native mean Coefficients of Conservatism of 2.0 and 1.4 are an overall indicator that this Site was heavily disturbed in the past.

The Forested area along the west boundary is dominated by native hardwood forest trees, and relatively weedy groundcover plants as well as some more conservative species. This assemblage includes both native and non-native species. Examples of the species present on the Site include sugar maple which strongly dominates the overstory of the woodlot and a smaller number of black cherry. The understory includes native species such as Mayapple, wild geranium, Virginia creeper, pokeweed, and toothwort, as well as non-native species such as garlic mustard and dame's rocket. The canopy is almost continuous, limiting the light, and therefore the vegetation on the forest floor (refer to Appendix 4, Figures 9 & 10).

Again, the Site was apparently once part of an extensive beech-maple forest that extended many miles southward from the Red Cedar River. The changes on this Site over the last two-hundred years have left no remaining true remnant forest, now containing few of the walnut, oak, hickory, and hop hornbeam trees and saplings that occurred in the historic forest. The Forest habitat's low native mean Coefficient of Conservatism of 3.1 is an overall indicator that this site was modified in the past but does retain some native remnant species.

The Pond area includes the 3.6 acre pond surrounded by a fringe wetland and a surrounding field area. The wetland area is dominated by shrub vegetation with an emergent understory and scattered trees (refer to Appendix 4, Figures 13 & 14). The shrubs are dominated by pussy willow and sandbar willow, both native species, and also includes silky dogwood. The emergent vegetation includes species such as cattail, common horsetail, New England aster, giant goldenrod, milkweed, red raspberry, and lake sedge. The trees include black willow, cottonwood and silver maple, all native species. All the



vegetation is common in recently recolonized areas. The pond itself includes submerged aquatic vegetation and floating vegetation such as coontail and white water lily.

The pond was constructed 15 to 20 years ago in line with the Smith Drain (refer to Appendix 4, Figures 15 & 16) and the upland areas around it are routinely maintained with mowers. The pond was constructed as a detention basin to reduce habitat's low native mean Coefficient of Conservatism of 1.5 is an overall indicator that this Site was heavily disturbed in the past.

Development of the Site will require clearing most vegetation that is present. While no formal mitigation for vegetation removal has been planned, traditional landscape grass, shrub, and tree plantings are expected. Existing vegetation, particularly some of the large or remnant trees on the northern or western Site periphery, may be incorporated into the traditional landscaping to the extent possible. The wetland areas will be left intact and will serve as open space in the proposed development.

4.4 Significant Tree Inventory

As part of the vegetation assessment, a tree survey was also conducted. The survey included trees considered "significant" or deserving special protection because of their size, relative rarity, or historical importance. During the inventory, trees with a diameter at breast height (DBH) (the standard measure for tree size) of 12 inches or greater were located on the Site and mapped. The trees were identified to species and their size recorded (Appendix III). Results of the inventory identified 168 significant trees of only 5 species on the parcel. Of the 168 trees, 17 were 30 inches or larger in diameter, the largest being a sugar maple (*Acer saccharum*) with a diameter of 52 inches. Twenty seven of the trees were between 20 and 30 inches and 124 were between 12 and 20 inches DBH. The low number of tree species further reflects the high level of historical disturbance on the site.

4.5 Wetlands

Marx conducted a preliminary review for wetlands while on the Site. In accordance with the *Midwestern Interim Regional Supplement to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual*, wetlands are defined by the presence of three basic parameters: 1) the presence of hydrophytic vegetation (plants adapted to living in saturated soils), 2) hydric soils (distinctive soil types that develop under saturated conditions), and 3) wetland hydrology (the presence



of water at or near the surface for a specific period of time). The above parameters are virtually always inter-related and normally present in wetland systems. Marx's site visit occurred during relatively wet spring conditions. These conditions allowed pockets of water to develop throughout the wetland habitat areas. Marx's inspection of these wet areas found a predominance of hydrophytic vegetation. While the wetland areas were not delineated during this site visit, they had been delineated previously when the onsite roads were constructed, and a comparison of the existing conditions with the wetland map found that there had been no apparent changes in the wetland boundary in the interim. Some of the old wetland flags were still visible and corresponded well with the current wetland boundary.

Four separate wetland areas were found on the site, two of them interconnected by a wet swale and located along Farrin's Way in the east part of the site. These wetlands are a mix of emergent and scrub shrub vegetation and two forested areas. They also include an area of wetland created as mitigation for the original construction of Farrin's Way, located at the northeast end of this complex. The east part of the wetland includes the mixed emergent shrub area and the recently developed forested area. The western part of this wetland is forested with mature trees including species such as silver maple, green ash, cottonwood and American elm. It also includes some emergent vegetation around its periphery where more light is available where not blocked by the canopy. This area includes species such as common horsetail, red raspberry, Virginia creeper, reed canary grass, jewelweed, and sensitive fern. Refer to *Figure 4: Existing Wetland Areas* in Appendix I.

To the northwest of the two connected wetlands is a small part of a mostly offsite wetland that extends for a short distance onto the site. This wetland is forested near the property boundary and becomes an emergent/shrub area toward the southwest. This wetland contains mature trees including many dead and down green ash. It also includes silver maple, cottonwood and American elm, which are found in all the forested wetland areas. The area contained significant areas of standing water up to 12 inches in depth.

The fourth wetland area is the fringe shrub wetland around the periphery of the pond at the north end of the site. As indicated above, this wetland is dominated by various willow species with some silky dogwood, and occasional trees including silver maple, cottonwood, green ash and American elm. In some places the wetland vegetation is limited to a strip less than 10 feet in width and in some places it



expands up to as much as 50 feet wide. The pond itself is vegetated by submerged vegetation such as coontail and floating vegetation including white water lily (refer to *Figure 4: Existing Wetland Areas* and *Figure 5: National Wetland Inventory Map in Appendix I*).

4.6 Special Flood Hazard Area

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

The FIRM for the subject area shows that portions of the Site are included within the 100-year floodplain, which means that these areas are regulated pursuant to the floodplain regulatory statutes (refer to *Figure 6: Flood Insurance Rate Map in Appendix I*). The regulated areas are confined to the Smith Drain corridor and extend only a short distance from its banks. In addition, the majority of the site surrounding the northern pond are included within the 1 percent frequency floodplain, and are therefore included in the regulatory floodplain. In these areas, a permit would have to be obtained to allow construction within the floodplain, and the project designed to the flood proofing standards that would minimize the risk of flood damage. No construction is proposed for the designated floodplain areas except for a bridge proposed to cross the drain to access the buildable area west of the drain.

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



4.7 Floodways

A *floodway* is the portion of the floodplain that is required to carry and discharge flood waters during a flood event. They have more rapidly moving water during flood events. They include river channels, upper banks, and adjacent areas that effectively become part of the water transit process during a flood. The FIRM for Meridian Township shows that there is a floodway area on the subject property. The floodway extends a short distance on either side of the Smith Drain and from the shore of the pond. These areas are designated as floodways indicating their water transit role during flood events. Only the bridge crossing the drain will have any impact upon these floodway areas, and all building development at the Site is outside of the floodway.

4.8 Water Bodies

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

The northern pond is the one open water body on or directly adjacent to the Site. This pond was constructed from an upland area and is less than 5 acres in size. This exempts the pond from regulation pursuant to Part 301 Inland Lakes and Streams of the Natural Resources and Environmental Protection Act, 1995 PA 451. Activities on the Site are not expected to directly impact this water body or any of the wetland areas.

4.9 Soils

The NRCS digital county soils map identifies the soils on the Site. The map identifies ten soil types—Aubbeenaubbee-Capac sandy loams, 0 to 3 percent slopes (3.8% of the site), Colwood-Brookston loams (2.9%), Houghton muck, 0 to 1 percent slopes (2.5%), Marlette fine sandy loam, 6 to 12 percent slopes (4.5 %), Matherton sandy loam, 0 to 3 percent slopes (0.1 %), Metea loamy sand, 2 to 6 percent slopes (2.1%), Owosso-Marlette sandy loams, 2 to 6 percent slopes (7.8.% of the Site), Owosso-Marlette sandy loams 6 to 12 percent slopes(5.4%), Sebewa loam, 0 to 2 percent slopes (59.5% of site), and Spinks loamy sand, 0 to 6 percent slopes (1.5%). Sebewa loam is a poorly drained soil and is found in broad low areas and along drainageways., and



Metea loamy sands are formed from sandy or loamy morainic till (refer to *Figure 7 and 7a: NRCS Soils Survey Map* in Appendix I).

Sebewa loam is a wetland soil and likely formed in wetland conditions in this area before the construction of the Smith Drain drained many of the local wetlands. The drain would have increased the rate of runoff drying out the land for agricultural purposes. The low areas of the site to the east with no hydrologic connection to the drain remain as wetlands.

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

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

4.10 Identified Areas of Groundwater Vulnerability

Areas of groundwater vulnerability are those areas where the hydrologic and geologic surface and subsurface setting makes the groundwater more vulnerable to contamination than in other areas. The 2005 Meridian Township Master Plan groundwater vulnerability map shows areas identified as being vulnerable (refer to *Figure 8: Identified Areas of Groundwater Vulnerability* in Appendix I). This map is based upon the aggregation of four different vulnerability assessments or estimates. The subject Site falls outside of all four designated areas. Therefore all construction activity on the Site will be outside the bounds of Identified Areas of Groundwater Vulnerability. Stormwater on the site will be collected and treated in accordance with local regulations designed to protect water quality and runoff volumes.

4.11 Slopes Greater than 20 Percent

Slopes of greater than 20% are highly susceptible to soil erosion which can lead to sedimentation in other on and off-site areas such as ponds,



streams and lakes. On the Site, slopes steeper than 20% exist only very locally on the sides of dirt spoil piles and drain banks. These "slopes" are not natural features, and they pose little erosion hazard since their maximum hillside length (a controlling factor in erosion) is limited by the heights of no more than seven to ten feet.

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

4.12 Wildlife

Evidence of wildlife presence has been observed throughout the Site in the form of tracks, droppings, and holes, although the amount of animal usage is naturally limited by the size of the Site and the surrounding urbanized context. Evidence of white tailed deer (*Odocoileus virginiana*), eastern cottontail rabbit (*Sylvilagus floridanus*), gray squirrels (*Sciurus carolinensis*), raccoon (*Procyon lotor*), and opossum (*Didelphis virginiana*) were observed. Squirrel evidence was mainly in the forest habitats. Deer usage seemed most concentrated near the pond and wetland areas. One freshly dug animal den which was found may be used by raccoon or woodchuck (*Marmota monax*), though this was not certain. Several muskrat (*Ondatra zibethicus*) runs were observed along the shore of the pond, and one was observed swimming. It is highly likely that the Site also serves as foraging or resting ground for numerous other insects and birds, such as Monarch butterflies (*Danaus plexippus*), honeybees (*Apis mellifera*), robins (*Turdus migratorius*), mourning doves (*Zenaida macroura*), and black capped chickadees (*Poecile atricapillus*). Canada geese (*Branta canadensis*) and mallard (*Anas platyrhynchos*) were observed near the pond and drain.

Overall, the fauna at the Site can be viewed as urban and suburban wildlife. Urban and suburban wildlife species are common across the Midwest. They are mainly generalists species that have wide tolerance in diet and behavioral flexibility. They are very unlike threatened and endangered species, which are almost all specialized and intolerant of numerous human disturbances. Some urban and suburban wildlife species have become so common that they are actually reducing the populations of less common native species (e.g. raccoons that feed on human food waste and garbage are believed to be a factor behind a



widespread decline in turtle numbers). Therefore the decline in certain very abundant wildlife species should not be assumed to bear negative consequences. Wildlife will be displaced to a degree by the proposed development, but even after the development is completed, some of these common urban and suburban wildlife species will continue to use the Site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The proposed Site was reviewed for remnant and existing natural resources and features. The Site contains mowed lawn and working areas, an open Field/Scrub habitat, forested and shrub wetland areas, a mature upland forest and a 3.6 acre pond in line with the Smith Drain, which traverses the site from south to north. The Site includes three existing buildings but is otherwise vacant. The Site contains wetlands, a water body (pond), floodplains, and floodways. The Site is gently rolling, a result of its glacial moraine past. The soils are likely original to the Site, and are largely mineral wetland loamy sands and sandy loams that formed under what was once a large wetland. This Site was once a small portion of that forest which covered thousands of acres, but was cut down and drained to make way for agriculture. Within the last few decades this particular Site has been surrounded by roads and growing commercial development. Wildlife that use the site are common in the urban and suburban landscape and their populations won't be significantly affected by the development of this site. Vegetation on the Site includes native trees, and relatively common native and non-native groundcover species. The loss of vegetation due to development on the Site will occur, though the species lost are very unlikely to include any that are locally rare (i.e. rare county-wide) or state threatened and endangered. There are numerous trees on the Site which are in good condition, including mostly native hardwoods. The remaining natural heritage on this Site appears to be the wetlands and forest areas (although somewhat modified by adjacent land uses) the original topography and soils. The commercialized land use context, vehicle access, and economic valuation might limit some design options, but for this Site the primary likelihood of preserving natural resource values would be associated with incorporating the wetlands and trees or forest areas into the landscape design, and thereby preserving them on the post development landscape.



May 29, 2015

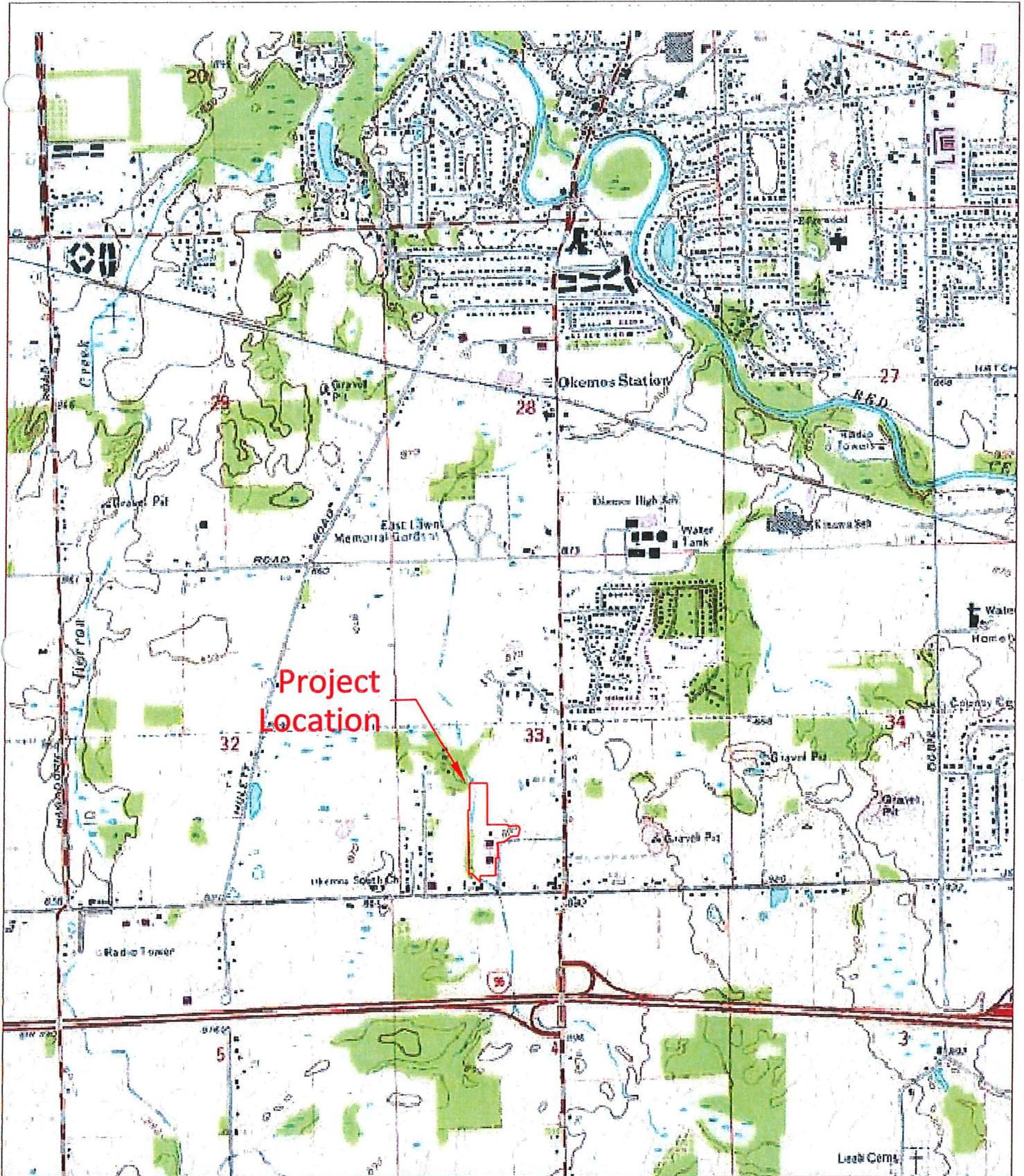
Should you have any questions regarding this or any other matter,
please feel free to contact our office at (248) 447-2000.

Sincerely,



Gary F. Marx
Marx Wetlands LLC





Project Location

Marx Wetlands LLC
 2990 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4197

Natural Resources Inventory For:
Okemos Pointe

 Meridian Township Ingham County, Michigan

MW No. 15010
 May 27, 2015

SHEET NAME
 Topo &
 Site
 Location
 Map
 FIGURE
01




Marx Wetlands LLC
 2900 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4107

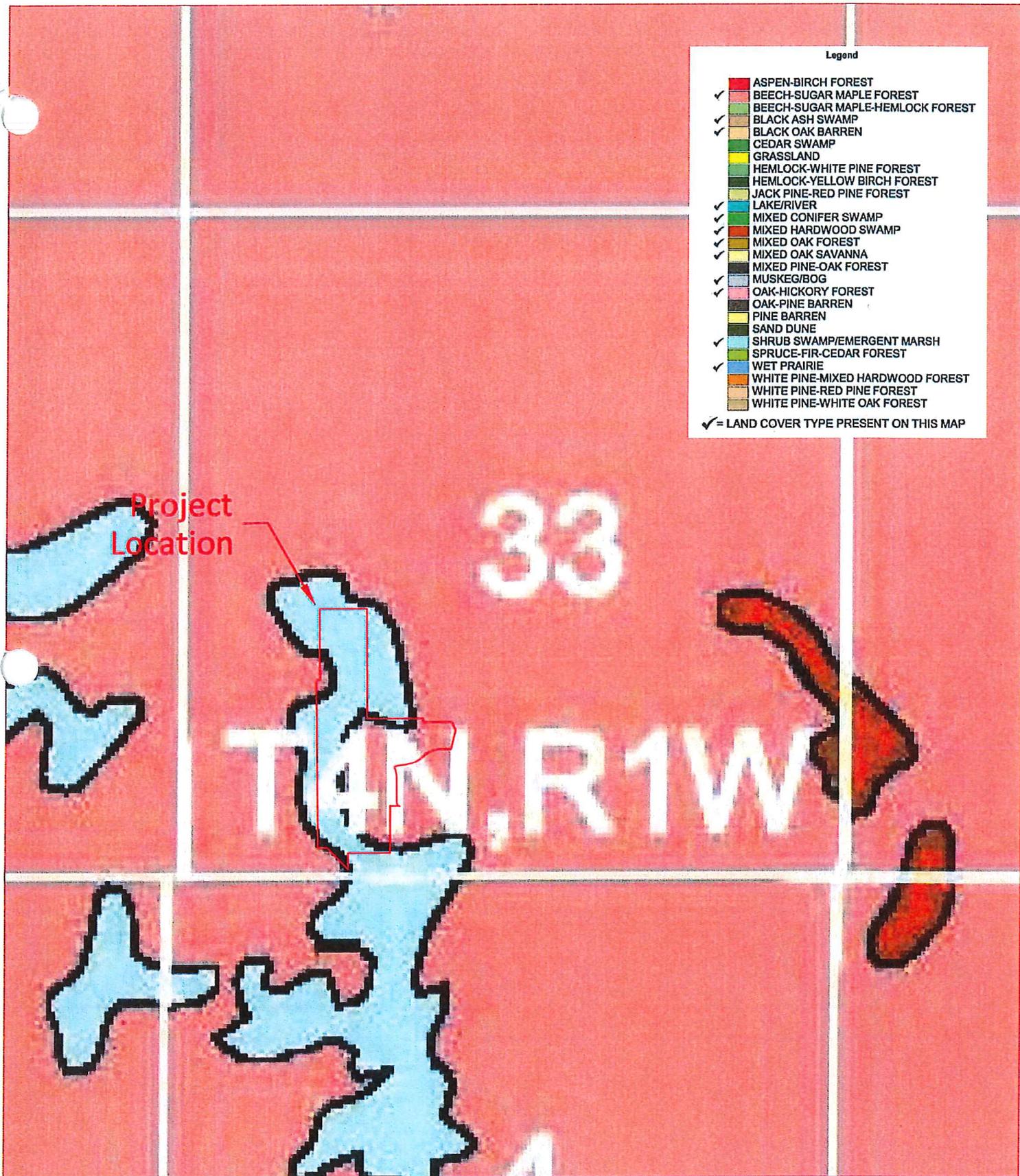
Natural Resources Inventory For:
Okemos Pointe

Meridian Township Ingham County, Michigan

MW No. 15010
 May 27, 2015

SHEET NAME
 Aerial
 Imagery
 Map

FIGURE
02



- Legend
- ✓ ASPEN-BIRCH FOREST
 - ✓ BEECH-SUGAR MAPLE FOREST
 - ✓ BEECH-SUGAR MAPLE-HEMLOCK FOREST
 - ✓ BLACK ASH SWAMP
 - ✓ BLACK OAK BARREN
 - ✓ CEDAR SWAMP
 - GRASSLAND
 - HEMLOCK-WHITE PINE FOREST
 - HEMLOCK-YELLOW BIRCH FOREST
 - JACK PINE-RED PINE FOREST
 - LAKE/RIVER
 - ✓ MIXED CONIFER SWAMP
 - ✓ MIXED HARDWOOD SWAMP
 - ✓ MIXED OAK FOREST
 - ✓ MIXED OAK SAVANNA
 - ✓ MIXED PINE-OAK FOREST
 - ✓ MUSKEG/BOG
 - ✓ OAK-HICKORY FOREST
 - ✓ OAK-PINE BARREN
 - PINE BARREN
 - SAND DUNE
 - ✓ SHRUB SWAMP/EMERGENT MARSH
 - ✓ SPRUCE-FIR-CEDAR FOREST
 - ✓ WET PRAIRIE
 - WHITE PINE-MIXED HARDWOOD FOREST
 - WHITE PINE-RED PINE FOREST
 - WHITE PINE-WHITE OAK FOREST
- ✓ = LAND COVER TYPE PRESENT ON THIS MAP

Project Location

33

T4N, R1W

Marx Wetlands LLC
 2990 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 896-4167

Natural Resources Inventory For:
Okemos Pointe

 Meridian Township Ingham County, Michigan

MW No. 15010

 May 27, 2015

SHEET NAME
 Pre-settlement
 Vegetation
 circa
 1800

 FIGURE
03




Marx Wetlands LLC
 2990 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4187

Natural Resources Inventory For:
Okemos Pointe

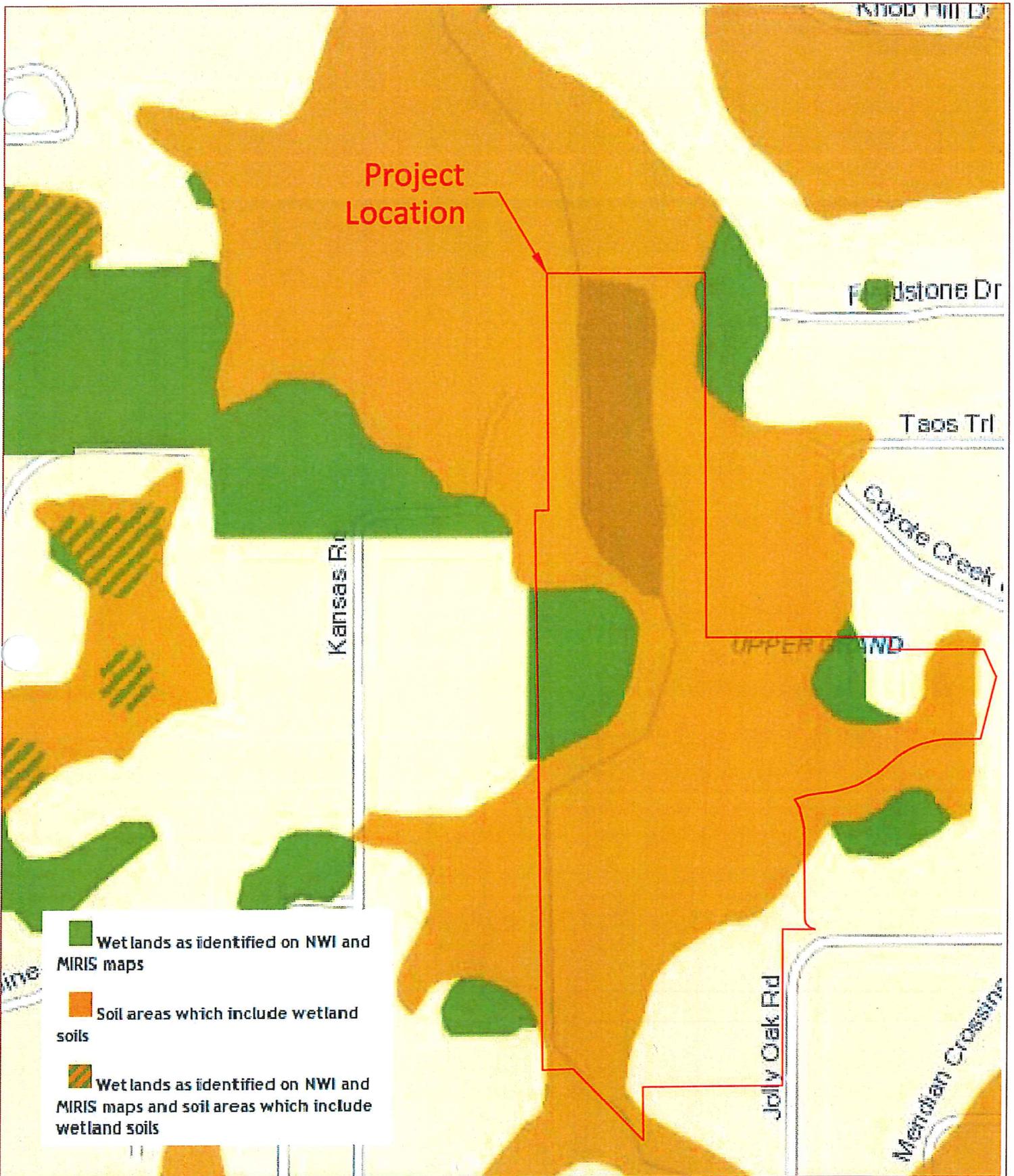
 Meridian Township Ingham County, Michigan

MW No. 15010

 May 27, 2015

SHEET NAME
 Existing
 Wetland
 Areas

 FIGURE
04




Marx Wetlands LLC
 2090 Lake Lenah Rd, Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4187

Natural Resources Inventory For:

Okemos Point

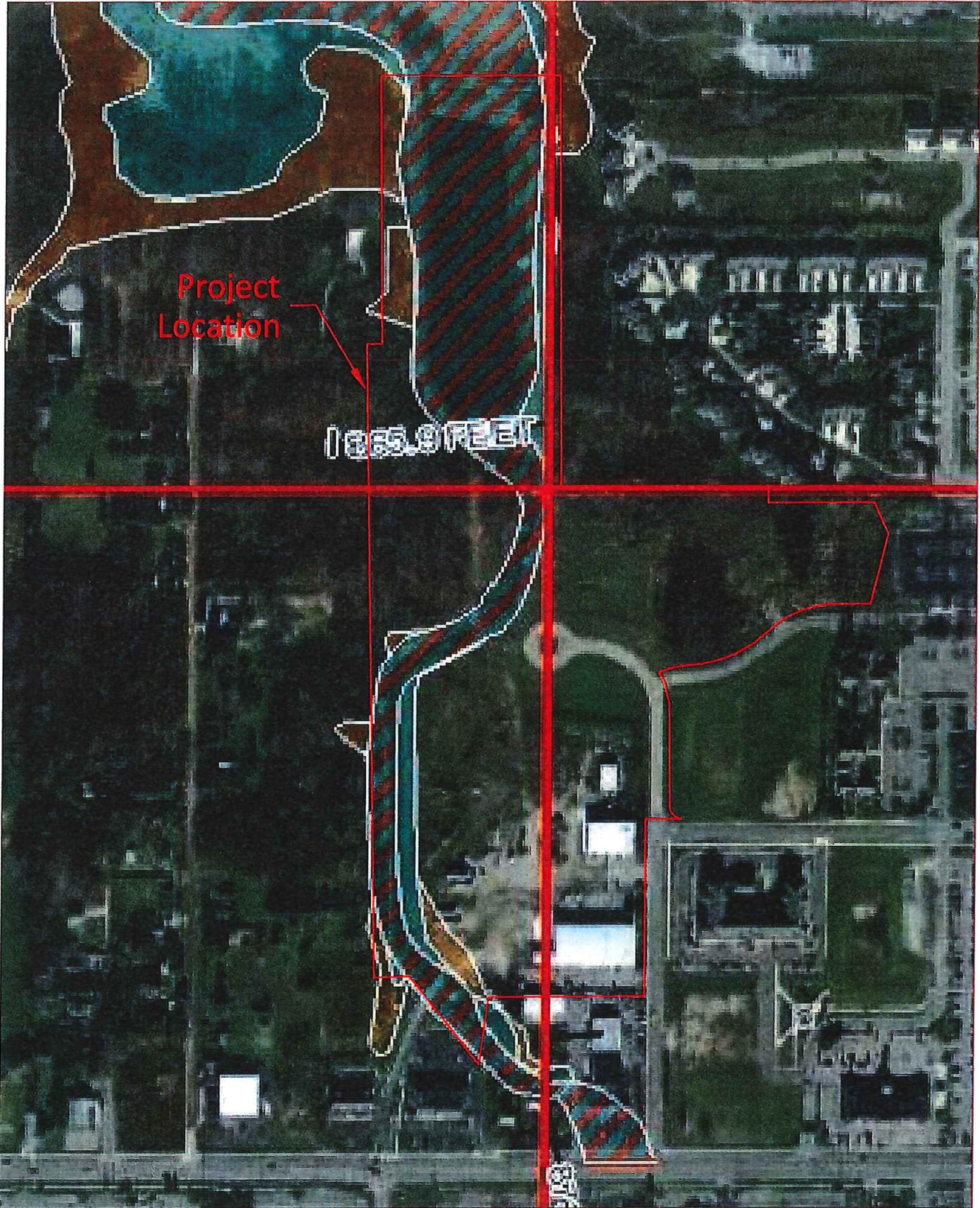
Meridian Township Ingham County, Michigan

MW No. 15010

May 27, 2015

SHEET NAME
National Wetland Inventory Map

FIGURE
05




Marx Wetlands LLC
 2900 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4187

Natural Resources Inventory For:
Okemos Pointe

 Meridian Township Ingham County, Michigan

MW No. 15010

 May 27, 2015

SHEET NAME
 NFIP
 Floodplain
 Map

 FIGURE
06




Marx Wetlands LLC
 2890 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4187

Natural Resources Inventory For:
Okemos Point

 Meridian Township Ingham County, Michigan

MW No. 15010

 May 27, 2015

SHEET NAME
 NRCS
 Soil
 Survey
 Map

 FIGURE
07

Map Unit Legend

Ingham County, Michigan (MI065)			
Map Unit Symbol	Map Unit Name	Acres In AOI	Percent of AOI
AnA	Aubbeenaubbee-Capac sandy loams, 0 to 3 percent slopes	1.3	3.8%
Co	Colwood-Brookston loams	1.0	2.9%
Hn	Houghton muck, 0 to 1 percent slopes	0.9	2.5%
MaC	Marlette fine sandy loam, 6 to 12 percent slopes	1.6	4.5%
MrA	Matherton sandy loam, 0 to 3 percent slopes	0.0	0.1%
MtB	Metea loamy sand, 2 to 6 percent slopes	0.7	2.1%
OwB	Owosso-Marlette sandy loams, 2 to 6 percent slopes	2.7	7.8%
OwC	Owosso-Marlette sandy loams, 6 to 12 percent slopes	1.9	5.4%
Sb	Sebewa loam, 0 to 2 percent slopes	20.8	59.5%
SpB	Spinks loamy sand, 0 to 6 percent slopes	0.5	1.5%
W	Water	3.5	9.9%
Totals for Area of Interest		35.0	100.0%



Marx Wetlands LLC

2990 Lake Lansing Rd., Suite 201
East Lansing, MI 48823
Phone: (517) 898-4187

Natural Resources Inventory For:

Okemos Pointe

Meridian Township

Ingham County, Michigan

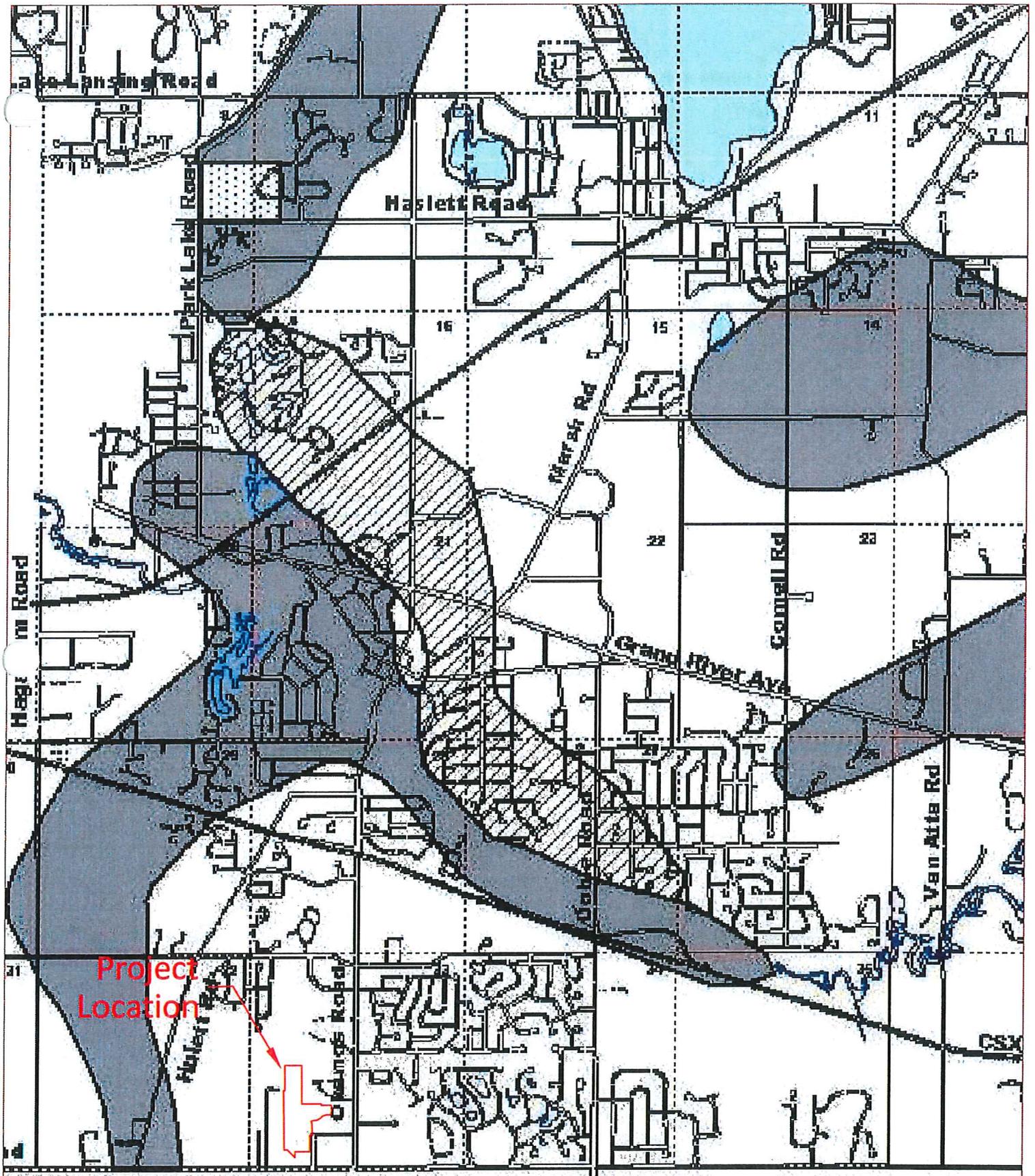
MW No. 15010

May 27, 2015

SHEET NAME
NRCS
Soil
Survey
Legend

FIGURE

7a




Marx Wetlands LLC
 2990 Lake Lansing Rd., Suite 201
 East Lansing, MI 48823
 Phone: (517) 898-4187

Natural Resources Inventory For:
Okemos Pointe

Meridian Township Ingham County, Michigan

MW No. 15010
 May 27, 2015

SHEET NAME
 Township
 Groundwater
 Vulnerability
 Map

FIGURE
08

Appendix 2. Vegetation Lists

Table 1. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), coefficient of conservatism (C), nativity, habit, and occurrence of species identified at the project site. Eastern wetland areas.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Acer saccharinum</i>	Silver Maple	FACW	2	-3	Yes	Tree
<i>Carex stricta</i>	Strict Sedge	OBL	4	-5	Yes	Herb
<i>Cephalanthus occidentalis</i>	Buttonbush	OBL	7	-5	Yes	Shrub
<i>Cornus amomum</i>	Silky Dogwood	FACW	2	-3	Yes	Shrub
<i>Cornus foemina</i>	Gray Dogwood	FACW	1	-3	Yes	Shrub
<i>Equisetum arvense</i>	Common Horsetail	FAC	0	0	Yes	Herb
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW	2	-3	Yes	Tree
<i>Geranium maculatum</i>	Wild Geranium	FACU	4	3	Yes	Herb
<i>Glyceria striata</i>	Fowl Manna Grass	OBL	4	-5	Yes	Herb
<i>Lonicera tartarica</i>	Tartarian Honeysuckle	FACU	0	3	No	Shrub
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	2	-3	Yes	Herb
<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW	0	-3	Yes	Herb
<i>Phragmites australis</i>	Common Reed	FACW	0	-3	Yes	Herb
<i>Populus deltoides</i>	Cottonwood	FAC	1	0	Yes	Tree
<i>Prunus virginiana</i>	Choke Cherry	FAC	2	0	Yes	Shrub
<i>Ribes americanum</i>	Wild Black Currant	FACW	6	-3	Yes	Shrub
<i>Rosa multiflora</i>	Multi Flora Rose	FACU	0	3	No	Shrub
<i>Rubus strigosus</i>	Red Raspberry	FACW	2	-3	Yes	Herb
<i>Salix discolor</i>	Pussy Willow	FACW	1	-3	Yes	Shrub
<i>Salix exigua</i>	Sandbar Willow	OBL	1	-5	Yes	Shrub
<i>Salix fragilis</i>	Crack Willow	FAC	0	0	No	Tree
<i>Solidago gigantea</i>	Giant Goldenrod	FACW	3	-3	Yes	Herb
<i>Typha latifolia</i>	Broadleaf Cattail	OBL	1	-5	Yes	Herb
<i>Vitis riparia</i>	Riverbank Grape	FACW	3	-3	Yes	Vine
			2.00	-2.17		

Table 2. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), coefficient of conservatism (C), nativity, habit, and occurrence of species identified at the Okemos Pointe project, Forested wetland.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Acer negundo</i>	Box Elder	FACW	0	-3	Yes	Tree
<i>Acer saccharinum</i>	Silver Maple	FACW	2	-3	Yes	Tree
<i>Alitaria petiolata</i>	Garlic Mustard	FAC	0	0	No	Herb
<i>Equisetum arvense</i>	Common Horsetail	FAC	0	0	Yes	Herb
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW	2	-3	Yes	Tree
<i>Impatiens capensis</i>	Jewelweed	FACW	2	-3	Yes	Herb
<i>Iris versicolor</i>	Blue Flag Iris	OBL	5	-5	Yes	Herb
<i>Lonicera tartarica</i>	Tartarian Honeysuckle	FACU	0	3	No	Shrub

<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	2	-3	Yes	Herb
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	FAC	5	0	Yes	Vine
<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW	0	-3	Yes	Herb
<i>Phragmites australis</i>	Common Reed	FACW	0	-3	Yes	Herb
<i>Populus deltoides</i>	Cottonwood	FAC	1	0	Yes	Tree
<i>Rubus strigosus</i>	Red Raspberry	FACW	2	-3	Yes	Shrub
<i>Salix fragilis</i>	Crack Willow	FAC	0	1	No	Tree
<i>Toxicodendron radicans</i>	Poison Ivy	FAC	2	0	Yes	Vine
<i>Ulmus americana</i>	American Elm	FACW	1	-3	Yes	Tree
			1.41	-1.65		

Table 3. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), coefficient of conservatism (C), nativity, habit, and occurrence of species identified at the Okemos Pointe project, Forested wetland.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Acer saccharinum</i>	Silver Maple	FACW	2	-3	Yes	Tree
<i>Symphiotrichum novae angliae</i>	New England Aster	FACW	3	-3	Yes	Herb
<i>Carex stipata</i>	Sedge	OBL	1	-5	Yes	Herb
<i>Equisetum arvense</i>	Common Horsetail	FACW	0	0	Yes	Herb
<i>Frangula alnus</i>	Glossy Buckthorn	FAC	0	0	No	Shrub
<i>Iris versicolor</i>	Blue Flag Iris	OBL	5	-5	Yes	Herb
<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW	0	-3	Yes	Herb
<i>Populus deltoides</i>	Cottonwood	FAC	1	0	Yes	Tree
<i>Salix exigua</i>	Sandbar Willow	OBL	1	-5	Yes	Shrub
<i>Solidago gigantea</i>	Giant Goldenrod	FACW	3	-3	Yes	Herb
<i>Typha latifolia</i>	Broadleaf Cattail	OBL	1	-5	Yes	Herb
<i>Ulmus americana</i>	American Elm	FACW	1	-3	Yes	Tree
			1.50	-2.92		

Table 4. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), coefficient of conservatism (C), nativity, habit, and occurrence of species identified at the Okemos Pointe project, Open Field.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Apocynum androsaemifolium</i>	Dogbane	UPL	3	5	Yes	Herb
<i>Asclepias syriaca</i>	Common Milkweed	UPL	1	5	Yes	Herb
<i>Brassica rapa</i>	Field Mustard	UPL	0	5	No	Herb
<i>Carex gracillima</i>	Sedge	FACU	4	3	Yes	Herb
<i>Cirsium arvense</i>	Canada Thistle	FACU	0	3	No	Herb
<i>Cirsium vulgare</i>	Bull Thistle	FACU	0	3	No	Herb
<i>Cornus foemina</i>	Gray Dogwood	FACW	1	-2	Yes	Shrub
<i>Daucus carota</i>	Wild Carrot	UPL	0	5	No	Herb

<i>Dipsacus fullonum</i>	Teasel	UPL	0	5	No	Herb
<i>Equisetum arvense</i>	Common Horsetail	FAC	0	0	Yes	Herb
<i>Erigeron annuus</i>	Fleabane	FAC	0	1	Yes	Herb
<i>Fragaria virginiana</i>	Wild Strawberry	FAC	2	1	Yes	Herb
<i>Hesperus matronalis</i>	Dame's Rocket	UPL	0	5	No	Herb
<i>Lonicera tartarica</i>	Tartarian Honeysuckle	FACU	0	3	No	Shrub
<i>Phalaris arundinacea</i>	Reed Canary Grass	FACW	0	-3	Yes	Herb
<i>Populus deltoides</i>	Cottonwood	FAC	1	0	Yes	Tree
<i>Rhus typhina</i>	Staghorn Sumac	UPL	2	5	Yes	Tree
<i>Rosa multiflora</i>	Multi Flora Rose	FACU	0	3	No	Shrub
<i>Rubus alleghaniensis</i>	Black Raspberry	FACU	1	3	Yes	Shrub
<i>Rubus occidentalis</i>	Blackberry	UPL	1	5	Yes	Shrub
<i>Solidago altissima</i>	Tall Goldenrod	FACU	1	3	Yes	Herb
<i>Solidago gigantea</i>	Giant Goldenrod	FACW	3	-3	Yes	Herb
<i>Taraxicum officinale</i>	Dandelion	FACU	0	3	No	Herb
<i>Vitis riparia</i>	Riverbank Grape	FACW	3	-3	Yes	Vine
			0.96	2.29		

Table 5. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), coefficient of conservatism (C), nativity, habit, and occurrence of species identified at the Okemos Pointe project, Pond and adjacent area.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Acer saccharinum</i>	Silver Maple	FACW	2	-3	Yes	Tree
<i>Arctium lapa</i>	Burdock	UPL	0	5	No	Herb
<i>Asclepias syriaca</i>	Common Milkweed	UPL	1	0	Yes	Herb
<i>Symphiotrichum novae angliae</i>	New England Aster	FACW	3	-3	Yes	Herb
<i>Brassica rapa</i>	Field Mustard	UPL	0	5	No	Herb
<i>Carex lacustris</i>	Lake Sedge	OBL	6	-5	Yes	Herb
<i>Cirsium arvense</i>	Canada Thistle	FACU	0	3	No	Herb
<i>Cornus amomum</i>	Silky Dogwood	FACW	2	-3	Yes	Shrub
<i>Daucus carota</i>	Wild Carrot	UPL	0	5	No	Herb
<i>Dipsacus fullonum</i>	Teasel	UPL	0	5	No	Herb
<i>Equisetum arvense</i>	Common Horsetail	FAC	0	0	Yes	Herb
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW	2	-3	Yes	Tree
<i>Hesperus matronalis</i>	Dame's Rocket	UPL	0	5	No	Herb
<i>Lathyrus odoratus</i>	Sweet Pea	UPL	0	5	No	Herb
<i>Lonicera tartarica</i>	Tartarian Honeysuckle	FACU	0	3	No	Shrub
<i>Nymphaea odorata</i>	White Water Lily	OBL	6	-5	Yes	Herb
<i>Phragmites australis</i>	Common Reed	FACW	0	-3	Yes	Herb
<i>Populus deltoides</i>	Cottonwood	FAC	1	0	Yes	Tree
<i>Rhus typhina</i>	Staghorn Sumac	UPL	2	5	Yes	Vine
<i>Rubus strigosus</i>	Red Raspberry	FACW	2	-3	Yes	Shrub
<i>Salix discolor</i>	Pussy Willow	FACW	1	-3	Yes	Shrub

<i>Salix eriocephala</i>	River Willow	FACW	2	-3	Yes	Shrub
<i>Salix exigua</i>	Sandbar Willow	OBL	1	-5	Yes	Shrub
<i>Salix nigra</i>	Black Willow	OBL	5	-5	Yes	Tree
<i>Solidago altissima</i>	Tall Goldenrod	FACU	1	3	Yes	Herb
<i>Solidago gigantea</i>	Giant Goldenrod	FACW	3	-3	Yes	Herb
<i>Typha latifolia</i>	Broadleaf Cattail	OBL	1	-5	Yes	Herb
<i>Ulmus americana</i>	American Elm	FACW	1	-3	Yes	Tree
			1.50	-0.39		

Table 6. Species list including scientific and common name, wetness indicator code (WET), wetness co-efficient (W), nativity, habit, and occurrence of species identified at the Okemos Pointe project, West Woods.

<u>Scientific Name</u>	<u>Common Name</u>	<u>WET</u>	<u>C</u>	<u>W</u>	<u>Native</u>	<u>Habit</u>
<i>Acer saccharinum</i>	Silver Maple	FACW	2	-3	Yes	Tree
<i>Acer saccharum</i>	Sugar Maple	FACU	5	3	Yes	Tree
<i>Alliaria petiolata</i>	Garlic Mustard	FAC	0	0	No	Herb
<i>Dentaria laciniata</i>	Toothwort	FACU	5	3	Yes	Herb
<i>Carex gracillima</i>	Sedge	FACU	4	3	Yes	Herb
<i>Circaea lutetiana</i>	Enchanter's Nightshade	FACU	2	3	Yes	Herb
<i>Geranium maculatum</i>	Wild Geranium	FACU	4	3	Yes	Herb
<i>Hesperus matronalis</i>	Dame's Rocket	UPL	0	5	No	Herb
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	FAC	5	1	Yes	Vine
<i>Phytolacca americana</i>	Pokeweed	FAC	2	1	Yes	Herb
<i>Podophyllum peltatum</i>	Mayapple	FACU	3	3	Yes	Herb
<i>Prunus serotina</i>	Black Cherry	FACU	2	3	Yes	Tree
<i>Thalictrum dioicum</i>	Meadow Rue	FACU	6	2	Yes	Herb
			3.08	2.08		

Appendix 3 Tree Survey List

Tree Survey Data for Okemos Pointe, Meridian Twp., Ingham County Sorted by Species and DBH

<u>Tree No.</u>	<u>Tree Identification</u> <u>Common Name</u>	<u>Scientific Name</u>	<u>Size</u> <u>(DBH)</u>		
1	Silver Maple	<i>Acer saccharinum</i>	12		
2	Silver Maple	<i>Acer saccharinum</i>	12	Sugar Maple	84
3	Silver Maple	<i>Acer saccharinum</i>	12	Black Cherry	26
4	Silver Maple	<i>Acer saccharinum</i>	12	Black Walnut	2
5	Silver Maple	<i>Acer saccharinum</i>	12	Shagbark Hickory	1
6	Silver Maple	<i>Acer saccharinum</i>	12	Silver Maple	56
7	Silver Maple	<i>Acer saccharinum</i>	12	Total	168
8	Silver Maple	<i>Acer saccharinum</i>	12		
9	Silver Maple	<i>Acer saccharinum</i>	12		
10	Silver Maple	<i>Acer saccharinum</i>	12		
11	Silver Maple	<i>Acer saccharinum</i>	12		
12	Silver Maple	<i>Acer saccharinum</i>	12		
13	Silver Maple	<i>Acer saccharinum</i>	12		
14	Silver Maple	<i>Acer saccharinum</i>	12		
15	Silver Maple	<i>Acer saccharinum</i>	12		
16	Silver Maple	<i>Acer saccharinum</i>	12		
17	Silver Maple	<i>Acer saccharinum</i>	12		
18	Silver Maple	<i>Acer saccharinum</i>	12		
19	Silver Maple	<i>Acer saccharinum</i>	12		
20	Silver Maple	<i>Acer saccharinum</i>	12		
21	Silver Maple	<i>Acer saccharinum</i>	12		
22	Silver Maple	<i>Acer saccharinum</i>	12		
23	Silver Maple	<i>Acer saccharinum</i>	12		
24	Silver Maple	<i>Acer saccharinum</i>	12		
25	Silver Maple	<i>Acer saccharinum</i>	12		
26	Silver Maple	<i>Acer saccharinum</i>	12		
27	Silver Maple	<i>Acer saccharinum</i>	14		
28	Silver Maple	<i>Acer saccharinum</i>	14		
29	Silver Maple	<i>Acer saccharinum</i>	14		
30	Silver Maple	<i>Acer saccharinum</i>	14		
31	Silver Maple	<i>Acer saccharinum</i>	14		
32	Silver Maple	<i>Acer saccharinum</i>	14		
33	Silver Maple	<i>Acer saccharinum</i>	14		
34	Silver Maple	<i>Acer saccharinum</i>	15		
35	Silver Maple	<i>Acer saccharinum</i>	15		
36	Silver Maple	<i>Acer saccharinum</i>	15		
37	Silver Maple	<i>Acer saccharinum</i>	15		
38	Silver Maple	<i>Acer saccharinum</i>	18		
39	Silver Maple	<i>Acer saccharinum</i>	18		
40	Silver Maple	<i>Acer saccharinum</i>	20		
41	Silver Maple	<i>Acer saccharinum</i>	20		
42	Silver Maple	<i>Acer saccharinum</i>	21		
43	Silver Maple	<i>Acer saccharinum</i>	24		
44	Silver Maple	<i>Acer saccharinum</i>	25		
45	Silver Maple	<i>Acer saccharinum</i>	26		
46	Silver Maple	<i>Acer saccharinum</i>	28		
47	Silver Maple	<i>Acer saccharinum</i>	28		

48	Silver Maple	<i>Acer saccharinum</i>	30
49	Silver Maple	<i>Acer saccharinum</i>	30
50	Silver Maple	<i>Acer saccharinum</i>	30
51	Silver Maple	<i>Acer saccharinum</i>	31
52	Silver Maple	<i>Acer saccharinum</i>	32
53	Silver Maple	<i>Acer saccharinum</i>	34
54	Silver Maple	<i>Acer saccharinum</i>	36
55	Silver Maple	<i>Acer saccharinum</i>	36
56	Silver Maple	<i>Acer saccharinum</i>	42
57	Sugar Maple	<i>Acer saccharum</i>	12
58	Sugar Maple	<i>Acer saccharum</i>	12
59	Sugar Maple	<i>Acer saccharum</i>	12
60	Sugar Maple	<i>Acer saccharum</i>	12
61	Sugar Maple	<i>Acer saccharum</i>	12
62	Sugar Maple	<i>Acer saccharum</i>	12
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64	Sugar Maple	<i>Acer saccharum</i>	12
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83	Sugar Maple	<i>Acer saccharum</i>	14
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95	Sugar Maple	<i>Acer saccharum</i>	14
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99	Sugar Maple	<i>Acer saccharum</i>	15

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103	Sugar Maple	<i>Acer saccharum</i>	16
104	Sugar Maple	<i>Acer saccharum</i>	16
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106	Sugar Maple	<i>Acer saccharum</i>	16
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111	Sugar Maple	<i>Acer saccharum</i>	18
112	Sugar Maple	<i>Acer saccharum</i>	18
113	Sugar Maple	<i>Acer saccharum</i>	18
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126	Sugar Maple	<i>Acer saccharum</i>	24
127	Sugar Maple	<i>Acer saccharum</i>	24
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129	Sugar Maple	<i>Acer saccharum</i>	24
130	Sugar Maple	<i>Acer saccharum</i>	24
131	Sugar Maple	<i>Acer saccharum</i>	24
132	Sugar Maple	<i>Acer saccharum</i>	24
133	Sugar Maple	<i>Acer saccharum</i>	24
134	Sugar Maple	<i>Acer saccharum</i>	24
135	Sugar Maple	<i>Acer saccharum</i>	25
136	Sugar Maple	<i>Acer saccharum</i>	32
137	Sugar Maple	<i>Acer saccharum</i>	32
138	Sugar Maple	<i>Acer saccharum</i>	36
139	Sugar Maple	<i>Acer saccharum</i>	36
140	Sugar Maple	<i>Acer saccharum</i>	52
141	Shagbark Hickory	<i>Carya ovata</i>	12
142	Black Walnut	<i>Juglans nigra</i>	14
143	Black Walnut	<i>Juglans nigra</i>	47
144	Black Cherry	<i>Prunus serotina</i>	12
145	Black Cherry	<i>Prunus serotina</i>	12
146	Black Cherry	<i>Prunus serotina</i>	12
147	Black Cherry	<i>Prunus serotina</i>	12
148	Black Cherry	<i>Prunus serotina</i>	12
149	Black Cherry	<i>Prunus serotina</i>	12
150	Black Cherry	<i>Prunus serotina</i>	13
151	Black Cherry	<i>Prunus serotina</i>	14

152	Black Cherry	<i>Prunus serotina</i>	14
153	Black Cherry	<i>Prunus serotina</i>	14
154	Black Cherry	<i>Prunus serotina</i>	14
155	Black Cherry	<i>Prunus serotina</i>	14
156	Black Cherry	<i>Prunus serotina</i>	15
157	Black Cherry	<i>Prunus serotina</i>	16
158	Black Cherry	<i>Prunus serotina</i>	16
159	Black Cherry	<i>Prunus serotina</i>	16
160	Black Cherry	<i>Prunus serotina</i>	17
161	Black Cherry	<i>Prunus serotina</i>	18
162	Black Cherry	<i>Prunus serotina</i>	18
163	Black Cherry	<i>Prunus serotina</i>	18
164	Black Cherry	<i>Prunus serotina</i>	20
165	Black Cherry	<i>Prunus serotina</i>	21
166	Black Cherry	<i>Prunus serotina</i>	23
167	Black Cherry	<i>Prunus serotina</i>	38
168	Swamp White Oak	<i>Quercus bicolor</i>	42

APPENDIX 4. PHOTO LOG



Figure 1. View of eastern wetland area.



Figure 2. Young forest portion of eastern wetland.

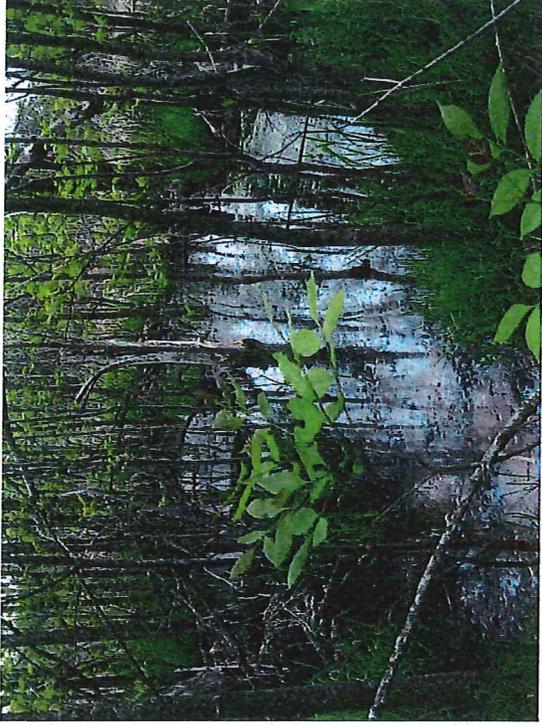


Figure 3. Standing water in eastern wetland.



Figure 4. Mixed vegetation in eastern wetland.

APPENDIX 4. PHOTO LOG



Figure 5. Flooded area in eastern wetland.



Figure 6. Forested wetland along north border.



Figure 7. Forested wetland near center of site.



Figure 8. Downed trees in forested wetland.

APPENDIX 4. PHOTO LOG

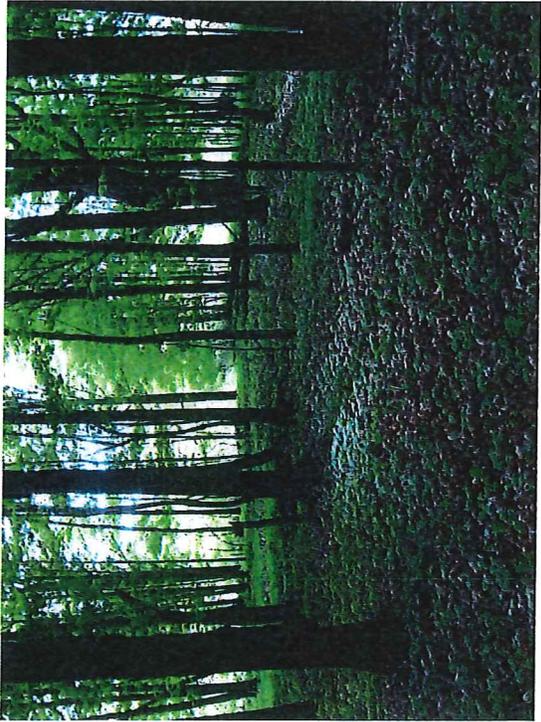


Figure 9. Forest along west edge of site.

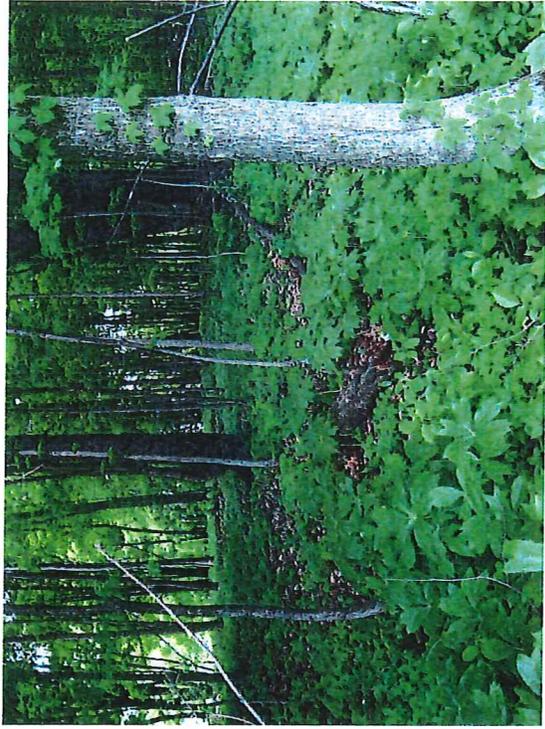


Figure 10. Forest vegetation along west boundary of site.



Figure 11. Mowed grass area in southwest part of site.



Figure 12. Old field area near center of site.

APPENDIX 4. PHOTO LOG



Figure 13. Pond area viewing north.

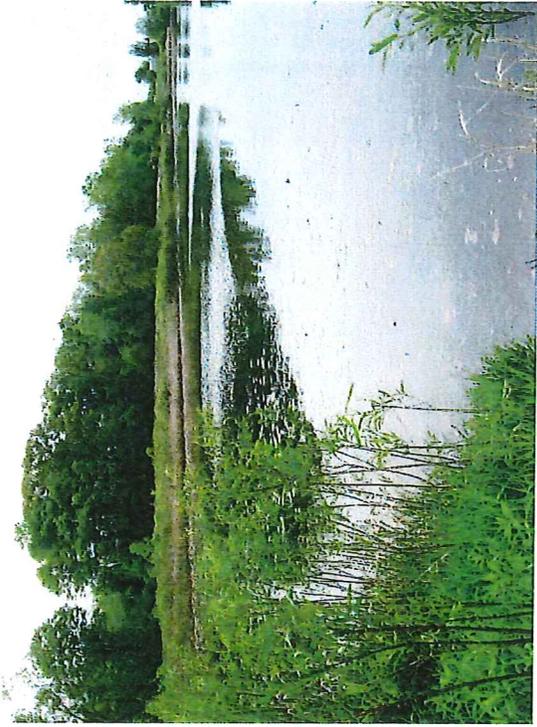


Figure 14. West side of pond viewing north.



Figure 15. Smith Drain at crossing near center of site.

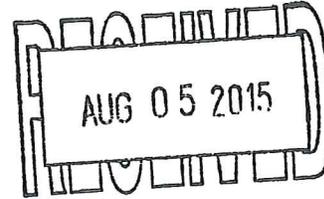


Figure 16. Smith Drain north of pond.

T.A. Forsberg, Inc.

Land Development Sales Project Management

August 5, 2015



Dear Meridian Township Supervisor and Treasurer, Township Clerk, all Township Trustees, and all Township Planning Commissioners :

I am writing with regard to an incident that happened on our Okemos Pointe property on Saturday, August 1st, 2015. In preparation for soil boring tests being completed the week of August 3rd I hired a mowing company to cut down the field I have highlighted as Exhibit 1 in this communication. I have all of our properties mowed at least twice a season as part of our ordinary business practice. The only difference is that, due to the amount of rain we received in June, we are working some weekends to catch up the mowing of our larger parcels. Several neighbors from Coyote Creek approached our mower telling him he was mowing in a wetland. I tried to talk with one neighbor Ann Zimmerman on the phone and explain we were just mowing, at which point she stated this is the way my family works, doing illegal activities on weekends, hiding so the township doesn't know what we are up to, etc. All of this in an elevated tone of voice. She said that she and a group will be present August 10th for our MUPUD review. Contrary to her allegations, you should know that we have paid special care to avoid all wetland areas as we have for the previous 10+ years.

We are proud of our projects and will continue to work close with all stakeholders to make this the best project possible for our community. My company is the longest continually operating business and neighbor in this area of the township. We have been a community member of Meridian Township for nearly 60 years and are proud of the developments we have brought to Meridian Township and the Capital Area Region. We have done nothing that warranted any of the comments that were made or were threatened to be made in the open forum meeting August 10th. While we have no control over what individuals may say about us, we will make sure the record of our actions and activity are accurate.

Please review the pictures and map we have provided. If there are any questions I can be contacted during regular business hours into early evenings at 517-202-7572. I look forward to moving forward with a positive project that will bring countless benefits culturally and economically to the township.

Sincerely,

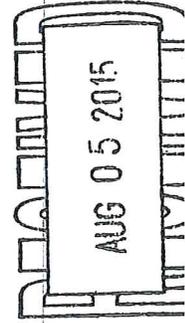
Brent Forsberg, President

Enclosures

CC: Mark Kieselbach, Gail Oaranchak, Martha Wyatt, Ann Zimmerman



Mowing at Okemos Pointe Saturday August 1st 2015



Mowing at Okemos Pointe Saturday August 1st 2015



Mowing at Okemos Pointe Saturday August 1st 2015



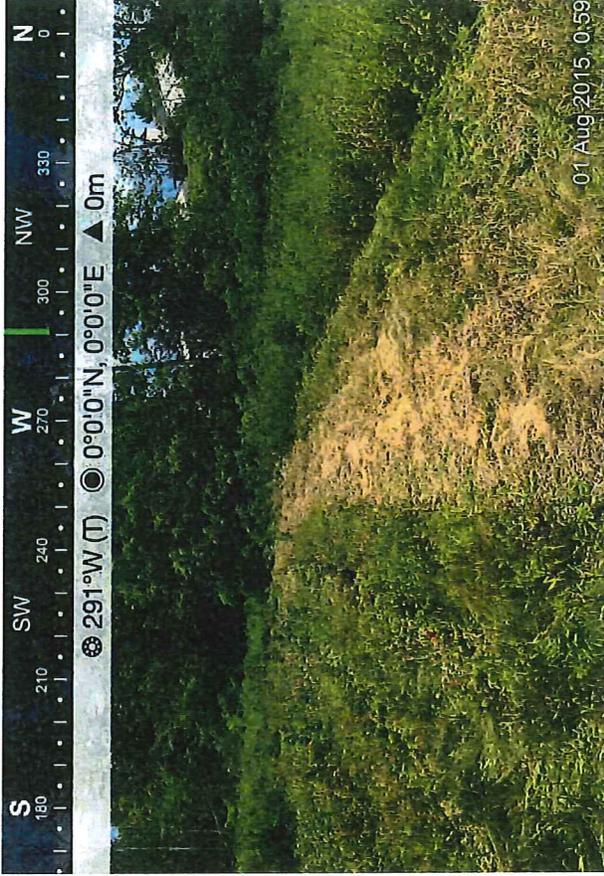
Mowing at Okemos Pointe Saturday August 1st 2015



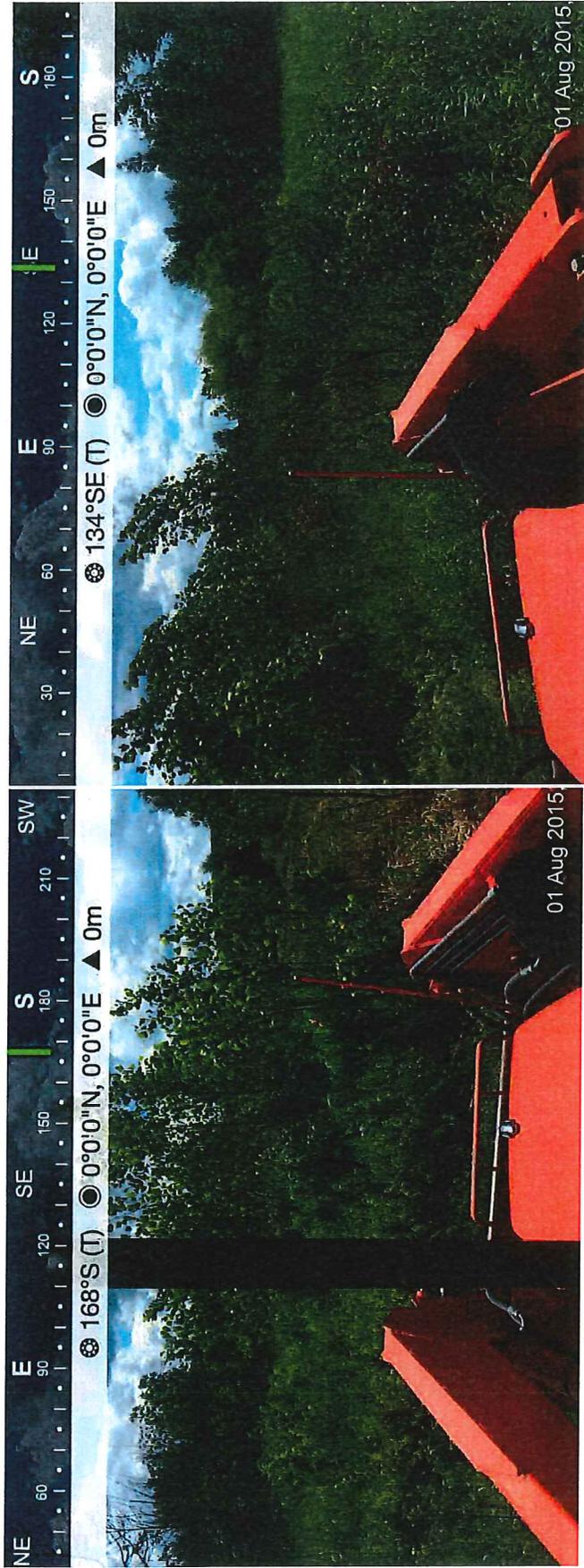
Mowing at Okemos Pointe Saturday August 1st 2015



Mowing at Okemos Pointe Saturday August 1st 2015



Mowing at Okemos Pointe Saturday August 1st 2015

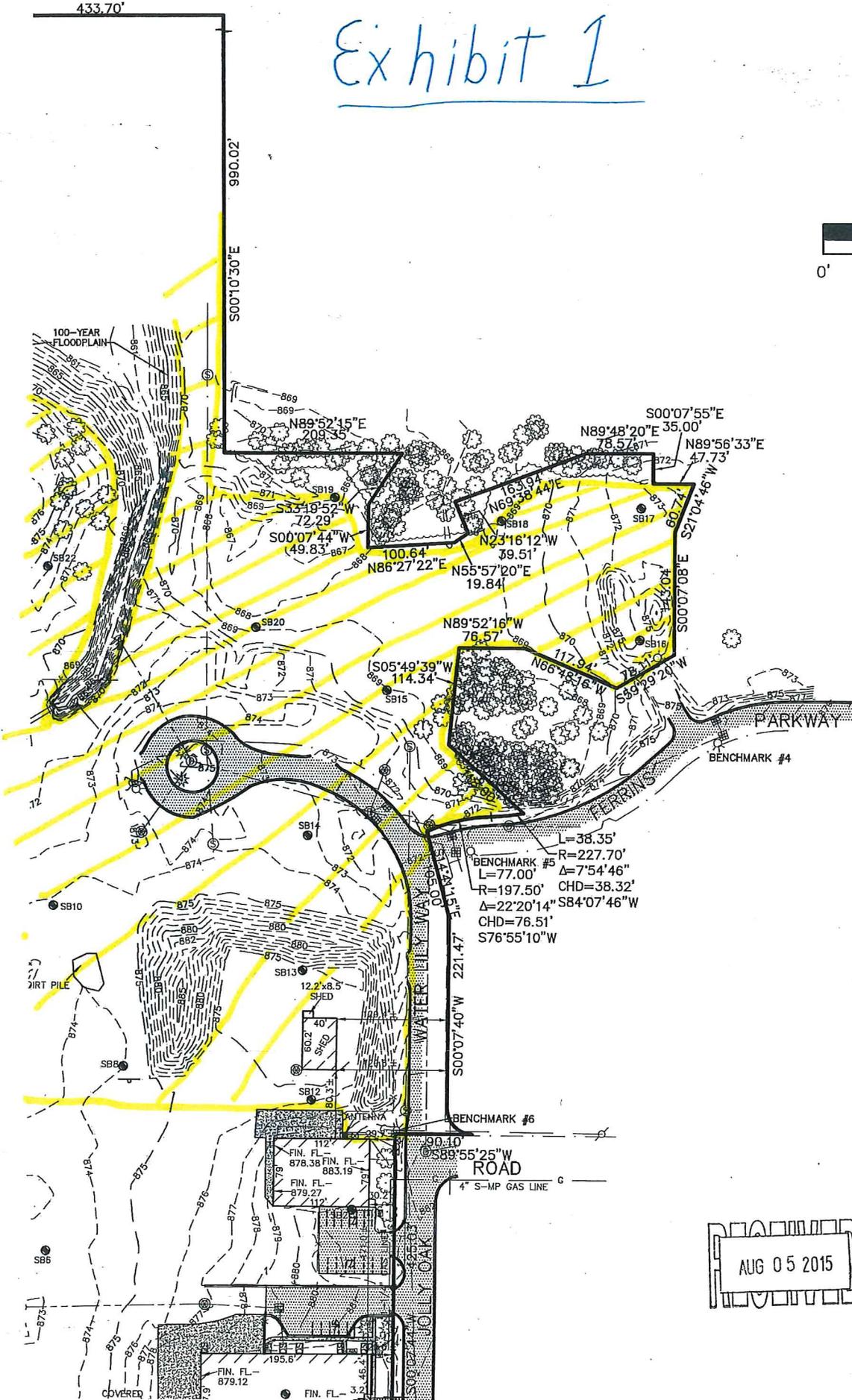


TOPOGRAPHIC SURVEY

NTE APARTMENTS

433.70'

Exhibit 1



AUG 05 2015

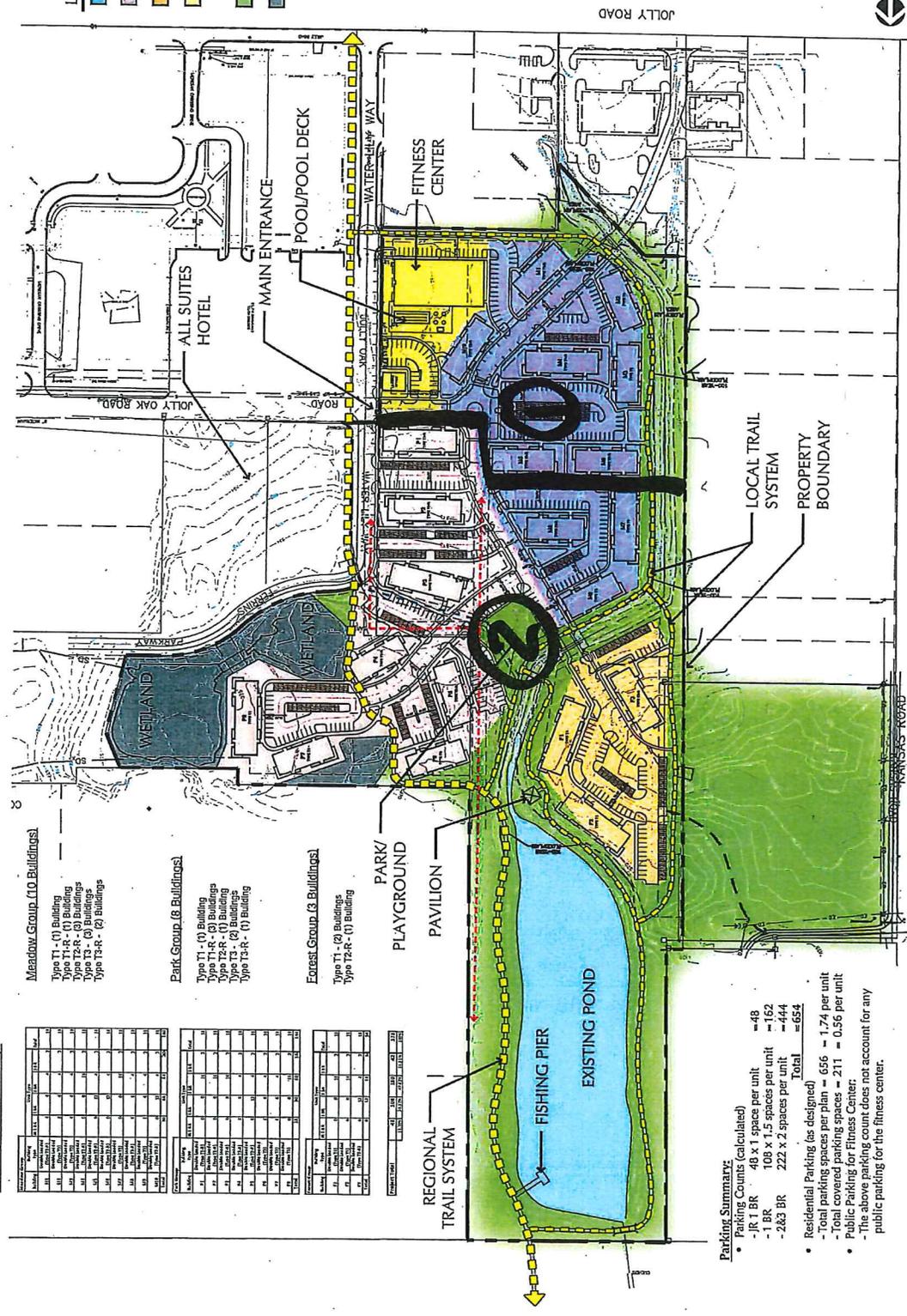
Development Summary:

Category	Item	Quantity	Area (sq ft)	Volume (cu ft)	
MEADOW GROUP (10 BUILDINGS)	Type T1 - (1) Building	1	10,000	10,000	
	Type T1-R - (1) Building	1	10,000	10,000	
	Type T2 - (1) Building	1	10,000	10,000	
	Type T2-R - (1) Building	1	10,000	10,000	
	Type T3 - (2) Buildings	2	20,000	20,000	
	Type T3-R - (2) Buildings	2	20,000	20,000	
	MEADOW GROUP TOTALS				
	PARK GROUP (8 BUILDINGS)	Type T1 - (1) Building	1	10,000	10,000
		Type T1-R - (1) Building	1	10,000	10,000
		Type T2 - (1) Building	1	10,000	10,000
Type T2-R - (1) Building		1	10,000	10,000	
Type T3 - (1) Building		1	10,000	10,000	
PARK GROUP TOTALS					
FOREST GROUP (3 BUILDINGS)	Type T1 - (1) Building	1	10,000	10,000	
	Type T1-R - (1) Building	1	10,000	10,000	
	Type T2 - (1) Building	1	10,000	10,000	
	Type T2-R - (1) Building	1	10,000	10,000	
FOREST GROUP TOTALS					
GRAND TOTALS					

Meadow Group (10 Buildings)
 Type T1 - (1) Building
 Type T1-R - (1) Building
 Type T2 - (1) Building
 Type T2-R - (1) Building
 Type T3 - (2) Buildings
 Type T3-R - (2) Buildings

Park Group (8 Buildings)
 Type T1 - (1) Building
 Type T1-R - (1) Building
 Type T2 - (1) Building
 Type T2-R - (1) Building
 Type T3 - (1) Building

Forest Group (3 Buildings)
 Type T1 - (1) Building
 Type T1-R - (1) Building
 Type T2 - (1) Building



- LEGEND**
- Meadow Group
 - Park Group
 - Forest Group
 - Fitness Center/
Leasing office
 - Green Space
 - Wetland

Parking Summary:

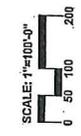
- Parking Counts (calculated)
 - JR 1 BR 48 x 1 space per unit = 48
 - 1 BR 108 x 1.5 spaces per unit = 162
 - 2&3 BR 222 x 2 spaces per unit = 444
 - Total = 654**
- Residential Parking (as designed)
 - Total parking spaces per plan = 656 = 1.74 per unit
 - Total covered parking spaces = 211 = 0.56 per unit
- Public Parking for Fitness Center:
 - The above parking count does not account for any public parking for the fitness center.



Overall Master Plan

Okemos Pointe

DATE: AUG 03 2015



06.12.15

Special Use Permit #15101
(T.A. Forsberg, Inc. and WestPac Michigan)
August 7, 2015

APPLICANT: T.A. Forsberg, Inc. and WestPac Michigan
919 West University Drive Suite 700
Rochester, MI 48307

STATUS OF APPLICANT Owner (Forsberg Family)

REQUEST: Construct a mixed use planned unit development project

CURRENT ZONING: C-2 (Commercial)*

LOCATION: North of Jolly Road, north and west of Jolly Oak Road and north of Farrins parkway

AREA OF SUBJECT SITE: Approximately 33.73 acres

EXISTING LAND USE: Industrial/Office/Warehouse buildings and Undeveloped

FUTURE LAND USE: Residential 5.0-8.0 dwelling units per acre (du/a) and Office

EXISTING LAND USES IN AREA

North: Coyote Creek condominiums & Consumers Energy Right-of-Way
South: Commercial and Farrins Parkway
East: Office building and hotel
West: Single-family residential

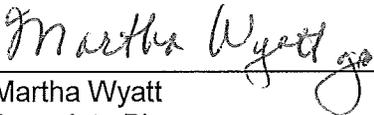
CURRENT ZONING IN AREA: North: RD (Multiple Family, 8 units per acre)
South: C-2 (Commercial)
East: PO (Professional and Office)
West: RR (Rural Residential) and RA (Single family, Medium Density) residential

FUTURE LAND USE MAP: North: Institutional
South: Commercial and Office
East: Commercial, Office, & Residential 5.0-8.0 du/a
West: Residential 0.5-1.25 du/a & Res. 1.25-3.5 du/a

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM: 
Martha Wyatt
Associate Planner

DATE: August 7, 2015

RE: Special Use Permit #15101 (T.A. Forsberg, Inc, and WestPac Michigan), request to construct a group of buildings totaling more than 25,000 square feet in gross floor area

In conjunction with Mixed Use Planned Unit Development (MUPUD) #15024, a special use permit is being requested to construct a group of buildings totaling more than 25,000 gross square feet. The project, called Okemos Pointe, consists of 21 multi-story apartment buildings, a stand-alone leasing office/club house, and a fitness center (Lifestyle Community Center), utilizing the existing industrial building at 2362 Jolly Oak Road, which is to be renovated for the fitness center. The total square footage of all buildings is approximately 579,500 square feet.

The approximate 33.73 acre site was rezoned from PO (Professional and Office), I (Industrial), RR (Rural Residential) and C-2 (Commercial) to C-2 (Commercial) under Rezoning #15010, making the entire site zoned C-2. The rezoning was approved with a voluntary offer of a condition limiting development to a mixed use planned unit development with a restriction of no more than 18 units per acre as allowed under the density bonus provisions in the MUPUD ordinance (Section 86-440).

The general location of the site is north of Jolly Road, north and west of Jolly Oak Road, and north of Farrins Parkway, in Section 33 of the Township

Background information has been provided in the staff report associated with MUPUD #15014 dated May 8, 2015. A synopsis applicable to the special use permit follows.

The applicant has requested a decision from the Planning Commission the same night as the public hearing for MUPUD #15024 and SUP #15101.

Master Plan and Zoning

The properties in the project area are designated on the Future Land Use Map of the 2005 Master Plan as Residential 5.0-8.0 dwelling units per acre (du/a) and Office. The site is zoned C-2 (Commercial). The site, if including all the parcels that comprise the project area, exceeds the lot area (approximately 33.73 acres) and lot width requirements for the C-2 district (approximately 420 feet of frontage on Jolly Oak Road).

Physical Features

The majority of the site is undeveloped. Three structures, a 19,500 square foot industrial/light manufacturing building (2362 Jolly Oak Road), a 9,040 square foot office/warehouse/storage building and a 2,400 square foot storage/warehouse building (both addressed as 2360 Jolly Oak Road) currently occupy the approximate three acre site (formerly zoned Industrial) located on Jolly Oak Road. Wooded areas occur near the west property line and to the east and north of Farrins Parkway. The Smith Drain pond is located on land furthest to the north. Flood Insurance Rate maps (FIRM) for Meridian Township show floodway and floodway fringe areas are present on the site, in areas associated with the Smith Drain and Smith Drain pond.

The Township Wetland Map shows a portion of Wetland #33-2 occurring on the site, however the wetland areas may be considerably smaller than depicted. Based on the applicant's Natural Features Assessment Report, four separate wetland areas were found on the site. Two wetlands are located north of Farrins Parkway and are interconnected by a swale. The third wetland is west and north of the two connected wetlands and may be part of a larger off-site wetland on the Coyote Creek Condominium property. The fourth wetland area is located around the periphery of the north end of the detention pond. Wetland delineations are to be completed by the applicant to determine the size and location of the wetlands.

The Township Greenspace Plan shows a Priority Corridor running north to south along the Smith Drain, including the detention pond. The southern portion of the Priority Corridor is also considered a Fragile Link.

Streets and Traffic

The site has frontage on Jolly Oak Road which is a public street. The partially constructed Water Lily Way, extending north from Jolly Oak Road and Farrins Parkway, also provides access to the site. Access is also provided via Jolly Road at the existing Forsberg Commercial Real Estate Agency entrance drive at 2446 Jolly Road. Internal drives are provided for access to the apartment buildings, parking areas, fitness center, and other destination points in the development.

A revised Traffic Impact Study, dated April 13, 2015, prepared by Bergmann Associates, was provided by the applicant under REZ #15010. The revised study reflected the reduction in acreage of the original rezoning request and the number of anticipated residential units (250 units reduced to 191 units per phase). Comments from the Ingham County Road Department were also addressed. A summary of the revisions appears in the front of the revised traffic study.

The Township's traffic consultant commented on the initial traffic study stating there was a lack of information for pedestrian and bicycle movements. Road diets on several streets may provide the solution for non-motorized facilities.

Utilities

The Department of Public Works and Engineering has indicated municipal water and sanitary sewer are available to serve the site. The utility plans will be finalized during site plan review. The site plan shows a schematic layout for stormwater management which includes pretreatments areas scattered throughout the development.

SUP #15101 (T.A. Forsberg, Inc. and WestPac Michigan)
Planning Commission (8/7/15)
Page 3

A more thorough stormwater management plan including calculations will be required during site plan review. The Smith Drain Study is currently underway in the subject area and recommendations from the study may impact the conceptual stormwater plans. Review and approval from the Ingham County Drain Commissioner's office will also be required.

Staff Analysis

The purpose of the special use permit for structures or groups of structures greater than 25,000 square feet in size is to consider potential impacts such development may have on adjacent land uses.

The Planning Commission should take into consideration issues related to the use of the mixed use project including potential hours of operation, number of employees, lighting, and noise. The Commission may recommend appropriate conditions be placed on an approval to address these topics.

Planning Commission Options

The Planning Commission has the option to recommend approval, approval with conditions, or denial of the special use permit for structures greater than 25,000 square feet in size based on the standards listed in Section 86-126 of the Code of Ordinances. A resolution to approve is provided. A copy of Section 86-126 is attached.

The applicant has requested the Planning Commission make a decision on the special use permit the same night as the hearing so that the project may begin as soon as possible. Before acting on the applicant's request the same night as the public hearing, the Planning Commission must first suspend Bylaw 6.4a. The following motion is provided to suspend Bylaw 6.4a:

- **MOTION** to suspend Planning Commission Bylaw 6.4a to consider Special Use Permit #15041 the same night as the public hearing.

Attachments

1. Resolution to Approve
2. Special Use Permit Application
3. Special Use Permit Criteria (Section 86-126)

RESOLUTION TO APPROVE

**SUP #15101
(T.A. Forsberg, Inc. and WestPac Michigan)
Jolly Oak Road and Farrins Parkway**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building in said Township on the 10th day of August, 2015 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, T.A. Forsberg, Inc. and WestPac Michigan have submitted a request to establish an approximate 579,000 square foot mixed use planned unit development north of Jolly Road, north and west of Jolly oak Road and north of Farrins Parkway, incorporating the existing industrial building at 2362 Jolly Oak Road to be remodeled as a fitness center, with the construction of a leasing/clubhouse building and 21 apartment buildings consisting of 378 studio, one, two, and three bedroom apartment units on an approximate 33.73 acre site; and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on August 10, 2015 and has reviewed and discussed staff material forwarded under staff memorandum dated August 7, 2015; and

WHEREAS, the subject site is appropriately zoned C-2 (Commercial) which permits the development of buildings greater than 25,000 square feet in floor area by special use permit; and

WHEREAS, the proposed project is consistent with the general standards for granting a special use permit found in Section 86-126 of the Code of Ordinances; and

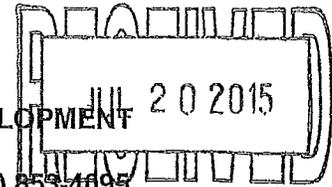
WHEREAS, the approximately 579,000 square feet of building area has been designed to be harmonious and appropriate with the existing and potential future uses surrounding the site; and

WHEREAS, the surrounding road system has sufficient capacity to absorb the additional traffic projected to result from approximately 579,000 square feet of building area to be used for a fitness center, leasing office/clubhouse, and 21 apartment buildings, with a total of 378 apartment units; and

WHEREAS, the approximate 33.73 acre site meets the minimum lot area and lot width requirements of the C-2 (Commercial) district; and

WHEREAS, the proposed development on the subject site will be served by public water and sanitary sewer.

**CHARTER TOWNSHIP OF MERIDIAN
DEPARTMENT OF COMMUNITY PLANNING AND DEVELOPMENT
5151 MARSH ROAD, OKEMOS, MI 48864
PLANNING DIVISION PHONE: (517) 853-4560, FAX: (517) 853-4695**



SPECIAL USE PERMIT APPLICATION

Before submitting this application for review, an applicant may meet with the Director of Community Planning and Development to discuss the requirements for a special use permit and/or submit a conceptual plan for review to have preliminary technical deficiencies addressed prior to submittal of the application. If the property or land use is located in the following zoning districts RD, RC, RCC, RN then the applicant must meet with the Planning Director to discuss technical difficulties before filing a formal application.

Part I

A. Applicant T.A. Forsberg, Inc. & WestPac Michigan
 Address of Applicant 2422 Jolly Road Suite 200
 Telephone - Work (517)349-9330 Home _____ Fax (517)349-7131 Email brent@taforsberg.com
 Interest in property (circle one): Owner Tenant Option Other
 (Please attach a list of all persons with an ownership interest in the property.)

B. Site address / location / parcel number north of Jolly Road, west and north of Jolly Oak Road and north of Farrins Parkway
 Legal description (please attach if necessary)
 Current zoning C-2 (with condition to develop as MUPUD)
 Use for which permit is requested / project name Group of buildings greater than 25,000 sqft
 Corresponding ordinance number §86-658

C. Developer (if different than applicant) _____
 Address _____
 Telephone - Work _____ Home _____ Fax _____

D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name KEBS Engineering
 Address 2116 Haslett Road, Haslett, MI, 48840
 Telephone - Work (517)339-4040 1014 Home _____ Fax (517)339-8047

E. Acreage of all parcels in the project: Gross 33.73 Net 33.73

F. Explain the project and development phases:

G. Total number of:
 Existing: structures 3 bedrooms _____ offices 1 parking spaces ~60 carports _____
 garages _____ Proposed: structures 23 bedrooms 642 offices 1 parking spaces _____ carports _____
 _____ garages _____

H. Square footage: existing buildings _____ proposed buildings 435,372
 Usable Floor area: existing buildings _____ proposed buildings 405,750

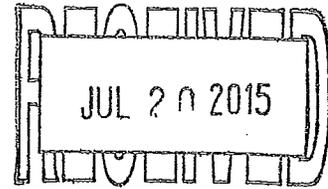
I. If employees will work on the site, state the number of full time and part time employees working per shift and hours of operation:

Existing Recreation: Type none Acreage -
 Proposed Recreation: Type Fitness, health and lifestyle facility Acreage 1.5

Existing Open Space: Type none Acreage -
 Proposed Open Space: Type Large central park, pocket parks and public seating areas Acreage TBD

If Multiple Housing:

Total acres of property 33.73
 Acres in floodplain 0 Percent of total 0
 Acres in wetland (not in floodplain) 2.47 Percent of total ~7%
 Total dwelling units 378 - subject to change



Dwelling unit mix: Number of single family detached: for Rent _____ Condo _____
 Number of duplexes: for Rent _____ Condo _____
 Number of townhouses: for Rent _____ Condo _____
 Number of garden style apartments: for Rent 378 Condo _____
 Number of other dwellings: for Rent _____ Condo _____

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

1. Nonrefundable Fee.
2. Legal Description of the property.
3. Evidence of fee or other ownership of the property.
4. Site Plan containing the information listed in the attachment to this application.
5. Architectural sketches showing all sides and elevations of the proposed buildings or structures, including the project entrance, as they will appear upon completion. The sketches should be accompanied by material samples or a display board of the proposed exterior materials and colors.
6. A Traffic Study, prepared by a qualified traffic engineer, based on the most current edition of *Evaluating Traffic Impact Studies: A Recommended Practice for Michigan Communities*, published by the State Department of Transportation.
 - a. A traffic assessment will be required for the following:
 - 1) New special uses which could, or expansion or change of an existing special use where increase in intensity would, generate between 50 to 99 directional trips during a peak hour of traffic.
 - 2) All other special uses requiring a traffic assessment as specified in the Township Code of Ordinances, Chapter 86, Article IV, Division 2.
 - b. A traffic impact study will be required for the following:
 - 1) New special uses which would, or expansion or change of an existing special use where increase in intensity would, generate over 100 directional trips or more during a peak hour of traffic, or over 750 trips on an average day.
 - 2) All other special uses requiring a traffic assessment as specified in the Township Code of Ordinances, Chapter 86, Article IV, Division 2.
7. Natural features assessment which includes a written description of the anticipated impacts on the natural features at each phase and at project completion that contains the following:
 - a. An inventory of natural features proposed to be retained, removed, or modified. Natural features shall include, but are not limited to, wetlands, significant stands of trees or individual trees greater than 12 inches dbh, floodways, floodplains, waterbodies, identified groundwater vulnerable areas, slopes greater than 20 percent, ravines, and vegetative cover types with potential to sustain significant or endangered wildlife.
 - b. Description of the impacts on natural features.
 - c. Description of any proposed efforts to mitigate any negative impacts.

The natural features assessment may be waived by the Director of Community Planning and Development in certain circumstances.

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

N. In addition to the above requirements, for zoning districts, **RD, RC, RCC, RN, and CV** and **Group Housing Residential Developments** the following is required:

1. Existing and proposed contours of the property at two foot intervals based on United States Geological Survey (USGS) data.
2. Preliminary engineering reports in accordance with the adopted Township water and sewer standards, together with a letter of review from the Township Engineer.
3. Ten copies of a report on the intent and scope of the project including, but not limited to: Number, size, volume, and dimensions of buildings; number and size of living units; basis of calculations of floor area and density and required parking; number, size, and type of parking spaces; architectural sketches of proposed buildings.
4. Seven copies of the project plans which the Township shall submit to local agencies for review and comments.

O. In addition to the above requirements, a special use application in zoning district **RP** requires the following material as part of the site plan:

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, or the emission of any potentially harmful or obnoxious matter or radiation.

P. In addition to the above requirements, a special use application for a use in the Floodway Fringe of zoning district **CV** requires the following:

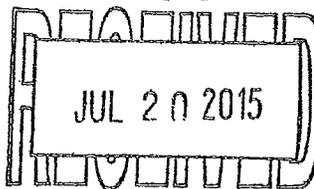
1. A letter of approval from the State Department of Environmental Quality.
2. A location map including existing topographic data at two-foot interval contours at a scale of one inch representing 100 feet.
3. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits, extent, and elevations of the proposed fill, excavation, and occupation.
4. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.

Q. In addition to the above requirements, a special use application for a use in the Groundwater Recharge area or zoning district **CV** requires the following:

1. A location map including existing topographic data at two-foot interval contours.
2. A map showing proposed grading and drainage plans including the location of all public drainage easements, the limits and extent of the proposed fill, excavation, and occupation.
3. A statement from the County Drain Commissioner, County Health Department, and Director of Public Works and Engineering indicating that they have reviewed and approved the proposal.

R. In addition to the above requirements, the Township Code of Ordinances, Article VI, should be reviewed for the following special uses: group housing residential developments, mobile home parks, nonresidential structures and uses in residential districts, planned community and regional shopping center developments, sand or gravel pits and quarries, sod farms, junk yards, sewage treatment and disposal installations, camps and clubs for outdoor sports and buildings greater than 25,000 square feet in gross floor area.

S.



Part II

SUP REQUEST STANDARDS
Township Code of Ordinances, Section 86-126

Applications for Special Land Uses will be reviewed with the standards stated below. An application that complies with the standards stated in the Township Ordinance, conditions imposed pursuant to the Ordinance, other applicable Ordinances, and State and Federal statutes will be approved. Your responses to the questions below will assist the Planning Commission in its review of your application.

- (1) The project is consistent with the intent and purposes of this chapter.
- (2) The project is consistent with applicable land use policies contained in the Township's comprehensive development plan of current adoption.
- (3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.
- (4) The project will not adversely affect or be hazardous to existing neighboring uses.
- (5) The project will not be detrimental to the economic welfare of surrounding properties or the community.
- (6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.
- (7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and storm water are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.
- (8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
- (9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

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)

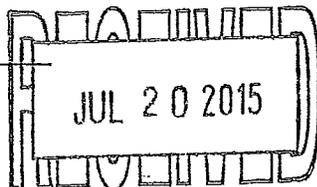
By the signature(s) attached hereto, I (we) certify that the information provided within this application and accompanying documentation is, to the best of my (our) knowledge, true and accurate

Brent Forsberg
Signature of Applicant

July 20, 2015
Date

Brent Forsberg
Type/Print Name

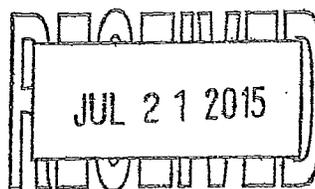
Fee: \$1700.00



Received by/Date: Matthew Wyatt 7/20/15

SUP request standards

1. The project is consistent with the intent and purpose of the Township Ordinance. A group of buildings with a combined gross floor area over 25,000 sqft is allowed in the C-2 district by special use. [§86-404 (e)(9)]
2. The project is consistent with applicable land use policies contained in the Township's comprehensive development plan. The property was rezoned to C-2 with the condition of a MUPUD to allow for a mix of commercial and residential uses. The project has 378 units overall for a density of 11.99 units per acre, under the allowed 18.
3. The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area. The proposed project features residential and lifestyle components that will allow residents to utilize internal walkways, public pathways and shop at local businesses.
4. The project will not adversely affect or be hazardous to neighboring uses. The project includes plans to complete a missing link in the Townships pathway plan, which will allow area residents to utilize the pathway system as an effective means of recreation or transportation to patronize local businesses.
5. The project will not be detrimental to the economic welfare of surrounding properties of the community. The project has upwards of 600 beds, all of which are within walking distance to local commercial centers and restaurants.
6. The project is adequately served by public facilities, such as existing roads, schools, storm water drainage, public safety, transportation and recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service. The property has existing public road frontage and access, schools nearby (see attachment 14), has appropriate storm water treatment and drainage within, pathways for public safety and recreation and is near bus stops on Okemos road.
7. The project is adequately served by public sanitation facilities with existing sewer in place.
8. The project will not involve uses, activities, processes, materials and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise smoke, fumes, glare, or odors. Traffic with this proposal is significantly less than the previous Professional Office zoning would have generated. The site will not produce excessive noise, smoke, fumes, glare or odors.
9. The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, forests, wetlands and wildlife areas. The project is much less than the allowed 70% impervious, with just over half (53.16%) being considered impervious. Wetlands have been delineated and have been taken into consideration in all our the plans to date, with notice taken to not disturb or discharge to them.



T.A. Forsberg, Inc.

Land Development Sales Project Management

July 17th, 2015

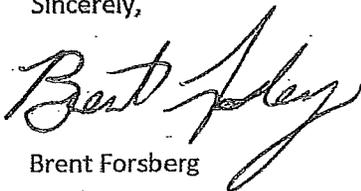
Mark Kieselbach
Meridian Township
Community planning & development
5151 Marsh Road
Okemos, MI 48864

Dear Meridian Township Planning Commission,

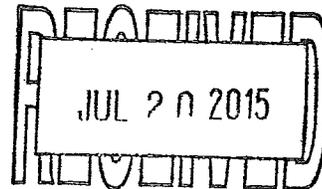
On August 10th, 2015 the Okemos Pointe mixed use planned unit development and subsequent special use permits will be on your discussion and action agenda. We would like to formally request that you consider taking action and voting on this project the same night. We indicated this at our concept hearing on July 13th and have not made any major changes to our project or site plan since that time.

It is our desire to receive project approval this fall, and taking action on this item the on August 10th would be greatly appreciated. We feel due to the fact that we have been before you and the Township Board several times since January that we have sufficiently addressed all concerns within the community. Many of our contentious issues were addressed and solved through our rezoning process, which was contingent on being developed as an MUPUD. The public is aware of our intentions, and we have taken every effort to address public concerns. As a result, we feel we have a project that the community can be proud of. This was demonstrated by our ability to ease community apprehension and as you saw there were no objections to our rezoning at the Township Board level. If there are segments of the project you feel need further discussion than can be achieved in one meeting, we understand that a single meeting and vote will not be feasible. We appreciate your consideration.

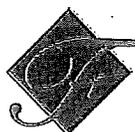
Sincerely,



Brent Forsberg
President



BF/mw



SPECIAL USE PERMIT – REVIEW CRITERIA
(Section 86-126, Code of Ordinances)

Applications for special use permits shall be reviewed for compliance with the following standards and requirements, where applicable. An application for a special use permit that complies with all the following standards and requirements in this chapter may be approved. The applicant shall assure that:

- (1) The project is consistent with the intent and purposes of this chapter.
- (2) The project is consistent with applicable land use policies contained in the township's comprehensive development plan of current adoption.
- (3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.
- (4) The project will not adversely affect or be hazardous to existing neighboring uses.
- (5) The project will not be detrimental to the economic welfare of surrounding properties or the community.
- (6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.
- (7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and stormwater are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.
- (8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.
- (9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM:

Peter Menser

Peter Menser
Associate Planner

DATE: August 6, 2015

RE: Special Use Permit #15081 (Judge), request to establish light manufacturing operation (malt processing facility) at 1870 Grand River Ave.

The Planning Commission held the public hearing for Special Use Permit (SUP) #15081 at the July 27, 2015 meeting. Since the meeting the property owner submitted a parking agreement allowing Mitten State Malt, LLC to use the 77 space parking lot located between the Grand Center shopping Center and the warehouse at 1870 Grand River Avenue until 2018.

Planning Commission Options

The Planning Commission has the option to approve, approve with conditions, or deny the special use permit to establish a light manufacturing operation (malt processing facility). A resolution to approve is attached.

Attachment

1. Resolution to approve

RESOLUTION TO APPROVE

**SUP #15081
(Judge)
1870 Grand River Ave.**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building in said Township on the 10th day of August, 2015 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, Lawrence Judge has requested a special use permit to establish a light manufacturing operation (malt processing facility) at 1870 Grand River Avenue on an approximate 0.427 acre site addressed as 1870 Grand River Avenue and zoned C-2 (Commercial); and

WHEREAS, light manufacturing, including processing, assembly, or fabrication establishments, is permitted by special use permit in the C-2 (Commercial) zoning district per Section 86-404(e)(3) of the Code of Ordinances

WHEREAS, the Planning Commission held a public hearing at its regular meeting on July 27, 2015; and

WHEREAS, the Planning Commission reviewed and discussed staff material forwarded under cover memorandums dated July 24, 2015 and August 6, 2015; and

WHEREAS, the property owner has provided a parking agreement allowing Mitten State Malt, LLC to use the parking lot located north of the Grand Center shopping center; and

WHEREAS, the use of the property as a malt processing facility is harmonious and compatible with the other commercial uses to the north, south, east, and west of the subject site; and

WHEREAS, the proposed development on the subject site is served by public water and sanitary sewer.

NOW THEREFORE BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves Special Use Permit #15081 (Judge) to establish a light manufacturing operation (malt processing facility) at 1870 Grand River Avenue subject to the following conditions:

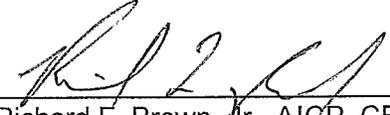
1. The applicant shall obtain all other necessary and applicable permits and approvals from the Michigan Department of Agriculture, and all other relevant entities.
2. Prior to construction inside the building the applicant shall obtain all necessary and applicable permits from the Township.

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM:


Richard F. Brown, Jr., AICP, CBSP
Principal Planner

DATE: August 6, 2015

RE: Rezoning #15030 (Ghulam H. Sumbal) request to rezone approximately 1.4 acres located at 1998 Jolly Road from RR (Rural Residential) to RA (Single Family-Medium Density)

On July 27, 2015, the Planning Commission held a public hearing regarding Ghulam H. Sumbal's request to rezone 1.4 acres at 1998 Jolly Road from RR (Rural Residential) to RA (Single Family, Medium Density). Two existing single-family homes dating from 1955 are located on the subject site.

The staff report dated July 23, 2015 incorrectly stated the subject site is 132 feet in width along Jolly Road. The actual width is 198 feet, as the parcel straddles the line between Sections 33 and 34. The additional width may allow the applicant to split the parcel on a north-south line and conform to the 80 foot minimum lot width requirements of the proposed RA (Single Family-Medium Density) zoning district. Approval for a second driveway connection to Jolly Road would still be necessary.

Planning Commission Options

The Planning Commission may recommend approval or denial of the request or it may recommend a different zoning designation to the Township Board. A resolution to approve has been provided.

Attachments

1. Resolution to approve

RESOLUTION TO APPROVE

**Rezoning #15030
Ghulam H. Sumbal
1998 Jolly Road**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 10th day of August 2015, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____

WHEREAS, Ghulam H. Sumbal requested the rezoning (Rezoning #15030) of approximately 1.4 acres located at 1998 Jolly Road from RR (Rural Residential) to RA (Single Family-Medium Density); and

WHEREAS, the Planning Commission held a public hearing and discussed the request at its July 27, 2015 meeting; and

WHEREAS, the Planning Commission reviewed the staff material forwarded under cover memorandums dated July 23, 2015 and August 6, 2015; and

WHEREAS, the subject site is designated in the Residential 1.25 to 3.5 dwelling units per acre classification on the 2005 Master Plan Future Land Use Map; and

WHEREAS, the proposed rezoning to RA (Single Family-Medium Density) is consistent with the 2005 Future Land Use Map designation of Residential 1.25 to 3.5 dwelling units per acre; and

WHEREAS, properties surrounding the subject site are all zoned RA (Single Family-Medium Density); and

WHEREAS, rezoning 1998 Jolly Road to RA (Single Family-Medium Density) is consistent with the existing uses located east, west, and north of the subject site; and

WHEREAS, public utilities and services are available to serve the site.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Rezoning #15030 to rezone approximately 1.4 acres located at 1998 Jolly Road from RR (Rural Residential) to RA (Single Family-Medium Density).

ADOPTED: YEAS: _____

**Resolution to Approve
Rezoning #15030 (Ghulam H. Sumbal)
Page 2**

NAYS: _____

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified and acting Chair of the Planning Commission of the Township of Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and a complete copy of a resolution adopted at a regular meeting of the Planning Commission on the 10th day of August, 2015.

John Scott-Craig
Planning Commission Chair