

CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
AGENDA

REGULAR MEETING
and
WORK SESSION MEETING

April 27, 2015

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

Regular Meeting

1. Call meeting to order at approximately 7:00 p.m.
2. Approval of agenda
3. Approval of minutes
 - A. April 13, 2015 Regular Meeting
 - B. April 13, 2015 Work Session Meeting

4. Public remarks

5. Communications

- A. Colleen McNamara RE: SUP #15041 (Triestram & Dorner)

Communications distributed at the March 9, 2015 Planning Commission meeting and filed:

- A. Kristin Beltzer RE: REZ #15010 (Forsberg Family LLC)
B. Kris Nicholoff RE: REZ #15010 (Forsberg Family LLC)
C. John Truscott RE: REZ #15010 (Forsberg Family LLC)

6. Public Hearings

- A. Special Use Permit #15031 (BBI Holdings LLC), request to establish a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing
- B. Wetland Use Permit #15-01 (BBI Holdings), request to impact regulated wetlands for the construction of a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing
- C. Special Use Permit #15041 (Triestram and Dorner), request to construct a 128 square foot deck in the 100-year floodplain at 4303 Tacoma Boulevard with a request for a decision the same night as the public hearing

Planning Commission Agenda

April 27, 2015

Page 2

7. Unfinished Business
 - A. Special Use Permit #15-83251 (Kroger), request to construct a gas station with a 254 square foot transaction kiosk and 8 fueling stations at 4884 Marsh Rd.
 - B. Special Use Permit #15031 (BBI Holdings LLC), request to establish a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing
 - C. Wetland Use Permit #15-01 (BBI Holdings LLC), request to impact regulated wetlands for the construction of a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing
 - D. Special Use Permit #15041 (Triestram and Dorner), request to construct a 128 square foot deck in the 100-year floodplain at 4303 Tacoma Boulevard with a request for a decision the same night as the public hearing
8. Other Business
 - A. 2015 Planning Commission Meeting Schedule amendment
9. Township Board, Planning Commission officer, committee chair, and staff comment or reports
10. New Applications
 - A. Mixed Use Planned Unit Development #15014 (Campus Village Development), request to establish a mixed use planned unit development at 2655 Grand River to include the existing multi-tenant commercial building and new construction consisting of 15,040 square feet of commercial space and 222 multiple family dwelling units
 - B. Special Use Permit #15051 (Campus Village Development), request for a group of buildings greater than 25,000 square feet (approximately 236,000 square feet) consisting of an existing commercial building (approximately 55,000 square feet) and new construction (approximately 181,000 square feet) at 2655 Grand River
 - C. Mixed Use Planned Unit Development Concept Plan at the Executive Office Park site (5020 Northwind Drive)
 - D. Planned Residential Development #15-97015 (SP Investments Limited Partnership), request to amend the PRD layout for the unplatted portions of Ember Oaks preliminary plat located north of Jolly Road
11. Site Plans received
 - A. Site Plan Review #15-04 (MF Okemos), request to construct a retail building with drive-through window at 2049 Grand River Avenue

Planning Commission Agenda

April 27, 2015

Page 3

12. Site Plans approved
 - A. Site Plan Review #15-02 (Aaron Hanson), request to establish a brewery at 4903 Dawn Avenue
13. Public Remarks
14. Adjournment

Post Script: Richard Honicky

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

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

Work Session Meeting

1. Call meeting to order
2. Approval of agenda
3. Discussion
 - A. 2005 Master Plan Update
5. Public remarks
6. Adjournment

**TENTATIVE
PLANNING COMMISSION AGENDA**

**Regular Meeting
May 11, 2015**

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

Regular Meeting

1. Public Hearings
 - A. Mixed Use Planned Unit Development #15014 (Campus Village Development), request to establish a mixed use planned unit development at 2655 Grand River to include the existing multi-tenant commercial building and new construction consisting of 15,040 square feet of commercial space and 222 multiple family dwelling units
 - B. Special Use Permit #15051 (Campus Village Development), request for a group of buildings greater than 25,000 square feet (approximately 236,000 square feet) consisting of an existing commercial building (approximately 55,000 square feet) and new construction (approximately 181,000 square feet) at 2655 Grand River
2. Unfinished Business
3. Other Business
 - A. Mixed Use Planned Unit Development Concept Plan at the Executive Office Park site (5020 Northwind Drive)

Work Session Meeting

- A. 2005 Master Plan Update

**CHARTER TOWNSHIP OF MERIDIAN
PLANNING COMMISSION
REGULAR MEETING MINUTES
April 13, 2015**

DRAFT

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

PRESENT: Commissioners Cordill, DeGross, Deits, Honicky, Ianni, Jackson (7:03 P.M.) Scott-Craig, Tenaglia (7:04 P.M.), Van Coevering
ABSENT: None
STAFF: Principal Planner Oranchak, Associate Planner Peter Menser

1. Call meeting to order

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

2. Approval of agenda

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

VOICE VOTE: Motion carried 7-0.

3. Approval of Minutes

Commissioner Ianni moved to approve the Regular Meeting Minutes of March 23, 2015 and the Work Session Meeting Minutes of March 9, 2015, March 16, 2015 and March 23, 2015. Seconded by Commissioner DeGross.

VOICE VOTE: Motion carried unanimously.

4. Public Remarks

Chair Scott-Craig opened the floor for public remarks.

Brent Forsberg, 2422 Jolly Road, Okemos, summarized changes made to Rezoning #15010 (Forsberg Family, LLC) and urged Planning Commissioners to approve the request so that this project may move forward to the Board.

Ann Zimmerman, 2344 Coyote Creek Drive, Okemos, voiced her continued opposition to Rezoning #15010.

Steven Freemire, 3622 Kansas Road, Okemos, expressed appreciation for the applicant's proposed changes, but continued to voice opposition to Rezoning #15010.

Jay Murthy, 2483 Robins Way, Okemos, voiced his appreciation for changes made to Rezoning #15010, but was still in opposition to the proposed project.

Chair Scott-Craig closed public remarks.

5. Communications

- A. Ken & Brenda Miller, 3681 Kansas Road, Okemos; RE: Opposition to Rezoning #15010 (Forsberg Family LLC)
- B. Eric Brauher, 1830 W. Grand River Ave., Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- C. Michael Gillengerten, 6286 Sunhollow Lane, Haslett; RE: Support for Rezoning #15010 (Forsberg Family LLC)

- D. Shaun Dickey, 1830 W. Grand River Ave., Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- E. Oral Surgery Associates of Lansing, 4201 Okemos Road, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- F. Dennis Vandecar, 1078 Bonanza Drive, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- G. Allene & Wesley Hood, 1150 Scenic Lake Drive, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- H. Jay & Cathleen Heath, 2607 Robins Way, Okemos; RE: Opposition to Rezoning #15010 (Forsberg Family LLC)
- I. Valerie Nilson, 2565 Robins Way, Okemos; RE: Opposition to Rezoning #15010 (Forsberg Family LLC)
- J. Nancy McKeague, Senior Vice President, Michigan Health & Hospital Association, 2112 University Park Drive, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- K. James Sherman, 2610 Robins Way, Okemos; RE: Rezoning #15010 (Forsberg Family LLC)
- L. Rona Moore, 2513 Lupione Court, Okemos; RE: Opposition to Rezoning #15010 (Forsberg Family LLC)
- M. Tim Lilleboe, 2299 Knob Hill, Apt. 10, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- N. Chengfeng Yang, 2556 Robins Way, Okemos; RE: Opposition to Rezoning #15010 (Forsberg Family LLC)
- O. Petition in opposition to Rezoning #15010 (Forsberg Family LLC)
- P. Marty & Leigh Holmes, 880 Nicole Circle, Okemos; RE: Support for Rezoning #15010 (Forsberg Family LLC)
- Q. Tim Daman, President & CEO, Lansing Regional Chamber of Commerce, 500 E Michigan Ave # 200, Lansing; RE: Support for Rezoning #15010 (Forsberg Family LLC)

6. Public hearings

- A. Special Use Permit #15-83251 (Kroger) request to construct gas station with a 254 square foot transaction kiosk and 8 fueling stations at 4884 Marsh Rd.

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 Peter Menser summarized the rezoning request as outlined in staff memorandum dated March 5, 2015.
- Applicant
Stephen Webster, Kroger Company of Michigan, 37704 Hillstech Drive, Farmington Hills, offered that Kroger has 1,500 gas stations nationwide, with 64 stations in Michigan, three (3) of which are currently within the Lansing market. He indicated Kroger owns and operates its own gas station facilities, with hours commencing 30 minutes after the main store opens and closing 30 minutes before the main store closes, adding the gas station will not be open when the main store is not. Mr. Webster noted the kiosk will sell gum, cigarettes and lottery tickets as well as outdoor sales of oil, windshield wiper fluid, etc. He noted the proposed projects complies with all setback and special use permit requirements set in Meridian Township's Code of Ordinances.
- Planning Commission and staff discussion:
Commissioner Honicky inquired if all exits and entrances were accounted for in the trip generation calculation.

Associate Planner Menser responded there are six (6) curb cuts on Newman Road, but the trip generation is based on actual usage and access points and trip generation are not related in the traffic study.

Commissioner Cordill asked staff to point out on the overhead projector where the pumps are located and how they align.

Associate Planner Menser demonstrated on the overhead projector the location of the pumps and how traffic would flow.

Commissioner Deits requested clarity on the location of the parking spaces on the west side of the project.

Associate Planner Menser responded the parking in question is for the nearby Kentucky Fried Chicken establishment.

Commissioner Deits noted the applicant has proposed trees to the east and west of the facility, but did not provide a landscaping plan, precluding the Commission's ability to understand the applicant's intent.

Mr. Menser indicated landscaping would be covered during site plan review.

Commissioner Deits inquired if the project should be conditioned on the placement of those trees.

Mr. Webster responded they would be providing landscape trees in the parking lot area.

Commissioner Deits asked the applicant if he would be comfortable with the Planning Commission conditioning the special use permit upon planting of a single rows of trees to the west and a double row of trees to the east of the site.

Mr. Webster responded in the affirmative.

Commissioner Jackson inquired about the concrete slab to the east and south.

Mr. Webster responded the concrete mat is a mat for the underground storage tanks.

Commissioner Jackson indicated the proposal shows no new curbs cut off Newman Road, and she requested an explanation as to how the service station would be accessed from the "service drive."

Associate Planner Menser pointed out on the site plan where the landscape islands are located and the access between each.

Commissioner Cordill inquired if there will be directional signage in the parking lot for the cars entering the gas station.

Mr. Webster responded there currently is no directional signage in the existing parking lot.

Tom Frank, Real Estate Manager, Kroger Company of Michigan, 10399 Grand River Avenue, Novi, believed the addition of the fuel center will greatly eliminate cars cutting diagonally across the parking lot of the shopping center in order to get close to the other stores. He added Kroger is governed by a reciprocal easement agreement with Target and the other small shops which will require the "north-south service drive" to be repaved, bringing it up to truck grade paving. Mr. Frank explained there are two easements with adjacent properties: one with the shopping center located to the north and one with Kohl's behind Kroger. He noted these provide two additional access points without traffic accessing the main thoroughfares. These access points were not included in the trip generation calculation.

Commissioner Honicky inquired if there are plans to have stop signs on the access drive from Kohl's through to the gas station right next to the Kroger building.

Mr. Frank responded that if it is the wish of the Planning Commission, the applicant will install stop signs.

Commissioner Honicky asked if all access roads were going to be preserved.

Mr. Frank responded there are no changes planned to any access roads.

Commissioner Cordill asked the hours of the Kroger Store.

Mr. Frank responded the hours are from 7:00 A.M. until midnight.

Commissioner Jackson asked for the motivation behind placing the fuel center in this location, given the fact there are at least three (3) gas stations within two blocks of the proposed site.

Mr. Frank responded the fuel center is viewed as an adjunct to the grocery store. He outlined Kroger's customer loyalty program through calculating "fuel points" for each grocery store receipt, culminating in a .10 cent reduction in the price of fuel for every 100 points accumulated within a month.

Commissioner Jackson requested staff clarification on the terms for fueling station, fuel dispenser and nozzles.

Associate Planner Menser stated the ordinance defines a fueling station, adding that the term fuel dispenser is synonymous with fuel pump.

Commissioner Jackson inquired if the ordinance limits the number of fuel pumps to ten (10).

Associate Planner Menser responded the ordinance limits the number of fuel stations to ten (10). He indicated there will be two nozzles at each of the seven (7) proposed fueling stations.

Commissioner DeGroff requested clarification as to the criteria to be used to make a determination on the special use permit request.

Associate Planner Menser responded the special use permit criteria is delineated in Section 86-124 of the township's Code of Ordinances.

Chair Scott-Craig noted there is confusion relative to the north/east and south/west elevations, believing it was turned 90 degrees on the drawings presented by the applicant.

Chair Scott-Craig stated the traffic study was poorly constructed for readability. He indicated that while Newman Road is only one block long, the traffic study addressed traffic at the intersection of Newman Road and Grand River Avenue but ignored the traffic at Newman Road and Central Park Drive. He believed this project will add traffic to the Newman Road/Central Park Drive intersection and the traffic engineer should have included those statistics as well as a general map.

Commissioner Van Coevering inquired as to the subject of the minor amendment.

Associate Planner Menser responded the minor amendment is for the size of the existing special use permit for the shopping center.

Chair Scott-Craig closed the public hearing at 8:32 P.M.

7. Unfinished Business

- A. Rezoning #15010 (Forsberg Family, LLC), request to rezone approximately 39.46 acres from I (Industrial), PO (Professional and Office), RR (Rural Residential), and C-2 (Commercial) to C-2 (Commercial) with an offer of conditions to develop as a mixed use planned unit development and restrict density to no more than 18 dwelling units per acre. The site has frontage on Kansas Street and Jolly Oak Road

Principal Planner Oranchak clarified the applicant has amended its request and has removed the six (6) acre parcel which abuts Kansas Street from rezoning.

Commissioner Tenaglia moved [and read into the record] NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby recommends approval of Rezoning #15010 to rezone approximately 33.42 developed and undeveloped acres located north of Jolly Road, west and north of Jolly Oak Road and north of Farrins Parkway and addressed as 2398 Jolly Road, and 2360 and 2362 Jolly Oak Road to C-2 (Commercial) with the 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.

Seconded by Commissioner Honicky.

Planning Commission discussion:

- Applicant has demonstrated good faith effort throughout the entire process
- Project is a good use of undeveloped property in the area
- Project will add benefit and value to the community
- Applicant has been very responsive to the concerns of both the Planning Commission and the public
- Project will aid in developing connectivity within the community
- Project is better because of public involvement
- Removal of the six (6) acre RR parcel from the rezoning request is a “game changer”
- No development is not an option as the applicant could develop this property by right
- Development by right would result in additional traffic in the area
- Project will subsequently come before the Planning Commission for a public hearing on the mixed use planned unit development (MUPUD) request
- Concern the development has no mixed use in it
- Use of the property meets a market need which is beneficial to the Township
- Area is suited to a walkable community

- Necessity of a continued sensitivity to the property owners to the west as the project moves forward
- Some improvements will be made to the Jolly Road/Okemos Road intersection
- Continued concern over additional traffic in the Jolly Road/Okemos Road area
- Proposed project fits within the context of the Jolly Road/Okemos Road corner
- Addition of the proposed project has distinguishing features which will make that corner a true MUPUD
- There is no demand for additional professional office in the area
- Planning Commission is making a recommendation for rezoning to the Township Board through this resolution

ROLL CALL VOTE: YEAS: Commissioners Cordill, DeGroff, Deits, Honicky, Ianni,
Jackson, Tenaglia, Van Covering, Chair Scott-Craig
NAYS: None
Motion carried unanimously.

8. Other Business (None)

- 9. Township Board, Planning Commission officer, committee chair, and staff comment or reports**
Commissioner Honicky noted an article in today's *Lansing State Journal* regarding desirable attributes for areas in which to retire listed only 13% of people viewed walkability as important. This statistic led him to request data which supports that millennials desire walkability as a significant amenity when looking to locate/relocate.

Commissioner Deits offered to compile data to address Commissioner Honicky's inquiry.

Commissioner Jackson announced the Community Resources Commission is hosting a bowling fundraiser on Sunday, April 19th at City Limits Bowling Alley.

Commissioner Tenaglia reported her attendance at the last Meridian Economic Development Corporation (EDC) meeting where she alerted members the Planning Commission will be holding work session groups regarding the Master Plan and will solicit their input. She stated she has met with Commissioner Jackson and Associate Planner Menser to work on updates to the Township's sign ordinance.

Commissioner Deits reminded residents of the May 5th Election, stating it is not too late to request an absentee ballot.

Chair Scott-Craig reported the Governing Michigan Leadership Forum program will be held on April 18th at the Kellogg Center from 8:30 A.M. until 4:30 P.M., and the featured speaker will be Governor Snyder. He stated one of the sessions is titled Community and Social Media Based Approaches (approaches to acquiring public input), an issue discussed at length among Planning Commissioners at several meetings.

Commissioner Van Coevering added she has previously attended this forum sponsored by *Governing Magazine* and a wealth of information can be obtained. She noted that Planning Commissioners are considered governmental employees for the purpose of this forum, so attendance would be free of charge.

10. New applications

- A. Special Use Permit #15031 (BBI Holdings LLC), request to establish a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing

- B. Wetland Use Permit #15-01 (BBI Holdings), request to impact regulated wetlands for the construction of a child care center at 2172 and 2190 Association Drive with a request for a decision the same night as the public hearing
- C. Special Use Permit #15041 (Triestram and Dorner) request to construct a 128 square foot deck in the 100-year floodplain at 4303 Tacoma Boulevard with a request for a decision the same night as the public hearing

11. Site plans received

- A. Site Plan Review #15-03 (BBI Holdings), request to develop a 13,000 square foot child care center at 2172 and 2190 Association Drive

12. Site plans approved

- A. Site Plan Review #15-01 (Fedewa), request to develop a 5-unit townhouse project to be located at 2043 Hamilton Road

13. Public remarks

Chair Scott-Craig opened public remarks.

Jay Murthy, 2483 Robins Way, Okemos, asked what assurance the Commission can provide during the MUPUD process that the six (6) acres of RR property cannot be requested to be rezoned.

Principal Planner Oranchak responded a property owner always has the right to submit a rezoning application, which would go through the same process as this review.

Ann Zimmerman, 2344 Coyote Creek Drive, Okemos, questioned why traffic was considered during the rezoning request. She also inquired as to why letters of support by people who were not residents of the Township or did not own businesses in the Township were considered part of the record.

Principal Planner Oranchak stated public comment is open to anyone and is not limited to residents of the Township.

Ms. Zimmerman spoke to photos she had taken which depict marked trees within the wetland, and offered history of tree removal for property upon which Coyote Creek was built which resulted in the water being rerouted onto the association's property.

Brent Forsberg, 2422 Jolly Road, Okemos, clarified that Coyote Creek did not have sufficient retention on its own and at the request of the Ingham County Drain Commissioner, Mr. Forsberg provided, at his cost, room in his detention pond for Coyote Creek drain water.

Chair Scott-Craig closed public remarks.

14. Adjournment

Chair Scott-Craig adjourned the regular meeting at 8:37 P.M.

Respectfully Submitted,

Sandra K. Otto
Recording Secretary

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

DRAFT

April 13, 2015

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

PRESENT: Chair Scott-Craig, Vice-Chair Jackson, Commissioners Deits, Honicky, Cordill, Ianni,
Van Coevering, Tenaglia and De Groff
ABSENT: None
STAFF: Principal Planner Gail Oranchak

1. Call meeting to order

Chair Scott-Craig called the work session meeting to order at approximately 9:00 P.M.

2. Approval of agenda

The agenda was accepted as written.

3. 2005 Master Plan Update

- Thursday May 21, 2105 selected as the “group meeting” date to be held in the Town Hall Room from 7:00 p.m. to 9:00 p.m.
- Chair Scott-Craig and Vice-Chair Jackson will attend the April 21, 2015 Township Board meeting to advise the Board of the “group meeting” and request Board member participation. All Planning Commissioners are encouraged to attend.
- Planning Commissioners have been asked to recruit people for the “group meeting.”
- Commissioners De Groff and Ianni reported a total of nine participants have agreed to attend.
- Suggestions offered regarding a possible facilitator to introduce and explain the program on May 21.
- Chair Scott-Craig will work with Commissioner Van Coevering to prepare an invitation.
- Request participation by members of other Township boards and commissions.
- Commissioner De Groff reported on his progress reviewing the Bylaws commenting the Open Meetings Act permits requiring persons making public comments during a meeting to identify themselves. Persons simply attending a meeting shall not be required to identify themselves.
- Consideration for hiring a consultant to prepare the Economic Analysis chapter.
- Economic Analysis Chapter data points are not consistent with text in the chapter.
- Data mining information available from the State demographer.
- Capital Area District Library may also be a source for economic data.
- Sign ordinance committee consisting of Planning Commissioners Pat Jackson and Christine Tenaglia, Economic Development Corporation member Adam Carlson and Planning staff Peter Menser are reviewing the zoning ordinance sections regulating commercial sign.

4. Public Remarks

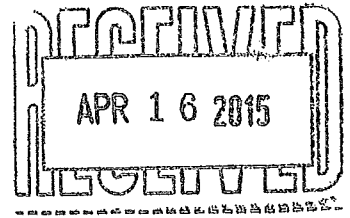
None

5. Adjournment

Chair Scott-Craig adjourned the meeting at approximately 10:00 p.m.

Respectfully Submitted,

Gail Oranchak, AICP
Principal Planner



April 13, 2015

RE: Special Use Permit #15041 (Triestram & Dorner)

Dear Planning Commission members:

I write in support of the request by my neighbors, the Dorners, for a special use permit to build a deck on the back of their house at 4303 Tacoma Blvd.

My home is also considered in the floodplain. For those of us who bought our homes prior to Hurricane Katrina and other U.S. coastal disasters, the policy shifts at the federal level to address those locales' issues have hit us here in Meridian very hard. Our flood insurance premiums have gone from manageable to major. The losses we will take when we sell our homes will be considerable, as our sale price will have to allow the new buyers to factor in flood insurance on top of their monthly mortgage expenses. And it has been suggested premiums may rise even more. I believe when I bought my house in 1999 my flood insurance premium was about \$300/year—the insurance is quoted at \$2800 for this year. And this property has not had one claim since the insurance program began in 1978...37 years. I do believe we here in Meridian—and Michigan-- are supplementing the major catastrophic flood damage in places much more prone to dramatic flooding.

(For example, National Flood Insurance Program statistics show that in fiscal year 2010, all of Michigan had only 76 claims placed in the program. Michigan residents with claims received \$306,000 that year---compared to 2010 claims from Texas for \$57.6 million, Florida at \$38.5 million and Louisiana at \$25.2 million. Between 1978 and 2010 -32 years!--Michigan received \$45 million in claims—and in 2010 ALONE Michigan paid in over \$20 million to the program!)

I address this to suggest that the Dorner's are paying a very steep (and by the way, probably unfair) price to stay in a house they love. The risk is theirs should there be a flood—they lose their deck. They're good neighbors, they take excellent care of their house, and we hope they continue to live here for a long time. The addition of a deck—which most people have on their homes-- will add to the quality, enjoyment—and value—of their house.

I urge you to agree to their request to add a deck to their home. Thank you for your time and consideration.

Sincerely,

A handwritten signature in cursive script that reads "Colleen McNamara". The signature is written in black ink and is positioned above the printed name.

Colleen McNamara

4276 Tacoma Blvd.

Okemos, MI 48864

**Special Use Permit #15031
(BBI Holdings, LLC)
April 23, 2015**

APPLICANT: BBHI Holdings, LLC
5475 Settlers Pass
Kentwood, MI 49512

STATUS OF APPLICANT Option to purchase

REQUEST: Construct an approximate 12,000 square foot child care center with 164 children

CURRENT ZONING: PO (Professional and Office)

LOCATION: 2172 & 2190 Association Drive

AREA OF SUBJECT SITE: Approximately 2.06 acres

EXISTING LAND USE: Undeveloped

FUTURE LAND USE: Office

EXISTING LAND USES IN AREA: North: Place of worship and Residential
South: Office
East: Office
West: Office

CURRENT ZONING IN AREA: North: RR (Rural Residential) & RA (Single Family-Medium Density)
South: PO (Professional and Office)
East: PO (Professional and Office)
West: PO (Professional and Office)

FUTURE LAND USE MAP: North: Institutional & RES 1.25- 3.5 du/a
South: Office
East: Office
West: Office

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM: Martha Wyatt
Martha Wyatt
Associate Planner/Landscape Architect

DATE: April 24, 2015

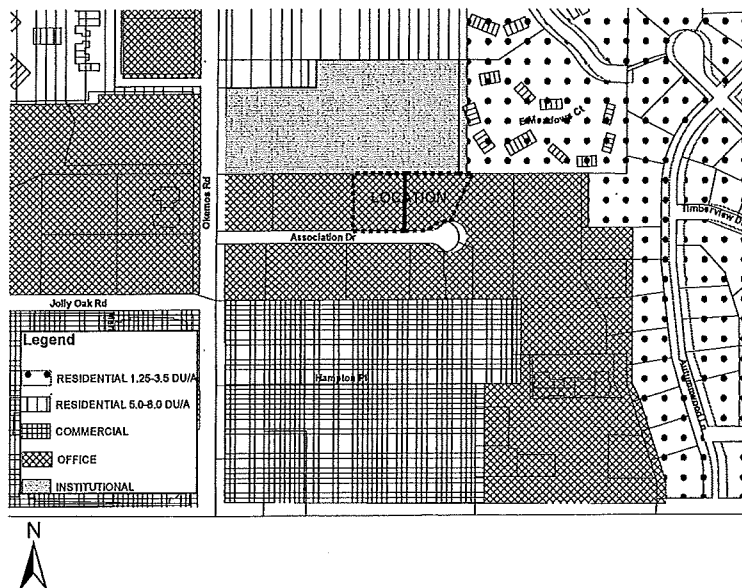
RE: Special Use Permit #15031 (BBI Holdings, LLC), request to construct an approximate 12,000 square foot a child care center, at 2172 and 2190 Association Drive, Okemos, MI

BBI Holdings, LLC, prospective property owner, has requested a special use permit to construct a child care center (Gilden Woods Early Care and Preschool Center) at 2172 and 2190 Association Drive. The approximate 12,000 square foot building will be licensed for up to 164 children. The former name of the facility was Appletree Learning Center and may appear on some of the submitted documents. The approximate 2.06 acre site consists of two vacant parcels, on the north side of Association Drive that are part of a site condominium office development (Scholle Pond Office Park) in Section 33 of the Township. The subject site is zoned PO (Professional and Office).

A child care center is a permitted use in the PO district with a special use permit approved by the Planning Commission per Section 86-432 (c)(1) of the Code of Ordinances. The applicant has requested a decision the same night as the public hearing for both Special Use Permit #15031 and Wetland Use Permit #15-01, which is associated with the site development for the proposed child care center.

Master Plan

FUTURE LAND USE MAP

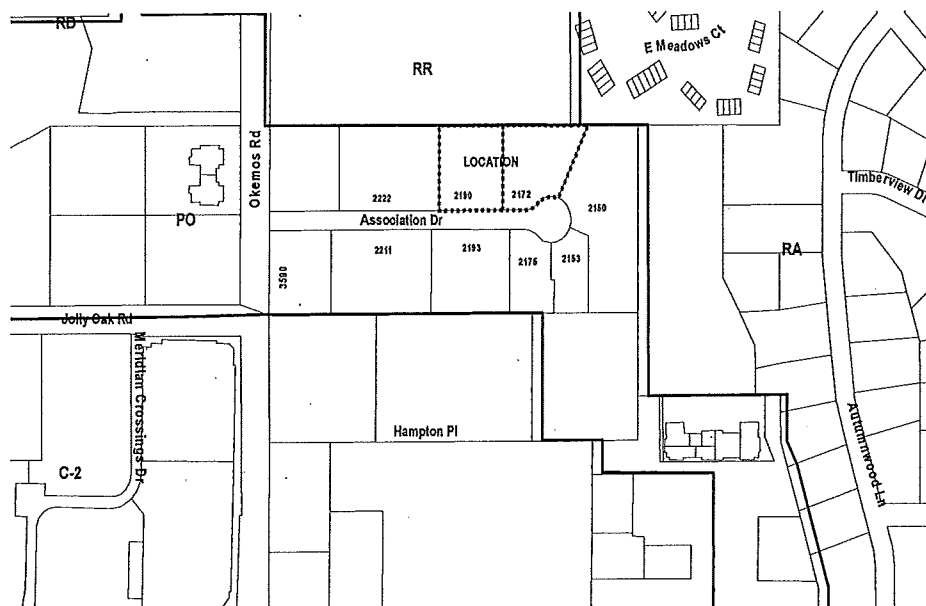


The 2005 Master Plan designates the subject site in the Office category.

Zoning

The project site is zoned PO (Professional and Office). The site consists of two parcels in the Scholle Pond Office Park, Unit 2 (2190 Association Drive) and Unit 3 (2172 Association Drive). Each unit is approximately 1.03 acres, for a total area of 2.06 acres, or approximately 89,734 square feet. The minimum lot area in the PO zoning district is 5,000 square feet. The site measures 388.5 feet in width along the Association Drive. The minimum frontage requirement for the PO district is 50 feet.

ZONING MAP



Physical Features

The subject site was graded in the mid-1990's when Association Drive was constructed and the site condominium lots were created. The existing terrain slopes from the east downward to the west. The lowest elevation, 886 feet above mean sea level, is found near the site's west property line. From there the land gently rises toward the northeast where it reaches an elevation of 895 feet above mean sea level. A regulated wetland is located approximately in the center of the site.

Vegetation on the majority of the undeveloped site is primarily mowed grass, including reed canary grass in the wetland area. The applicant's existing survey shows a treeline along the north property line. The eastern portion of the treeline will be preserved and the remaining portion will be removed in order to create a combination wetland mitigation and stormwater detention area along the northern boundary of the site.

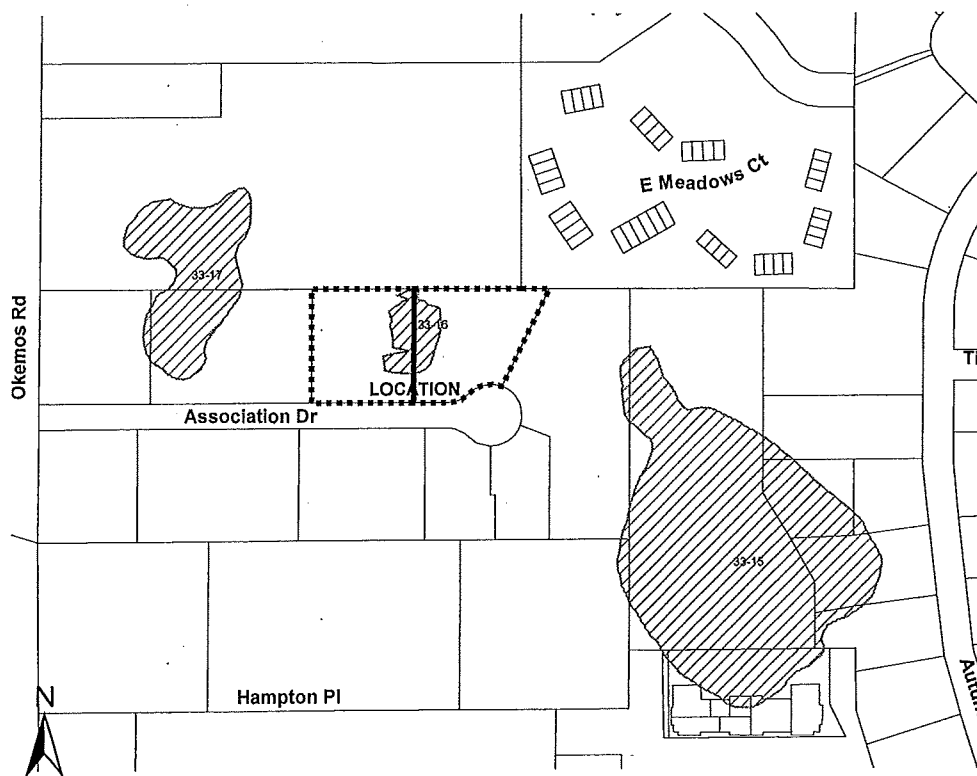
Wetlands

The Township's Wetland Map shows Wetland #33-16 occupying the central portion of the site. The Township's Environmental Consultant confirmed the wetland boundary in March 2015 and provided a report of the findings dated March 27, 2015.

The approximate 12,381 square foot wetland (0.28 acres) is characterized as an emergent wetland on the Township's Wetland Map and is regulated by the Township and Michigan Department of Environmental Quality (MDEQ). A 20-foot wide structure and grading setback and natural features setback are associated with the wetland.

The project requires a wetland use permit for impacts to the wetland from the construction of proposed building. Approximately 90% of the wetland will be filled. A mitigation area of comparable size (1:1 mitigation ratio) is proposed along the northern portion of the site and serves as the detention area for the site. Wetland Use Permit #15-01 is under review concurrent with Special Use Permit #15031 and details are discussed in a separate memorandum.

WETLANDS MAP



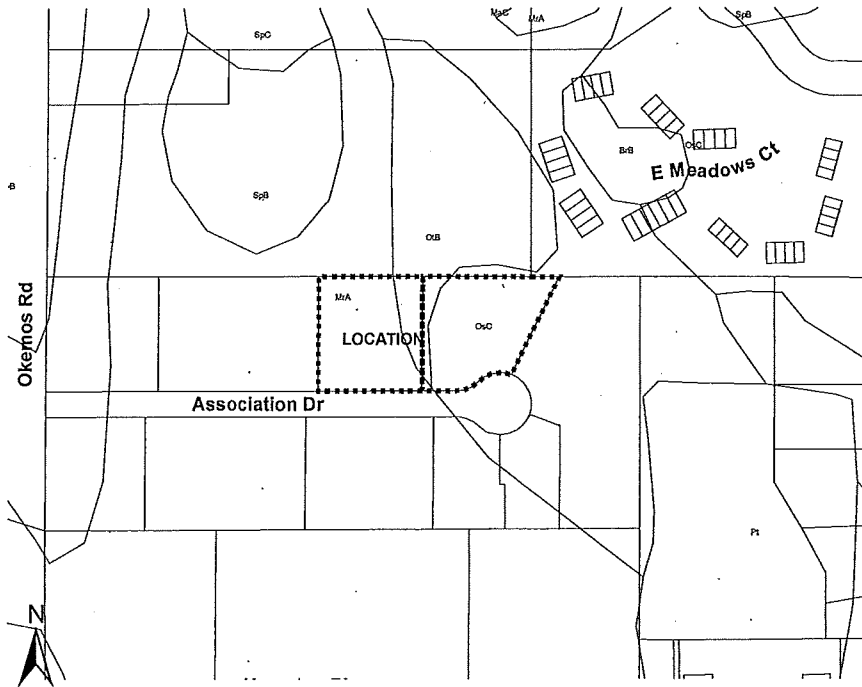
Soils

The following predominant soil types impact development of the subject site:

SOIL ASSOCIATION	SEVERE LIMITATIONS
MrA (Matherton)	Severe wetness
OsC (Oshtemo)	Moderate to severe slope
OtB (Ostemo)	Slight limitations

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

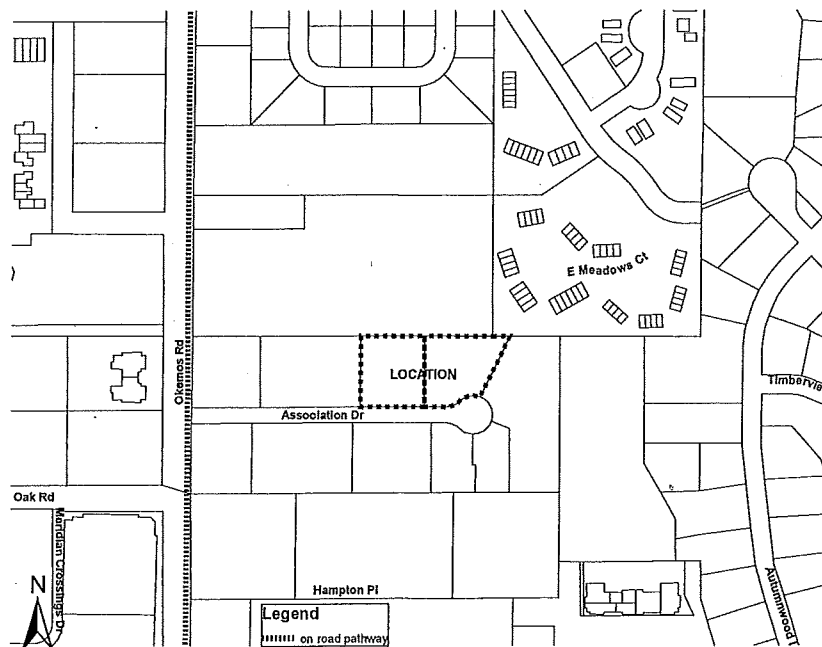
SOILS MAP



Greenspace Plan

The Greenspace Plan indicates an on-road pathway along Okemos Road north and south of Association Drive. The Township's 7-foot wide Pedestrian-Bicycle Pathway exists in this location.

GREENSPACE PLAN



Streets & Traffic

The approximate two acre site is situated east of Okemos Road on the north side of Association Drive. Access to the site is from Association Drive via Okemos Road. Association Drive, approximately 900 feet in length, is a private, two-lane street with curb and gutter and a cul-de-sac at the eastern terminus point. The street currently serves six office buildings. Five-foot wide sidewalks are located on the north and south sides of Association Drive along the frontage of the developed lots. The 7-foot wide Township Pedestrian-Bicycle Pathway is located along Okemos Road, north and south of Association Drive.

As background information, internal circulation includes two entrance drives and 55 off-street parking spaces. It is anticipated approximately 130 children will be at the facility on an average day. The busiest drop-off time is between 7:30 a.m. and 8:30 a.m. when approximately 40 families will be dropping off their children. The children must be escorted to and from the building by the parent or guardian per the requirements of the child care center.

The applicant's traffic consultant, URS Corporation, initially provided a traffic study dated April 1, 2015. Staff forwarded the study to the Township's Traffic Consultant and the Ingham County Road Department (ICRD) for their comments, which they provided. Since that time, a revised traffic study dated April 23, 2015 was submitted to staff on April 24, 2015. The study was forwarded to the ICRD and the Township's Traffic Consultant on April 24, 2015. Due to the deadline for completing the staff memorandum, written comments from the ICRD were not received before the completion of the memorandum. Preliminary comments were provided from the Township's Traffic Consultant.

The traffic study, dated April 23, 2015, evaluates three intersections: Okemos Road and Association Drive; Okemos Road and Jolly Oak Road; and Okemos Road Jolly Road. Turning movement counts were collected on March 11, 2015 at the Okemos Road/Association Drive and Okemos Road/Jolly Road intersections. Traffic counts for the Okemos Road/Jolly Oak Road intersection originated from a 2015 (January) traffic impact study for a different project. Two peak periods were used for the data collection: weekday morning, 7:00 a.m. to 9:00 a.m. and weekday afternoon, 4:00 p.m. to 6:00 p.m.

Recent Average Daily Traffic (ADT) volumes from the Ingham County Road Department database were not available in the study area. The Traffic study provides ADT estimates based on data collected for peak hour volumes in the study area. The estimated average daily traffic volumes (in a 24-hour period) on Okemos Road range from 21,000 to 23,000 trips, between Jolly Road and north of Association Drive (Figure 3).

The applicant's traffic report provides level of service (LOS) analysis for existing traffic at the three study area intersections. Table 2 summarizes the existing (2015) overall level of service for a.m. and p.m. peak hour for the three intersections. Data for the opening year (2015) shows the LOS remains the same at all three intersections except for the Okemos Road/Association Drive in the p.m., which changes from B to C (Table 6). Slight increases in delay (seconds per vehicle) occur at each intersection in the a.m. and p.m. hour.

An analysis of the traffic associated with the proposed child care facility in the opening year (2015) is provided. Trip generation estimates for the proposed Gilden Woods child care facility on Association Drive are based on actual trip generation data (morning and afternoon peak hours) from two existing Appletree Learning Centers located in the greater Grand Rapids area (Table 4). Both facilities are approximately 12,000 square feet in size and are comparable to the proposed Gilden Woods facility regarding number of children and staff.

The higher of the two existing sites generates 117 total trips in the morning peak hour (61 entering and 56 exiting) and 127 total trips in the afternoon peak hour (61 entering and 66 exiting). The applicant's consultant is projecting the same trip generation data for the opening year (2015) of the proposed child care facility (Table 5).

Using the Day Care Center land use type (Code 565), from the Trip Generation Manual published by the Institute of Transportation Engineers (ITE), 8th Edition, and based on the size of the building (12,000 gross square feet), the site generates 163 total trips in the morning peak hour and 167 total trips in the afternoon peak hour.

The traffic study evaluated the need for a right-turn taper on northbound Okemos Road at Association Drive, using the Ingham County Road Department (ICRD) standards. The study states a right-turn taper is warranted under existing (2015) conditions. Under opening year (2015) conditions, the study further notes a right-turn taper is sufficient and a right-turn deceleration lane is not warranted.

The applicant's consultant has offered the following conclusions of the traffic study:

- The proposed access drives to Association Drive should adequately serve the site based on the estimated trips generated by the site.
- The existing Okemos Road/Association Drive intersection has the capacity to serve additional traffic generated by the proposed child care center. The existing 2-way left turn lane (TWLTL) on Okemos Road accommodates southbound left-turn traffic onto the site and exiting westbound left-turn traffic from Association Drive.
- The Okemos Road/Jolly Road intersection operates poorly under existing conditions with a LOS (Level of Service) of E and F for most turning movements. Improvements to the intersection should not be based on additional traffic generated from the proposed child care center.
- Traffic from the proposed development will have little or no additional impact on traffic operations at the Okemos Road/Jolly Road intersection.
- A northbound right-turn taper on Okemos Road at Association Drive meets the ICRD standards under existing (2105) conditions, prior to the opening of the proposed child care center.
- A northbound right-turn lane on Okemos Road at Association Drive is not warranted under the opening year (2015) conditions, based on the ICRD standards.

The Township's Traffic Consultant reviewed the traffic study dated April 1, 2015 and reported "the study shows the intersections of Association Drive at Okemos Road and Jolly Oak Road at Okemos Road will continue to operate well." Based on that study he also noted a right-turn taper may be warranted for northbound traffic on Okemos Road turning into Association Drive in the p.m. peak hour, subject to the review and approval of the ICRD. Preliminary comments from the Township's Traffic Consultant regarding the April 23, 2015 traffic study indicate he concurs with the findings of the study.

The ICRD reviewed the initial traffic study dated April 1, 2015 and noted the peak hour right turns from Okemos Road onto Association Drive indicate a right-turn taper is warranted, based on the ICRD standards. As noted previously, comments from the ICRD regarding the April 23, 2105 traffic study were not received before the completion of this memorandum

The Capital Area Transportation Authority (CATA) has two routes that travel Okemos Road-Route 22 and 23 which run between Michigan State University, Okemos, and Haslett. A CATA bus stop associated with Route 22 Okemos is located on the east side of Okemos Road, approximately 200 feet south of Association Drive. The nearest CATA bus stop associated with Route 23 is located on the west side of Okemos Road, across from Association Drive.

Public Utilities

The site is located in an area where public water and sanitary sewer service is available.

Stormwater Management

An on-site detention area is proposed in combination with the wetland mitigation area on the north side of the site. Stormwater runoff from the northwest portion of the parking area is directed toward the detention area via sheet draining and a spillway. Stormwater from the rest of the site (including roof stormwater runoff and the remaining portion of the parking area) is directed to on-site catch basins which will connect to the storm sewer in Association Drive. Three bioswale areas are proposed for pretreatment of the stormwater.

Staff Analysis

The applicant is requesting a special use permit to construct a one-story, approximate 12,000 square foot child care center in the PO (Professional and Office) district. Section 86-432 of the Zoning Ordinance outlines the uses allowed by right and by special use permit. The site development standards are listed in Section 86-432(d). As applicable, Special Use Permit criteria (Section 86-126 of the Code of Ordinances) are used to evaluate special use permit requests. A copy of the criteria is attached.

The child care center will be licensed for up to 164 children, ranging in age from six weeks to 12 years. Infant and toddler care as well as full and half-day preschool options offered. Additional services include before and after school care, winter and spring break day care, and summer camps. Transportation to and from local schools is provided as part of the tuition cost. A fenced outdoor play area is located on the east side of the building and is approximately 10,505 square feet in size. Small groups of children will use the play area under adult supervision, approximately 32-40 children at any one time. Approximately 30 employees are employed at the facility, with 22 employees at any one time. The hours of operation are 6 a.m. to 6 p.m. Monday through Friday.

In the PO zoning district the maximum allowed impervious surface coverage is 75% and the site is approximately 49.7% impervious. The building meets the setbacks for the PO district as follows: 61 feet from the rear lot (north) line and a 50-foot setback is required; 80 feet from the front (south) lot line/street right-of-way and a 25-foot setback is required; 89 feet on the side (west) lot line and 132 feet on the side (east) lot line. A 15-foot side yard setback is required for the building.

The mean building height is approximately 18'-6". The maximum allowed height is 35 feet. The building materials include a synthetic stone wainscoting on the front (south) façade and prefinished cement board siding on the rest of the building. A 5 foot wide sidewalk is provided around the perimeter of the building, providing access from the classroom exit doors. Staff has suggested a sidewalk be provided from the public sidewalk on Association Drive into the site, which the applicant has agreed to.

Two driveways provide direct access to the site from Association Drive. Per Section 86-755 the required number of parking spaces is based on the number of employees and children, as follows: one space per five children plus one space per caregiver. Using this formula, with 164 children and 22 caregivers (at any one time), 56 parking spaces are required. The site plan shows 55 off-street parking spaces and four bicycle parking spaces. Using the allowed reduction of motor vehicle parking spaces as outlined in the bicycle parking ordinance (Section 86-760), two motor vehicle parking spaces could be eliminated, and thus 55 parking spaces are acceptable. The parking area complies with the required yard setbacks.

Landscape and photometric plans have been submitted. A detailed review of the plans will occur during site plan review. The Township's Development Review Committee has reviewed the plans and comments have been incorporated into this memorandum.

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 #15031 the same night as the public hearing.

Planning Commission Options

The Planning Commission may approve, approve with conditions or deny the special use permit. A copy of the Special Use permit criteria is attached. A resolution to approve the use is provided.

Attachments

1. Special Use Permit Application
2. Communication from Bill Savage, Township Traffic Consultant, dated April 5, 2015
3. Special Use Permit criteria (Section 86-126)
4. Resolution to Approve
5. Site Plans, Building Elevations, and Floor Plans dated April 3, 2015

g:\community plng & dev\plng\special use permits (sup)\2015\sup 15031(Gilden Woods child care)\staff reports\15031.pc1



April 3, 2015

Ms. Martha Wyatt
Meridian Charter Township
5151 Marsh Road
Okemos, MI 48864

RE: Gilden Woods Learning Center – 2172 and 2190 Association Drive
Meridian Township, Ingham County

Dear Ms. Wyatt:

This letter is being written to request that the Planning Commission take action on the special land use request regarding the proposed project at their April 27 meeting. This request is being made in light of the fact that Gilden Woods would like to open in 2015, and it is critical that the project approvals proceed in a timely fashion. The Planning Commission's consideration regarding this request is greatly appreciated.

Please contact me at (616) 575-5190, if you have any questions or require additional information.

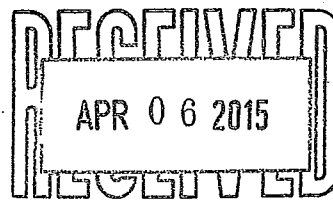
Sincerely,

Steve Witte
Project Engineer

SW

Enclosures

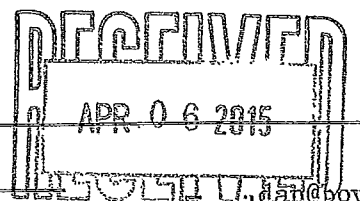
K:15400051/township3actionrequest.sw



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

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 BBI Holdings, LLC; Attention: Dan Boverhof
 Address of Applicant 5475 Settlers Pass, Kentwood, MI 49512
 Telephone - Work (616)893-5050 Home (616)291-4192 Fax _____ Email dan@boverhofbuilders.c
 Interest in property (circle one): Owner Tenant Option Other _____
 (Please attach a list of all persons with an ownership interest in the property.) #33-02-02-33-453-002
- B. Site address / location / parcel number 2172 and 2190 Association Dr/ #33-02-02-33-453-003
 Legal description Please see attached (please attach if necessary)
- Current zoning P.O.
 Use for which permit is requested / project name Child care facility / Gilden Woods
 Corresponding ordinance number allowed per Section 86-432 (e) (1)
- C. Developer (if different than applicant) same as applicant
 Address _____
 Telephone - Work _____ Home _____ Fax _____
- D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name Nederveld, Inc. Attention: Steve Witte, PE
 Address 217 Grandville Ave, SW; Suite 302; Grand Rapids, MI 49503
 Telephone - Work (616)575-5190 Home (616)292-5953 Fax (616)575-6644
- E. Acreage of all parcels in the project: Gross 2.06 Net 2.06 ac
- F. Explain the project and development phases: construction of an 11,994 sf building that will be used as a child care facility. The project will be completed in one phase.
- G. Total number of:
 Existing: structures N.A bedrooms - offices - parking spaces - carports -
 garages - Proposed: structures one bedrooms - offices - parking spaces 55 carports -
 garages -
- H. Square footage: existing buildings 0 proposed buildings 11,994 sf
 Usable Floor area: existing buildings 0 proposed buildings 10,960 usable
- 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: Approximately 20-25 employees
- J. Existing Recreation: Type Not Applicable Acreage _____
 Proposed Recreation: Type Not Applicable Acreage _____

Existing Open Space: Type Not Applicable Acreage _____
 Proposed Open Space: Type Not Applicable Acreage _____

K. If Multiple Housing:
 Total acres of property Not Applicable
 Acres in floodplain _____ Percent of total _____
 Acres in wetland (not in floodplain) _____ Percent of total _____
 Total dwelling units _____
 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 _____ 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 66-126

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

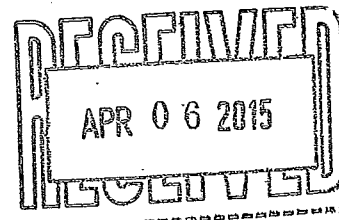
Dan Boverhof
Signature of Applicant

FEB - 19 - 2015
Date

Dan Boverhof
Type/Print Name

Fee: \$ 500

Received by/Date: Mantha Wyatt 4/6/15



SUP REQUEST STANDARDS:

1). The project is consistent with the intent and purposes of this chapter.

The proposed project meets the standards of the zoning ordinance. The proposed child care use is a use that is permitted in the zone district. The proposed use will 'finish' the development along Association Drive and will provide a valuable service to the area.

2). The project is consistent with applicable land use policies contained in the Township's comprehensive development plan of current adoption.

The proposed project meets the standards of the zoning ordinance and the applicable land use policies. The use is an area that is planned for PO zoning. The child care use is allowed as a special use within the PO district.

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 is harmonious with the area. The size of the building and parking lot is consistent with/similar to other buildings and uses that are located along Association Drive. The building is a very attractive building, and landscape is provided to enhance the appearance of the site.

4). The project will not adversely affect or be hazardous to existing neighboring uses.

The project will not adversely affect or be hazardous to neighboring uses. The use does not generate any fumes, odor, glare, vibrations or similar items. There is a relatively small amount of traffic, especially in light of the fact that this use will occupy two lots within the overall office development. There will be minimal amounts of noise, with the playground being the only potential noise generator. The playground activity is completed in much smaller groups of children, and the activity is always supervised. Note that the wooded area to the northeast of the site will be preserved. Also, please note that the business hours are 6 am to 6 pm, Monday through Friday.

5). The project will not be detrimental to the economic welfare of surrounding properties or the community.

The proposed project will fill the final void/vacancy along Association Drive. The use will provide a valuable service to the area and the people who work in the area. The development of the property will expand the township's tax base and will create jobs for the area.

- 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.**

The project is adequately served by roads, schools, stormwater, safety, transportation and recreation. There is storm sewer (and a storm lead) provided in Association Drive, and the drainage plan will be reviewed/approved by the Ingham County Drain Commission. The site has access to Association Drive, which is a private drive. There are sufficient hydrants and other emergency-protection items at the site. No improvements to adjacent/nearby infrastructure or services are needed as a result of this project.

- 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.**

The project is adequately served by public watermain and public sanitary sewer. Leads are provided to the property. The leads will be extended to service the existing building. As mentioned above, storm sewer is also provided in Association Drive and the drainage design is subject to the review and approval of the Ingham County Drain Commission.

- 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.**

The project will not generate smoke, fumes, glare, or odors. There will be some traffic to the site, and some noise from the playground, but both the traffic and the noise are minimal.

- 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.**

The property has a wetland pocket on it, as shown on the site plan set. The existing wetland covers approximately 9,240 sf of land area (0.21 acres). Approximately 7,645 sf of the existing wetland will be impacted/filled in to provide the 20 ft wetland setback required by the zoning ordinance. To compensate for the wetland impact, wetland mitigation will be provided along the north property line, to the east and west of the existing wetland pocket.

There is a row of trees/vegetation along the north property line – starting near the middle of the property and heading east. The existing vegetation will be preserved, other than the west end of the vegetation which will be impacted as necessary to provide for wetland mitigation as required by the township (note the MDEQ previously did not require any mitigation).

Site Plan/ Special Land Use Request Associated with Gilden Woods Learning Center 2172 and 2190 Association Drive

OVERVIEW OF PROPOSED USE:

BBI Holdings, LLC, is proposing to construct an 11,994 sf building that will be used by Gilden Woods Learning Center as a day care. In addition to the building, an outdoor 10,505 sf play area will be provided, as well as 55 parking spaces. The facility will be licensed for up to approximately 164 children and will provide a needed service to the area.

The activities occurring at the site will primarily be conducted inside the building. The children are occasionally brought outside to the fenced-in play area. The outside activities are always supervised and are in smaller groups of approximately 32-40 children at one time.

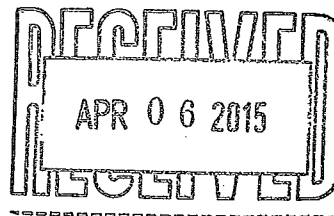
The facility will obtain State licensing and all other required local and state permits and approvals.

The hours of operation will be 6 am to 6 pm Monday through Friday.

There will be approximately 30 total people employed by Appletree Learning Center to operate the site, with approximately 15-22 of them working at any given time.

The center will be licensed for approximately 164 children. On an average day, it is anticipated that there will be approximately 130 children at the site. The busiest time of day for drop off will be between 7:30 and 8:30 am, when it is anticipated that there will be approximately 40 families dropping their children off. Regarding traffic and safety internal to the site, please note that Appletree Learning Center requires all people dropping off and picking up their children to walk their children to/from the building. Therefore, no children will be outside by themselves and no formal drop off area is required or desired. Access to the site will be two entrances off Association Drive (Private). Note that the Appletree site covers two lots within the office park.

The proposed building is a very attractive building. In general, the building materials consist of split face and smooth single-score block with integral color, windows, E.I.F.S., shutters, and asphalt shingles. The eave height is 11 ft above grade. Elevations have been submitted as part of the submittal for review and approval.





We provide quality, educational child care in a safe and nurturing environment.

Company Narrative

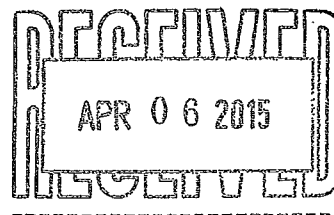
Gilden Woods Early Care and Preschool centers provide high quality child care and education to children 6 weeks to 12 years old, in a safe, nurturing environment where children can learn, play, and grow at their own pace. The schools are specifically designed to foster engaging, interactive learning that promotes Kindergarten Readiness and future school success.

Centers provide infant and toddler care and full- and half-day preschool. Before- and after-school care and fun, educational spring break, winter holiday, and summer day camps, are offered for school aged children. Transportation to and from several local schools is included in tuition.

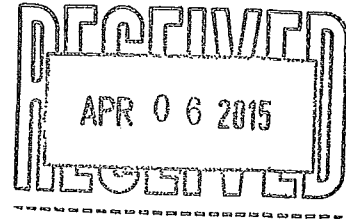
With 15 schools open in Grand Rapids, Kalamazoo, Otsego, and East Lansing, Gilden Woods is a family of child care centers. The company has grown from 12 employees in 1998 to over 500 in 2015. We are celebrating 16 years of providing high quality child care and education in a safe, nurturing environment and are looking forward to the opening of additional Gilden Woods locations in 2015.

Our schools may provide care and education to up to (approximately):

- 12 children aged 6 weeks – 6 months
- 12 children aged 6 months – 12 months (1 year)
- 16 children aged 12 months (1 year) – 18 months
- 16 children aged 18 months – 24 months (2 years)
- 16 children aged 24 months (2 years) – 30 months
- 16 children aged 30 months – 36 months (3 years)
- 20 children aged 3 years – 4 years
- 24 children aged 4 years – 5 years
- 36 children aged 5 years and older – Young 5's and School Age (Before & After School Care and Explorers programs during school breaks in the spring, summer, and winter)



Corporate Office
770 Kenmoor Ave SE Suite 100
Grand Rapids, MI 49546
(616) 454-5432



Site Plan/ Special Land Use Request Associated with Gilden Woods Learning Center 2172 and 2190 Association Drive

OVERVIEW OF PROPOSED USE:

BBI Holdings, LLC, is proposing to construct an 11,994 sf building that will be used by Gilden Woods Learning Center as a day care. In addition to the building, an outdoor 10,505 sf play area will be provided, as well as 55 parking spaces. The facility will be licensed for up to approximately 164 children and will provide a needed service to the area.

The activities occurring at the site will primarily be conducted inside the building. The children are occasionally brought outside to the fenced-in play area. The outside activities are always supervised and are in smaller groups of approximately 32-40 children at one time.

The facility will obtain State licensing and all other required local and state permits and approvals.

The hours of operation will be 6 am to 6 pm Monday through Friday.

There will be approximately 30 total people employed by Appletree Learning Center to operate the site, with approximately 15-22 of them working at any given time.

The center will be licensed for approximately 164 children. On an average day, it is anticipated that there will be approximately 130 children at the site. The busiest time of day for drop off will be between 7:30 and 8:30 am, when it is anticipated that there will be approximately 40 families dropping their children off. Regarding traffic and safety internal to the site, please note that Appletree Learning Center requires all people dropping off and picking up their children to walk their children to/from the building. Therefore, no children will be outside by themselves and no formal drop off area is required or desired. Access to the site will be two entrances off Association Drive (Private). Note that the Appletree site covers two lots within the office park.

The proposed building is a very attractive building. In general, the building materials consist of split face and smooth single-score block with integral color, windows, E.I.F.S., shutters, and asphalt shingles. The eave height is 11 ft above grade. Elevations have been submitted as part of the submittal for review and approval.

**Site Plan/ Special Land Use Request Associated with
Gilden Woods Learning Center
2172 and 2190 Association Drive**

Items required in the Special Land Use/Site Plan Applications:

Item L(1) – A check has been submitted to cover the submittal fee

Item L(2) – Legal Description:

UNITS 2 & 3, SCHOLLE POND OFFICE PARK, A PART OF THE SOUTHEAST 1/4 OF SECTION 33, T4N, R1W, MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN, AS RECORDED IN LIBER 2960, PAGE 1249, INGHAM COUNTY SUBDIVISION PLAN NO. 115, INGHAM COUNTY RECORDS.

Item L(3) – A copy of the purchase agreement is enclosed.

Item L(4) – Copies of the site plan set are enclosed.

Item L(5) – Architectural elevations are enclosed. If needed, material display boards will be brought to the Planning Commission meeting.

Item L(6) – A Traffic Impact Study is enclosed.

Item L(7) –

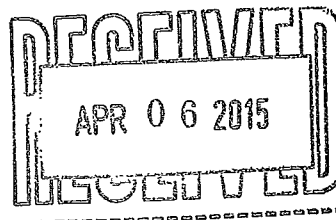
Wetland: The property has a wetland pocket on it, as shown on the site plan set. The existing wetland covers approximately 12,381 sf of land area (0.28 acres). Approximately 10,730 sf of the existing wetland will be impacted/filled in to provide the 20 ft wetland setback required by the zoning ordinance. To compensate for the wetland impact, wetland mitigation will be provided along the north property line, to the east and west of the existing wetland pocket.

Vegetation: There is a row of trees/vegetation along the north property line – starting near the middle of the property and heading east. The existing vegetation will be preserved, other than the west end of the vegetation which will be impacted as necessary to provide for wetland mitigation as required by the township (note the MDEQ previously did not require any mitigation).

In order to minimize impact, the project has been designed/laid out to keep the building, parking, and activity as far south on the property as possible.

Item M - A summary sheet that gives an overview of the project/use is enclosed.

Item N through Item S - Not Applicable





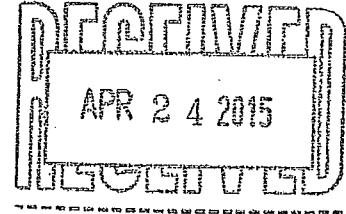
Client: BBI Holdings, LLC
Project Name: Appletree Learning Center
Traffic Impact Study
Location: Meridian Township, Michigan
Project Number: 12945139
Issue Date: April 23, 2015

**PROJECT
MEMORANDUM**

TO: Dan Boverhof
BBI Holdings, LLC

FROM: Ray Schneider, AICP, Nick LaCroix, PE, and Mike DeVries, PE

SUBJECT: Appletree Learning Center Traffic Impact Study



1.0 INTRODUCTION

A proposed Appletree Learning Center development is planned in Meridian Township, Michigan. The project is located on the north side of Association Drive, 700 feet east of Okemos Road. Association Drive intersects the east side of Okemos Road and is an approximately 900-foot long cul-de-sac that serves several office buildings. Association Drive intersects Okemos Road approximately 1,100 feet north of Jolly Road. The Appletree Learning Center is expected to open in 2015. The site location is depicted in **Figure 1**.

The development will include a 12,000 square-foot day care center and a 55-space parking lot. Primary site access would be provided on Association Drive, via Okemos Road. A site plan is depicted in **Figure 2**.

Based on conversations with Meridian Township, three (3) intersections are included in the study:

- Okemos Road at Association Drive
- Okemos Road at Jolly Oak Road
- Okemos Road at Jolly Road

The purpose of the traffic impact study is to provide recommendations concerning the proposed site access, including whether improvements might be necessary at any of the above intersections to mitigate capacity and operational deficiencies as a result of the proposed development.

2.0 DATA COLLECTION

Turning movement counts were collected on Wednesday, March 11 at the Okemos Road/Association Drive and Okemos Road/Jolly Road intersections. Turning movement counts at the Okemos Road/Jolly Oak Road intersection had been collected for another traffic impact study in January 2015. Meridian Township allowed URS Corporation to use those counts in the present study in lieu of collecting new counts at the intersection. The existing (2015) turning movement count reports are included in **Appendix A**. Based on discussions with Meridian Township, two (2) peak periods were identified for data collection:

- Weekday Morning 7:00 to 9:00 AM
- Weekday Afternoon 4:00 to 6:00 PM

The Okemos Road/Association Drive intersection is a T-intersection with STOP-sign control for traffic on Association Drive. The Okemos Road/Jolly Oak Road intersection is a T-intersection with STOP-sign control for

traffic on Jolly Oak Road. Okemos Road has a two-way left-turn lane (TWLTL) at both intersections allowing left-turn traffic to exit the through lanes. The Okemos Road/Jolly Road intersection is a fully-actuated signalized and operates on a variable cycle length in both the morning and afternoon peak-hours. The maximum cycle length is 140 seconds in both peak-hours. The signal is eight-phase with protected only left-turns on all approaches. Left-turn phases may be skipped if no left-turning traffic is present within a cycle.

URS field-verified existing geometric information in order to document existing traffic operational conditions at the three study area intersections. Intersection lane configurations, speed limits, daily traffic volumes, and other traffic operational information for the study area are shown on **Figure 3**.

Recent Average Daily Traffic (ADT) volumes from the Ingham County traffic count database were not available in the study area (ADTs were dated from 2006 through 2009). As a result, the daily traffic volumes shown in Figure 3 are estimated 24-hour volumes derived by applying a factor to the study area peak-hour volumes. A common method for estimating 24-hour volumes is to apply a factor of 10 to the two-way afternoon peak-hour volumes, i.e., the afternoon peak hour represents approximately 10% of the 24-hour volume (two-way afternoon peak-hour volume is 1,000 vehicles, then the 24-hour volume is projected to be 10,000 vehicles per day). The existing peak-hour volumes based on the turning movement counts are depicted in **Figure 4**.

3.0 EXISTING YEAR (2015) CAPACITY ANALYSIS

In order to quantify intersection traffic operations at the three study area intersections, existing "Level-of-Service" (LOS) values were determined using industry-standard (*Synchro 8.0* and *Highway Capacity Software*) packages, which incorporate the methodology of the *Highway Capacity Manual*, published by the Transportation Research Board.

The term "Level of Service" (LOS) indicates how well (or poorly) traffic operates based on traffic volumes, lane configurations, and traffic controls. Each level is determined by the average amount of traffic control delay experienced by motorists. LOS "A" represents little or no delays while LOS "F" represents operational failure (extensive delays which may include long vehicular queues). LOS "D" or better is typically considered acceptable during peak hours for suburban communities like Meridian Township. The Level-of-Service criteria, as defined by the HCM, are described in **Table 1** for signalized and unsignalized intersections.

**Table 1. Peak-Hour Level-of-Service Ranges
 Highway Capacity Manual (2000)**

Level-of-Service	Signalized Intersections	Unsignalized Intersections
	Control Delay (sec/veh)	Control Delay (sec/veh)
A	≤10	≤10
B	10 – 20	10 – 15
C	20 – 35	15 – 25
D	35 – 55	25 – 35
E	55 – 80	35 – 50
F	>80	>50

Source: 2010 Highway Capacity Manual

3.1 Existing (2015) Traffic Conditions

The overall intersection LOS at the signalized intersections and the side-street approach LOS at the two-way STOP-controlled intersections are shown in **Table 2**.

Table 2. Existing (2015) Overall Intersection Level of Service

Intersection or Intersection Approach	Morning Peak Hour		Afternoon Peak Hour	
	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Okemos Road/Jolly Road - Overall				
Okemos Road/Jolly Road	E	59.4	F	105.8
Two-Way STOP-Controlled Intersection Approaches				
Okemos Road/Jolly Oak Road	B	13.3	C	16.5
Okemos Road/Association Drive	B	11.6	B	13.9

Source: URS Corporation, April 2015

The Okemos Road/Jolly Road signalized intersection operates at an overall LOS “E” under existing (2015) weekday morning conditions and an overall LOS “F” under afternoon peak-hour conditions. The STOP-controlled approaches at the two unsignalized intersections operate at LOS “C” or better under existing (2015) morning and afternoon peak-hour conditions.

Movement-by-movement LOS values are depicted in Figure 4 for the existing (2015) weekday peak-hours for all study area intersections. Examination of Figure 4 reveals that in the morning peak-hour six (6) individual movements at the Okemos Road/Jolly Road intersection operate at LOS “E” or “F”. For the afternoon peak-hour, Figure 4 reveals that ten (10) individual traffic movements at the Okemos Road/Jolly Road intersection operate at LOS “E” or “F”. The poorly operating movements are also depicted in **Table 3**. The existing (2015) intersection capacity reports are included in **Appendix B**.

The 95th percentile queues shown in Table 3 are queues (in number of vehicles) such that there is a 95% probability that any random queue is smaller than this length.

**Table 3. Existing (2015) Peak Hour Level of Service
 Poorly-Operating Turning Movements**

Movement	Peak Hour	Volume	LOS	95 th % Queue (vehicles)*	Delay (sec/veh)
<i>Okemos Road/Jolly Road</i>					
Eastbound Left	Morning	127	E	8	73.9
Eastbound Through/Right		224/93	E	13	78.8
Westbound Left		443	E	22	64.3
Northbound Left		151	E	10	75.1
Southbound Left		108	F	10	**
Eastbound Left	Afternoon	407	F	27	**
Eastbound Through/Right		441/203	F	22	**
Westbound Left		392	E	22	71.1
Northbound Left		208	F	19	**
Northbound Through/Right		726/277	F	28	88.5
Southbound Left		104	F	10	**
Southbound Through/Right		800/96	E	25	77.8

* - 95th percentile queue lengths shown

** - Delay exceeds 120 seconds

Source: URS Corporation, April 2015

As shown in Table 3, Level of Service is poor on all four approaches for the Okemos Road/Jolly Road intersection under existing (2015) conditions. Observances in the field indicated long traffic backups for the above movements, at times resulting in all traffic not clearing in one cycle for individual movements. Even movements with LOS of "D" or better were observed to have long backups of 15 or more vehicles.

Based on the poor level of service indicated in the existing analysis, future consideration should be given by the county to constructing right-turn only lanes, particularly on the northbound and eastbound approaches. In addition, right-turn green arrows (RTGAs) could be added to signal operations so that the heavy right-turn volumes can be made freely during opposing left-turn signal phases (northbound RTGA during westbound left-turn green arrow, eastbound RTGA during northbound left-turn green arrow).

3.2 Right-Turn Taper on Northbound Okemos Road at Association Drive

Guidelines for a right-turn taper or deceleration lane were evaluated for northbound Okemos Road at Association Drive under existing (2015) conditions, before the addition of site-generation traffic in opening year (2015). Standards for right-turn tapers and deceleration lanes were evaluated in the Rules, Standards, and Procedures for Driveways, Banners, and Parades Upon or Over Ingham County Road Commission Right of Way, January 2006 (Board of County Road Commissioners, County of Ingham, State of Michigan). Based on a review of Exhibit 4 – Warrants for Right Turn Deceleration Lane or Taper, Page 57, a northbound Okemos Road right-turn taper at Association Drive is met under existing (2015) conditions. The warrant graph depicting that a right-turn taper is warranted under existing (2015) conditions is included in Appendix C.

4.0 OPENING YEAR (2015) ANALYSIS WITH DEVELOPMENT TRAFFIC

Since the Appletree Learning Center is proposed for a 2015 opening, no traffic growth factor was applied to existing (2015) peak-hour volumes.

Section 4 presents the projected trip generation and trip distribution and an analysis of opening year (2015) traffic operations.

4.1 Trip Generation and Traffic Assignment

Trip generation estimates for the Appletree Learning Center are based on actual trip generation data collected at two existing Appletree Learning Centers. Appletree Learning Centers counted the number of vehicles entering and exiting the two sites during the morning peak-hour and afternoon peak-hour. Appletree Learning Centers collected trip generation data at their Knapp and Monroe sites in Grand Rapids, Michigan on Wednesday, February 25, 2015. Trip estimates for the proposed Appletree Learning Center were then based on an average of the actual trip generation data collected at the Knapp and Monroe learning centers.

Table 4 summarizes actual peak-hour trip rates and entrance and exit splits as well as an average of the two centers. The two centers are the same size as the proposed center in Meridian Township (12,000 square feet).

**Table 4. Existing Trip Generation – Appletree Learning Centers
 Knapp and Monroe Sites, Grand Rapids, Michigan**

Location	Variable	Weekday Morning Peak-hour Trips			Weekday Afternoon Peak-hour Trips		
		Enter	Exit	Total	Enter	Exit	Total
Appletree Learning Center – Knapp Site	12,000 Square feet	61	56	117	61	66	127
Appletree Learning Center – Monroe Site	12,000 Square feet	42	37	79	44	49	93
Average Trips of the Two Sites		52	47	99	53	58	111
Enter/Exit Percentages		53%	47%	100%	48%	52%	100%

⁽¹⁾ Source: Appletree Learning Center

The higher of the two existing Appletree Learning Centers trip generation rates (Knapp site) was used to project trips for the proposed Appletree Learning Center. Table 5 depicts the anticipated trip generation and split of entering and exiting trips for the proposed center. Trip generation projections are based on identical staffing and customer levels as at the Knapp center.

Table 5. Existing Appletree Learning Centers Trip Generation (2015)

Land Use	Variable	Peak Hour	Entering Trips	Exiting Trips	Total Trips
Appletree Learning Center - Okemos	12,000 Square feet	Morning	61	56	117
		Afternoon	61	66	127

Source: URS Corporation, April 2015

Traffic associated with the proposed Appletree Learning Center was distributed based on existing peak-hour traffic patterns. The following trip distribution percentages were used:

Traffic Distribution – Morning Peak Hour

- 35% from the south via Okemos Road
- 28% from the north via Okemos Road
- 22% from the east via Jolly Road
- 15% from the west via Jolly Road
- 35% to the north via Okemos Road
- 30% to the south via Okemos Road
- 25% to the west via Jolly Road
- 10% to the east via Jolly Road

Traffic Distribution – Afternoon Peak Hour

- 32% from the south via Okemos Road
- 26% from the north via Okemos Road
- 22% from the east via Jolly Road
- 20% from the west via Jolly Road
- 38% to the north via Okemos Road
- 28% to the south via Okemos Road
- 18% to the east via Jolly Road
- 16% to the west via Jolly Road

The projected peak-hour trip distribution and traffic assignment for the proposed Appletree Learning Center is shown in **Figure 5**.

4.2 Opening Year (2015) Traffic Conditions

The amount of peak-hour traffic generated by the proposed Appletree Learning Center was projected, so that the traffic impacts on the adjacent street network could be analyzed and compared to existing conditions. A capacity analysis was completed for opening year (2015) conditions. The resulting opening year (2015) peak-hour traffic volumes and associated LOS are depicted in **Figure 6**.

The overall intersection LOS at the signalized intersections and the side-street approach LOS at the two-way STOP-controlled intersections are shown in **Table 6**.

Table 6. Opening Year (2015) Overall Intersection Level of Service

Intersection or Intersection Approach	Morning Peak Hour		Afternoon Peak Hour	
	LOS	Delay (sec/veh)	LOS	Delay (sec/veh)
Okemos Road/Jolly Road - Overall				
Okemos Road/Jolly Road	E	61.0	F	111.5
Two-Way STOP-Controlled Intersection Approaches				
Okemos Road/Jolly Oak Road	B	13.7	C	17.1
Okemos Road/Association Drive	B	13.8	C	16.9

Source: URS Corporation, April 2015

The Okemos Road/Jolly Road signalized intersection operates at an overall LOS “E” under opening year (2015) weekday morning conditions and an overall LOS “F” under afternoon peak-hour conditions, the same as under existing (2015) conditions. The STOP-controlled approaches at the two unsignalized intersections operate at LOS “C” or better under opening year (2015) morning and afternoon peak-hour conditions, the same as under existing (2015) conditions.

Movement-by-movement LOS values are depicted in Figure 6 for the opening year (2015) weekday peak-hours for all study area intersections. Examination of Figure 6 reveals that in the morning peak-hour six (6) individual movements at the Okemos Road/Jolly Road intersection operate at LOS "E" or "F", the same movements as under existing (2015) conditions. For the afternoon peak-hour, Figure 4 reveals that ten (10) individual traffic movements at the Okemos Road/Jolly Road intersection operate at LOS "E" or "F", the same movements as under existing (2015) conditions. The poorly operating movements are also depicted in Table 7. The opening year (2015) intersection capacity reports are included in Appendix D.

**Table 7. Opening Year (2015) Peak Hour Level of Service
 Poorly-Operating Turning Movements**

Movement	Peak Hour	Volume	LOS	95 th % Queue (vehicles)*	Delay (sec/veh)
Okemos Road/Jolly Road					
Eastbound Left	Morning	136	E	9	75.8
Eastbound Through/Right		224/93	E	13	78.8
Westbound Left		443	E	22	64.3
Northbound Left		151	E	10	75.1
Southbound Left		113	F	11	**
Eastbound Left	Afternoon	419	F	27	**
Eastbound Through/Right		441/203	F	22	**
Westbound Left		392	E	22	71.1
Northbound Left		208	F	19	**
Northbound Through/Right		746/277	F	28	95.4
Southbound Left		116	F	10	**
Southbound Through/Right		819/106	F	25	86.3

* - 95th percentile queue lengths shown
 ** - Delay exceeds 120 seconds

Source: URS Corporation, April 2015

It is important to note that the site generated traffic has little or no additional impact on the LOS, queue lengths, and delays at the Okemos Road/Jolly Road intersection under opening year (2015) conditions, compared to existing (2015) conditions.

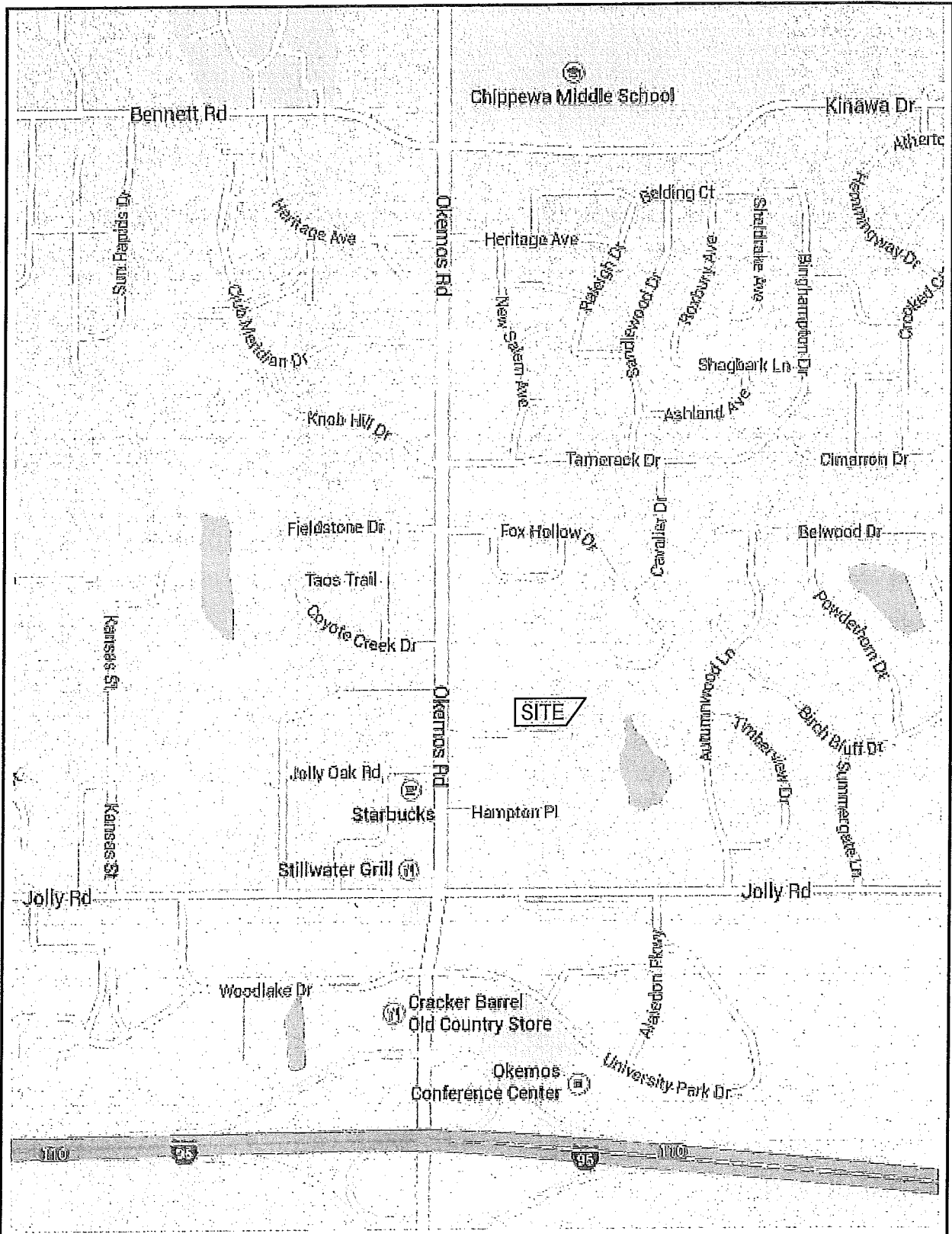
4.3 Northbound Okemos Road Right-Turns at Association Drive

Guidelines for a right-turn deceleration lane were evaluated for northbound Okemos Road at Association Drive under opening year (2015) conditions, after the addition of site-generated traffic from the proposed Appletree Learning Center. The purpose of the evaluation was to determine if the right-turn taper needed under existing (2015) conditions would be sufficient under opening year (2015) conditions, or would a right-turn deceleration lane be required after the addition of site generation traffic. Based on the Ingham County standards for right-turn tapers and deceleration lanes referenced previously, criteria for a northbound Okemos Road right-turn deceleration lane at Association Drive are not met under opening (2015) conditions. A right-turn taper is sufficient for opening year (2015) conditions, although, as discussed earlier, the right-turn taper is warranted under existing (2015) conditions.

5.0 CONCLUSIONS




Based on the analyses performed as part of this study, the following conclusions were made:

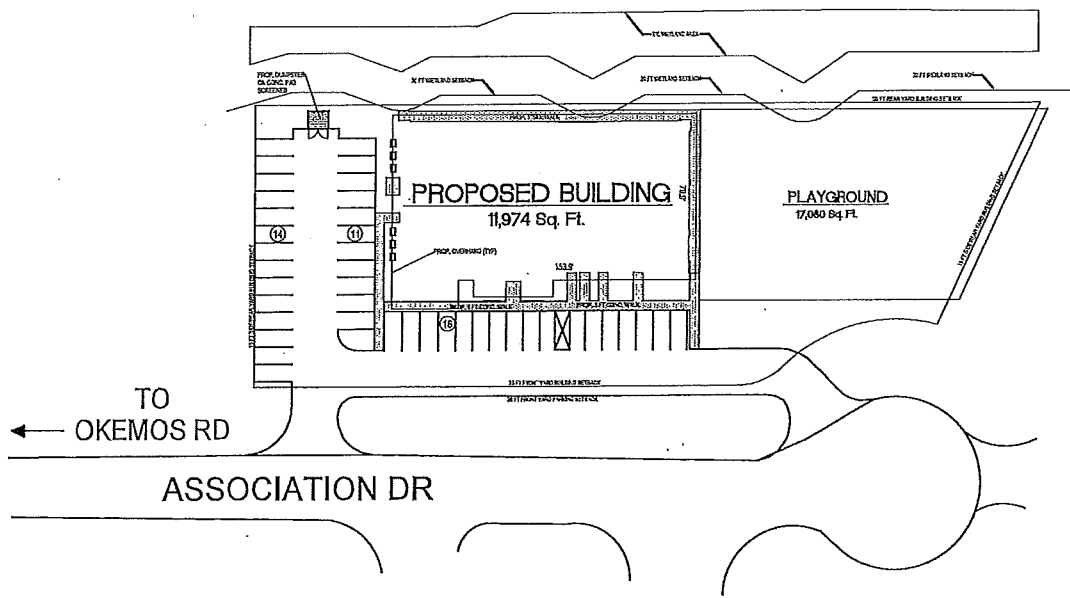
1. Based on the estimated trips to be generated by the site, the proposed access drives to Association Drive should adequately serve the site.
2. The existing Okemos Road/Association Drive intersection has the capacity to serve the additional traffic generated by the proposed development. The existing TWLTL allows entering southbound left-turn traffic to exit the through lane and exiting westbound left-turn traffic to stage their turn.
3. The Okemos Road/Jolly Road intersection operates poorly under existing conditions, even before adding in site generated traffic for the proposed Appletree Learning Center. Any improvements made to the intersection should not be based on additional traffic generated by the proposed Appletree Learning Center.
4. The adding of site traffic on Okemos Road or Jolly Road from the opening of the Appletree Learning Center is expected to have little or no additional impact on traffic operations at the Okemos Road/Jolly Road intersection.
5. A northbound right-turn taper on Okemos Road at Association Drive meets Ingham County standards under existing (2015) conditions, even prior to the opening of the proposed Appletree Learning Center.
6. Based on Ingham County standards under opening year (2015) conditions, a northbound right-turn lane is not needed on Okemos Road at Association Drive.



SOURCE: GOOGLE MAPS

APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY

			<p>STUDY AREA AND SITE LOCATION</p>	<p>FIGURE 1</p>
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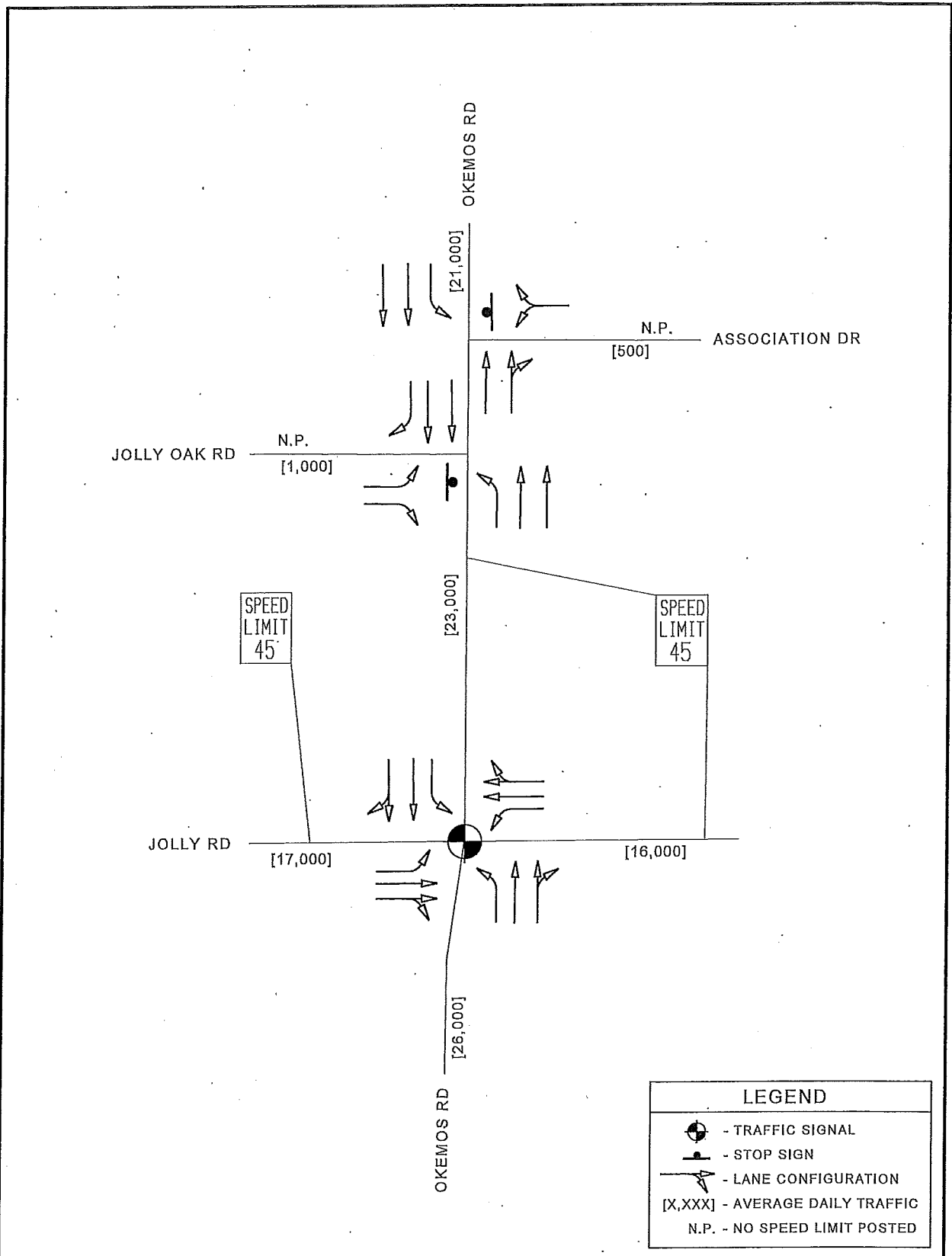
APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY



SITE PLAN

FIGURE

2



APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY

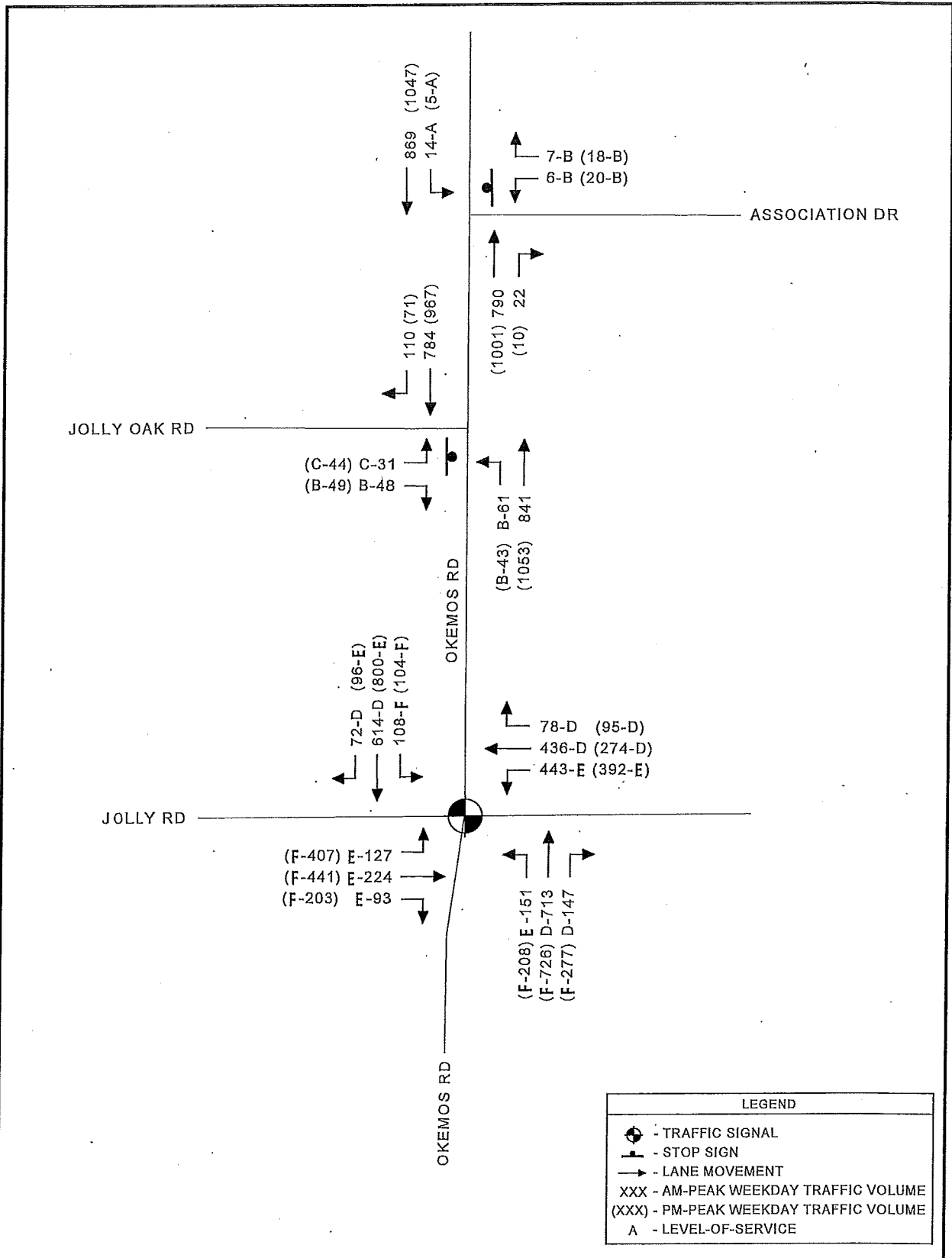


URS

EXISTING (2015) TRAFFIC OPERATIONS

FIGURE

3



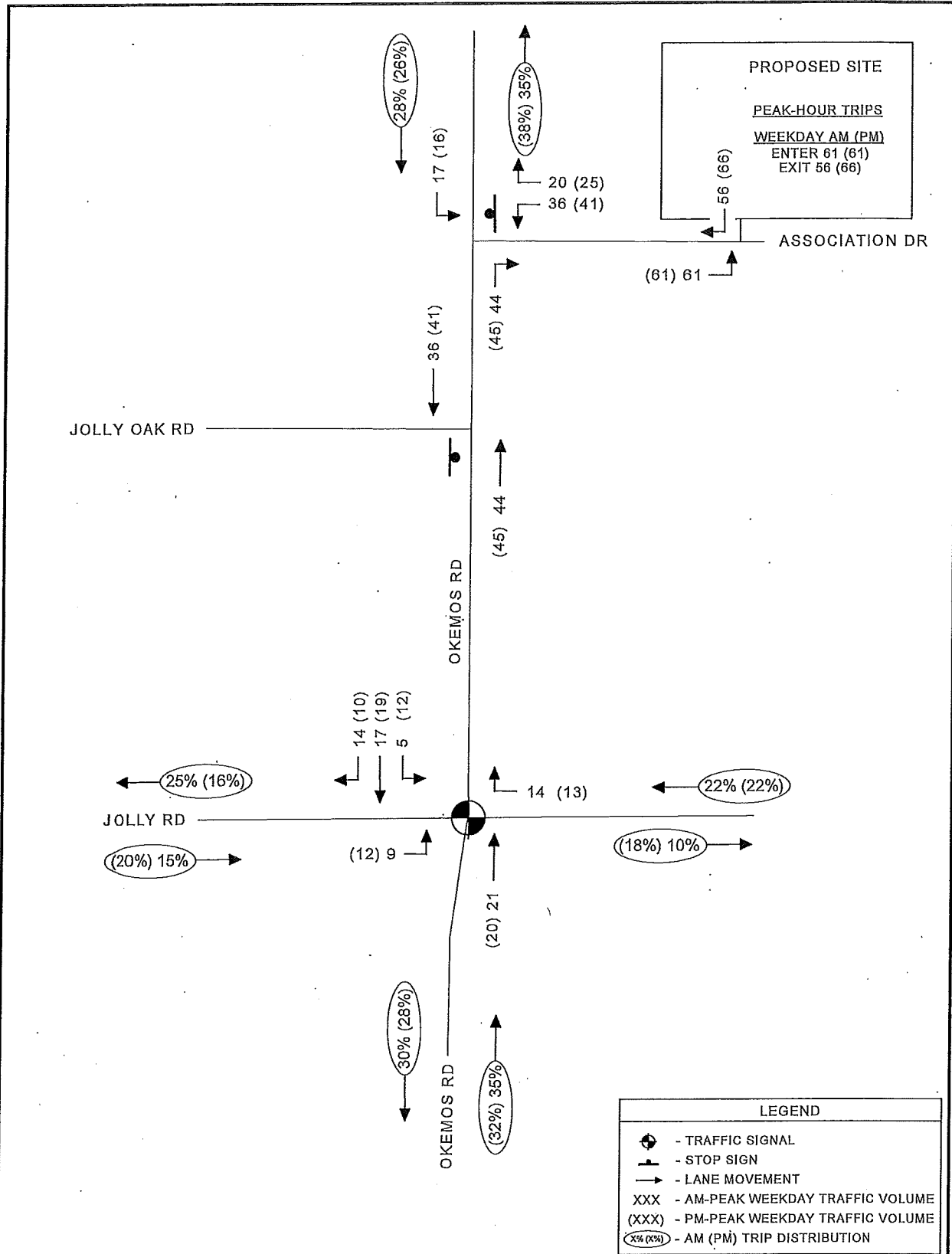
APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY



EXISTING (2015) PEAK-HOUR VOLUMES AND LEVEL OF SERVICE

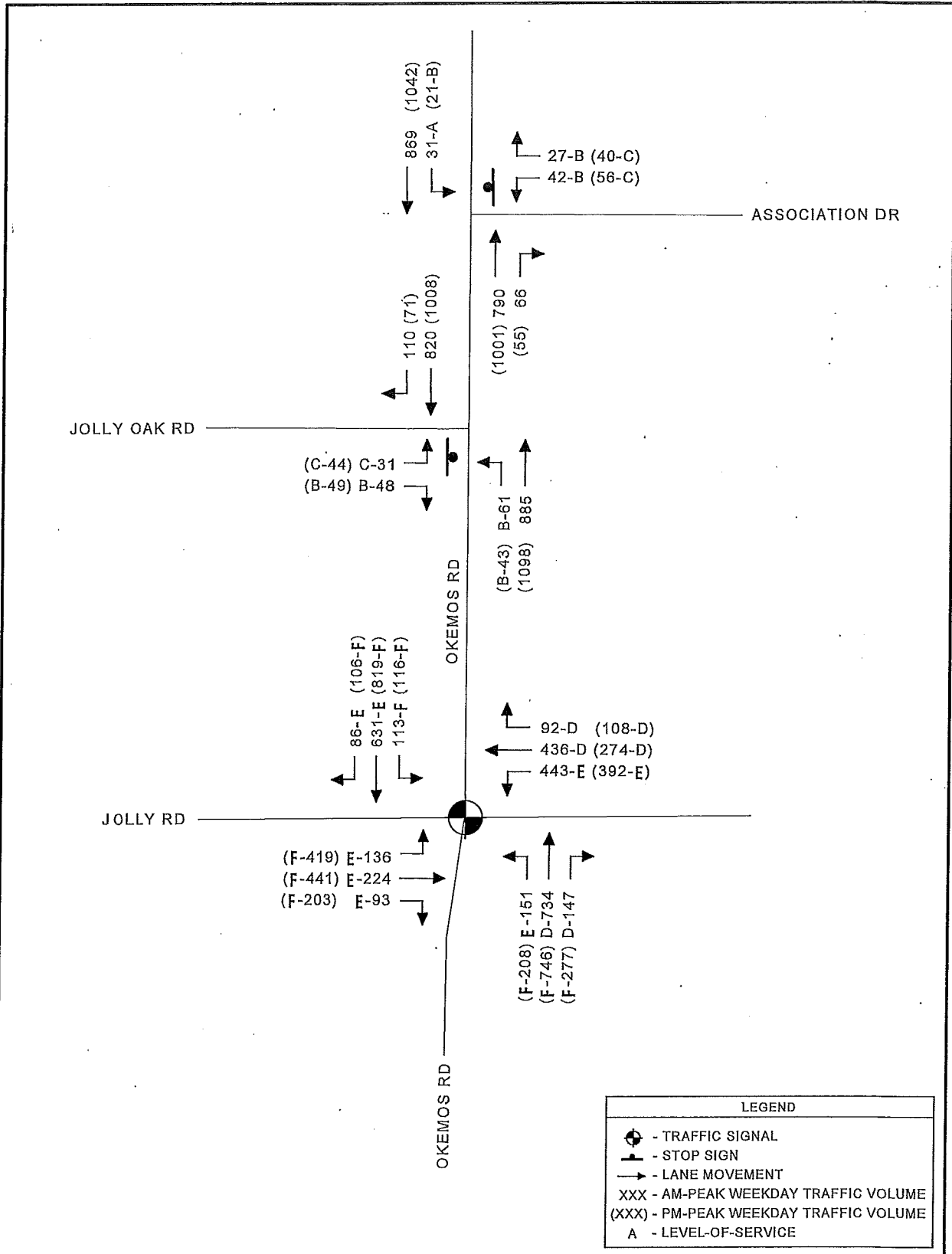
FIGURE

4



APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY

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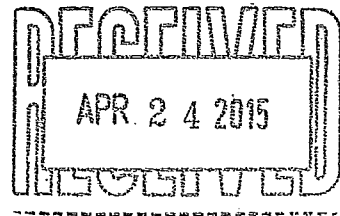


APPLETREE LEARNING CENTER OKEMOS ROAD TRAFFIC IMPACT STUDY

			<p>OPENING YEAR (2015) PEAK-HOUR VOLUMES AND LEVEL OF SERVICE</p>	<p>FIGURE 6</p>
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APPENDICES

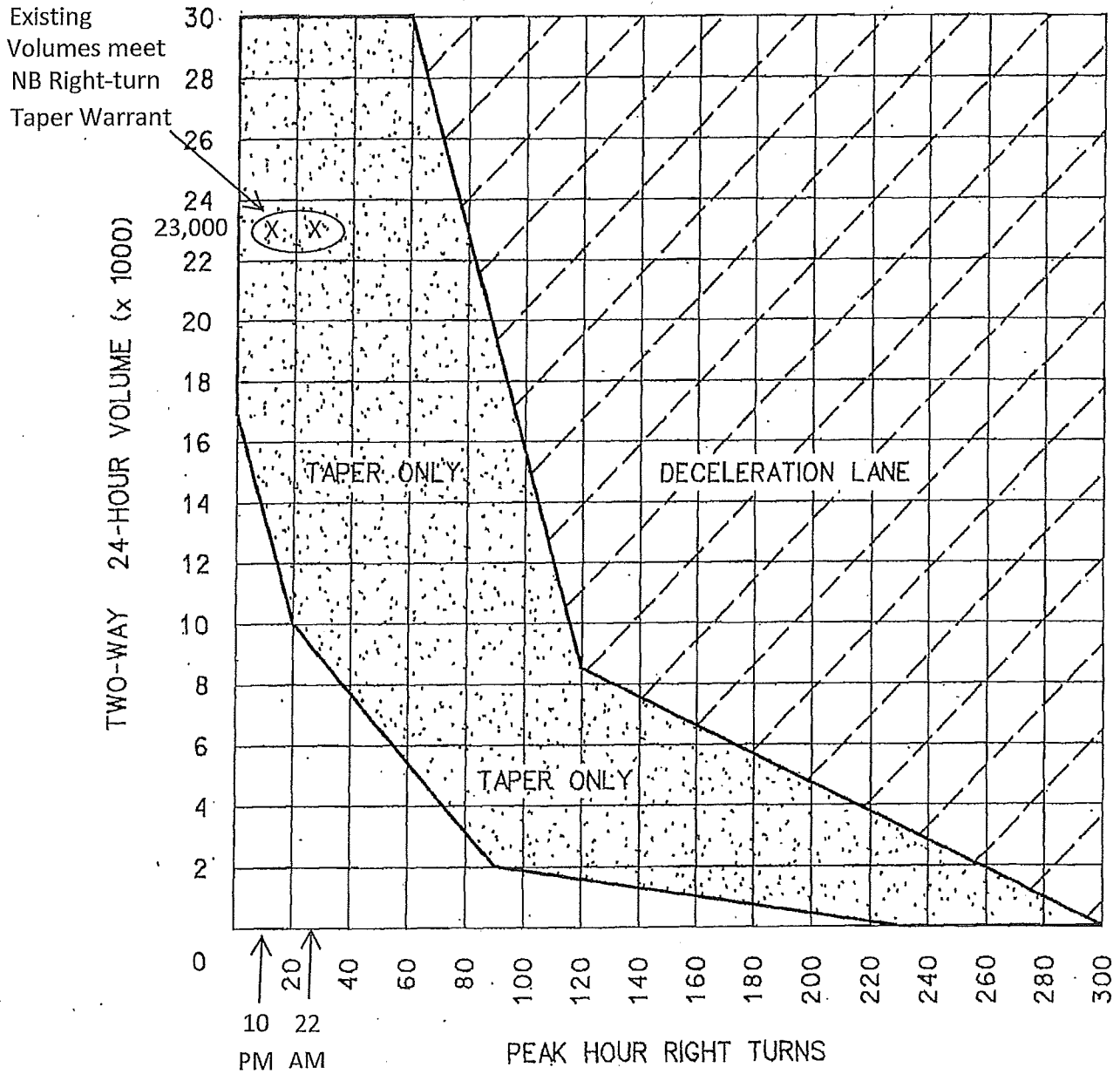


APPENDIX C

WARRANT GRAPH FOR RIGHT TURN DECELERATION LANE OR TAPER INGHAM COUNTY

Exhibit 4

Warrants for Right Turn
Deceleration Lane or Taper



Existing (2015) 24-Hour (2-way), and NB Right-turn Peak-Hour Volumes
Okemos Road at Association Drive

**William F. Savage, P.E.
Savage Traffic Engineering, Inc.**

Summer Address

6401 Timber Ridge Trail
East Lansing, MI 48823
Phone & Fax: 517-339-3933

e-mail: MSUSavage@aol.com

Winter Address

6611 Stone River Road, #206
Bradenton, FL 34203
Phone & Fax: 941-755-4681

April 5, 2015

Martha Wyatt, Associate Planner/Landscape Architect
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48826

RE: Appletree Learning Center

Dear Martha:

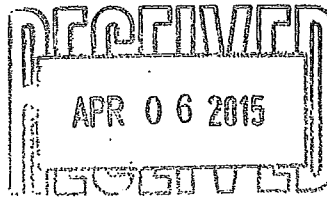
I have reviewed the Traffic Impact Study. The study shows that the intersections of Association Drive @ Okemos Road, and Jolly Oak Road @ Okemos Road, will continue to operate well. It is fortunate that the two side roads are offset so that center lane (on Okemos Road) will have little or no traffic.

It appears that northbound left turn during the P.M. peak hour (59 vehicles) may warrant a left taper. But this is up to the County Road Commission.

Sincerely,

WFSavage

William F. Savage, P.E.



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.

RESOLUTION TO APPROVE

**Special Use Permit #15031
(BBI Holdings, LLC)
2172 and 2190 Association Drive**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 27th day of April 2105, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

The following resolution was offered by _____ and supported by _____

WHEREAS, BBI Holdings. LLC, requested a special use permit (Special Use Permit #15031) to construct a child care facility on an approximate 2.06 acre site zoned PO (Professional and Office) and located at 2172 and 2190 Association Drive; and

WHEREAS, the Planning Commission held a public hearing for Special Use Permit #15031 at its April 27, 2015 meeting; and

WHEREAS, the Planning Commission reviewed and discussed staff material forwarded under cover memorandum dated April 24, 2015; and

WHEREAS, the subject site is appropriately zoned PO (Professional and Office, which allows for a child care center subject to special use permit approval; and

WHEREAS, the proposed building will be harmonious and appropriate with the existing and intended character of the adjacent office development in the Scholle Pond Office Park on Association Drive, the religious institution north of the site, and the residential development northeast of the site; and

WHEREAS, public water and sanitary sewer are available to serve the site; and

WHEREAS, the proposed child care center will be adequately served by essential public facilities and services, such as police, fire, stormwater drainage, existing roadways and public transit; 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.

**Resolution to Approve
SUP #15031 (BBI Holdings, LLC)
April 24, 2015
Page 2**

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves Special Use Permit #15031 subject to the following conditions:

1. Approval is based on application materials submitted by BBI Holdings, LLC; site plans prepared by Nederveld, dated April 3, 2015; and building elevations prepared by Architectural Concepts, dated April 2, 2015, subject to revisions as required.
2. Special Use Permit #15031 shall be subject to the applicant receiving approval of Wetland Use Permit #15-01 for the proposed work in regulated wetland and proposed wetland mitigation plan.
3. As part of the site plan review process, a planting plan for the required 20 foot water features setback/natural vegetation strip shall be provided for review and approval by the Director of Community Planning & Development.
4. Once established, the required 20 foot water features setback/natural vegetation strip shall be maintained and be free of structures, grading, or other disturbances.
5. Street trees shall be provided along the frontage of the site.
6. The final site plan, landscape plan, building elevations, building materials and colors, shall be subject to the approval of the Director of Community Planning and Development.
7. The requirement for a northbound right-turn taper on Okemos Road at Association Drive will be reviewed during site plan review and shall be subject to the review and approval of the Ingham County Road Department.
8. The trash dumpster shall be enclosed on four sides; three sides of the enclosure shall be constructed with masonry products to match the building.
9. All mechanical, heating, ventilation, air conditioning, generators, and similar systems shall be screened from view by an opaque structure or landscape material selected to complement the building. Such screening is subject to approval by the Director of Community Planning and Development.
10. 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. LED lighting shall be used where feasible.
11. Final 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.

**Resolution to Approve
SUP #15031 (BBI Holdings, LLC)
April 24, 2015
Page 3**

12. The applicant shall obtain all necessary permits, licenses and approvals from the Michigan Department of Environmental Quality (MDEQ), the Ingham County Drain Commissioners office, the Ingham County Road Department, and the Township. Copies of all permits, licenses, and approvals shall be submitted to the Department of Community Planning & Development.
13. The applicant shall obtain all necessary permits, licenses, and approvals from the State of Michigan for the operation of the child care center. Copies of all permits, licenses, and approval letters shall be submitted to the Department of Community Planning and Development.
14. Copies of the site plan information and construction plans for the project that exist in an AutoCAD compatible format shall be provided to the Township Engineering staff.
15. Any future modifications to the child care center shall require a modification to Special Use Permit #15031.

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified Chairperson of the Planning Commission of the Charter 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 27th day of April, 2015.

John Scott-Craig, Chair
Meridian Township Planning Commission

**CHARTER TOWNSHIP OF MERIDIAN
MEMORANDUM**

TO: Planning Commission

FROM: 

Richard F. Brown, Jr., AICP
Associate Planner

DATE: April 23, 2015

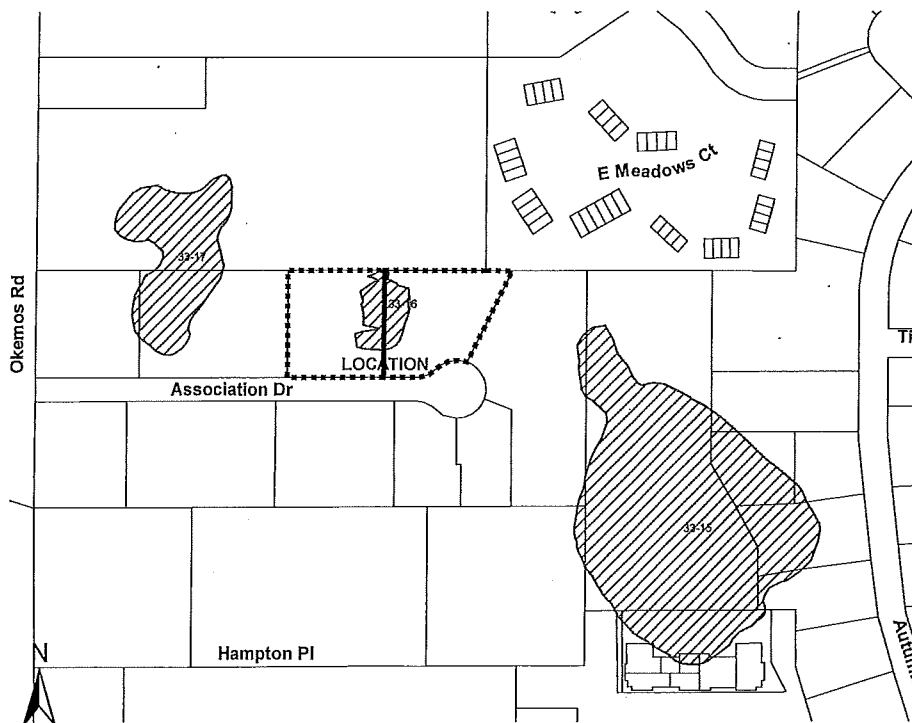
RE: Wetland Use Permit #15-01 (BBI Holdings), request to impact regulated wetlands associated with a new child care center

BBI Holdings, LLC is requesting a wetland use permit to impact regulated wetlands for the construction of a new approximate 12,000 square foot child care center at 2172 and 2190 Association Drive in Section 33 of the Township. Located at the center of the site is Township Wetland #33-16, a 0.28 acre (12,381 square foot) emergent wetland. The applicant intends to fill approximately 87 percent of the wetland (10,730 square feet) and provide mitigation of 10,785 square feet along the northern portion of the subject site. This equates to a 1:1.01 ratio.

Once the mitigated wetland is created, it will extend approximately 380 feet in length, vary between 20 and 45 feet in width, and be up to four feet in depth. A minimum 20 foot water features setback/natural vegetation strip is required to be maintained around the feature as natural vegetation. Mowed lawn or turf do not qualify a natural vegetation.

Wetland Use Permit #15-01 is being reviewed concurrent with Special Use Permit #15031. Under joint jurisdiction, a concurrent wetland use permit is being considered by the Michigan Department of Environmental Quality (MDEQ).

WETLAND MAP



AERIAL PHOTOGRAPH



Staff Analysis

There are eleven general criteria provided in the Wetland Protection Ordinance, Section 22-157(2) of the Code of Ordinances, that must be considered when deciding whether to grant a wetland use permit. These include (paraphrased):

- a. The relative extent of public and private need for the proposed activity.
- b. Availability of prudent and feasible alternatives.
- c. Extent and permanence of beneficial or detrimental effects from the activity.
- d. Probable impact of the proposal in relation to the cumulative effect by other activities in the watershed.
- e. Probable impact on recognized historic, cultural, scenic, ecological, or recreational values, as well as on public health and safety or fish and wildlife.
- f. Economic value of the proposed land change.
- g. The size and quality of the wetland being considered.
- h. The findings of necessity for the proposed activity by other agencies.
- i. Amount of wetland remaining in the general area and proximity to a waterway.
- j. Proximity to any water body.
- k. Extent to which upland soil erosion adjacent to the wetland is controlled.

WUP #15-01 (BBI Holdings)
Planning Commission (4/23/15)
Page 3

On March 12, 2015, the Township's Environmental Consultant confirmed the boundary of Township Wetland #33-16 to be approximately 0.28 acres in size. The Environmental Consultant also made the following findings regarding Wetland Use Permit #15-01:

- The applicant intends to fill the southern 10,730 square feet of existing wetland and construct a 10,785 square foot mitigation wetland adjacent to the existing wetland.
- The location of the wetland in the center of the site limits feasible and prudent alternative locations. The preferred alternative appears to result in the least overall wetland impact and the greatest site safety in the available space.
- The applicant eliminated one parking space to reduce the development footprint. In addition, the applicant's playgrounds typically wrap around the back of the building. For this site, the playground was limited to the east side of the building to limit wetland impacts.
- The proposed project is a suitable use for the subject site, since the site is highly disturbed, primarily does not contain native plant communities, and is located in the middle of an office park.
- The existing wetland provides the following functions and values: water storage, water quality improvement, limited wildlife habitat, and limited aesthetic value.

Based on the findings, the Township's Environmental Consultant recommends issuance of Wetland Use Permit #15-01, with the following conditions:

1. Implement appropriate erosion and sedimentation control measures during construction to ensure there are no impacts to the remaining wetland as a result of soil erosion.
2. Submit a monitoring plan that notes vegetative monitoring sampling transects, and photo points.
3. Monitor the mitigation wetland for five years.
4. Implementation of measures to control reed canary grass within the mitigation wetland, including suppressing the species within the existing wetland.

A permit application is currently under review at the Michigan Department of Environmental Quality (MDEQ).

The Environmental Commission at its April 1, 2015 meeting voted to concur with the consultant's findings and to recommend approval of Wetland Use Permit #15-01.

In order to complete the project in time for this fall's school calendar, the applicant has requested that Wetland Use Permit #15-01 be decided the same night as the public hearing. All notices indicated the Planning Commission may make a decision on April 27th.

Planning Commission Options

Pursuant to Section 22-157(1) of the Code of Ordinances, the Planning Commission has the option to approve, approve with conditions, or deny Wetland Use Permit #15-01. Based on the original submittal date and the 90 day review timeline established in the State Wetland Act and the Township's Wetland Ordinance, the deadline for action is June 18, 2015. A resolution to approve has been provided for consideration.

Attachments

1. Resolution to approve
2. Application materials
3. Environmental Consultant reports
4. Plans are provided as part of SUP #15031

g:\planning\brown\environmental issues\wetlands\wup1501.pc1.doc

RESOLUTION TO APPROVE

**Wetland Use Permit #15-01
BBI Holdings
Child Care Center**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 27th day of April 2015, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, BBI Holdings, LLC requested a wetland use permit (Wetland Use Permit #15-01) for proposed work in regulated wetlands associated with construction of a new approximate 12,000 square foot child care center; and

WHEREAS, Section 22-151 of the Township Wetland Protection Ordinance requires a wetland use permit for the proposed activities impacting regulated wetlands; and

WHEREAS, the Planning Commission held a public hearing on Wetland Use Permit #15-01 at its meeting on April 27, 2015 and has reviewed the staff material forwarded under cover memorandum dated April 23, 2015; and

WHEREAS, the Township's Environmental Consultant, in a report dated March 27, 2015, recommended issuance of Wetland Use Permit #15-01 with conditions; and

WHEREAS, in its advisory capacity, the Environmental Commission reviewed the project and recommends approval of the permit; and

WHEREAS, the location of the wetland in the center of the site limits feasible and prudent alternative locations and the preferred alternative appears to result in the least overall wetland impact and the greatest site safety in the available space; and

WHEREAS, the proposed project is a suitable use for the subject site, since the site is highly disturbed, primarily does not contain native plant communities, and is located in the middle of an office park; and

WHEREAS, wetland impacts were lessened by reducing the number of parking spaces by one and by relocating the playground to the east side of the subject site; and

WHEREAS, the applicant is proposing an onsite 1.01 to 1.00 wetland mitigation area.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN, pursuant to Article 4 of Section 22 of the Township Code of Ordinances, hereby approves Wetland Use Permit #15-01 with the following conditions:

**Resolution to Approve
WUP #15-01 (BBI Holdings)
Page 2**

1. Approval is subject to the revised plans prepared by Nederveld, dated April 3, 2015, and the related materials submitted as part of Wetland Use Permit #15-01, subject to revisions as required.
2. The applicant shall obtain all necessary permits, licenses and approvals from the Michigan Department of Environmental Quality (MDEQ), the Ingham County Drain Commissioners office, and the Township prior to any work taking place. Copies of all permits, licenses and approvals shall be submitted to the Department of Community Planning & Development.
3. Wetland Use Permit #15-01 shall be subject to the applicant receiving approval of Special Use Permit #15031 for the child care center.
4. Prior to any work taking place on the site, a soil erosion and sedimentation control plan and a wetland mitigation monitoring plan shall be submitted to the Director of Community Planning & Development for review and approval.
5. Erosion control measures shall be installed at the required 20 foot water features setback to ensure soil resulting from construction activities does not enter remaining or mitigated wetlands.
6. No straw bales shall be used for erosion control, unless in conjunction with sediment erosion control fencing.
7. Prior to construction, erosion control fencing shall be installed to prevent sedimentation from infiltrating into the wetlands. The erosion control fencing shall be maintained throughout the duration of the project and shall be removed after construction is completed and the area is stabilized.
8. Spoils shall be hauled and disposed of at an offsite location acceptable to the Director of Community Planning & Development.
9. The applicant shall periodically inspect the subject sites during the first year after construction to identify and correct side slope erosion issues adjacent to wetlands.
10. The wetland mitigation shall be monitored for five years as part of the required annual report for the mitigation area with a written status report and photographic documentation provided to the Department of Community Planning & Development.
11. The applicant shall implement of measures to control reed canary grass within the mitigation wetland, including suppressing the species within the existing wetland.
12. A copy of the approved wetland use permit containing the conditions of issuance shall be posted in a conspicuous manner such that the wording of the permit is available for public inspection and the posting shall remain in place throughout the duration of site work.
13. As part of the site plan review process, a planting plan for the required 20 foot water features setback/natural vegetation strip shall be provided for review and approval by the Director of Community Planning & Development.

**Resolution to Approve
WUP #15-01 (BBI Holdings)
Page 3**

14. Once established, the required 20 foot water features setback/natural vegetation strip shall be maintained and be free of structures, grading, or other disturbances.
15. Upon completion of construction, the applicant shall contact the Department of Community Planning & Development for an inspection of the site to ensure compliance with the permit.

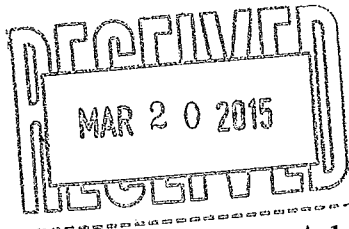
ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified and acting Clerk 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 27th day of April 2015.

John Scott-Craig, Chair
Meridian Township Planning Commission



Appletree Learning Center

2172 and 2190 Association Drive

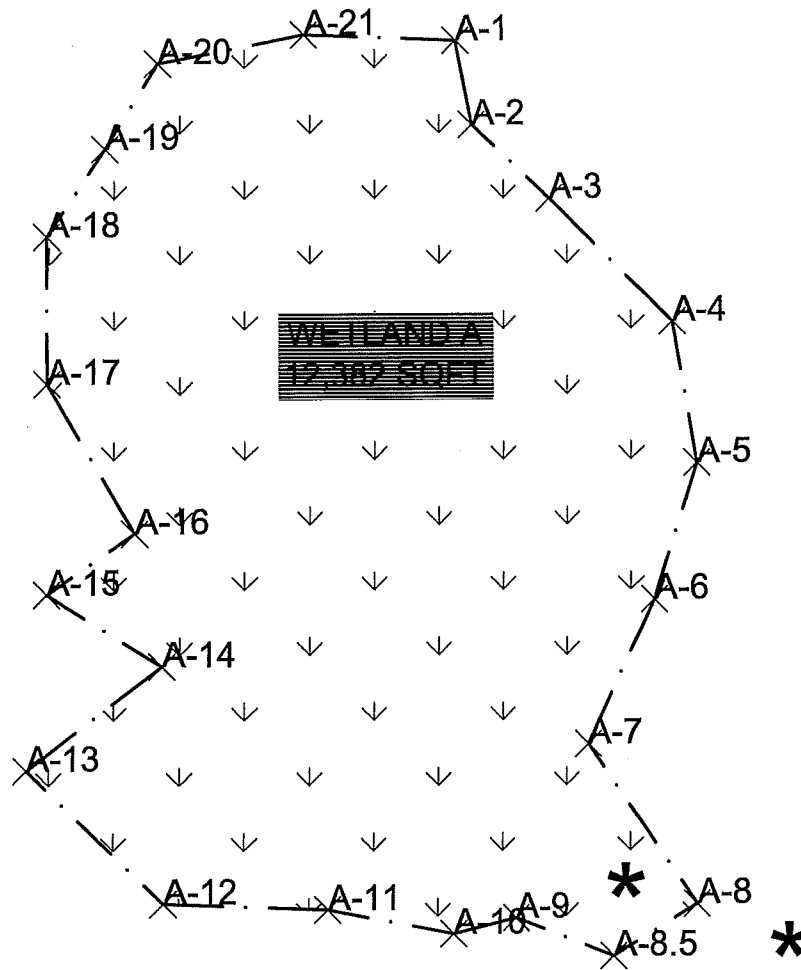
Additional Alternatives Considered For Wetland Impact

(In addition to what is stated on Item 4 of the MDEQ permit application):

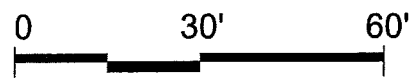
The proposed area of wetland impact is located in the center of the two subject parcels that make up the building site. This location makes it extremely difficult to develop the combined lots without occupying a large portion of the wetland. Avoidance of the wetland would result in a building site that would not be commercially viable.

In order to minimize the wetland impact, the following alternatives have been reviewed:

- 1) We looked at not having a driveway and/or parking south of the building and sliding the building to the south. However, if this were done, the township's parking requirements would not be met. In addition, it is extremely important to have the children dropped off close to the front door for safety purposes. Therefore, not having parking and/or a drive aisle south of the building is not an option.
- 2) We looked at rotating the building 90 degrees. However, the property does not have enough distance in the north/south direction for the building to fit. The proposed building size is the minimum size necessary to make the Appletree Learning Center feasible, so the building footprint cannot be reduced.
- 3) We looked at flipping the building/parking area so the playground is to the west and the parking bays are to the east – but doing that does not reduce the wetland impact. And doing this would make the playground more of a 'focal point' of the project, which is not desirable.
- 4) We added bicycle parking spaces to reduce the number of on-site vehicle parking spaces to below what the normal township parking requirement is.
- 5) Typically, the playground area wrapped around the rear of the building. In order to keep the wetland impact to a minimum, the playground was kept to the side of the building.



* Approximate data point location



King & MacGregor
Environmental, Inc.
2520 Woodmeadow Drive SE
Grand Rapids, Michigan 49546
Phone: (616) 957-1231

Wetland Delineation For :

2172 & 2190 Association Drive

Meridian Township

Ingham County, Michigan

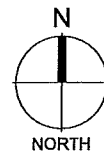
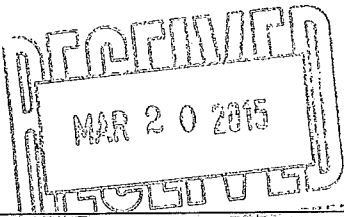


Figure
1

Wetland
Boundary

PROJECT NUMBER
15024



AGENCY USE	Previous USACE File Number	Date Received	DEQ File Number
	USACE File Number		Fee received \$

Validate that all parts of this checklist are submitted with the application package. Fill out application and additional pages as needed.

- All items in Sections 1 through 9 are completed.
- Project-specific Sections 10 through 20 are completed.
- Dimensions, volumes, and calculations are provided for all impact areas.
- All information contained in the headings for the appropriate Sections (1-20) are addressed, and identified attachments (➔) are included.
- Map, site plan(s), cross sections; one set must be black and white on 8 1/2 by 11 inch paper; photographs.
- Application fee is attached.

1 Project Location Information For Latitude, Longitude, and TRS info anywhere in Michigan see www.mcqi.state.mi.us/wetlands/

Project Address (road, if no street address) 2190 & 2172 Association Drive	Zip Code 48864	Municipality (Township/Village/City) Meridian Township	County Ingham
Property Tax Identification Number(s) 33-02-02-33-453-002 & 33-02-02-33-453-003	Latitude 42.6860 N	Township/Range/Section (TRS) T 4N N or S; R 1W E or W; Sec 33	
Subdivision/Plat and Lot Number Units 2 and 3, Scholle Pond Office Park	Longitude - 84 4296 W	OR Private Claim # _____	

2 Applicant and Agent Information

Owner/Applicant (individual or corporate name) BBI Holdings, LLC Attn: Dan Boverhof	Agent/Contractor (firm name and contact person) King & MacGregor Environmental, Inc. Attn: John Vigna
Mailing Address 5475 Settler's Pass	Mailing Address 2520 Woodmeadow Dr. SE
City Kentwood State MI Zip Code 49512	City Grand Rapids State MI Zip Code 49546
Contact Phone Number 616-291-4192 Fax	Contact Phone Number 616-957-1231 Fax 616-957-2198
Email dan@boverhofbuilders.com	E-mail jvigna@king-macgregor.com
<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes Is the applicant the sole owner of all property on which this project is to be constructed and all property involved or impacted by this project? ➔ If no, attach letter(s) of authorization from all property owners including the owner of the disposal site.	
Property Owner's Name (If different from applicant) TMN Builders, Inc. Attn: Rudy Hirt	Mailing Address 3474 Alaiadon Parkway, Suite 100
Contact Phone Number 517-349-8990	City Okemos State MI Zip Code 48864

3 Project Description

Project Name Association Drive Parcels	Preapplication File Number - - -P
Name of Water body	Date project staked/flagged April 9, 2007
The proposed project is on, within, or involves (check all that apply)	
<input type="checkbox"/> an inland lake (5 acres or more) <input type="checkbox"/> a pond (less than 5 acres) <input type="checkbox"/> a stream, river, ditch or drain <input type="checkbox"/> a legally established County Drain Date Drain was established <input type="checkbox"/> a channel/canal <input type="checkbox"/> 500 feet of an existing water body	<input type="checkbox"/> a Great Lake or Section 10 Waters <input checked="" type="checkbox"/> a wetland <input type="checkbox"/> a 100-year floodplain <input type="checkbox"/> a dam <input type="checkbox"/> a designated high risk erosion area <input type="checkbox"/> a designated critical dune area <input type="checkbox"/> a designated environmental area
Project Use	
<input type="checkbox"/> private <input checked="" type="checkbox"/> commercial <input type="checkbox"/> public/government <input type="checkbox"/> project is receiving federal/state transportation funds <input type="checkbox"/> Wetland Restoration <input type="checkbox"/> other	

Indicate the type of permit being applied for: General Permit Minor Project Individual (All other projects.) ➔ See Appendix C.

Written Summary of All Proposed Activities **Place approximately 990 cubic yards of fill within 10,730 square feet (0.25 acres) of wetland. Construct 0.25 acres of wetland mitigation on-site at a 1:1 mitigation ratio (per Meridian Township).**

Construction Sequence and Methods **Prepare site. Excavate proposed mitigation area. Place fill. Construct buildings and associated infrastructure. Stabilize area.**

4 Project Purpose, Use and Alternatives Attach additional sheets as necessary.

Describe the purpose of the project and its intended use; include any new development or expansion of an existing land use.
The purpose of this project is to construct an Appletree Learning Center and associated infrastructure on two lots within an existing office park complex.

Describe the alternatives considered to avoid or minimize resource impacts. Include factors such as, but not limited to, alternative locations, project layout and design, and construction technologies. For utility crossings include alternative routes and construction methods.
MDEQ Permit 07-33-0045-P was issued in 2007 for development of the subject parcels (copy attached). However, unforeseen circumstances resulted in the shuttering of that originally proposed project. The current development footprint is very similar to the plans proposed in the earlier application. The proposed area of wetland impact is located in the center of the two subject parcels that make up the building site. This location makes it difficult to develop the combined lots without occupying a large portion of the wetland. Avoidance of the wetland would result in a building site that would not be commercially viable, and therefore a significant reduction in land value. The subject wetland has been mowed, as required by the township and dries during the summer months. For these reasons, adverse impacts on wetland resources are minimal, as the wetland itself has low function and value.

The proposed building is the minimum size necessary to operate an Appletree Learning Center in this service area. To help reduce the overall project footprint, the number of proposed parking spaces is less than the minimum required by the township. In lieu of parking spaces, additional bicycle parking is proposed in order to satisfy township requirements.

Stormwater will discharge into the existing stormwater system on the site, which was sized to accommodate all the stormwater flows from the completed office park. The stormwater discharges into a vegetated forebay and overflows into a larger pond/wetland to the west. The system overflows into the existing regional stormwater system.

As was required by Meridian Township in the past, on-site mitigation is proposed at a 1:1 ratio. Creation of 0.25 acres of wetland on the north edge of the site is proposed by excavating to an elevation similar to the adjacent, remaining wetland to help ensure adequate hydrology can be maintained. Due to the limited functions and values of the impacted, emergent wetland, the proposed emergent mitigation area should improve the function and values of the on-site wetland. A mitigation plan narrative is attached.

5 Locating Your Project Site Attach a legible black and white map with a North arrow.

Names of roads of closest intersection *Okemos Road and Jolly Road*

Directions from main intersection to the project site, with distances from the best and nearest visible landmark and water body *Head north on Okemos Road approximately 0.2 miles to Association Drive. Turn right (east) onto Association Drive. Properties are located to the north near the end of Association Drive.*

Description of buildings on the site (color; 1 or 2 story, other)
Vacant parcels

Description of adjacent landmarks or buildings (address; color; etc)
Adjacent to 2222 Association Drive.

How can your site be identified if there is no visible address? *See attached site location map.*

6 Easements and Other Permits

No Yes Is there a conservation easement or other easement, deed restriction, lease, or other encumbrance upon the property?
➔ If yes, attach a copy. Provide copies of court orders and legal lake levels if applicable.

List all other federal, interstate, state, or local agency authorizations including required assurances for Critical Dune Area projects.

Agency	Type of Approval	Number	Date Applied	Date approved /denied	Reason for denial
<i>Ingham County</i>	<i>SESC</i>		<i>2-24-15</i>		
<i>Meridian Township</i>	<i>WUP</i>		<i>2-24-15</i>		
<i>Meridian Township</i>	<i>Site Plan</i>		<i>2-20-15</i>		

7 Compliance

If a permit is issued, when will the activity begin? (M/D/Y) *ASAP*

Proposed completion date (M/D/Y) *Oct. 30, 2015 but requesting max. 5-yr permit*

No Yes Has any construction activity commenced or been completed in a regulated area?
➔ If Yes, identify the portion(s) underway or completed on drawings or attach project specifications and give completion date(s).
 No Yes Were the regulated activities conducted under a DEQ and/or USACE permit?
➔ If Yes, list the permit numbers
 No Yes Are you aware of any unresolved violations of environmental law or litigation involving the property?
➔ If Yes, attach explanation.

8 Adjoining Property Owners Provide current mailing addresses. Attach additional sheets/labels for long lists.

<input type="checkbox"/> Established Lake Board	Contact Person	Mailing Address	City	State and Zip Code
<input type="checkbox"/> Lake Association				

List all adjoining property owners.

If you own the adjoining lot, provide the requested information for the first adjoining parcel that is not owned by you.


Property Owner's Name	Mailing Address	City	State and Zip Code
<i>Michigan Manufactured Housing, RV & Campground Association</i>	<i>2222 Association Drive</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>Cornerstone Church</i>	<i>3654 Okemos Road</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>2150 Association Drive LLC</i>	<i>3474 Alaiedon Parkway Suite 100</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>MCI Scholle II LLC, C/O TMN Commercial</i>	<i>3474 Alaiedon Parkway Suite 100</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>2193 Association Drive LLC</i>	<i>3474 Alaiedon Parkway Suite 100</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>2211 Association Drive LLC</i>	<i>3474 Alaiedon Parkway Suite 100</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>East Meadow Condo Association</i>	<i>2083 Fox Hollow Drive</i>	<i>Okemos</i>	<i>MI 48864</i>
<i>Engineer: Steve Witte, Nederveld Associates</i>	<i>217 Grandville Avenue, Suite 302</i>	<i>Grand Rapids</i>	<i>MI 49503</i>

9

Applicant's Certification

Read carefully before signing.

I am applying for a permit(s) to authorize the activities described herein. I certify that I am familiar with the information contained in this application; that it is true and accurate; and, to the best of my knowledge, that it is in compliance with the State Coastal Zone Management Program. I understand that there are penalties for submitting false information and that any permit issued pursuant to this application may be revoked if information on this application is untrue. I certify that I have the authority to undertake the activities proposed in this application. By signing this application, I agree to allow representatives of the DEQ, USACE, and/or their agents or contractors to enter upon said property in order to inspect the proposed activity site before and during construction and after the completion of the project. I understand that I must obtain all other necessary local, county, state, or federal permits and that the granting of other permits by local, county, state, or federal agencies does not release me from the requirements of obtaining the permit requested herein before commencing the activity. I understand that the payment of the application fee does not guarantee the issuance of a permit.

<input type="checkbox"/> Property Owner	Printed Name	Signature	Date
<input checked="" type="checkbox"/> Agent/Contractor	Dan Boverhof		2-24-2015
<input checked="" type="checkbox"/> Corp. or Public Agency / Title	BBI Holdings, LLC		

10 Projects Impacting Inland Lakes, Streams, Great Lakes, Wetlands or Floodplains

- Complete only those sections A through M applicable to your project.
- If your project impacts wetlands also complete Section 12. If your project impacts regulated floodplains also complete Section 13.
- To calculate volume in cubic yards (cu yd), multiply the average length in feet (ft) times the average width (ft) times the average depth (ft) and divide by 27. Example: (25 ft long x 10 ft wide x 2 feet deep) / 27 = 18.5 cubic yards
- Some projects on the Great Lakes require an application for conveyance prior to Joint Permit Application completeness.
 - ➔ Provide a black and white overall site plan, with cross-section and profile drawings. Show existing lakes, streams, wetlands, and other water features; existing structures; and the location of all proposed structures, land change activities and soil erosion and sedimentation control measures. Review Appendix B and EZ Guides for aid in providing complete site-specific drawings.
 - ➔ Provide tables for multiple impact areas or multiple activities such as multiple fill areas or multiple culverts. Include your calculations.

Water Level Elevation

On inland waters NGVD 29 NAVD 88 other Observed water elevation (ft) date of observation (M/D/Y)
 On a Great Lake IGLD 85 surveyed converted from observed still water elevation.

A. PROJECTS REQUIRING FILL (See All Sample Drawings)

- ➔ Attach a site plan and cross-section views to scale showing maximum and average fill dimensions with calculations.
- ➔ For multiple impact areas on a site provide a table with location, dimensions and volumes for each fill area.

Purpose bioengineered shore protection boat ramp boat well bridge or culvert crib dock
 riprap seawall swim area other **Construct Learning Center**

Dimensions of fill (ft) Length 115 (max) Width 105 (max) Maximum Depth 4	Total volume (cubic yards) 990 (wetland)	Volume below OHWM (cubic yards) n/a
Maximum water depth in fill area (ft)	Area filled (sq ft) 10,730	Will filter fabric be used under proposed fill? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, type)

Fill will extend _____ feet into the water from the shoreline and upland _____ feet out of the water.

Type of clean fill peastone % sand % gravel % other

Source of clean fill commercial on-site ➔ If on-site, show location on site plan.
 other ➔ If other, attach description of location.

B. PROJECTS REQUIRING DREDGING OR EXCAVATION (See Sample Drawings)

- Refer to www.mi.gov/jointpermit for spoils disposal and authorization requirements.
- ➔ Attach a site plan and cross-section views to scale showing maximum and average dredge or excavation dimensions with calculations.
- ➔ For multiple impact areas on a site provide a table with location, dimensions and volumes for each dredge/excavation area.

Purpose boat ramp boat well bridge or culvert maintenance dredge
 navigation pond/basin other

Dimensions (ft) Length Width Maximum Depth	Total volume (cu yds)	Volume below OHWM (cu yds)
---	-----------------------	----------------------------

Has this same area been previously dredged? No Yes If Yes, provide date and permit number:

Will the previously dredged area be enlarged? No Yes If Yes, when and how much?

Is long-term maintenance dredging planned? No Yes If Yes, how often?

Dredge or Excavation Method Hydraulic Mechanical other

Spoils Disposal
 Dredged or excavated spoils will be placed on-site landfill USACE confined disposal facility other upland off-site
 For disposal, provide a ➔ Detailed spoils disposal area location map and site plan with property lines.
 ➔ Letter of authorization from property owner of spoils disposal site, if disposed off-site.
 For volumes less than 5,000 cu yards, has proposed dredge material been tested for contaminants within the past 10 years?
 No Yes ➔ If Yes, provide test results with a map of sampling locations.

C. PROJECTS REQUIRING RIPRAP (See Sample Drawings 2, 3, 8, 12, 14, 22, and 23)

Riprap water ward of the ordinary high water mark: dimensions (ft) length width depth	Volume(cu yd)
Riprap landward of the ordinary high water mark: dimensions (ft) length width depth	Volume(cu yd)
Type and size of riprap (inches) <input type="checkbox"/> field stone <input type="checkbox"/> angular rock <input type="checkbox"/> other	Will filter fabric or pea stone be used under proposed riprap? <input type="checkbox"/> No <input type="checkbox"/> Yes, Type

12 Activities That May Impact Wetlands (See Sample Drawings 8 & 9). Complete other Sections as applicable.

- Locate your site and wetland information with the DEQ Wetlands Map Viewer at www.mcqi.state.mi.us/wetlands/
- For information on the DEQ's Wetland Identification Program (WIP) visit www.mi.gov/wetlands.
 - ➔ Provide a detailed site plan with labeled property lines, upland and wetland areas, and dimensions and volumes of wetland impacts.
 - ➔ Complete the wetland dredge and wetland fill dimension information below for each impacted wetland area.
 - ➔ Attach tables for multiple impact areas or activities.
 - ➔ Attach at least one cross-section for each wetland dredge and/or fill area; show wetland and upland boundaries on the cross-section.

Has the DEQ conducted a wetland assessment for this parcel?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	➔ If Yes, provide a copy or WIP number:
Has a professional wetland delineation been conducted for this parcel?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes	➔ If Yes, provide a copy with data sheets
Is there a recorded DEQ easement on the property?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	➔ If Yes, provide the easement number
Did the applicant purchase the property before October 1, 1980?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	➔ If Yes, provide documentation.
Is any grading or mechanized land clearing proposed?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	➔ If Yes, label the locations on the site plan.
Has any of the proposed grading or mechanized land clearing been completed?	<input checked="" type="checkbox"/> No <input type="checkbox"/> Yes	➔ If Yes, label the locations on the site plan

Proposed Activity	<input type="checkbox"/> boardwalk or deck (Section 10I)	<input type="checkbox"/> bridges and culverts (Section 14)	<input type="checkbox"/> designated environmental area
	<input type="checkbox"/> dewatering	<input type="checkbox"/> draining surface water	<input type="checkbox"/> driveway / road
	<input type="checkbox"/> fences (Section 10L)	<input checked="" type="checkbox"/> fill or dredge	<input type="checkbox"/> restoration
	<input type="checkbox"/> septic system	<input type="checkbox"/> stormwater discharge (Section 10J)	<input type="checkbox"/> other

FILL	Dimensions maximum length (ft) 115 maximum width (ft) 105	Area <input type="checkbox"/> acres <input checked="" type="checkbox"/> sq ft 10,730	Average depth (ft) 2.5	Volume (cu yd) 990
DREDGE	Dimensions maximum length (ft) maximum width (ft)	Area <input type="checkbox"/> acres <input type="checkbox"/> sq ft	Average depth (ft)	Volume (cu yd)

Spoils Disposal	Dredged or excavated spoils will be placed <input type="checkbox"/> on-site <input type="checkbox"/> landfill <input type="checkbox"/> USACE confined disposal facility <input type="checkbox"/> other upland off-site		
	For disposal, provide a ➔ Detailed spoils disposal area location map and site plan with property lines. ➔ Letter of authorization from property owner of spoils disposal site, if disposed off-site.		

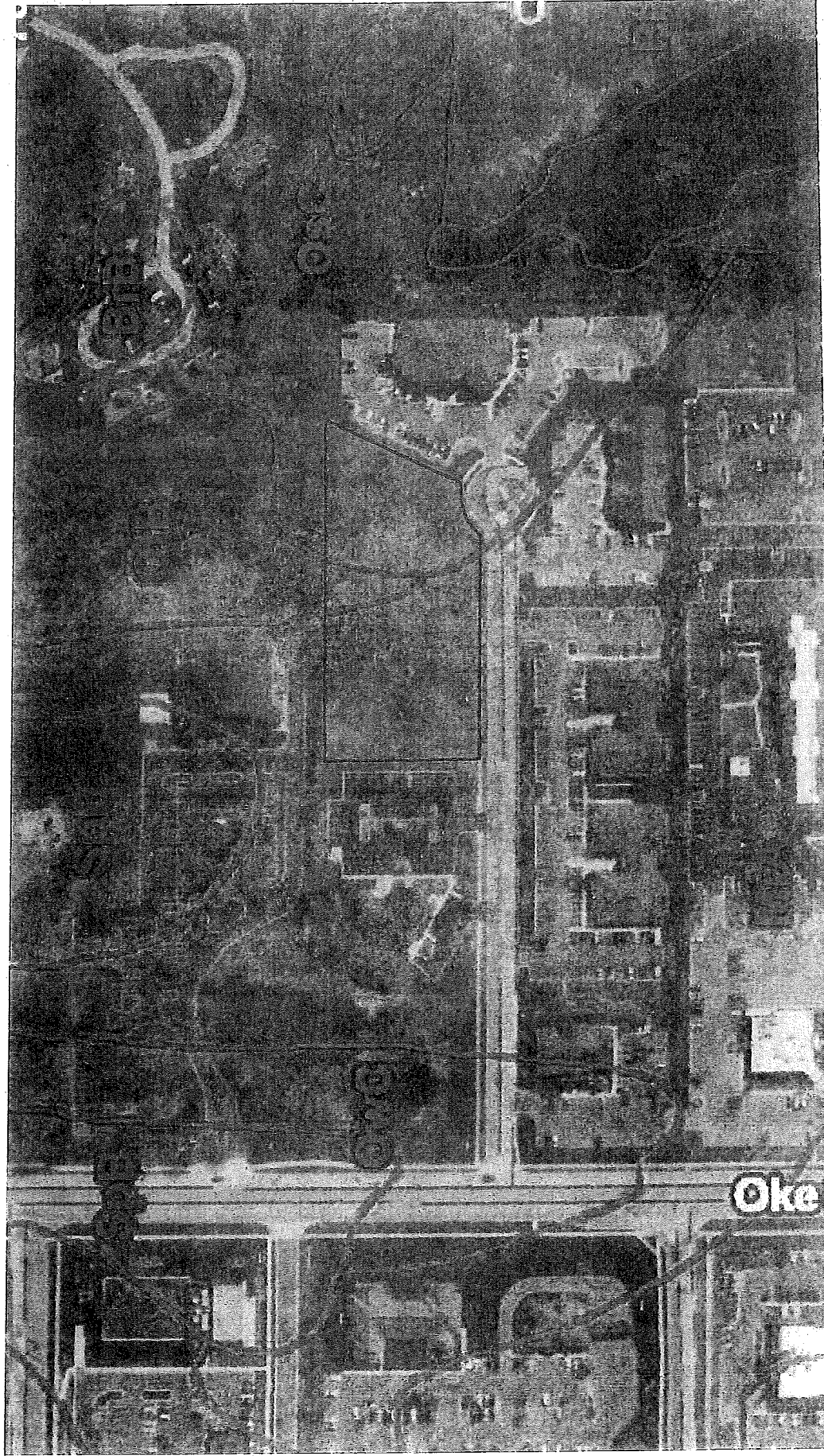
Septic System	The proposed project will be serviced by: <input checked="" type="checkbox"/> public sewer <input type="checkbox"/> private septic system ➔ Show system on plans.	If a private septic system is proposed, has an application for a permit been made to the County Health Department? <input type="checkbox"/> No <input type="checkbox"/> Yes If Yes, has a permit been issued? <input type="checkbox"/> No <input type="checkbox"/> Yes ➔ Provide a copy of the permit.
---------------	---	---

Describe the wetland impacts, the proposed use or development, and the alternatives considered:
See section 4.

Does the project impact more than 1/3 acre of wetland? No Yes
➔ If Yes, submit a Mitigation Plan with the type and amount of mitigation proposed. For more information go to www.mi.gov/wetlands

Describe how impacts to waters of the United States will be avoided and minimized:

Describe how the impact to waters of the United States will be compensated. OR Explain why compensatory mitigation should not be required for the proposed impacts.



Soil Drainage Class
 somewhat poorly drained
 well drained
 well drained

Soil Map Unit Name
 Matherlon sandy loam, 0-3% slopes
 Osherno sandy loam, 6-12% slopes
 Osherno-Spinks loamy sands, 0-6% slopes

Map Symbol
 M1A
 O9C
 O1B

Source: websoilsurvey.nrcs.usda.gov

Conceptual Mitigation Plan For:

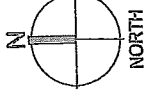
Association Drive Parcels

Meridian Township

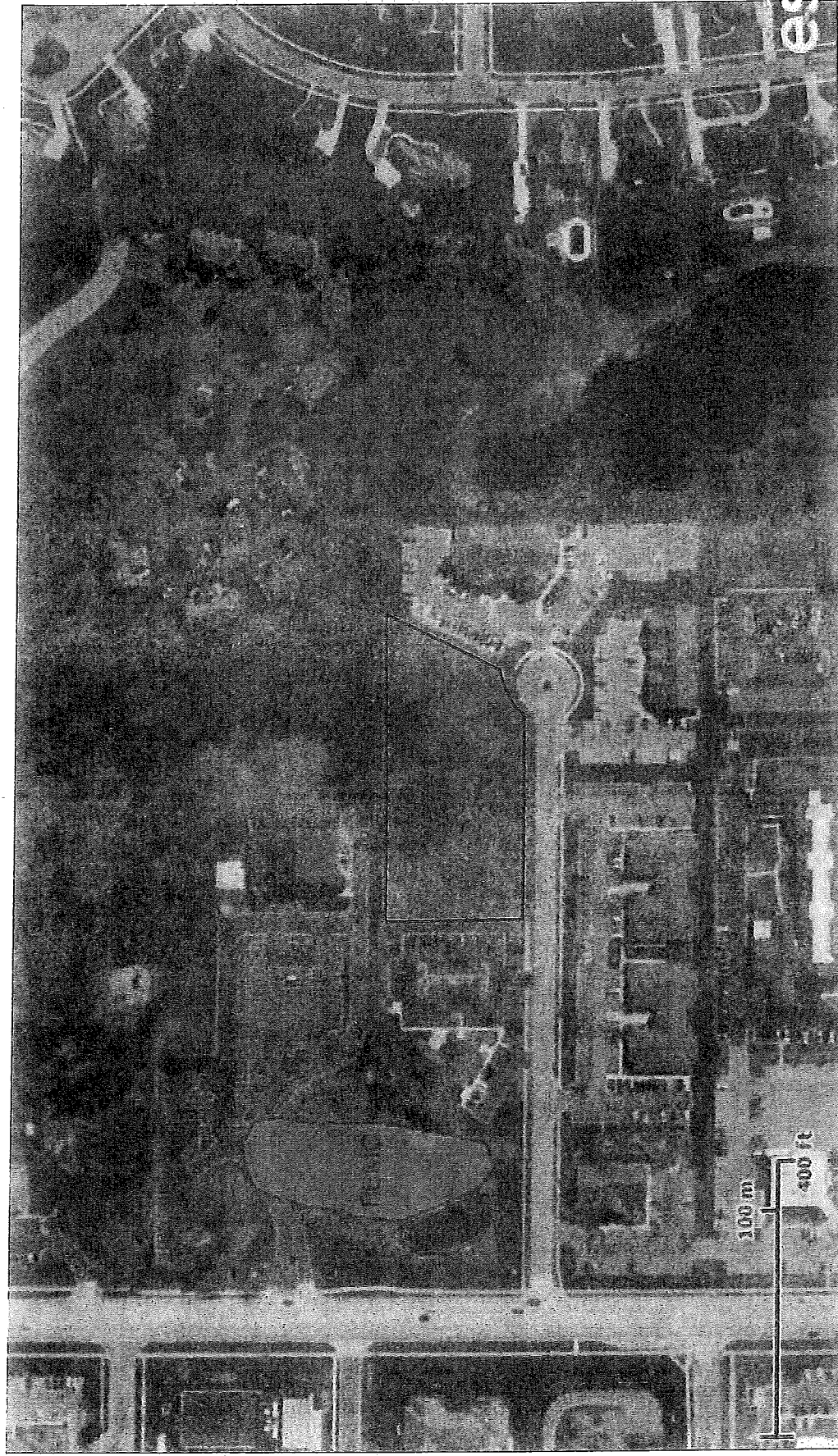
Ingham County, Michigan

PROJECT NUMBER
15024

Soil
Survey
Figure
2



**King & MacGregor
Environmental, Inc.**
 2520 Woodmeadow Drive SE
 Grand Rapids, Michigan 49546
 Phone: (616) 957-1231



Source: NWI mapper

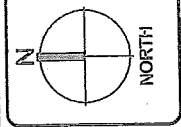
King & MacGregor Environmental, Inc.
 2520 Woodmeadow Drive SE
 Grand Rapids, Michigan 49546
 Phone: (616) 957-1231

Conceptual Mitigation Plan For:

Association Drive Parcels

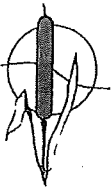
Meridian Township

Ingham County, Michigan



DATE	REVISION

PROJECT NUMBER 15024
National Wetlands Inventory
Figure 3



King & MacGregor
Environmental
Inc.

March 19, 2015

Mr. Rick Brown
Charter Township of Meridian
Department of Community Planning and Development
5151 March Road
Okemos, MI 48864

Re: Wetland Delineation – 2172 & 2190 Association Drive

Dear Mr. Brown:

On March 12, 2015, a wetland delineation was conducted on the above-referenced site. The intent of this letter is to provide a brief description of the location and character of the wetland areas identified within the subject parcels.

The methods used to conduct this wetland determination are consistent with our understanding of the procedures and general practices used by the MDEQ and the U.S. Army Corps of Engineers Wetlands Delineation Methodology. Our determination included review of in-office information including the national *Web Soil Survey*, *National Wetlands Inventory* mapping, and aerial photography. Although the snow had largely melted, due to the frozen ground, no soil samples could be collected.

The area of investigation totaled approximately 2.1 acres in size, and includes parcels 33-02-02-33-453-002 & 33-02-02-33-453-003 in Section 33, Meridian Township (T4N, R1W), Ingham County, Michigan. A low, wet area containing standing water was observed in the center of the site. This wetland is described below.

Wetland A

Wetland A is an emergent wetland that divides both parcels. Standing water was evident over a large portion of the wetland during this on-site evaluation. The vegetation identified in this area was dominated by reed canary grass and soft rush. The soils are described in the national Web Soil Survey as Matherton sandy loam, a somewhat poorly drained soil. The boundaries of this wetland were identified using flags A1 to A21. Wetland flags were located using a Trimble GeoXH unit. A wetland data form is attached.

Upland Areas

The upland areas adjacent to the on-site wetlands included vegetation such as wild carrot, spotted knapweed, timothy grass and common mullein. There was no evidence of standing water in any of the upland areas. An upland data form is attached.

Following delineation of the on-site wetland, we met with Elise Tripp, Township Wetland Consultant, to review the wetland flagging. She directed some modifications to the wetland boundary and flags that were added or moved were re-located with the Trimble GeoXH unit. The attached figure depicts the location of the wetland on the subject parcels.

If you have any questions, please contact me at your convenience.

Sincerely,

King & MacGregor Environmental, Inc.
John R. Vigna

Enclosures

2520 Woodmeadow SE
Grand Rapids, MI 49546
Phone: 616/957-1231
Fax: 616/957-2198

43050 Ford Road, Suite 130
Canton, MI 48187
Phone: 734/354-0594
Fax: 734/354-0593

e-mail: kme@king-macgregor.com

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Appletree - Association Drive City/County: Meridian Twp/Ingham Co Sampling Date: 3-12-15
 Applicant/Owner: TMN Builders, Inc./BBI Holdings, LLC State: MI Sampling Point: A8-wet
 Investigator(s): John Vigna - King & MacGregor Env. Section, Township, Range: Sec 33, T4N, R1W
 Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): LRR L Lat: 42 41' 10.256" N Long: 84 25' 46.190" W Datum: _____
 Soil Map Unit Name: Matherton sandy loam NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No <u>0</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Vacant lots in commercial park. Snow melted, but ground frozen.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) <u>X</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
---	--

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
---	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Up to approximately 6-inches of standing water evident in wettest (central) portion of this wetland.

VEGETATION – Use scientific names of plants.

Sampling Point: A8-wet

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: <u>30'</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	=Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u>)				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	=Total Cover			
Herb Stratum (Plot size: <u>5'</u>)				
1.	<u>Phalaris arundinacea</u>	<u>100</u>	<u>Yes</u>	<u>FACW</u>
2.				
3.				
4.	<u>Other species in wetland:</u>			
5.	<u>Juncus effusus</u>			<u>OBL</u>
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	100 =Total Cover			
Woody Vine Stratum (Plot size: <u>5'</u>)				
1.				
2.				
3.				
4.				
	=Total Cover			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:		
OBL species <u>0</u>	x 1 =	<u>0</u>		
FACW species <u>100</u>	x 2 =	<u>200</u>		
FAC species <u>0</u>	x 3 =	<u>0</u>		
FACU species <u>0</u>	x 4 =	<u>0</u>		
UPL species <u>0</u>	x 5 =	<u>0</u>		
Column Totals: <u>100</u>	(A)	<u>200</u>	(B)	
Prevalence Index = B/A =		<u>2.00</u>		

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: A8-wet

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

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								No soil sample collected

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Appletree - Association Drive City/County: Meridian Twp/Ingham Co Sampling Date: 3-12-15
 Applicant/Owner: TMN Builders, Inc./BBI Holdings, LLC State: MI Sampling Point: A8-upl
 Investigator(s): John Vigna - King & MacGregor Env. Section, Township, Range: Sec 33, T4N, R1W
 Landform (hillside, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): _____
 Subregion (LRR or MLRA): LRR L Lat: 42 41' 10.141" N Long: 84 25' 45.802" W Datum: _____
 Soil Map Unit Name: Matherton sandy loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Vacant lots in commercial park. Snow melted, but ground frozen.	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) _____ High Water Table (A2) _____ Aquatic Fauna (B13) _____ Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
--	---

Field Observations: Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <u>X</u>
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Sampling Point: A8-upl

<u>Tree Stratum</u> (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover				Prevalence Index worksheet: <table style="width:100%; border:none;"> <tr> <td style="width:50%;"><u>Total % Cover of:</u></td> <td style="width:50%;"><u>Multiply by:</u></td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>25</u></td> <td>x 5 = <u>125</u></td> </tr> <tr> <td>Column Totals: <u>30</u> (A)</td> <td><u>135</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.50</u></td> </tr> </table>	<u>Total % Cover of:</u>	<u>Multiply by:</u>	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>25</u>	x 5 = <u>125</u>	Column Totals: <u>30</u> (A)	<u>135</u> (B)	Prevalence Index = B/A = <u>4.50</u>	
<u>Total % Cover of:</u>	<u>Multiply by:</u>																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>5</u>	x 2 = <u>10</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>25</u>	x 5 = <u>125</u>																			
Column Totals: <u>30</u> (A)	<u>135</u> (B)																			
Prevalence Index = B/A = <u>4.50</u>																				
=Total Cover																				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
=Total Cover																				
<u>Herb Stratum</u> (Plot size: <u>5'</u>)																				
1. <u>Daucus carota</u>	<u>25</u>	<u>Yes</u>	<u>UPL</u>																	
2. <u>Symphotrichum</u>	<u>10</u>	<u>Yes</u>																		
3. <u>Phalaris arundinacea</u>	<u>5</u>	<u>No</u>	<u>FACW</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. <u>Other species in upland:</u>	_____	_____	_____																	
7. <u>Phleum pratense</u>	_____	_____	<u>FACU</u>																	
8. <u>Plantago major</u>	_____	_____	<u>FACU</u>																	
9. <u>Verbascum thapsus</u>	_____	_____	<u>UPL</u>																	
10. _____	_____	_____	_____																	
11. _____	_____	_____	_____																	
12. _____	_____	_____	_____																	
=Total Cover																				
<u>Woody Vine Stratum</u> (Plot size: <u>5'</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
=Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) 																				

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

 Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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

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

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

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

Hydrophytic Vegetation Present? Yes No X

SOIL

Sampling Point: A8-upl

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
								No soil sample collected

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) (LRR K, L)

Indicators for Problematic Hydric Soils³:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ____ No X

Remarks:
Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

Wetland Mitigation Plan

BBI Holdings, LLC – Association Drive Parcels

This document and the attached plans are intended to describe the proposed wetland mitigation plan as required by Meridian Charter Township.

Wetland Mitigation Goals and Objectives

The goal of the wetland mitigation plan is to create approximately 0.25 acres of emergent wetland on the subject site. The proposed wetland creation is intended to compensate, to the extent possible, for impacts to approximately 0.25 acres of emergent wetland located on the subject site, a 1:1 mitigation ratio.

Impacted Wetland Description

The area of wetland to be impacted consists of a depressional area located in the center of the site. Standing water was evident during the site evaluation. However, it appears that the area dries up sufficiently later in the year to allow for mowing. The area is dominated by reed canary grass. The existing wetland likely provides some wildlife habitat, water storage, water quality and limited aesthetic functions and values. The proposed mitigation wetland is expected to provide those same functions.

Characterization of the Existing Conditions at the Wetland Mitigation Site

The proposed wetland mitigation area is located along the north side of the subject parcels. The permit drawings depict the existing and proposed topography of the mitigation site. The soil survey describes the soils within the wetland mitigation area as sandy loams and loamy sand (refer to previously submitted Conceptual Wetland Mitigation Plan). The mitigation site consists of grassed field and shrub-line between parcels.

Wetland Mitigation Design

The permit drawings depict the wetland mitigation design. The following is a general narrative of the mitigation plan:

The proposed wetland hydrology is based on groundwater inputs, seasonal surface water inputs and precipitation. A proposed wetland elevation has been selected to support emergent vegetation based on hydrologic and vegetative data gathered from the immediately adjacent wetland area. The plan calls for the excavation of the existing ground surface to lower the ground elevation. The proposed wetland mitigation area will be covered with a minimum of 6 inches of organic soils.

At least one wildlife structures such as a log, fallen tree or stump will be installed within the mitigation area.

The area will be seeded in accordance with the attached list.

Wetland Mitigation Monitoring

The location of vegetative monitoring sampling transects, photo points and monitoring well are depicted on the permit drawings.

Construction Schedule

Construction of the proposed wetland mitigation area is currently planned to commence in late Spring 2015, concurrent with site development. Mass grading and finished wetland elevation will be completed prior to building construction. Seeding will follow completion of grading.

Wetland Mitigation Plan

BBI Holdings, LLC – Association Drive Parcels

EMERGENT WETLAND SEED MIX:

<u>SPECIES</u>	<u>COMMON NAME</u>	<u>RATE (LBS./AC.)</u>
<i>Alisma subcordatum</i>	Common Water Plantain	0.375
<i>Asclepias incarnata</i>	Swamp Milkweed	0.062
<i>Aster nova-angliae</i>	New England Aster	0.062
<i>Aster simplex</i>	Panicled Aster	0.031
<i>Bidens cernua</i>	Nodding Bur Marigold	0.312
<i>Bidens frondosa</i>	Common Beggar's Tick	0.125
<i>Boltonia latisquama</i>	False Aster	0.188
<i>Carex bebbii</i>	Bebb's Sedge	0.125
<i>Carex comosa</i>	Bottlebrush Grass	0.125
<i>Carex lupulina</i>	Common Hop Sedge	0.062
<i>Carex stipata</i>	Awl-fruited Sedge	0.125
<i>Carex scoparia</i>	Pointed Broom Sedge	0.125
<i>Carex vulpinoidea</i>	Fox Sedge	0.500
<i>Eleocharis species</i>	Spike Rush Species	0.062
<i>Elymus virginicus</i>	Virginia Wild Rye	1.500
<i>Eupatorium maculatum</i>	Spotted Joe Pye Weed	0.125
<i>Glyceria striata</i>	Fowl Manna Grass	0.125
<i>Helenium autumnale</i>	Sneezeweed	0.250
<i>Iris virginica</i>	Southern Blue Flag	0.188
<i>Juncus species</i>	Rush Species	0.062
<i>Leersia oryzoides</i>	Rice Cut Grass	0.188
<i>Lolium multiflorum</i>	Annual Rye	20.00
<i>Ludwigia polycarpa</i>	False Loosestrife	0.001
<i>Mimulus ringens</i>	Monkeyflower	0.031
<i>Onoclea sensibilis</i>	Sensitive Fern	0.031
<i>Penthorum sedoides</i>	Ditch Stonecrop	0.001
<i>Polygonum hydropiperoides</i>	Mild Water Pepper	0.750
<i>Rudbeckia laciniata</i>	Green Coneflower	0.125
<i>Sagittaria latifolia</i>	Duck Potato	0.062
<i>Scirpus atrovirens</i>	Dark Green Rush	1.250
<i>Scirpus fluviatilis</i>	River Bulrush	0.125
<i>Scirpus pendulus</i>	Red Bulrush	0.031
<i>Scirpus validus</i>	Soft Stem Bulrush	0.031
<i>Sparganium eurycarpum</i>	Common Bur-Reed	0.062
<i>Veronica fasciculata</i>	Common Ironweed	0.062
<i>Verbena hastata</i>	Blue Vervain	0.125
	TOTAL	27.404

NOTES:

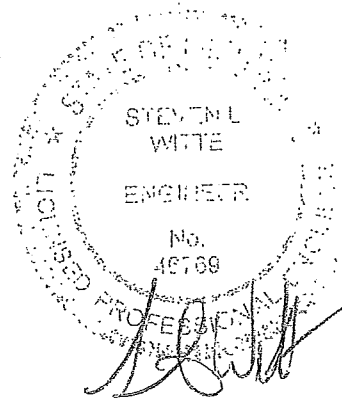
Seed mix to be broadcast over all wetland mitigation areas. This is Genesis Nursery's Sedge Ghetto--The Next Generation seed mix modified by KME, Inc. for use in Michigan.



APPLETREE LEARNING CENTER

DRAINAGE SUMMARY AND CALCULATIONS FOR STORM WATER MANAGEMENT

February 23, 2015



CONTENTS:

- I. INTRODUCTION
- II. DEVELOPED RUNOFF COEFFICIENT
- III. STORM SEWER PIPE SIZING
- IV. DRAINAGE MAP OF SITE
- V. SOIL BORING LOGS

Drainage Summary: APPLETREE LEARNING CENTER

I. Introduction.

- *Location:* The Appletree Learning Center project is located at 2172 and 2190 Association Drive in the SE ¼ of Section 33 of Meridian Township.
- *Terrain:* In general, the site has a gentle slope from east downward to the west. The existing grades range from approximately 885 near the center of the property to approximately 895 at the northeast corner of the property. There is a wetland present in the center of the project area. A wetland permit will be obtained from the MDEQ and the township for impact to the existing wetland.
- *Area:* The overall project covers two lots within the Scholle Pond Office Park. The project area covers a total of approximately 2.06 acres.
- *Current Drainage:* Currently, the storm water from the site sheet flows to the wetland area and also to the west.
- *Detention Provisions:* It is our understanding that regional storm water holding is provided for the project area. However, a wetland mitigation area will be provided north of the building/playground/parking area, and bio-swales will be provided at storm sewer inlets.
- *Storm Sewer Provisions:* Storm sewer and bioswales with catchbasins are proposed internal to the project that will collect storm water runoff from the developed portions of the site and direct the storm water runoff to the storm sewer in Association Drive. Note that a storm sewer lead has been provided to the site from the storm sewer in Association Drive.

II. Offsite Runoff

- Based on the surrounding development and topography, the site does not receive a significant amount of off-site runoff.

III. Storm Sewer Design.

- *Design Standard:* The storm sewer system for the project is designed to collect the 10-year storm runoff from the site. Design flows are calculated with the rational method. Manning's equation is used to determine a hydraulic grade elevation in the system. Manning's roughness values are assumed to be 0.013 for concrete pipe and 0.011 for smooth lined corrugated polyethylene pipe (slepp).

- *Runoff Coefficient:* A Runoff Coefficient of 0.95 is used for the drainage areas in order to be conservative. The exception to this is the drainage area for the wetland/playground area drainage is calculated to be 0.31.
- *Time of Concentration:* A Time of Concentration of 15 minutes is used for all sections of storm pipe.

15400051/drainsummary.sw

Nederveld Associates, Inc.

Project:	Appletree - Okemos
Project #:	15400051
Date:	2/23/2015

Information For Determining Storm Water Requirements

C-DEVELOPED

A. Impervious Area (C=0.95)	Length (ft)	Width (ft)	Area (s.f.)	Quantity	Total Area		
					(s.f.)	Area (Ac)	
Pavement	1	1	20715	1	20715	0.48	
Concrete	1	1	3260	1	3260	0.07	
Building	1	1	11974	1	11974	0.27	
Total							0.83

B. 'Green' Area	C=	0.2			
Total site area			90005 sf		2.07
Total impervious area					0.83
Change in impervious area					0.83
Total 'Green' area					1.24

C. Calculate C-dev = $(.95(\text{area}.95)+\text{GreenC}(\text{Green Area}))/\text{total area}$ C-dev = 0.50

Nederveld Associates, Inc.

Project: Appletree - Okemos
 Project #: 15400051
 Date: 2/23/15

Storm Sewer Design - 10 year storm

MODEL OF DEVELOPED AREAS

From	To	C**	Factored C _o overall area	Time (min)**	Time Inc. (min)	Area Increment	Total Area (acres)	I (in/hr)	Q (cfs)	L (ft)	Pipe Size (in)	Type of Pipe	Full Flow HGL (%)	Actual Pipe Grade (%)	Full Flow Velocity (ft/s)
1	2	0.31	0.31	15.0	1.71	1.062	3.72	1.21	1.58	12	P		0.08	0.32	1.54
2	Ex. CB100	0.95	0.42	15.0	0.18	1.295	3.72	2.04	28	12	P		0.23	0.32	2.59
Building	3	0.95	0.95	15.0	0.58	0.275	3.72	0.97	62	10	P		0.14	0.40	1.78
3	Ex MH103	0.95	0.95	15.0	0.42	0.529	3.72	1.87	60	12	P		0.20	1.25	2.38

Formulas and Constants

Rational Equation

$Q = CIA$, where

Q = Flow (cfs)

C = Rational Coefficient

i = Rainfall Intensity (in/hr)

A = Tributary Area (ac)

Mannings Equation

$Q = (1.486/h) \times (R^{2/3}) \times S^{1/2} \times A$, where

Q = Flow (cfs)

n = Mannings Roughness Coef.

R = Hydraulic Radius

S = Slope of Pipe (ft/ft)

A = Area of Flow (sq. ft)

Manning Roughness Coefficients

Concrete	C	0.013
Cor. Metal	CM	0.024
Plastic	P	0.011

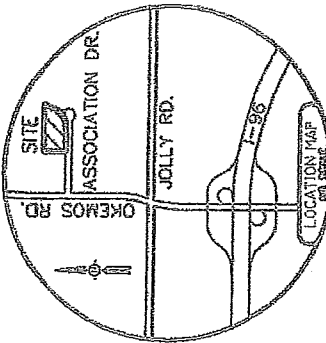
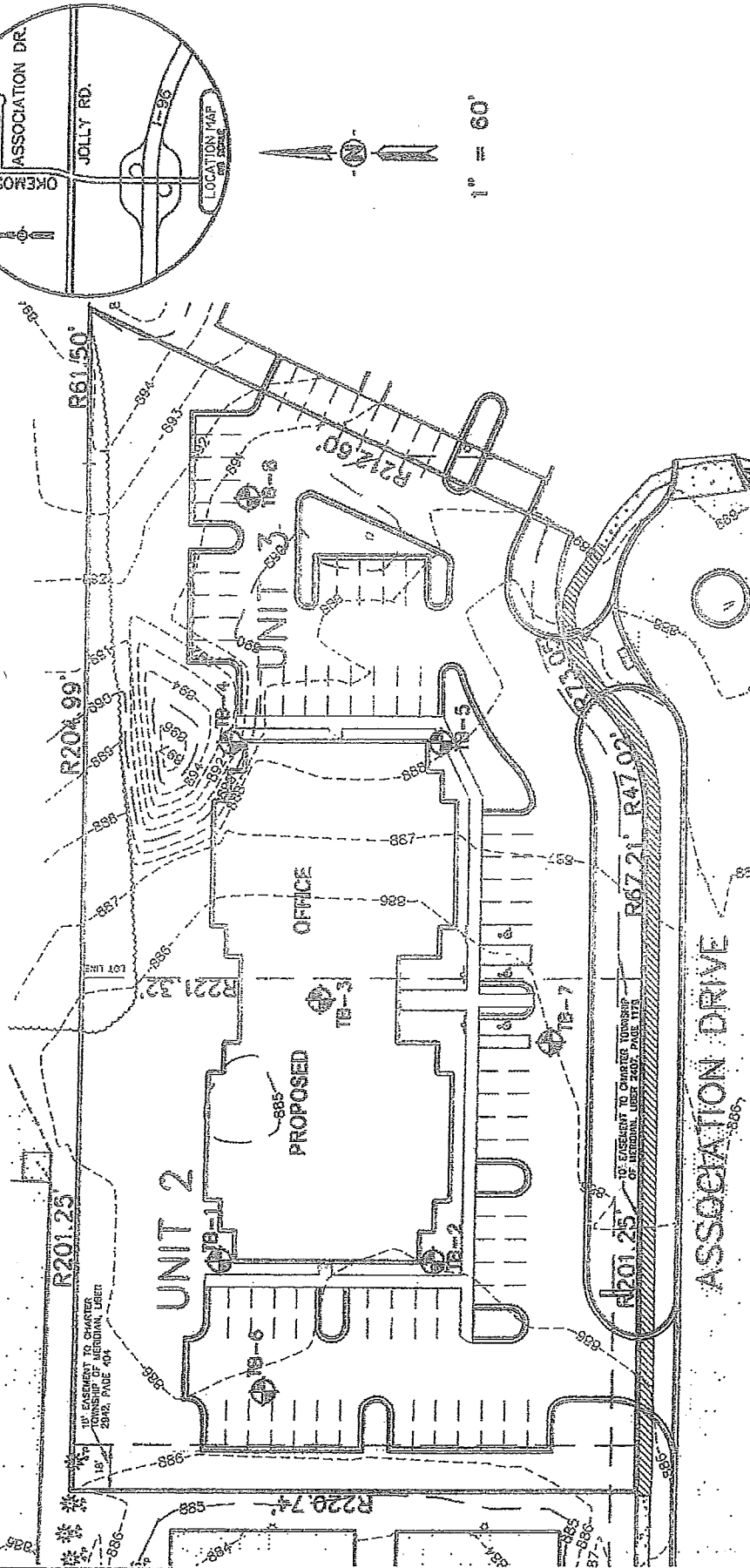
*A Time of Concentration of 15 minutes is assumed for all pipe sections, with the exception of Pipe 2 to Out3 which includes off-site runoff.

**A runoff coefficient of 0.95 is assumed for all drainage areas except Drainage Area 1 (playground area) which is calculated below.

Drainage Area 1

Green Area =	39670 sf (C = 0.20)
Impervious Area =	6600 sf (C = 0.95)
Total Area =	46270 sf
Calc. C-Developed =	0.31

**TEST BORING LOCATION PLAN
SCHOLLE POND OFFICE PARK, UNITS 2 & 3**




KEBS, INC. KYES ENGINEERING
BRYAN LAND SURVEYS

2116 HASLETT ROAD, HASLETT, MI 48840
PH. 517-339-1014 FAX. 517-339-8047
13432 PRESTON DRIVE, MARSHALL, MI 49068
PH. 269-781-9800 FAX. 269-781-9805

DRAWN BY	SLH	SECTION	33, T4N, R1W
FIELD WORK BY	DL	JOB NUMBER:	81842.SLS
SHEET	1 OF 1		

LEGEND

 TB-3 TEST BORINGS DRILLED BY WEST MICHIGAN DRILLING UNDER SUPERVISION OF KEBS, INC. ON 6/25/08.



KEBS, INC.

ENGINEERING, SURVEYING, SOILS AND MATERIALS TESTING, & WETLANDS
 8539 Westland Way, Suite 13
 Lansing, MI 48917
 Ph: (517)721-0108 Fax (517)721-0107

LOG OF TB-1

DESCRIPTION: SCHOLLE POND OFFICE PARK, UNITS 2 AND 3

LOCATION: 2172 AND 2190 ASSOCIATION DRIVE, OKEMOS, MICHIGAN

WATER ENCOUNTERED AT: 18.0 FEET

JOB NO: 81842.SLS

INSPECTOR: D. LONGPRE

AFTER COMPLETION: 11.0 FEET (AFTER 3.0 HOURS)

DRILLING CONTRACTOR: WEST MICHIGAN DRILLING

DRILLER: D. KLITZ

START DATE: 06/25/08

COMPLETION DATE: 06/25/08

DRILL RIG: CME-550

BORING METHOD: 3-1/4" ID HOLLOW STEM AUGER

SURFACE ELEVATION: 885.5 ±

TOTAL DEPTH: 20.0 FEET

SAMPLE	RECOVERY (IN.)	UNCONF. COMP. STRENGTH (psi)	MOISTURE (%)	PENETRATION (ASTM 1586)	N-VALUE	SAMPLES	DEPTH (FT)	SYMBOL	DESCRIPTION
S-1	18			4 3 3	5		1.0		TOPSOIL: Dark Brown SANDY SILT with Trace Gravel and Organics
							3.0		Loose Brown SILTY SAND with Trace Clay and Gravel
S-2	18	1,500		4 4 4	7		5		Medium to Stiff Orangish Brown SANDY CLAY with Trace Gravel and Occasional Seams of Sand
S-3	18	5,000		5 5 5	11		5.5		Stiff to Very Stiff Gray SILTY CLAY with Trace to Little Sand, Trace Gravel and Occasional Seams of Sand
S-4	18	6,000		2 2 2	8		10		
S-5	18	4,000		2 2 2	5		15		
S-6	18	6,000		3 3 3	8		20.0		
END OF BORING									

NOTES:

* POCKET PENETROMETER VALUE

BORING BACKFILLED WITH EXCAVATED MATERIAL



KEBS, INC.

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MATERIALS TESTING, & WETLANDS
8539 Westland Way, Suite 13
Lansing, MI 48917
Ph: (517)721-0106 Fax: (517)721-0107

LOG OF TB-3

SHEET 3 OF 8

DESCRIPTION: SCHOLLE POND OFFICE PARK, UNITS 2 AND 3

LOCATION: 2172 AND 2190 ASSOCIATION DRIVE, OKEMOS, MICHIGAN

WATER ENCOUNTERED AT: 16.2 FEET

JOB NO: 81842.SLS

INSPECTOR: D. LONGPRE

AFTER COMPLETION: 7.6 FEET (AFTER 1.75 HOURS)

DRILLING CONTRACTOR: WEST MICHIGAN DRILLING

DRILLER: D. KLITZ

START DATE: 06/25/08

COMPLETION DATE: 06/25/08

DRILL RIG: CME-550

BORING METHOD: 3-1/4" ID HOLLOW STEM AUGER

SURFACE ELEVATION: 885.5 ±

TOTAL DEPTH: 20.0 FEET

SAMPLE	RECOVERY (IN.)	UNCONF. COMP. STRENGTH (PSF)	MOISTURE (%)	PENETRATION (ASTM 1586)	N-VALUE	SAMPLES	DEPTH (FT)	SYMBOL	DESCRIPTION
S-1	18	7,000		3 3 5	8		0		1.0 TOPSOIL: Dark Brown SANDY SILT with Trace Gravel and Organics
S-2	18	8,000		3 4 8	8		5		Very Stiff to Hard Brown and Gray SILTY CLAY with Trace Sand and Gravel, and with Silt Streaks and Partings
S-3	18			4 7 11	18		8.0		
S-4	18	6,000		3 5 4	9		10		Very Stiff Gray SILTY CLAY with Trace to Little Sand, Trace Gravel and Occasional Seams of Fine Sand
S-5	18	7,000		3 4 7	11		15		
S-6	18	6,000		3 5 6	11		20	20.0	END OF BORING

NOTES:

* POCKET PENETROMETER VALUE

BORING BACKFILLED WITH EXCAVATED MATERIAL



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Lansing, MI 48917
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LOG OF TB-5

DESCRIPTION: SCHOLLE POND OFFICE PARK, UNITS 2 AND 3

LOCATION: 2172 AND 2190 ASSOCIATION DRIVE, OKEMOS, MICHIGAN

WATER ENCOUNTERED AT: 14.5 FEET

JOB NO: 81842.SLS

INSPECTOR: D. LONGPRE

AFTER COMPLETION: 7.1 FEET (AFTER 0.25 HOURS)

DRILLING CONTRACTOR: WEST MICHIGAN DRILLING

DRILLER: D. KLITZ

START DATE: 06/25/08

COMPLETION DATE: 06/25/08

DRILL RIG: CME-550

BORING METHOD: 3-1/4" ID HOLLOW STEM AUGER

SURFACE ELEVATION: 888±

TOTAL DEPTH: 20.0 FEET

SAMPLE	RECOVERY (ft.)	UNCONF. COMP. STRENGTH (psf)	MOISTURE (%)	PENETRATION (ASTM 1586)	N-VALUE	SAMPLES	DEPTH (FT)	SYMBOL	DESCRIPTION
S-1	18			5 6 7	13		0.5		TOPSOIL: Dark Brown SANDY SILT with Trace Gravel and Organics
							3.0		Medium Compact Light Brown SILTY SAND with Trace Clay and Gravel
S-2	18	3,000		8 9 10	4		5.5		Stiff Orangish Brown SANDY CLAY with Trace Gravel and Occasional Seams of Sand
S-3	18	8,000		11 12 13	10				
S-4	18	7,000		14 15 16	14		10		Very Stiff to Hard Grayish Brown SILTY CLAY with Trace to Little Sand, Trace Gravel, and Occasional Seams of Sand
							12.5		
S-5	18	7,500		17 18 19	11		15		Very Stiff Gray SILTY CLAY with Trace Sand and Gravel, and Occasional Seams of Sand
							17.5		
S-6	18			20 21 22	10		20		Loose Brown SILTY SAND
							26.0		

NOTES:

* POCKET PENETROMETER VALUE

BORING BACKFILLED WITH EXCAVATED MATERIAL



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 MATERIALS TESTING, & WETLANDS
 6539 Westland Way, Suite 13
 Lansing, MI 48917
 Ph: (517)721-0106 Fax: (517)721-0107

LOG OF TB-7

DESCRIPTION: SCHOLLE POND OFFICE PARK, UNITS 2 AND 3

LOCATION: 2172 AND 2190 ASSOCIATION DRIVE, OKEMOS, MICHIGAN

WATER ENCOUNTERED AT: NONE
 JOB NO: 81842.SLS INSPECTOR: D. LONGPRE

AFTER COMPLETION: DRY
 DRILLING CONTRACTOR: WEST MICHIGAN DRILLING DRILLER: D. KLITZ

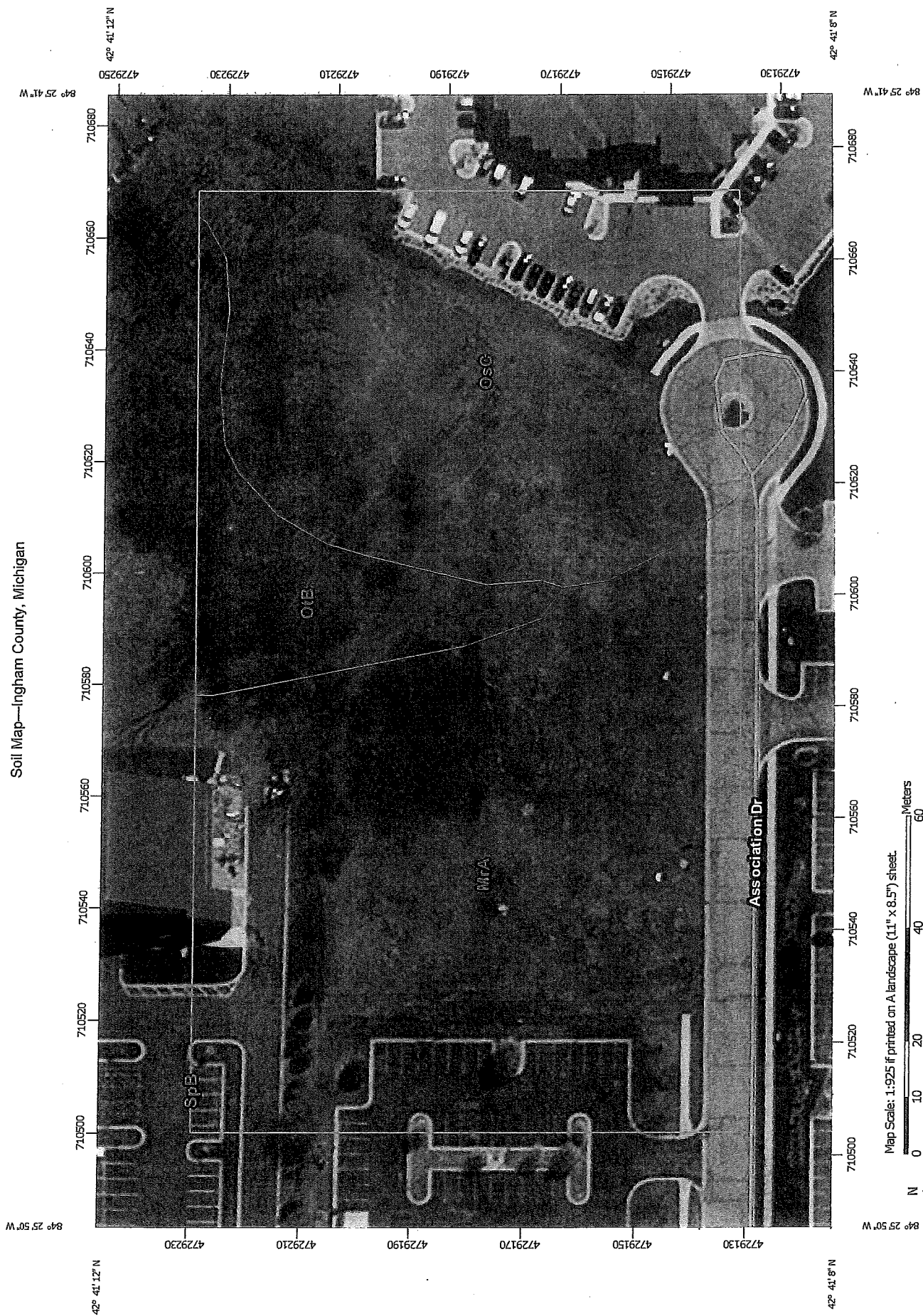
START DATE: 06/25/08 COMPLETION DATE: 06/25/08
 DRILL RIG: CME-550 BORING METHOD: 3-1/4" ID HOLLOW STEM AUGER

SURFACE ELEVATION: 886± TOTAL DEPTH: 5.0 FEET

SAMPLE	RECOVERY (IN.)	UNCONF. COMP. STRENGTH (psf)*	MOISTURE (%)	PENETRATION (ASTM 1586)	N-VALUE	SAMPLES	DEPTH (FT)	SYMBOL	DESCRIPTION
1P	1R	8,000		4 4 5	0	[Symbol]	0.0		TOPSOIL: Light Brown SILTY SAND with Trace Gravel and Organics
				3 3 3		[Symbol]	3.0		Very Stiff to Hard Brown SILTY CLAY with Trace Sand and Gravel
2P	1R	2,500		5	7	[Symbol]	5.0		Stiff to Brown SILTY CLAY with Trace Sand and Gravel

NOTES:
 * POCKET PENETROMETER VALUE
 BORING BACKFILLED WITH EXCAVATED MATERIAL

Soil Map—Ingham County, Michigan

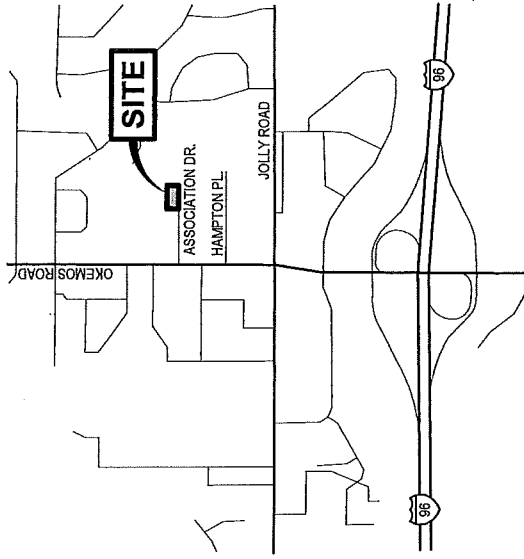


Map Scale: 1:925 if printed on A landscape (11" x 8.5") sheet.

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

Map Unit Legend

Ingham County, Michigan (MI065)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MrA	Matherton sandy loam, 0 to 3 percent slopes	2.2	53.8%
OsC	Oshtemo sandy loam, 6 to 12 percent slopes	1.5	36.7%
OtB	Oshtemo-Spinks loamy sands, 0 to 6 percent slopes	0.4	9.5%
SpB	Spinks loamy sand, 0 to 6 percent slopes	0.0	0.0%
Totals for Area of Interest		4.1	100.0%



LOCATION MAP

NOT TO SCALE

SHEET INDEX

- PAGE 1 OF 6 - SITE LOCATION MAP
- PAGE 2 OF 6 - WETLAND IMPACT SUMMARY TABLE
- PAGE 3 OF 6 - EXISTING CONDITIONS MAP
- PAGE 4 OF 6 - SITE LAYOUT PLAN
- PAGE 5 OF 6 - PROFILE A-A
- PAGE 5 OF 6 - PROFILES B-B, C-C & D-D

Permit Application Sketches of:

APPLETREE - OKEMOS

SITE LOCATION MAP

MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

DRAWN BY: S.W. V. DATE: 3/19/15

CHECKED BY: S.W. S. DATE: 3/19/15

PRJ NO: 15400051

1 OF 6



NORTH



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WETLAND IMPACT SUMMARY - DEQ APP SECTION 10A/B & 12

WETLAND FILL							AREA		
LOCATION	TYPE:	APPROX. MAX LENGTH (FEET)	APPROX. MAX WIDTH (FEET)	APPROX. MAX DEPTH (FEET)	APPROX. AVE DEPTH (FEET)	VOLUME (CUBIC YARDS)	SQUARE FEET	ACRES	
AREA 1'	GENERAL FILL	115FT	105 FT	4.0 FT	2.5 FT	APPROX. 990 CY	10,730	0.25	
TOTALS							APPROX. 990 CY	10,730	0.25



APPLETREE - OKEMOS

WETLAND IMPACT SUMMARY TABLE

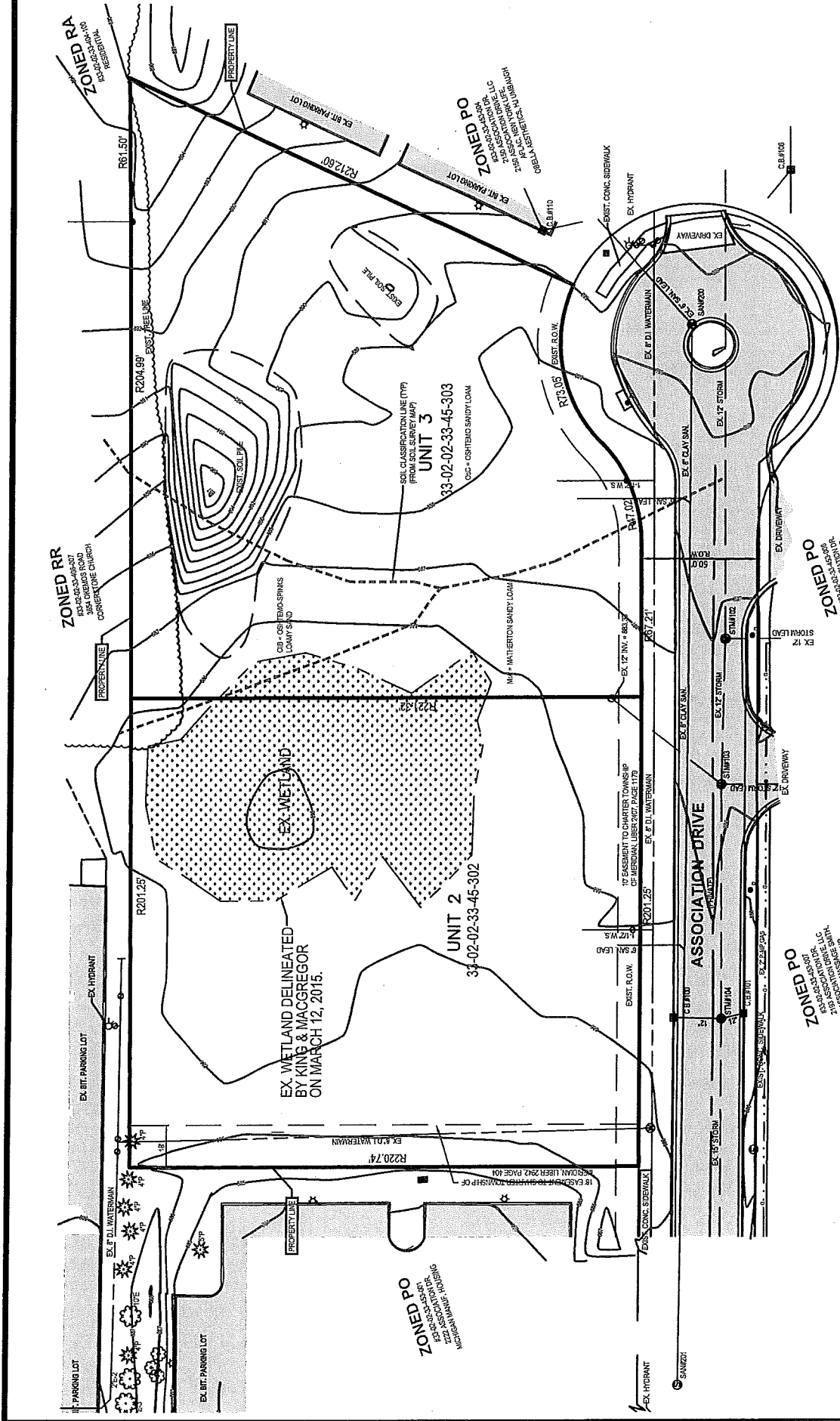
MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

DRAWN BY: S.W. V. DATE: 3/19/15 PRJ NO: 15400051

CHECKED BY: S.W. S. DATE: 3/19/15 2 OF 6



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NORTH

N

SCALE: 1" = 60'

APPLETREE - OKEMOS

EXISTING CONDITIONS MAP

MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

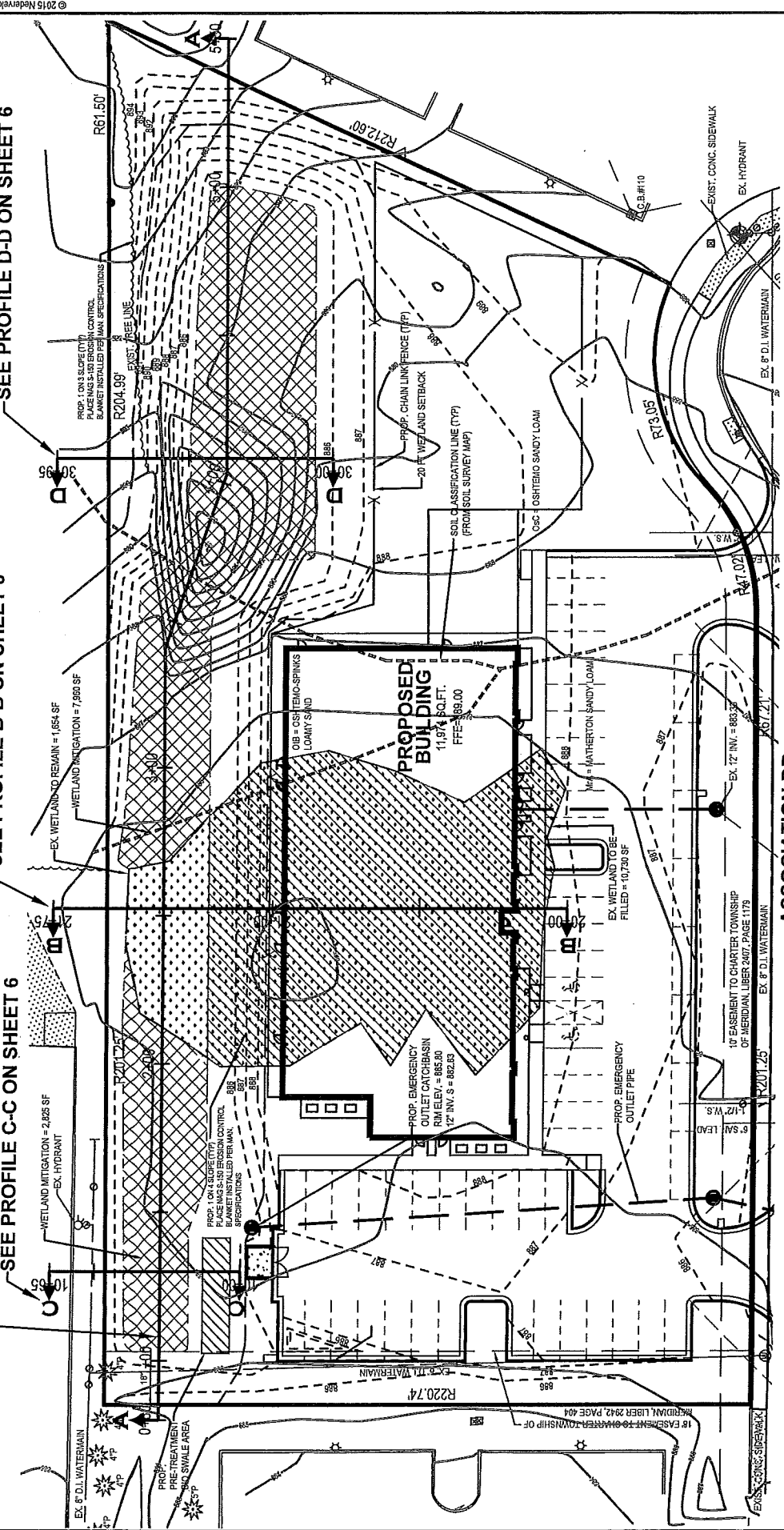
DRAWN BY: S.W. V. DATE: 3/19/15 PRJ NO: 15400051
 CHECKED BY: S.W. S. DATE: 3/19/15 3 OF 6

LEGEND

- EXISTING CONTOURS
- EX. WETLAND
- TOTAL WETLAND AREA = 12,381 SF (0.28 AC)**

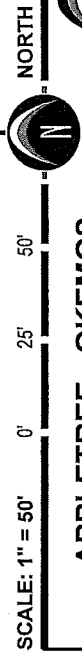
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SEE PROFILE A-A ON SHEET 5
 SEE PROFILE C-C ON SHEET 6
 SEE PROFILE B-B ON SHEET 6
 SEE PROFILE D-D ON SHEET 6



LEGEND

- EXISTING CONTOURS
- PROP. CONTOURS
- EX. WETLAND
- PROPOSED WETLAND FILL
APPROX. 10,730 SF (0.25 AC)
- PROPOSED WETLAND MITIGATION
APPROX. 10,785 SF (0.25 AC)



APPLETREE - OKEMOS

SITE LAYOUT PLAN

MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

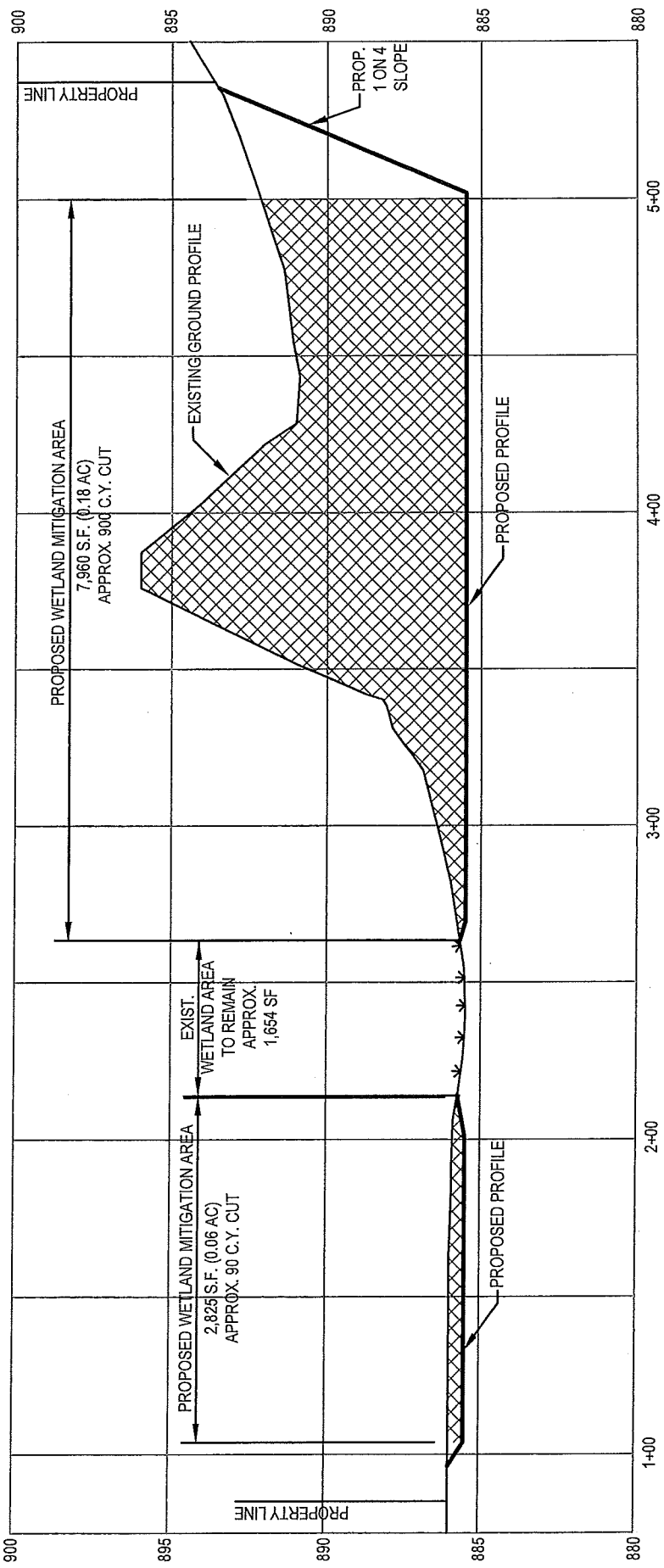
V. DATE: 3/19/15

S. DATE: 3/19/15

PRJ NO: 15400051

4 OF 6



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PROFILE A-A

SCALE: HORZ. 1" = 50'
VERT. 1" = 5'

LEGEND

-  PROPOSED WETLAND MITIGATION
10,730 SF (0.25 AC)
APPROX. 990 CY
-  PROPOSED WETLAND MITIGATION
10,785 SF (0.25 AC)
APPROX. 990 CY CUT



SCALE: 1" = 50' 0' 25' 50'

APPLETREE - OKEMOS

PROFILE A-A

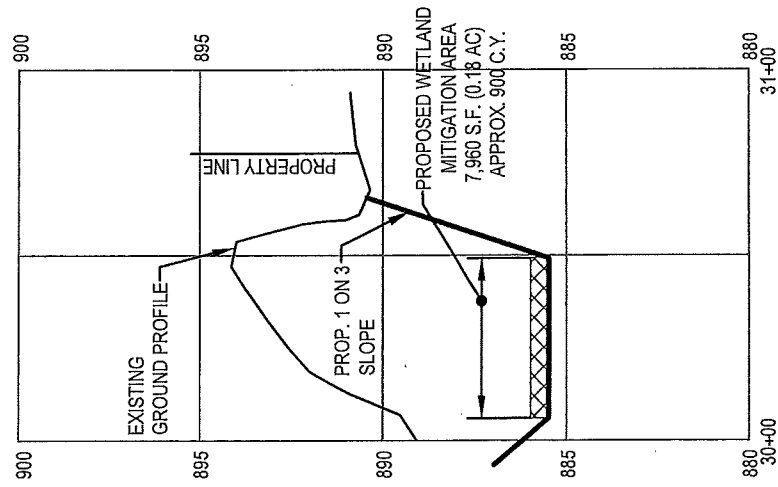
MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

DRAWN BY: S.W. V. DATE: 3/19/15 PRJ NO: 15400051

CHECKED BY: S.W. S. DATE: 3/19/15 5 OF 6

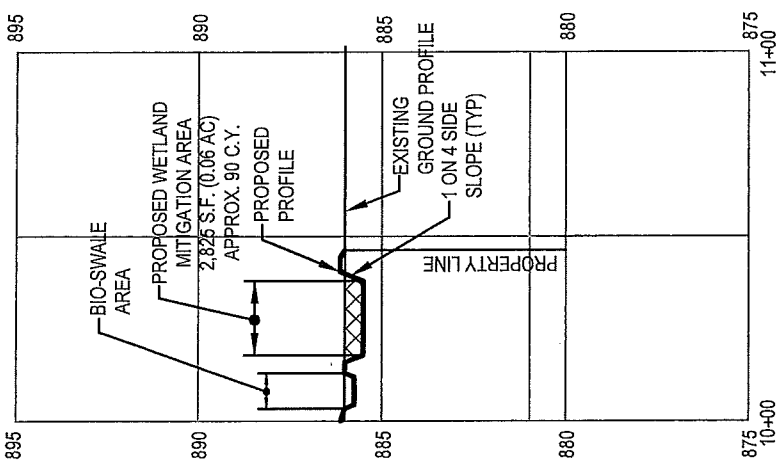


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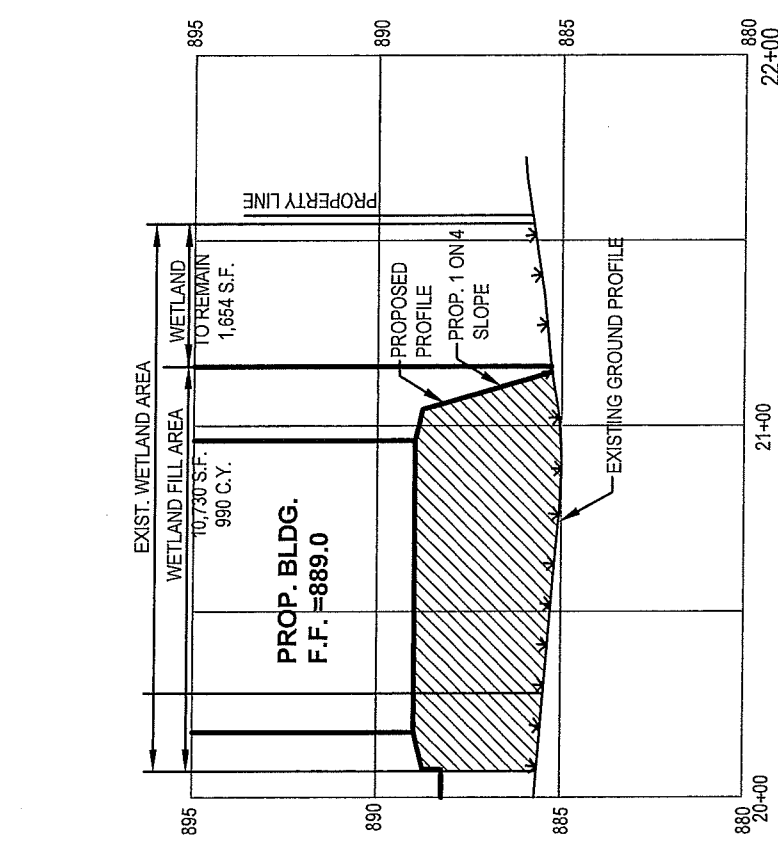
PROFILE D-D

SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



PROFILE C-C

SCALE: HORZ. 1" = 50'
VERT. 1" = 5'




PROFILE B-B


SCALE: HORZ. 1" = 50'
VERT. 1" = 5'



SCALE: 1" = 50' 0' 25' 50'

LEGEND

 PROPOSED WETLAND FILL
10,730 SF (0.25 AC)
APPROX. 990 CY

 PROPOSED WETLAND MITIGATION
10,785 SF (0.25 AC)
APPROX. 990 CY CUT

APPLETREE - OKEMOS

PROFILES B-B, C-C & D-D

MERIDIAN TOWNSHIP, INGHAM COUNTY, MI

DRAWN BY: S.W. V. DATE: 3/19/15

CHECKED BY: S.W. S. DATE: 3/19/15

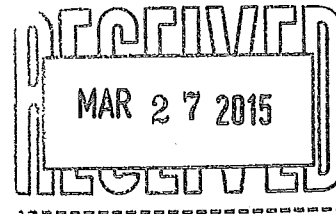
PRJ NO: 15400051

6 OF 6



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March 27, 2015
Project No. G150126W01



Mr. Richard Brown
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Re: Wetland Use Permit #15-01 Application Review
BBI Holdings, LLC - Appletree Learning Center
2172 and 2190 Association Drive

Dear Mr. Brown:

The Appletree Learning Center is a proposed day care center located near the east end of Association Drive in the Charter Township of Meridian (Township). The development is proposed by BBI Holdings, Inc. (the Applicant) and will impact 0.25 acre of a 0.28 acre emergent wetland (Meridian Township Wetland No. 33-16).

At the request of the Township, FTCH reviewed the Wetland Use Permit (WUP) request, including the following:

- Plans dated March 19, 2015, prepared by Nederveld Associates, Inc.
- A Joint Permit Application, dated February 24, 2015, prepared by King & MacGregor Environmental, Inc. (KME)
- KME Wetland Delineation Report, dated March 19, 2015
- A wetland mitigation plan prepared by KME, dated March 19, 2015

FTCH also inspected the site on March 12, 2015, to verify wetland boundaries and assess site conditions. This report provides a brief description of the resources that would be impacted by the proposed work, evaluates WUP Application #15-01 according to review standards in the Township Wetland Protection Ordinance (Article IV of Chapter 22 of the Code of Ordinances of the Charter Township of Meridian), and makes recommendations to the Township regarding issuance or denial of the WUP application.

Overview of Proposed Wetland Impacts

The proposed activities are located in southeast quarter of Section 33 of Town 4 North, Range 1 West, Ingham County, Michigan. The Applicant proposes to construct an 11,974 square foot day care facility on Parcel Numbers 33-02-02-33-453-002 and 33-02-02-33-453-003, located in an existing office park complex. The subject property contains a 12,382 square foot emergent wetland in a centrally located depression. According to the Joint Permit Application provided by the Applicant, the proposed building is the minimum size necessary for operating an Appletree Learning Center in this service area. Avoidance of wetland impact is not possible due to the wetland's central location.

The Applicant proposes to fill the southern 10,730 square feet of the existing wetland and to construct a 10,785 square foot mitigation wetland adjacent to the remaining wetland to compensate for wetland impacts. The mitigation wetland will be excavated to an elevation similar to the remaining wetland and will extend east and west of the wetland remnant on the subject property.



Review of WUP Application

The review standards used to evaluate WUP applications are found in Section 22-157 of Article IV (Wetland Protection) of Chapter 22 of the Township's Code of Ordinances. WUPs are not to be issued unless the proposed activity is found to be in the public interest, the permit is necessary to realize the benefits from the activity, and the proposed activity is otherwise lawful in all respects. Section 22-157(2) lists eleven general criteria to be considered when evaluating whether or not a proposed activity is in the public interest. An evaluation of the proposed activity, according to each of the eleven criteria, is as follows:

Section 22-157(2)(a) *The relative extent of the public and private need for the proposed activity.*

- FTCH was not provided information regarding the relative extent of the public and private need for the proposed activity. We do not know if there is a need for additional day care facilities within the Township. However, the presence of high quality and affordable day care is an important factor within a community to attract working families and it contributes to the economic stability of the community. The proposed project addresses these issues.

Section 22-157(2)(b) *The availability of feasible and prudent alternative locations and methods to accomplish the expected benefits from the activity.*

- The location of the wetland in the center of the site limits feasible and prudent alternative locations. The WUP application discusses various alternatives (moving the building to the south, turning it 90 degrees, flipping the locations of the parking lot and playground) and noted the resulting affects on site safety and wetland impacts. The preferred alternative appears to result in the least overall wetland impact and the greatest site safety in the available space.
- Parking lot size was reduced to below normal Township standards to limit the development footprint and wetland impact. Additional bicycle parking spaces were added to compensate for the lost vehicle parking spaces.
- Appletree Learning Center playgrounds typically wraps around the back of the building. For this site, the playground was limited to the east side of the building to limit wetland impact.

Section 22-157(2)(c) *The extent and permanence of the beneficial or detrimental effects which the proposed activity may have on the public and private uses to which the area is suited, including the benefits the wetlands provide.*

- The proposed project is a suitable use for the subject site, since the site is highly disturbed, primarily does not contain native plant communities, and is located in the middle of an office park.
- The existing wetland provides the following functions and values: water storage, water quality improvement, limited wildlife habitat, and limited aesthetic value. Construction of the day care center will eliminate these functions and values within the impacted wetland, but will replace them in the mitigation wetland at a 1:1 ratio. The resulting wetland may be of higher quality, due to greater plant diversity introduced by the proposed wetland seed mixture.

Section 22-157(2)(d) *The probable impact of each proposal in relation to the cumulative effect created by other existing and anticipated activities in the watershed.*

- There are no identified cumulative impacts of the proposed project or by other existing and anticipated activities in the watershed.



Section 22-157(2)(e) *The probable impact on recognized historic, cultural, scenic, ecological, or recreational values and on the public health or safety, or fish or wildlife.*

- FTCH has no direct information pertaining to historic and cultural value or issues relating to impacts on public health.
- The proposed site development is not likely to significantly impact (positively or negatively) recreational or scenic value of the site.
- Construction of the proposed mitigation area is likely to result in a higher quality wetland than is currently present on the site.
- No other impacts on recognized historic, cultural, scenic or recreational values are apparent by the proposed activities. In addition, no impacts on fish or public health or safety are apparent.

Section 22-157(2)(f) *Economic value, both public and private, of the proposed land change to the general township area.*

- FTCH concurs that avoidance of wetland impact on the subject property severely limits the site's development potential, due to the central location of the wetland. The extent of the loss of economic value associated with wetland preservation is beyond the scope of the issues FTCH was retained to address. However, it appears that allowing the proposed site development would provide economic value to the general township area.

Section 22-157(2)(g) *The size and quality of the wetland being considered.*

- The site's wetland is 0.28 acre in size. The proposed site development will impact 0.25 acre of this wetland. The predominant species within the wetland is reed canary grass (*Phalaris arundinacea*), an invasive species. The wetland is located within an office park complex and is mowed during the summer. Therefore, the wetland is of low quality, although it does serve some wetland functions, as noted above.

Section 22-157(2)(h) *The findings of necessity for the proposed activity which have been made by other agencies.*

- FTCH is not aware of any findings of necessity for the proposed activity which have been made by other agencies.

Section 22-157(2)(i) *Amount of wetland remaining in the general area and proximity to a waterway.*

- According to the Township Wetland Map, the site wetland is an isolated pocket of emergent wetland. It is not associated with a waterway.

Section 22-157(2)(j) *Proximity to any waterbody.*

- The site's wetland is located approximately 460 feet west-northwest of a 2-acre lake.

Section 22-157(2)(k) *Extent to which upland soil erosion adjacent to the protected wetland is controlled.*

- Sheet C-300 of the WUP application contains a soil erosion and sedimentation control plan for the proposed development. The plan notes a pretreatment bioswale area will be constructed that will receive storm water runoff from the western parking lot and allow sediment to settle before storm water discharges into the western portion of the mitigation wetland.
- The plan also notes erosion control blanket will be installed on the mitigation wetland side slopes to prevent erosion during wetland establishment.



Recommendations

Based upon our review of the submitted materials, it is our opinion that the proposed project meets the Township's requirements for permit issuance. FTCH recommends the WUP permit be issued with the following conditions:

- Implement appropriate erosion and sedimentation control measures during construction to ensure there are no impacts to the remaining wetland as a result of soil erosion.
- Submit a monitoring plan that notes vegetative monitoring sampling transects, photo points, and monitoring well location. The Wetland Monitoring Plan notes these features are depicted on the permit drawings, but none were observed.
- Monitor the mitigation wetland for five years.

In addition, implementation of measures to control the establishment of reed canary grass within the mitigation wetland is recommended, including suppressing the presence of this species within the existing wetland.

We appreciate the opportunity to assist in the review of this file. If you have any questions or require additional information, please contact me at 616.464.3738 or ehtripp@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

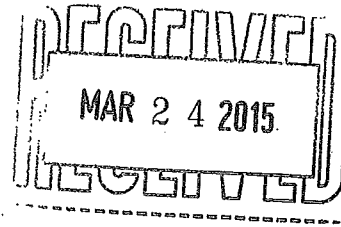
A handwritten signature in black ink that reads "Elise Hansen Tripp". The signature is written in a cursive, flowing style.

Elise Hansen Tripp, PWS

pmb
By email

March 24, 2015
Project No. G150126W01

Mr. Richard Brown
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864



Re: Appletree Learning Center
2172 and 2190 Association Drive
Wetland Boundary Confirmation

Dear Rick:

As requested by your office, I met with Mr. John Vigna and his coworker, Corella, of King & McGregor Environmental, Inc. at the referenced site on March 12, 2015. We reviewed the wetland boundary they flagged that morning and I made adjustments to a few flag locations. I requested that the following be submitted to the Township:

- Updated figures showing the 2015 wetland boundary.
- A letter stating the wetland was delineated, including a completed Wetland Data Form. The form will include vegetation and hydrology data. The ground was frozen, so they were not able to dig a hole and collect soil data. We can assume hydric (wetland) soil is present, based upon the 2007 wetland delineation.
- Recalculation of proposed impacted wetland area.
- Evaluation of whether enough mitigation area is proposed based upon a 1:1 replacement ratio (the same ratio as was permitted in 2008).
- A mitigation plan, including a cross section and proposed seed mixture.

I look forward to reviewing the Wetland Use Permit application. If you have any questions or require additional information, please contact me at 616.464.3738 or ehtripp@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

Elise Hansen Tripp, PWS

pmb
By email

**Special Use Permit #15041
(Triestram & Dorner)
April 23, 2015**

APPLICANT: Holly Triestram and Robert Dorner
4303 Tacoma Boulevard
Okemos, MI 48864

STATUS OF APPLICANT: Property owners

REQUEST: Impacts to the 100-year floodplain from installing a 160 square foot deck

CURRENT ZONING: RAA (Single Family-Low Density)

LOCATION: 4303 Tacoma Boulevard, Okemos

AREA OF THE SUBJECT SITE: Approximately 0.46 acre

EXISTING AREA LAND USES IN AREA:
North: Single-family homes
South: Single-family homes
East: Single-family homes
West: Red Cedar River and Single-family homes

CURRENT ZONING IN AREA:
North: RAA (Single Family-Low Density)
South: RAA (Single Family-Low Density)
East: RAA (Single Family-Low Density)
West: RA (Single Family-Medium Density)

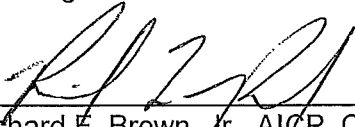
FUTURE LAND USE MAP:
North: Residential 1.25 to 3.5 dwelling units per acre
South: Residential 1.25 to 3.5 dwelling units per acre
East: Residential 1.25 to 3.5 dwelling units per acre
West: Residential 1.25 to 3.5 dwelling units per acre

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM:


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

DATE: April 23, 2015

RE: Special Use Permit #15041 (Triestram and Dorner), a request to construct a deck in the 100-year floodplain at 4303 Tacoma Boulevard

Holly Triestram and Robert Dorner is requesting a special use permit to construct a 160 square foot (10 x 16) deck, approximately eight feet above grade, on the back of their home located at 4303 Tacoma Boulevard, Okemos. The existing 2,741 square foot single-family dwelling was completed in 1974, approximately two years prior to the Township participating the National Flood Insurance Program.

Section 86-436 of the Code of Ordinances requires a special use permit be obtained for proposed impacts to the 100-year floodplain. Impacts to the 100-year floodplain are limited to digging of the necessary post holes, setting the posts into ground, and stabilizing the deck posts with concrete and soil.

AERIAL MAP



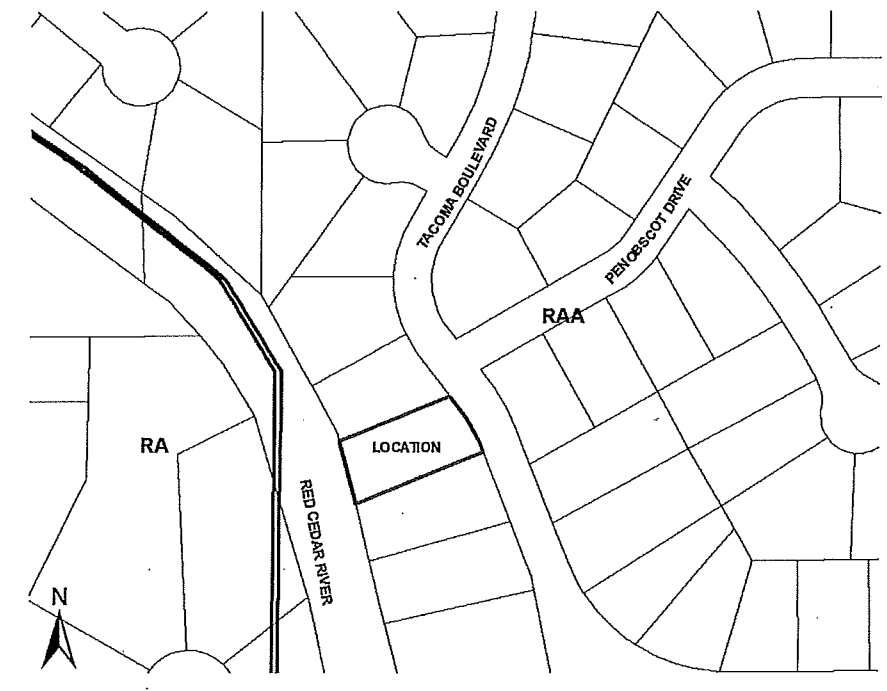
2005 Master Plan

The 2005 Master Plan's Future Land Use Map classifies the subject site and all surrounding and nearby parcels as Single-Family 1.25-3.5 dwelling units per acre.

Zoning

Zoning for the subject site is RB (Single Family-High Density). Single-family uses are permitted by right in the zoning district, though if located in the 100-year floodplain (floodway fringe), require a special use permit. Occupiable structures, such as dwellings are prohibited in the floodway.

ZONING MAP



Physical Features

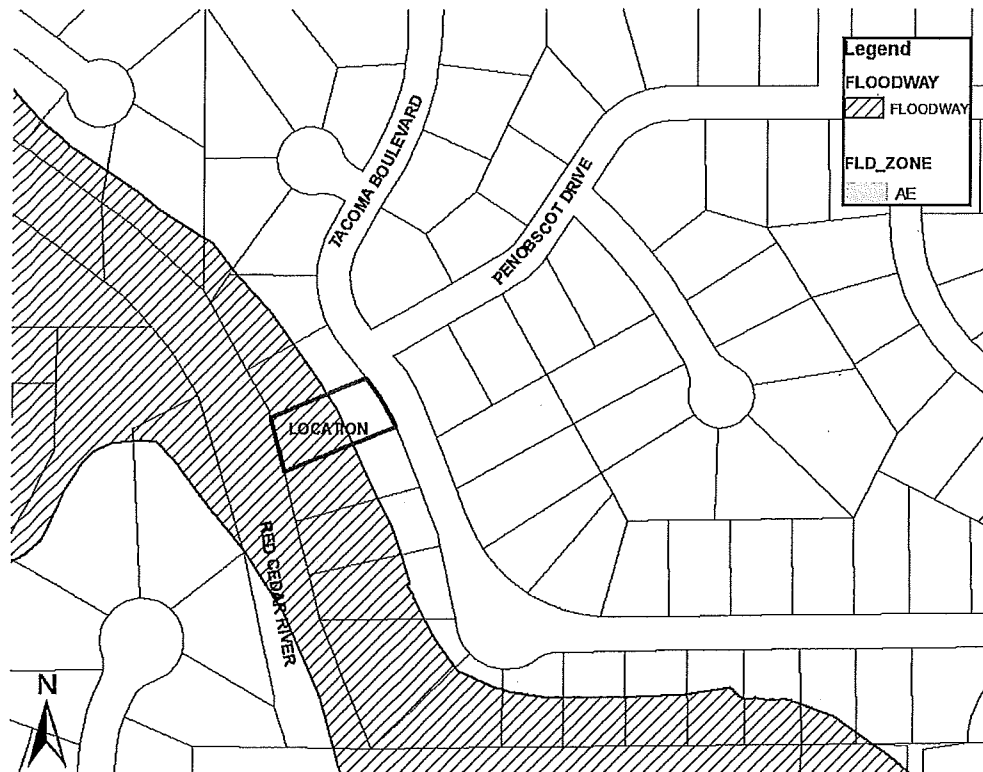
The subject parcel slopes downward from Tacoma Boulevard to the Red Cedar River. The parcel occupies approximately 0.46 acre and contains approximately 100 feet of riverfront. Elevations range from approximately 848 feet above mean sea level adjacent to the Tacoma Boulevard to approximately 832 feet above mean sea level at the river's edge. The existing 2,741 square foot single-family dwelling was completed in 1974.

Floodplain

According to the Township's Flood Insurance Rate Map and Study, the elevation of the 100-

year floodplain of the Red Cedar River is 847 feet above mean sea level. With the exception of a narrow strip abutting Tacoma Boulevard, the entire parcel is located in the 100-year floodplain, with approximately two-thirds of the subject site being also located in the floodway.

FLOODPLAIN MAP



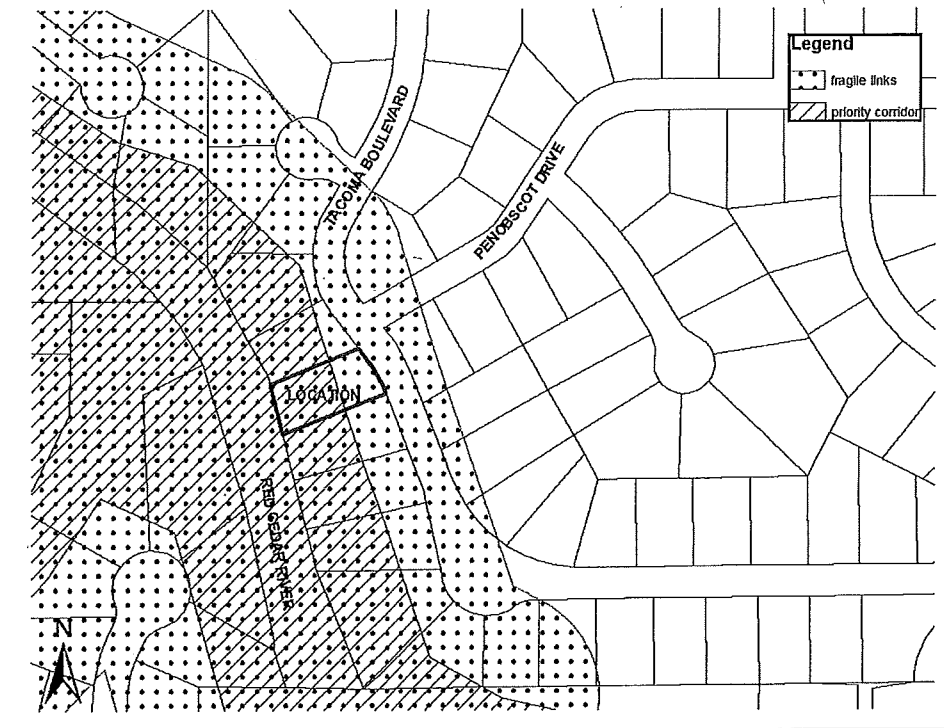
Wetlands

The Township's wetlands map depicts regulated wetlands along the shoreline edge of the Red Cedar River. No impacts are proposed to the regulated wetlands.

Greenspace Plan

The Greenspace Plan identifies the front half of the subject site being part of the fragile links designation, while the rear portion of the property is shown as part of the priority conservation corridor along the Red Cedar River.

GREENSPACE MAP



Staff Analysis

Since a code enforcement issue arose in 2008 regarding a replacement deck installed on the front of the house, staff from both the Department of Community Planning & Development and the Department of Public Works & Engineering have been providing regular guidance to the applicant on the most appropriate method to proceed through the special use permit process when their home is in the 100-year floodplain. Guidance has included a number of written letters, phone conversations, emails, and in-person conversations.

The applicant received a minor permit from the Michigan Department of Environmental Quality (MDEQ) on February 28, 2014. The Director of Public Works & Engineering has reviewed the project and recommends approval of Special Use Permit #15041.

The standards for review of the project are contained in Section 86-126 and Section 86-436 of the Code of Ordinances. Specific guidance for review of applications for work in the floodway fringe can be found in Section 86-436(l). Issues to consider include whether the use will be adverse to the purpose of the Conservancy District, or damaging to the public health, safety, or welfare, or impose a financial burden upon the community.

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

SUP #15041 (Triestram & Dorner)
Planning Commission (4/23/15)
Page 5

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.

Planning Commission Options

The Planning Commission may approve, approve with conditions, or deny Special Use Permit #15041. A resolution to approve has been provided for consideration.

Attachments

1. Resolution to approve
2. Application materials
3. MDEQ permit
4. Letter from the Director of Public Works & Engineering

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RESOLUTION TO APPROVE

**Special Use Permit #15041
(Triestram & Dorner)
4303 Tacoma Boulevard**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 27th day of April 2015, at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, Holly Triestram and Robert Dorner requested a special use permit (Special Use Permit #15041) for work in the 100-year floodplain associated with construction of a 128 square foot deck at 4303 Tacoma Boulevard in Section 27 of the Township; and

WHEREAS, uses permitted by right or special use permit in the underlying zoning district (RAA) require a special use permit pursuant to Section 86-436(l)(5) of the Conservancy District of the Code of Ordinances; and

WHEREAS, the Planning Commission held a public hearing on Special Use Permit #15041 at its meeting on April 27, 2015, and has reviewed the staff material forwarded under cover memorandum dated April 23, 2015; and

WHEREAS, the proposed deck in the 100-year floodplain will be consistent with the requirements and standards outlined in Section 86-436(n), the Conservancy District for the granting of a special use permit in the floodway fringe; and

WHEREAS, the construction associated with the proposed deck will not be adverse or damaging to the public health, safety, or welfare as the only disturbance to the floodplain will be for installing two or three deck posts; and

WHEREAS, the Michigan Department of Environmental Quality issued a minor permit for the proposed deck on February 28, 2014; and

WHEREAS, the Director of Public Works and Engineering approved the project, contingent on any permits or conditions required by the Township.

NOW THEREFORE, BE IT RESOLVED THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby approves Special Use Permit #15041 subject to the following conditions:

1. Approval is subject to the application materials and plans submitted as part of Special Use Permit #15041, subject to revisions as required.
2. If required, the applicant shall obtain a soil erosion and sedimentation control permit from the Department of Public Works & Engineering prior to any work taking place related to the deck project. A copy of the permit shall be provided to the Department of

**Resolution to Approve
SUP #15041 (Triestram and Dorner)
Page 2**

Community Planning & Development.

3. The elevation of the proposed deck shall be a minimum of one foot above the level of the base flood elevation of 847 feet above mean sea level.
4. In no case shall the impoundment capacity of the 100-year floodplain be reduced by the deck.
5. Fill placed in the floodplain as part of the project shall be protected against erosion pursuant to a soil erosion permit from the Department of Public Works & Engineering.
6. The applicant shall properly dispose of all excess materials from the post holes to an off-site location subject to the approval of the Director of Community Planning & Development.

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
) ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified Chairperson of the Planning Commission of the Charter 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 27th day of April, 2015.

John Scott-Craig, Chair
Meridian Township Planning Commission

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

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 HOLLY TRIESTRAM / ROBERT DORNER
 Address of Applicant 4303 TACOMA BLVD
 Telephone - Work _____ Home 347-6952 Fax _____ Email _____
 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 4303 TACOMA / OKEMOS / 33-02-02-27-151-01
 Legal description (please attach if necessary) LOT 248 SANDER TACOMA HILLS
 Current zoning RESIDENTIAL
 Use for which permit is requested / project name HOLLY TRIESTRAM / ROBERT DORNER
 Corresponding ordinance number _____
- C. Developer (if different than applicant) JOHN JOHNSON - CONTRACTOR
 Address _____
 Telephone - Work (517) 242-2509 Home _____ Fax _____
- D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
 Name _____
 Address _____
 Telephone - Work _____ Home _____ Fax _____
- E. Acreage of all parcels in the project: Gross _____ Net _____
- F. Explain the project and development phases:
- G. Total number of:
 Existing: structures 1 bedrooms 4 offices 1 parking spaces 2 carports 0 garages 1
 Proposed: structures 1 bedrooms 4 offices 1 parking spaces 2 carports 0 garages 1
- H. Square footage: existing buildings ~3000 proposed buildings _____
 Usable Floor area: existing buildings _____ proposed buildings DECK 128
- 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:
- J. Existing Recreation: Type _____ Acreage _____
 Proposed Recreation: Type _____ Acreage _____
 Existing Open Space: Type _____ Acreage _____
 Proposed Open Space: Type _____ Acreage _____

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

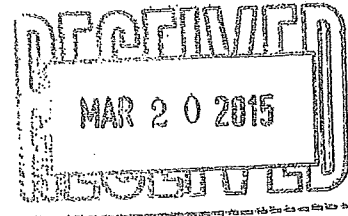
[Signature]
Signature of Applicant

7/30/15
Date

Type/Print Name

Fee: _____

Received by/Date: *[Signature]* 5/30/15



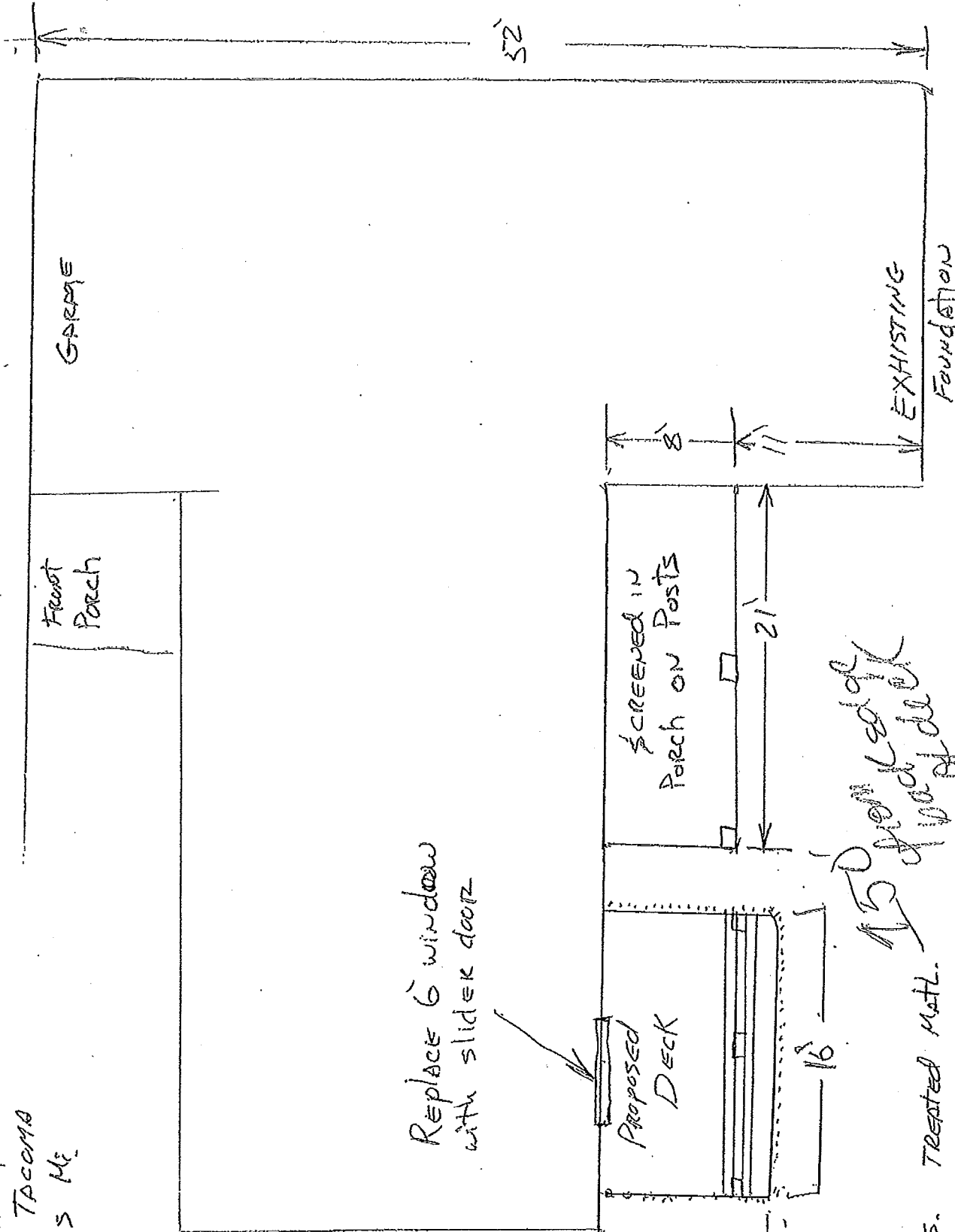
To Whom It May Concern:

We are submitting a request to build a 128 square foot deck on the second floor of our home at 4303 Tacoma Blvd, Okemos, Michigan. We are aware that our home is in the flood plain and that we must submit an application in order to build our deck. The deck would be positioned next to another deck that also runs along the back of our home. A brick patio covers the entire area (and then some) below where the proposed deck would be built. Two posts would be put in to support the deck which is the only building material that would be added to the flood plain (unless a third post would be required by the contractor). We are requesting an exemption to the Special Use Permit fee. We understand that this fee is used to publish the proposed building addition, and that members of the community would weigh in on our proposed project, but we feel that this project is very minor, and does not add or take away from any of our neighbors view. In addition, we would be willing to go door to door and gather signatures to support our project if necessary. We understand that Meridian Township believes in preserving and protecting land and that is one of the reasons that we moved from East Lansing to Okemos. We are very environmental and we do not feel that these supportive posts to a second story deck would compromise the river in any way.

Thank you for your time and consideration in this matter.

Holly Triestram
Robert Dorner
4303 Tacoma Blvd
Okemos, Mi 48864
(517) 347-6952

Robo #Holley Trishan
 4303 Tacoma
 Oremos Me



Replace 6 window with slider door

15' Deck edge
 1/2" gap deck

SCALE 1/8" = 1 FT.

DEQ-LWMD
 File # 14-33-0002-P
 APPROVED PLANS
 Page 1 of 2
 1/21/2014

JAN 18 2013
 WATER RESOURCES DIVISION

Deck Specs. Treated Matl.
 4x6 Posts on concrete
 2x12 DBL Beam
 2x8 Joists
 1x6 CEDAR decking, 2x2" SPINDLES 5" o.c.

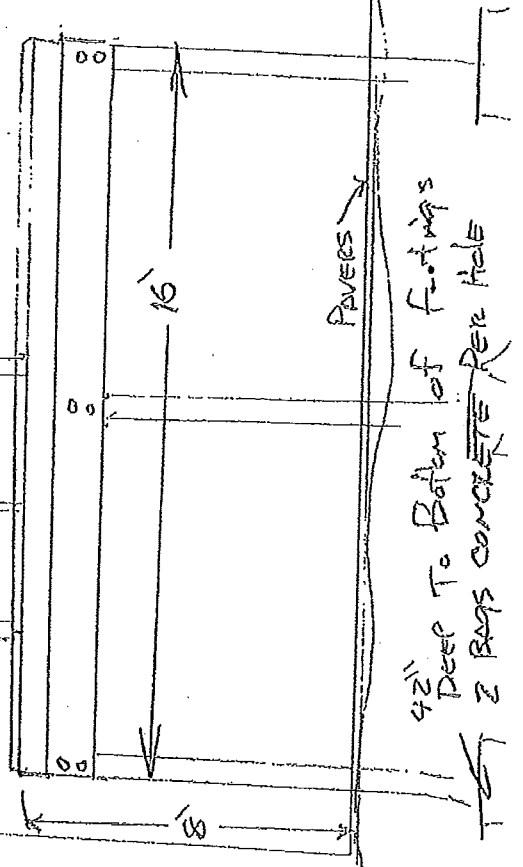
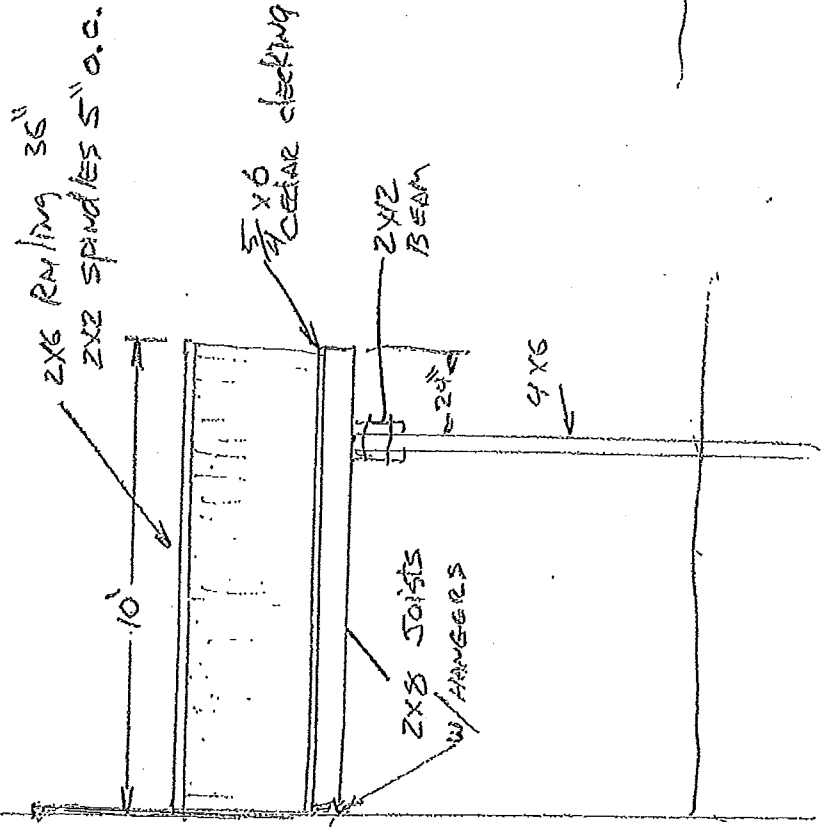
Rob & Holley Trisham
4303 Tacoma
Okemos Mi.

SCALE 1/4" = 1 FT.

DEQ-LWMD
File # 14-33-0002-P
APPROVED PLANS
Page 2 of 2
02/28/2014

JAN 13 2013
WATER RESOURCES DIVISION

Replace window
with slider



PAVERS
42" Deep To Bottom of Footings
2 BAGS CONCRETE PER HOLE

FLOODWAY
AE

Pembiscot Dr

Tacoma Blvd







[Joint Permit Application](#) | [DEQ Home](#) | [CIWPIS](#) | [Online Services](#) | [Permits](#) | [Programs](#) | [Site Map](#) | [Contact DEQ](#)

Tuesday, April 21, 2015

CIWPIS on Line

Notices and Hearings

New Applications

File Number:

14-33-0002-P

[Back](#)

Help:
Placing your cursor over the field will display tool tips. If this site does not work correctly please [let us know](#).

Note:
Some fields are blank dependent upon application type and/or status.

Lansing District Office
525 West Allegan St, 1st Floor
Lansing , Michigan
48933-1502
517-284-6665

Coastal and Inland Waters Permit Information System

File No: 14-33-0002-P

Status: **Permit Issued**

Name: Holly Triestram

County: Ingham

Address: 4303 Tacoma Boulevard
Okemos, MI 48864

Twn/Rng/Sec: 04N/01W/

Government: Meridian Township

Subdivision:

Lot:

Waterbody: Red Cedar River

ProjectName:

Tax ID: 33-02-02-27-151-012

Activity: Deck

MITAPS:

Activity:

Activity:

Parts: 301 325 303 31 315 323 353 Sec404

1

Type: Minor Project

Field: Donna Cervelli

Renewal:

Entry: Carol Valor

Date Received: 1/13/2014

Date Final Action: 2/28/2014

Date Sent to Field: 2/24/2014

Date Permit Expires: 2/28/2019

Date Extended:

Date Revised:

Date Site Inspection:

Date Public Notice:

Date Public Hearing:

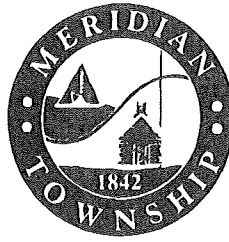
Date CR Mailed:

This information is a summary of DEQ project file: 14-33-0002-P.

[Michigan.gov Home](#) | [DEQ Home](#) | [Online Services](#) | [Permits](#) | [Programs](#) | [Site Map](#) | [Contact DEQ](#)
[State Web Sites](#) | [Privacy Policy](#) | [Link Policy](#) | [Accessibility Policy](#) | [Security Policy](#)
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CHARTER TOWNSHIP OF MERIDIAN

Elizabeth Ann LeGoff Supervisor
Brett Dreyfus Clerk
Julie Brixie Treasurer
Frank L. Walsh Manager



Milton L. Scales Trustee
Ronald J. Styka Trustee
John Veenstra Trustee
Angela Wilson Trustee

April 23, 2015

Mr. Richard Brown
Associate Planner
Community Planning & Development
Meridian Charter Township
Okemos, MI 48864-1198

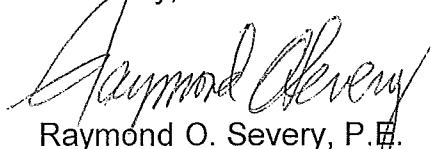
Re: Proposed Deck – 4303 Tacoma

Dear Mr. Brown:

The proposed addition of a raised deck at the rear of the home at 4303 Tacoma appears feasible. It is my understanding that the proposed deck will be supported by 3 – 4 x 6 inch posts that will be in the floodplain. The posts will not be in the floodway and will have a negligible impact on the floodplain.

I recommend the addition of the raised deck supported by 3 – 4 x 6 inch posts be approved.

Sincerely,


Raymond O. Severy, P.E.
Director of Engineering



CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM: Peter Menser
Peter Menser
Associate Planner

DATE: April 23, 2015

RE: Special Use Permit #15-83251 (Kroger), request to construct a gasoline station at 4884 Marsh Road

The Planning Commission held the public hearing for Special Use Permit (SUP) #15-83251 at the April 13, 2015 meeting. At the meeting the Planning Commission requested additional information about the traffic at the intersection of Newman Rd. and Central Park Dr., east of the subject property. The only information available at this time regarding that intersection is a traffic count taken by the Ingham County Road Department in 2003, which showed a total of 6,304 vehicles traveling on Central Park Dr. approximately 950 feet south of the intersection.

The Planning Commission also mentioned adding a condition related to installation of trees along the west property line. This condition is included in the resolution to approve.

Planning Commission Options

The Planning Commission has the option to approve, approve with conditions, or deny the special use permit to construct a gasoline station. A resolution to approve is attached.

Attachment

1. Resolution to approve

RESOLUTION TO APPROVE

**SUP #15-83251
(Kroger)
4884 Marsh Rd.**

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building in said Township on the 27th day of April, 2015 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, Kroger has requested a special use permit to construct a gasoline station with seven fueling dispensers (14 fuel nozzles), a 265 square foot transaction kiosk, and a 5,418 square foot canopy structure on an approximate six acre site addressed as 4884 Marsh Road and zoned C-3 (Commercial); and

WHEREAS, the Planning Commission held a public hearing at its regular meeting on April 13, 2015; and

WHEREAS, the Planning Commission reviewed and discussed staff material forwarded under cover memorandums dated April 9, 2015 and April 23, 2015; and

WHEREAS, the subject site is appropriately zoned C-3 (Commercial) which permits gasoline stations as a "drive-in or drive-through use" by special use permit per Section 86-405(e)(13) of the Code of Ordinances; and

WHEREAS, adequate parking exists on the site to serve both the existing shopping center and the new gasoline station, with a minimum of 965 parking spaces required per the Code of Ordinances and 1,102 parking spaces shown on the site plan; and

WHEREAS, the use of the property as a gasoline station 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 will be 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 #15-83251 (Kroger) to construct a gasoline station at 4884 Marsh Rd. subject to the following conditions:

1. Approval of the special use permit is in accordance with the site plan prepared by The Project Collaborative received by the Township on February 19, 2015, subject to revisions as required.
2. Special Use Permit #15-83251 is subject to all conditions placed on the original special use permit to construct the Meridian Towne Centre shopping center (SUP #83521) and all subsequent amendments.

**Resolution to Approve
SUP #15-83251 (Kroger)
Page 2**

3. A minor amendment to SUP #83251 is required to amend the overall size of the shopping center which will run concurrent with site plan review.
4. Final site plan approval is subject to the Director of Community Planning and Development.
5. The applicant shall install a row of trees along the west property line, the exact number, size type, and location subject to approval by the Director of Community Planning and Development.
6. The applicant shall obtain all other necessary and applicable permits and approvals from the Township Department of Public Works and Engineering, the Michigan Department of Environmental Quality (MDEQ), and all other relevant entities.
7. Prior to construction the applicant shall obtain a building permit from the Township for the proposed gasoline station.

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 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 27th day of April 2015.

John Scott-Craig
Planning Commission Chair

CHARTER TOWNSHIP OF MERIDIAN

MEMORANDUM

TO: Planning Commission

FROM: 
Gail Oranchak, AICP
Principal Planner

DATE: April 23, 2015

RE: 2015 Planning Commission Meeting Schedule Change

The Planning Commission has scheduled a meeting to engage the public in the Master Plan update. Thursday, May 21, 2015 was selected as the meeting date. The meeting will be begin at 7:00 p.m. in the Town Hall Room of the Meridian Municipal Building, 5151 Marsh Road, Okemos, MI. A resolution is attached to revise the 2015 meeting schedule and add this meeting to the annual calendar.

Attachment

1. Resolution to approve addition of May 21 work session meeting

RESOLUTION

At a regular meeting of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, held at the Meridian Municipal Building, in said Township on the 27th day of April 2015 at 7:00 p.m., Local Time.

PRESENT: _____

ABSENT: _____

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

WHEREAS, the Planning Commission desires to announce the time, date, and place of all meetings of the Commission pursuant to the provisions of Act 267 of the Public Act of 1976;

WHEREAS, the Planning Commission adopted a 2015 meeting schedule; and

WHEREAS, the Planning Commission wishes to amend the 2015 meeting schedule to add a work session meeting on May 21, 2015; and

WHEREAS, the work session will begin at 7:00 p.m. in the Town Hall Room of the Meridian Municipal Building, 5151 Marsh Road, 517-853-4560.

NOW THEREFORE BE IT RESOLVED THAT THE PLANNING COMMISSION OF THE CHARTER TOWNSHIP OF MERIDIAN hereby revises the 2015 meeting schedule by adding a work session meeting on Monday, May 21, 2015.

ADOPTED: YEAS: _____

NAYS: _____

STATE OF MICHIGAN)
)ss
COUNTY OF INGHAM)

I, the undersigned, the duly qualified Chairperson of the Planning Commission of the Charter Township of Meridian, Ingham County, Michigan, DO HEREBY CERTIFY that the foregoing is a true and complete copy of a resolution adopted at a regular meeting of the Planning Commission held on the 27th day of April 2015.

John Scott-Craig, Chair
Meridian Township Planning Commission