



**Environmental Commission
Meeting Packet
March 6, 2019**

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Agenda: March 6 2019



AGENDA
CHARTER TOWNSHIP OF MERIDIAN
TOWNSHIP BOARD – REGULAR MEETING
March 6, 2019 7:00 pm

1. CALL MEETING TO ORDER AT 7:00 PM
2. GREEN THEMES PRESENTATION: Mike Pennington, Wetland Mitigation Specialist
Wetlands, Lakes and Streams Unit, Water Resources Division, DEQ

Wetland Banking Part II: MDEQ's wetland banking process and information about a grant and loan program that provides municipal funding for bank establishment.
3. APPROVAL OF THE AGENDA
4. APPROVAL OF THE MINUTES
5. PUBLIC REMARKS
6. NEW BUSINESS
 - a. Wetland Banking Reflections, Next Steps, and Collaboration with Land Pres. Board
 - b. Welcome New Commissioner: Linda Burghardt
 - c. La Fontaine Automotive Group Wetland Permit Review
 - d. Other
7. OLD BUSINESS
 - a. Wetland Ordinance – Clarify remaining issues to discuss in Work Session
 - b. Environmental Stewardship Awards
 - c. Other
8. CHAIR'S REPORT
9. STAFF REPORT
10. COMMISSION/LIASON/WORKGROUP REPORTS
 - A. Planning
 - B. Land Preservation
 - C. Energy
 - D. Brownfield Redevelopment Authority
 - E. Green Team
 - F. Transportation
11. PUBLIC REMARKS
12. ADJOURNMENT

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

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

Providing a safe and welcoming, sustainable, prime community.

A PRIME COMMUNITY
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Minutes: February 6, 2019 (draft)

ENVIRONMENTAL COMMISSION REGULAR MEETING: **Minutes: Draft**
FEBRUARY 6, 2019 7:00 PM

The meeting and green theme presentation can be viewed at: <http://meridianmi.swagit.com/play/02062019-1020>

PRESENT: Chair, Bill McConnell; Vice Chair, Ned Jackson; Commissioner, John Sarver; Commissioner Bill Kielbaso, Commissioner Kirk Lapham
ABSENT: Commissioner Aparna Krishnamurthy; Commissioner Linda Burghardt; Commissioner Susan Masten
LIAISON: Planning Commissioner David Premoe
STAFF: LeRoy Harvey, Environmental Programs
TOWNSHIP: Elizabeth Stepnowski, Media Intern; Tom Cary, Resident; Susan Andrews, resident; MSU Student Reporter,

1. **GREEN THEME: PRESENTATION** by **Karim Chatti Ph.D.**
MSU Department of Civil & Environmental Engineering, UTC Center for Highway Pavement Preservation
<http://www.chpp.egr.msu.edu>

Dr. Chatti provided an overview of pavement preservation and how a sound approach will lead to a more economically-, environmentally-, and user-friendly roads. Pavement Preservation is "a program employing a network level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations." A key idea to keep in mind: *"Every \$1 spent in keeping a good road good precludes spending \$6-\$14 to rebuild one that has deteriorated."*

2. APPROVAL OF THE AGENDA

3. APPROVAL OF THE MINUTES several changes were suggested. Latest minutes can be found at <http://www.meridian.mi.us/government/boards-and-commissions/environmental-commission>

4. PUBLIC REMARKS

Tom Cary shared his interest in amending the chicken/small animal ordinance along with some research on experiences and codes in Lansing, East Lansing, and Ingham County. His handout can be found in our shared folder. McConnell suggests that Cary work with staff to draft a memo with exact proposed language,

5. NEW BUSINESS

- A. Welcome New Commissioner: Commissioner Linda Burghardt could not attend but plans on attending the next meeting.
- B. Environmental Stewardship Awards: Commissioner Jackson recommends bringing back the Awards. It was suggested that we review past nominations at the next meeting.

6. OLD BUSINESS

- A. **Wetland Ordinance**

Planning staff recommended sticking with the Consultant (Elise Tripp) recommendations. See Planning Staff and Consultant comments [here](#).

Amy Berry, DEQ Wetland Specialist, shared some thoughts in an email (shared in [here](#))

Chair McConnell has also reached out to a Legislative Expert at the State of MI for advice on two of the key issues – determining value and essentiality.

Further discussion will occur at the next meeting once people have a chance to review comments and talk with experts.

B. Wetland Bank Discussion

LeRoy shared some information with Chair McConnell about a prior wetland bank project implemented on the Rysberg Land Preserve.

Mike Pennington has offered to speak to the E.C. as part of the Green Theme Series and discuss the banking process and their grant and loan program for bank establishment.

LeRoy will share more about Mike's presentation with the E.C. and possibly the Land Preservation Board. Mike states: "I would focus my presentation on the banking process and our grant and loan program that provides municipal funding for bank establishment."

7. CHAIR'S REPORT

Chair McConnell presented at the [Joint Commission Meeting](#) last month (Bill's presentation starts at the 1:12:20 mark under item 6. He presented on behalf of the E.C., the Green Team, and the Energy Team

8. COMMISSION/LIASON/WORKGROUP REPORTS

- A. Planning : Medical Marijuana is a key issue that the Planning Commission. This will draw lots of people.
- B. Land Preservation: Kielbaso encourages people to contact the police department if people have a car-deer preservation. Two properties are being appraised for potential acquisition.
- C. Energy Team: Sarver reports that the Energy Team continues its discussion of achieving the 100% solar goal. The Service Center is a likely location for panel installation. A power purchase agreement is being discussed as an attractive option. The Solarize Meridian Program will continue in June with open houses.
- D. Brownfield Redevelopment Authority: Jackson reports that he will have a conflict in making the 8am Thurs meetings. He suggests finding a proxy. Harvey was asked to poll the Commission Members.
- E. Green Team – Harvey shared an update of Aparna Krishnamurthy's effort to provide educational material in local schools. She
- F. Staff Report – Harvey shared the Green Theme schedule. He also mentioned the recent national citizen survey. The environment ranked very highly. Citizens www.meridian.mi.us/home/showdocument?id=16881 ; A large regional compost bin and rain barrel sale will occur this and next month. Please share [https://midmichigancompostersale.ecwid.com/.](https://midmichigancompostersale.ecwid.com/) The Climate Sustainability Plan Report draft is in our Environmental Commission Page under "Other Documents" Please make comments and suggestions for distribution by the Feb 15.

9. PUBLIC REMARKS: None.

10. ADJOURNMENT: 8:36 PM

NEXT MEETING:

The next scheduled meeting is March 6 in the Town Hall Meeting Room. (tentatively at 7pm) though we may consider a work session at 6pm.

Environmental Stewardship Awards

| YEAR (Award Date) | AWARD RECIPIENTS |
|------------------------------|---|
| 1997 (January 15, 1997) | Keith Etheridge/Murphy E.S. (Outdoor Wetlands Classroom) Dave Chapman (Wetland Observation Deck at OHS) OHS Students for Environmental Action (Wetland Observation Deck) Meridian Alliance of Developers (Wetland Observation Deck at OHS) |
| 1998 (September 16, 1998) | Doug Landis and Mike Klepinger (Purple Loosestrife Program) Jason Potter/Haslett High School (Purple Loosestrife Program) Thomas Ellis (Gypsy Moth Survey) Sarah Keathley (Gypsy Moth Survey) |
| 1999 (May 19, 1999) | Ted Black (Heritage Tree Nominations) Emerald Lakes Condominium Association (Sapphire Lakes) Scott Fairmont/Stam Smith of Comanche Dev. (Sapphire Lakes) |
| 2000 (May 17, 2000) | Helen Shipley/Murphy Elementary School (Lake Monitoring) Dan Wertz/Okemos High School (Wetland Restoration) Michigan Wildlife Habitat Foundation (Wetland Restoration) Lake Lansing Property Owners Association (General Projects) |
| 2001 (June 20, 2001) | Boy Scout Troops 64, 97, 109, 125, and 164 (Eagle Scout Projects) Mid-Michigan Environmental Action Council (General Projects) Parks Naturalist Kit Rich (Fostering Environmental Stewardship) Parks Commissioner Eckhart Dersch (Commitment to the Environment) |
| 2002 (June 19, 2002) | Wardcliff Elementary School (All-Star School Garden) Dr. Norman Lownds (All-Star School Garden) Drain Commissioner Pat Lindemann (Beaver Management Project) Michigan Wildlife Habitat Foundation (Beaver Management Project) Haslett High School (Beaver Management Project) |
| 2003 (April 16, 2003) | David Chapman (Wetland Board/Environmental Science Education) Mr. & Mrs. Richard Foster (Land Donation) Mr. & Mrs. Ed Crouse (Land Donation) Meridian Garden Club (General Projects) |
| 2004 (June 16, 2004) | Kathy Bush ("Tackle the Trash" around Lake Lansing) Robert Hubbell/Banyon Park, LLC (Land Donation) Peggy Dunn/Central Elementary School (Outdoor Classroom) Maxine Boland/Cornell Elementary School (Nature's Crossing) Keith Schroeder (Nature's Crossing at Cornell) |
| 2005 (May 18, 2005) | Doug Fuller (Township Wetland Consultant) Doug Eschtruth (Turtle Mounds in Bird Strawberry Hills #3) Ted Black (Lifetime Achievement Award) |
| 2006 (May 17, 2006) | Pam & Scott Eisensmith (Solar Energy Awareness & Lansing Solar Tour) Haslett Beautification Committee (Aesthetic Improvements in Haslett) Department of Public Works & Engineering (Biodiesel and Beet Juice) |
| 2007 (April 18, 2007) | Granger (Free Curbside Recycling and Waste-to-Energy Program) Tina Kahn (Recycling Advocacy and Leadership) Bob Schroeder/Mayberry Homes (Environmental Stewardship) |
| 2008 (May 21, 2008) | CATA (Clean Commute; Hybrid Buses; and Promoting Public Transit) MSU Professor Jim Detjen (Teaching Environmental Journalism) Meridian Township Citizen's Recycling Committee (2007 Events) Meridian Land Preservation Advisory Board (Land Preservation) |
| 2009 (May 20, 2009) | Preserve Lake Lansing/Leslie Kuhn (Preservation of 120 Acres) Murphy 5 th Grade Teacher Zsa Mahon (Butterfly Way Station in Park) Okemos H. S. Alt. Energy Initiative (Energy Savings/Awareness) Northport Condo Assoc./Pat Lindemann (Detention Pond Rehab) Craig and Gary Sturk (Woods of Herron Creek Tree Preservation) MSU Professor Doug Landis (Invasive Plant Advice/Initiatives) |
| 2010 (April 21, 2010) | Okemos Community Church (Bike, Walk, & Carpool to Church Day, etc.) Okemos High School (Green Roof Demonstration Project) Le Roy Harvey (Vision and Commitment to Recycling) Delta Dental (Site Redesign and Neighborhood Cooperation) Mindy Kraus (Scope of Recycling Efforts and Participation) |
| 2011 (April 20, 2011) | Okemos Downtown Development Authority (LED Streetlights) Barbara Reeves (Organization/Oversight of Recycling Events) |
| 2012 (April 18, 2012) | Tim Potter (Bicycle Advocacy) Nancy Krupiarz (Bicycle and Trail Advocacy) Anne Woiwode (Protecting the Environment) James Coty (Community Gardens) |
| 2013 (April 17, 2013) | Studio C (Adaptive Reuse/First EV Charging Station/Bicycle Parking) Eckhart Dersch (Lifetime Achievement) Susan McGillicuddy (Protecting the Environment) Tom Woiwode (Land Preservation) Mary Helmbrecht (Land Preservation) |

The following two charts break down the awards given over the past 17 years by topic and year.

| TOPIC | NUMBER OF AWARDS | YEAR | NUMBER OF AWARDS |
|-----------------------------------|------------------|----------------|------------------|
| Wetlands | 7 | 1997 | 4 |
| Environmental Education | 5 | 1998 | 4 |
| General Environmental Stewardship | 6 | 1999 | 3 |
| Invasive Species | 5 | 2000 | 4 |
| Land Preservation | 7 | 2001 | 4 |
| Wildlife | 5 | 2002 | 5 |
| Environmental Design/Restoration | 4 | 2003 | 4 |
| Landscape Beautification | 4 | 2004 | 5 |
| Recycling | 5.5 | 2005 | 3 |
| Alternative Energy | 3.5 | 2006 | 3 |
| Lake Lansing | 3 | 2007 | 3 |
| Active Transportation/Bicycling | 5 | 2008 | 4 |
| Tree Protection | 2 | 2009 | 6 |
| Green Roofs | 1 | 2010 | 5 |
| Energy/Land Use Efficiency | 2 | 2011 | 2 |
| Lifetime Achievement | 2 | 2012 | 4 |
| Community Gardens | 1 | 2013 | 5 |
| TOTAL | 68 | | 68 |
| | | AVERAGE | 4.00/year |

2014 Awardees

| | |
|--|--|
| David Caszatt | Land Preservation volunteer work at the Northwest Land preserve |
| Mike Unsworth, Bob Lovell, Tim Potter, and Rick Brown | 2013 Greater Lansing Ride of Silence Planning Committee consisted of four township residents who organized, promoted, and coordinated the highly-successful and well-attended 2013 Ride of Silence in Greater Lansing. |
| Bob Lovell | Active bicycling advocate including Chair of the Unitarian Universalist Bikers and Bike Tune-up Sunday Wrenches; leads area bike rides; volunteers for many bicycle-related functions. |
| ITC Holdings | Grant for installing trees in the township. |

2015

- **Leonard Provencher** – Recognized for his dedication to promote active transportation, infrastructure, and/or sound planning and good governance.
- **Susan Masten**– Recognized for her efforts to promote environmental protection, planning and redevelopment
- **Julie Brixie** – Recognized for her efforts to promote active transportation and tree protection in Meridian Township.
- **Dianne Holman and Kris Berglund** – Recognized for their innovative efforts building an environmentally sustainable business.

2016

NON-PROFIT GROUP: EAST LANSING FOOD CO-OP

LOCAL SERVICE CLUB: HASLETT BEAUTIFICATION ASSOCIATION

PUBLIC SERVICE: ASSISTANT CHIEF KEN PLAGA, MERIDIAN TOWNSHIP POLICE

LOCAL BUSINESS: ODY AND RACHEL NORKIN, SKYBIRD OKEMOS TRAVEL, AND MICHIGAN FLYER LLC

PRIVATE INDIVIDUALS: MICHAEL THOMAS, DAVE REICOSKY

Staff Update

| | |
|---|---|
| Recycling | <ul style="list-style-type: none"> • Green Team Meets March 7th to discuss volunteer, site plan, training, etc. • Home & Landscape Expo at MSU Pavilion: Mar 14-17 (collaborative effort with Regional Recycling Coordinating Committee) • Working on regional recycling website: http://midmichrecycles.org/ • Volunteers needed for April 27 Event • Flyer and volunteer sign up at http://www.meridian.mi.us/residents/township-services/recycle-go-green • Talking Trash with the Experts will include representatives from the Michigan Recycling Coalition, MSU Recycling, and others. Sycamore Creek Church at 1919 S Pennsylvania Ave. in Lansing on Thursday, March 21, 7:00-8:00 pm. The event is organized by the League of Women Voters Environment Committee. |
| Rain Garden & Native Plantings | <ul style="list-style-type: none"> • Rain barrel and compost bin sale is underway! The deadline for ordering is March 16th, with ONLY ONE PICK-UP DATE* of Saturday, March 23rd from 9am to 1pm at MSU Surplus & Recycling, 468 Green Way, East Lansing, MI 48824. For more information, visit: midmichigancompostersale.ecwid.com |
| Energy | <ul style="list-style-type: none"> • Working on follow-up education related to Climate Action Plan, survey of homeowners and contractors, Carbon Fee & Dividend Talk at Okemos Library on April 9, Meeting to discuss Community Solar, Exploring EV ordinance in E.L., Several Energy Team Members attended Solar Lobby Day. Mar 21st Meeting will explore possibilities of power purchase agreement (with John Kinch). Energy Team is discussing a presentation at Fate of the Earth Symposium on Apr 13. • Streetlighting discussion is underway. Meridian is supporting the MI Municipal Association for Utility Issues to negotiate reasonable costs for LEDs with Consumers Energy |
| Outreach | <ul style="list-style-type: none"> • Exploring utility bill insert for water conservation/recycling event in April. |
| Green Gazette | <ul style="list-style-type: none"> • Current and past issues can be found here. Subscribe here. Please send ideas to Harvey@meridian.mi.us |

Attachment: Wetland Use Permit



To: Environmental Commission

From: Peter Menser, Principal Planner

Mackenzie Dean, Assistant Planner

Date: February 25, 2019

Re: Wetland Use Permit #19-01 (LaFontaine Automotive Group), request to fill a 0.007 acre (304 square feet) regulated wetland at 1448 Grand River Avenue to facilitate the development of a new car dealership.

LaFontaine Automotive Group has requested a wetland use permit to fill a 0.007 acre (304 square feet) wetland at 1448 Grand River Avenue to facilitate the development of a new car dealership. The approximate two acre parcel identified as Parcel I.D. #23-301-007 is zoned C-2 (Commercial) and is located on the north side of Grand River Avenue, east of Powell Road. The Planning Commission voted to approve Special Use Permit #18081 to construct a new car dealership at 1492, 1476, 1478, and 1448 Grand River Avenue at its regular meeting held on December 10, 2018.

On June 20, 2018, Marx Wetlands conducted a wetland delineation of the site, noting the presence of a 0.05 acre man-made pond at the southwest corner of the parcel on the east side of the proposed development but not identifying it as a wetland. While verifying the wetland delineation on October, 17, 2018, the Township's wetland consultant noted the pond's edge is considered a wetland due to the presence of wetland vegetation and hydrology. The wetland is regulated by both the State of Michigan and Meridian Township due its proximity of 500 feet to an approximately two acre pond located on the south side of Grand River Avenue.

The submitted application materials indicate installation of a proposed parking lot for the new car dealership would impact approximately 0.007 acres (304 square feet) of regulated wetland, which is the entirety of the pond. The applicant is proposing to spread 78.8 cubic yards of soil to fill the pond and facilitate installation of the parking lot. Approximately 0.011 acres (456 square feet) of wetland mitigation on the north side of the property is proposed to compensate for the loss of wetland. The Wetland Protection Ordinance requires wetland mitigation at a ratio of 1.5 to 1 in order to satisfy the Township requirement of no net loss of wetlands. A minor permit application is currently under review at the Michigan Department of Environmental Quality (MDEQ) for the proposed wetland fill.

LOCATION MAP



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.

Wetland Use Permit #19-01 (LaFontaine Automotive Group)
Environmental Commission (March 6, 2019)
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- 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.

The Township's wetland consultant has reviewed the wetland use permit application and recommends issuance of Wetland Use Permit #19-01 with the following conditions:

1. Mitigate wetland impacts at a ratio of 1.5:1, constructing an emergent wetland at the northwest end of the site in accordance with the proposed mitigation plan. The minimum size of the mitigation wetland must be 456 square feet.
2. Provide a construction detail of the rock spillway that includes a depression and overflow berm with spot elevations of the bottom of the depression and the top of the berm.
3. On Sheet 5 of 7, indicate a spot of elevation at the point the mitigation wetland will overflow to the swale to the east. This elevation significantly influences wetland hydrology by controlling the depth of standing water in the mitigation wetland, and therefore must be clearly noted on construction documents.
4. The six-inches of topsoil placed in the mitigation wetland shall consist of mineral topsoil (not soil primarily composed of organic matter, such as muck).
5. Six inches of clay shall be placed under the topsoil within the mitigation wetland. Note the placement of clay between items 7 and 8 in the Sequence of Construction in Kebs, Inc.'s Mitigation Details (Sheet 7 of 7). Note the clay layer in the mitigation wetland cross-section on Sheet 5 of 7. Extend the clay layer up the side slopes to an elevation that corresponds to the top of the mitigation wetland overflow. Note the extent of clay placement on the mitigation plan design detail (Sheet 5 of 7).
6. Install one habitat structure in the mitigation wetland (either a tree stump or log). Delete whole trees, snags, and sand mounds as acceptable habitat structures from Kebs, Inc.'s Wetland Mitigation Plan, Sheet 6 of 7 (Mitigation Details).
7. The mitigation wetland shall be monitored for a period of five years, starting in the first full growing season after construction. Therefore, if construction is finalized after June 1, a monitoring report will not be required until the following year.
8. The mitigation wetland must meet the following performance standards at the end of five full growing seasons:
 - 80% cover of native, wetland species comprised of at least 8 species.
 - Less than 10% cover of invasive species, as noted in the mitigation plan.
9. The Township must approve revised mitigation wetland plans before final approval of WUP #19-01.

Environmental Commission Options

The Environmental Commission may recommend approval, approval with conditions, or denial of the proposed wetland use permit. A motion to recommend approval in accordance with the conditions proposed by the Township's wetland consultant is provided.

- **MOTION to recommend approval of Wetland Use Permit #19-01 to fill a 0.007 acre regulated wetland at 1448 Grand River Avenue subject to the conditions proposed by the Township's wetland consultant in the report dated February 11, 2019.**

Attachments

1. Wetland Use Permit application dated December 14, 2018 and received by the Township on January 17, 2019.
2. Wetland delineation prepared by Marx Wetlands, LLC dated June 26, 2018.
3. Wetland verification report prepared by Township wetland consultant dated November 2, 2018.
4. Wetland Mitigation Plan (revised) prepared by Marx Wetlands, LLC dated February 12, 2019 and received by the Township on February 15, 2019.
5. Township wetland consultant review letter dated February 11, 2019 and received by the Township on February 11, 2019.
6. Approved special use permit plan prepared by Kebs, Inc. dated December 7, 2018 and received by the Township on January 11, 2019.

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| | | | |
|-------------------|-----------------------------------|----------------------|------------------------|
| 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 ½ by 11 inch paper; photographs.
- Application fee is attached.

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

| | | | |
|---|-----------------------------------|---|-----------------------------|
| Project Address (road, if no street address) 1448 W. Grand River Avenue | Zip Code 48864 | Municipality (Township/Village/City) Okemos/Meridian Township | County Ingham Co. |
| Property Tax Identification Number(s) 33-02-02-23-301-007 | Latitude 42.716337 N | Township/Range/Section (TRS) T 4N N or S; R 1W E or W; | |
| Subdivision/Plat and Lot Number N/A | Longitude - 84.400721 W | Sec 23 OR Private Claim # _____ | |

2 Applicant and Agent Information

| | |
|---|---|
| Owner/Applicant (individual or corporate name) LaFontaine Automotive Group (LAG Wixom LLC); ATTN: Gary Laundroche | Agent/Contractor (firm name and contact person) Marx Wetlands, LLC Bryana Guevara |
| Mailing Address 16555 Silver Parkway, | Mailing Address 3309 Platt Road |
| City Fenton State MI Zip Code 48430 | City Ann Arbor State MI Zip Code 48108 |
| Contact Phone Number Fax | Contact Phone Number Fax 734-478-8277 N/A |
| Email <glaundroche@lafountainemotors.com> | E-mail bg@marxwetlands.com or bryanajguevara@gmail.com |
| <input type="checkbox"/> No <input checked="" 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) Same as Applicant | Mailing Address |
| Contact Phone Number | City State Zip Code |

3 Project Description

| | |
|--|---|
| Project Name LaFontaine Automotive Group- 1448 W. Grand River Avenue | Preapplication File Number - - -P |
| Name of Water body Wetland A/Ponded | Date project staked/flagged 6-26-2018 |
| 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 checked="" type="checkbox"/> private <input type="checkbox"/> commercial <input type="checkbox"/> public/government <input type="checkbox"/> project is receiving federal/state transportation funds <input type="checkbox"/> Wetland Restoration <input checked="" type="checkbox"/> other Proposed LaFontaine car dealership | |
| Indicate the type of permit being applied for: <input type="checkbox"/> General Permit <input type="checkbox"/> Minor Project <input checked="" type="checkbox"/> Individual (All other projects.) ➔ See Appendix C. | |

Written Summary of All Proposed Activities

Project Activities: The proposed project involves a new LaFontaine car dealership, which includes the utilization of an existing building for the dealership office space and the construction of associated parking/utility infrastructure, one (1) access drive from W. Grand River Avenue/M-43, and two (2) proposed on-site stormwater detention basins, which will require one (1) wetland impact as part of the development.



Total Wetland Impact: Approximately 0.007 acres (304 square feet) of Wetland A (emergent fringe surrounding man-modified pond) will be impacted for the construction of the proposed parking infrastructure associated with the development. The total amount of wetland impact at this location includes approximately 78.8 cubic yards of wetland fill.

The Applicant has selected a design that maximizes the use of upland and minimizes impacts to aquatic resources to the greatest extent practicable. The project appears to meet state and local water quality standards and follows sedimentation and erosion control best management practices (BMPs) through the use of appropriate soil erosion control methods (i.e., silt fencing, matting, and etc.). It is the professional opinion of MW that the proposed project has minimized impacts to natural features to the maximum extent practicable.

Construction Sequence and Methods ***Refer to the enclosed Site Plan Sheets***

**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 provide affordable cars for the rapidly growing and developing community of Meridian Township. The construction of a LaFontaine car dealership fulfills a public's need as well as allows LaFontaine to competitively serve the Meridian Township area the Meridian Township area.

The Applicant has chosen the current design, because this configuration minimizes impacts to natural features to the maximum extent practicable, while ensuring the development's financial feasibility. It was determined that site access and placing the proposed parking infrastructure from W. Grand River Avenue would improve site accessibility and visibility for the proposed car dealership. The placement of an access drive connected directly to W. Grand River would likely reduce the potential traffic safety risk because it allows for moderate egress and ingress traffic flow into the proposed site.

Ideally, the cars for sale should be on display and visible from the roadside and; therefore, the placement of the parking infrastructure should be sited close to W. Grand River Avenue. In addition, the proposed wetland fill is necessary for the placement of the parking infrastructure because the man-made pond could also be considered a potential safety hazard and liability due to its steep slopes, loose rocks, presence of water, and overall depth.

Describe the alternatives considered to avoid or minimize resource impacts. Include factors such as, but to limited to, alternative locations, project layout and design, and construction technologies. For utility crossings include alternative routes and construction methods.

5 Locating Your Project Site *Attach a legible black and white map with a North arrow.*Names of roads of closest intersection *W. Grand River Avenue and Powell Road*Directions from main intersection to the project site, with distances from the best and nearest visible landmark and water body *The Project Site is located directly north of W. Grand River Avenue, approximately 0.10 miles east of its intersection with Powell Road. The Site is located at 1448 W. Grand River Ave. Refer to the "Location Map" on Sheet 1 of the Impact Plan set*

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

Description of adjacent landmarks or buildings (address; color; etc)

*Existing house, storage buildings, garage, and driveway*How can your site be identified if there is no visible address? *The site is located at an existing single family residence at 1448 W. Grand River Avenue.***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>TBD</i> | <i>N/A</i> | <i>N/A</i> | |
| <i>MDEQ</i> | <i>NPDES</i> | <i>TBD</i> | <i>N/A</i> | <i>N/A</i> | |

7 ComplianceIf a permit is issued, when will the activity begin? (M/D/Y) *February 2019*Proposed completion date (M/D/Y) *January 2020* 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.* Established Lake Board

Contact Person

Mailing Address

City

State and Zip Code

 Lake Association*Refer to enclosed**Adjoining Property Owners List**and Mailing labels*

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>Refer to the enclosed Adjoining Property Owners List</i> | | | |



| | | | |
|---|--|--|-----------------------------------|
| 9 Applicant's Certification | | <i>Read carefully before signing.</i> | |
| <p>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.</p> | | | |
| <input checked="" type="checkbox"/> Property Owner <input type="checkbox"/> Agent/Contractor <input type="checkbox"/> Corp. or Public Agency / Title | Printed Name LAFONTAINE AUTOMOTIVE GROUP; Gary Laundroche | Signature  | Date 12/14/2018. |



| | | | |
|--|---|--|---|
| 10 Projects Impacting Inland Lakes, Streams, Great Lakes, Wetlands or Floodplains | | | |
| <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> 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 <input type="checkbox"/> NGVD 29 <input checked="" type="checkbox"/> NAVD 88 <input type="checkbox"/> other | | Observed water elevation (ft) | date of observation (M/D/Y) June 20, 2018 |
| On a Great Lake <input type="checkbox"/> IGLD 85 <input checked="" type="checkbox"/> surveyed <input type="checkbox"/> converted from observed still water elevation. | | | |
| <input checked="" type="checkbox"/> A. PROJECTS REQUIRING FILL (See All Sample Drawings) | | | |
| <ul style="list-style-type: none"> 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 | <input type="checkbox"/> bioengineered shore protection | <input type="checkbox"/> boat ramp | <input type="checkbox"/> boat well |
| | <input type="checkbox"/> riprap | <input type="checkbox"/> seawall | <input type="checkbox"/> swim area |
| | | | <input type="checkbox"/> bridge or culvert |
| | | | <input type="checkbox"/> crib dock |
| | | | <input checked="" type="checkbox"/> other proposed parking infrastructure associated with the car dealership |
| Dimensions of fill (ft) | Total volume (cubic yards) | Volume below OHWM (cubic yards) | |
| Length 152 ft Width 2.0 ft Maximum Depth 7.0 ft | 78.8 | N/A | |
| Maximum water depth in fill area (ft) N/A | Area filled (sq ft) | Will filter fabric be used under proposed fill? | |
| | | <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (If Yes, type) | |
| Fill will extend N/A feet into the water from the shoreline and upland N/A feet out of the water. | | | |
| Type of clean fill | <input type="checkbox"/> peastone | % <input type="checkbox"/> sand | % <input type="checkbox"/> gravel |
| | | | % <input checked="" type="checkbox"/> other Clean fill |
| Source of clean fill | <input checked="" type="checkbox"/> commercial | <input checked="" type="checkbox"/> on-site | <input type="checkbox"/> other |
| | | <ul style="list-style-type: none"> If on-site, show location on site plan. If other, attach description of location. | |
| <input type="checkbox"/> B. PROJECTS REQUIRING DREDGING OR EXCAVATION (See Sample Drawings) | | | |
| <ul style="list-style-type: none"> 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 | <input type="checkbox"/> boat ramp | <input type="checkbox"/> boat well | <input type="checkbox"/> bridge or culvert |
| | <input type="checkbox"/> navigation | <input type="checkbox"/> pond/basin | <input type="checkbox"/> maintenance dredge |
| | | <input type="checkbox"/> other | |
| Dimensions (ft) | Total volume (cu yds) | Volume below OHWM (cu yds) | |
| Length Width Maximum Depth | | | |
| Has this same area been previously dredged? | <input type="checkbox"/> No <input type="checkbox"/> Yes | If Yes, provide date and permit number: | |
| Will the previously dredged area be enlarged? | <input type="checkbox"/> No <input type="checkbox"/> Yes | If Yes, when and how much? | |
| Is long-term maintenance dredging planned? | <input type="checkbox"/> No <input type="checkbox"/> Yes | If Yes, how often? | |
| Dredge or Excavation Method <input type="checkbox"/> Hydraulic <input type="checkbox"/> Mechanical <input type="checkbox"/> other | | | |
| 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 <ul style="list-style-type: none"> 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? | | | |
| <input type="checkbox"/> No <input type="checkbox"/> Yes <ul style="list-style-type: none">If Yes, provide test results with a map of sampling locations. | | | |
| <input type="checkbox"/> 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) | Will filter fabric or pea stone be used under proposed riprap? | | |
| <input type="checkbox"/> field stone <input type="checkbox"/> angular rock <input type="checkbox"/> other | <input type="checkbox"/> No <input type="checkbox"/> Yes, Type | | |



| | | | |
|--|---|---|---|
| <input type="checkbox"/> D. SHORE PROTECTION PROJECTS (See EZ Guides and Sample Drawings 2, 3, and 17. Complete Sections 10A, B, and/or C.) | | | |
| ➔ For bioengineering projects include the list of native plants/seeds, if available. | | | |
| Type and length (ft) | <input type="checkbox"/> bioengineering (ft) | <input type="checkbox"/> revetment (ft) | <input type="checkbox"/> riprap (ft) <input type="checkbox"/> seawall/bulkhead (ft) |
| Structure is <input type="checkbox"/> new <input type="checkbox"/> repair <input type="checkbox"/> replacement of an existing structure | | Will the existing structure be removed? <input type="checkbox"/> No <input type="checkbox"/> Yes | |
| Proposed Toe Stone (linear feet) | | Distance of project from adjacent property lines (ft) | |
| Distance of project from an obvious fixed structure (example - 50 ft from SW corner of house) | | | |
| For bioengineering projects indicate the structure type <input type="checkbox"/> brush bundles <input type="checkbox"/> coir log <input type="checkbox"/> live stakes <input type="checkbox"/> tree revetment <input type="checkbox"/> other | | | |
| <input type="checkbox"/> E. DOCK - PIER – MOORING PILINGS (See Sample Drawing 10) | | | |
| ➔ Attach a copy of the property legal description, mortgage survey, or a property boundary survey report. | | | |
| Dock Type <input type="checkbox"/> open pile <input type="checkbox"/> filled <input type="checkbox"/> crib <input type="checkbox"/> floating <input type="checkbox"/> cantilevered <input type="checkbox"/> spring piles <input type="checkbox"/> piling clusters <input type="checkbox"/> other | | | |
| Is the structure within the applicant's riparian area interest area? <input type="checkbox"/> No <input type="checkbox"/> Yes ➔ Show parcel property lines on the site plan. | | | |
| Proposed structure dimensions (ft) length width | | Use <input type="checkbox"/> private <input type="checkbox"/> public <input type="checkbox"/> commercial | |
| Dimensions of nearest adjacent structures (ft) length width | | Distance of dock from adjacent property lines (ft) | |
| <input type="checkbox"/> F. BOAT WELL (See EZ Guide. Complete Sections 10A and 10B) | | | |
| Dimensions (ft) length width depth | | Number of boats | |
| Type of sidewall stabilization <input type="checkbox"/> concrete <input type="checkbox"/> riprap <input type="checkbox"/> steel <input type="checkbox"/> vinyl <input type="checkbox"/> wood <input type="checkbox"/> other | | | |
| Volume of backfill behind sidewall stabilization (cu yd) | | Distance of boat well from adjacent property lines (ft) | |
| <input type="checkbox"/> G. BOAT RAMP (See EZ Guide. Complete sections 10A, 10B, and 10C for mattress and pavement fill, dredge, and riprap) | | | |
| Type <input type="checkbox"/> new <input type="checkbox"/> existing <input type="checkbox"/> maintenance/improvement | | Use <input type="checkbox"/> private <input type="checkbox"/> public <input type="checkbox"/> commercial | |
| Existing overall boat ramp dimensions (ft) length width depth | | Type of construction material <input type="checkbox"/> concrete <input type="checkbox"/> wood <input type="checkbox"/> stone <input type="checkbox"/> other | |
| Proposed overall ramp dimensions (ft) length width depth | | Proposed ramp dimensions (ft) below ordinary high water mark length width depth | |
| Number of proposed skid piers | Proposed skid pier dimensions (ft) length width | | Distance of ramp from adjacent property lines (ft) |
| <input type="checkbox"/> H. BOAT HOIST – ROOFS (See EZ Guide) | | | |
| Type <input type="checkbox"/> cradle <input type="checkbox"/> side lifter <input type="checkbox"/> other | | Located on <input type="checkbox"/> seawall <input type="checkbox"/> dock <input type="checkbox"/> bottomlands | |
| Hoist dimensions, including catwalks (ft) length width | | | |
| Area occupied, including cat walks (sq ft) | | Distance of hoist from adjacent property lines (ft) | |
| Permanent Roof <input type="checkbox"/> No <input type="checkbox"/> Yes ➔ If Yes, how is the roof supported? | | Maximum Roof Dimensions (ft): length width height | |
| <input type="checkbox"/> I. BOARDWALKS and DECKS in WETLANDS or FLOODPLAINS (See Sample Drawings 5 and 6. Complete Sections 12 and/or 13) | | | |
| ➔ Provide a table for multiple boardwalks and decks proposed in one project; include locations and dimensions. | | | |
| Wetlands | | Floodplains | |
| Boardwalk <input type="checkbox"/> on pilings <input type="checkbox"/> on fill | Deck <input type="checkbox"/> on pilings <input type="checkbox"/> on fill | Boardwalk <input type="checkbox"/> on pilings <input type="checkbox"/> on fill | Deck <input type="checkbox"/> on pilings <input type="checkbox"/> on fill |
| Dimensions (ft) length width | Dimensions (ft) length width | Dimensions (ft) length width | Dimensions (ft) length width |
| <input type="checkbox"/> J. INTAKE PIPES (See Sample Drawing 16) or OUTLET PIPES (See Sample Drawing 22) | | | |
| If outlet pipe, discharge is to <input type="checkbox"/> inland lake <input type="checkbox"/> stream, drain or river <input type="checkbox"/> overland flow <input type="checkbox"/> Great Lake <input type="checkbox"/> wetland <input type="checkbox"/> other | | | |
| Number of pipes | Pipe diameters and invert elevations | Does pipe discharge below the OHWM? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| | | Is the water treated before discharge? | <input type="checkbox"/> No <input type="checkbox"/> Yes |
| Type <input type="checkbox"/> headwall <input type="checkbox"/> end section <input type="checkbox"/> other | | Dimensions of headwall OR end section (ft) length width height | |



| | | | |
|---|---|---|---|
| <input type="checkbox"/> K. MOORING and NAVIGATION BUOYS (See EZ Guide for Sample Drawing) | | | |
| ➔ Provide a site plan showing the distances between each buoy and from the shore to each buoy, and depth (ft) of water at each location. ➔ Provide cross-section drawing(s) showing anchoring system(s) and dimensions. | | | |
| Purpose of buoy <input type="checkbox"/> mooring <input type="checkbox"/> navigation <input type="checkbox"/> scientific structures <input type="checkbox"/> swimming <input type="checkbox"/> other | | | |
| Number of buoys | Dimensions of buoys (ft) | | Boat Lengths |
| | width | height | swing radius |
| | | | chain length |
| Buoy Location: Latitude . N Longitude -- . W. ➔ Provide a table for multiple buoys. | | | |
| Do you own the property along the shoreline? | | <input type="checkbox"/> No <input type="checkbox"/> Yes | ➔ If No, attach an authorization letter from the property owner(s). |
| Do you own the bottomlands? | | <input type="checkbox"/> No <input type="checkbox"/> Yes | ➔ If No, attach an authorization letter from the property owner(s). |
| <input type="checkbox"/> L. FENCES | | | |
| ➔ Provide an overall site plan showing the proposed fencing through streams, wetlands or floodplains. ➔ Provide a drawing of fence profile showing the design, dimension, post spacing, mesh, and distance from ground to bottom of fence. | | | |
| Purpose of fence <input type="checkbox"/> Airport <input type="checkbox"/> Cervidae <input type="checkbox"/> Livestock <input type="checkbox"/> Residential <input type="checkbox"/> Security <input type="checkbox"/> Other | | | |
| Total length (ft) of fence through | | Fence height (ft) | Fence type and material |
| streams | wetlands | floodplains | |
| <input type="checkbox"/> M. OTHER - e.g., structure removal, maintenance or repair, aerator, dry fire hydrant, gold prospecting, habitat structures, scientific measuring devices, soil borings, or survey activities. | | | |
| Structure description, dimensions and volumes. Complete Sections 10A-C as applicable. | | | |
| 11 Expansion of an Existing or Construction of a New Lake or Pond (See Sample Drawings 4 and 15) | | | |
| ➔ Complete Section 10J for outlets and Section 17 for water control structures. ➔ Provide elevations, cross-sections and profiles of outlets, dams, dikes, water control structures and emergency spillways to nearest water bodies. | | | |
| Which best describes your proposed water body use (check all that apply) | | | |
| <input type="checkbox"/> mining <input type="checkbox"/> recreation <input type="checkbox"/> storm water retention basin <input type="checkbox"/> wastewater basin <input type="checkbox"/> wildlife <input type="checkbox"/> other | | | |
| Water source for lake/pond | | | |
| <input type="checkbox"/> groundwater <input type="checkbox"/> natural springs <input type="checkbox"/> Inland Lake or Stream <input type="checkbox"/> storm water runoff <input type="checkbox"/> pump <input type="checkbox"/> sewage <input type="checkbox"/> other | | | |
| Location of the lake/basin/pond <input type="checkbox"/> floodplain <input type="checkbox"/> wetland <input type="checkbox"/> stream (inline) <input type="checkbox"/> upland | | | |
| Maximum dimensions (ft) | | Maximum Area: <input type="checkbox"/> acres <input type="checkbox"/> sq ft | |
| length | width | depth | |
| Has the there been a hydrologic study performed on the site? | | <input type="checkbox"/> No <input type="checkbox"/> Yes | ➔ If Yes, provide a copy. |
| Has the DEQ conducted a wetland assessment for this parcel? | | <input 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 type="checkbox"/> Yes | ➔ If Yes, provide a copy with data sheets. |
| 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. | | |



landscaped sides and a wood retaining wall and should be considered an on-site public hazard and liability and; therefore, the proposed minor wetland fill impact is necessary to ensure safety. Therefore, MW believes the current design layout both minimizes and mitigates for the wetland impact, while ensuring the project's financial feasibility and public safety.

Does the project impact more than 1/3 acre of wetland? No Yes

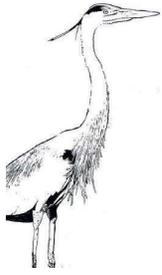
➔ If Yes, submit a Mitigation Plan with the type and amount of mitigation proposed. For more information go to www.mi.gov/wetlands

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

Refer to Section 4.0 Alternative Analysis of the Summary Report enclosed with this permit application for a thorough discussion of how natural features were avoided and/or impacts were minimized to the maximum extent practicable.

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.

Compensatory wetland mitigation through the MDEQ is not anticipated because the project activities will not exceed 1/3 acre of total wetland impact.



MARX
WETLANDS
LLC

June 26, 2018

Erick Friestrom
Kebs, Inc.
2116 Haslett Road
Haslett, MI 48840

Re: Wetland Determination Report: 1448 Grand River Avenue
Section 23, Meridian Township, Ingham County, Michigan

Dear Mr. Friestrom:

Pursuant to your request, Marx Wetlands LLC conducted a wetland determination for an approximately 2.0-acre property (parcel #33-02-02-23-301-007) within Meridian Township, Ingham County, Michigan (hereafter referred to as "Site"). The Site is located at 1448 Grand River Avenue/M-43, north of Grand River Avenue and approximately 0.10 mile east of its intersection with Powell Road. The intent of this determination is to provide a report of the character of any wetland areas within the subject parcel and an opinion as to the possible jurisdiction of the Michigan Department of Environmental Quality (MDEQ) and/or local governments over wetland areas identified on-site.

The wetland determination was performed in accordance with the Michigan Department of Environmental Quality Wetland Identification Manual (2001), the Northcentral-Northeast Manual to the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual. The delineation of any wetland depends on three basic parameters. These parameters are: 1) the presence of hydrophytic vegetation (plants adapted to living in saturated soils), 2) hydric soils (distinctive soil types that develop under saturated conditions), and 3) wetland hydrology (the presence of water at or near the surface for a specific period of time). The above parameters are virtually always inter-related and present in wetland systems. The wetland determination consisted of desktop review of available background documentation and mapping followed by an on-site visit performed on June 20, 2018. A review of the findings is provided below.

Site Conditions

Based on review of aerial photographs and the on-site visit, the Site contains a single-family residence, maintained grassy lawn with scattered landscape trees. The perimeter of the Site contains areas of upland scrub-shrub and forest. The Site contains an existing house, associated driveway, garage, and a few existing barn structures or storage buildings. Upland deciduous forest areas were observed along the northern perimeter of the Site.

Upland herbaceous species found in the lawn areas include orchard grass (*Dactylus glomerata*), bergamot (*Monarda fistulosa*), spotted knapweed (*Centaurea stoebe*), common milkweed (*Asclepias syriaca*), smooth brome (*Bromus inermis*), bluegrasses (*Poa pratensis* & *P. compressa*), Queen Anne's lace (*Daucus carota*), white avens (*Geum canadense*), wild strawberry (*Fragaria virginiana*), and goldenrods (*Solidago spp.*). The upland forest areas contain the

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Ann Arbor, Michigan
Mobile: 734-478-8277
e-mail
bg.marxwetlands@gmail.com

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Meridian Township, Ingham County, Michigan
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following dominant species: penn sedge (*Carex pennsylvanica*), Virginia creeper (*Parthenocissus quinquefolia*), burdock (*Arctium minus*), cottonwood (*Populus deltoides*), box-elder (*Acer negundo*), scattered with American elm (*Ulmus americana*), Siberian elm (*Ulmus pumila*), honey-locust (*Gleditsia triacanthos*), black walnut (*Juglans nigra*), and crabapple/apple (*Malus spp.*) trees. Common shrubs observed within the Site include common buckthorn (*Rhamnus cathartica*), brambles (*Rubus spp.*), Eurasian honeysuckle (*Lonicera spp.*), and autumn-olive (*Eleagnus umbellata*). Refer to the enclosed *Photographic Log*.

Wetland Determination & Delineation

No on-site wetlands or watercourses were identified within the Site; however, one (1) approximately 0.15-acre pond was observed within the southwest corner of the Site. During the June 20, 2018 visit, standing water (up to 5 feet in depth) was observed; however, this pond appears to have been modified with the addition of crushed rock surrounding the open water component. Sparse vegetation was also observed along the edge of the pond within the rocks and as floating vegetation, such as curly dock (*Rumex crispus*), bluegrasses, pinkweed (*Persicaria pensylvanica*), and yellow floating heart (*Nymphoides peltata*). Refer to the enclosed Site Map. Therefore, it is the professional opinion of Marx Wetlands LLC that the Site does not contain wetlands or watercourses; however, one (1) man-altered pond was observed within the southwest corner of the Site.

Regulations

Part 301, Inland Lakes and Streams, states that a feature is considered a regulated watercourse by the MDEQ if it possesses a defined bed, bank, and evidence of continued flow or a continued occurrence of water. Additionally, Part 301 states that if a pond with a surface area larger than five (5) acres should be considered regulated. Based on the site visit, no watercourses were observed on-site. One (1) pond was observed in the southwest corner of the Site; however, this pond does not have a surface water area larger than 5 acres in size. In addition, no outlet pipes were observed along Grand River Avenue; therefore, this pond appears to be hydrologically isolated.

Part 303, Wetlands Protection, of the NREPA states that if a wetland is five acres in size or larger and/or connected to or located within 500 feet of a river, stream, lake, or pond, it is considered regulated by the MDEQ. Marx Wetlands, LLC has the professional opinion that no wetlands are within the Site. Therefore, Marx Wetlands LLC has determined that there are no features within the Site that appear to meet the requirements of Part 303, Wetlands Protection, of the NREPA.

In addition, Meridian Township's *Chapter 22 Environment, Article IV Wetland Protection*, states that protected wetlands include all wetlands subject to the regulation by the MDEQ as well as any wetlands two acres or more, in size, including the area of any contiguous inland lake, pond, river, or stream. Any wetlands less than two acres in size and not connected to a body of water may still be regulated, if it is determined that the protection of the area is important for

1448 Grand River Avenue
Meridian Township, Ingham County, Michigan
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the preservation of the state's natural resources. In addition, any wetlands, equal to or greater than one-quarter acre and equal to or less than two acres in size, which are not contiguous to any inland lake, stream, river or pond and are determined to be essential to the preservation of the natural resources of the Township (Meridian Township- Code 1974, § 105-3; Ord. No. 2002-02, 3-19-2002; Ord. No. 2003-11, 7-6-2003; Ord. No. 2011-04, 3-15-2011).

As stated above, Marx Wetlands LLC determined that the Site does not appear to contain any wetlands; however, one (1) modified pond was observed in the southwest corner of the Site. This modified pond appears to meet the hydrologic criteria for wetland; however, does not appear to meet all three parameters to be considered a wetland due to the crushed rock/restricted soil layer and apparently mowed and/or limited wetland edge vegetation. Based on Marx Wetlands LLC's review, this feature is not likely regulated by the MDEQ as a wetland or pond. However, this pond may meet the Township's Zoning Ordinance "Water Feature" definition (see the Township's Zoning Ordinance § 86-2: Definitions: Water Feature); therefore, it is possible that Meridian Township may regulate this water feature, if it is deemed valuable to the preservation of the natural resources of the Township.

A permit is required by the MDEQ and/or Meridian Township for any proposed work (e.g., filling, dredging, construction, and draining and/or other development) that takes place within the boundaries of a regulated wetland. Most construction activities that take place outside of these boundaries do not require a wetland permit from the MDEQ or Meridian Township. The MDEQ and Township have the final authority on the extent of regulated wetlands, ponds, lakes, and streams in the State of Michigan and Meridian Township, respectively.

Please be advised the information provided in this report is a professional opinion. The ultimate decision on wetland boundary locations and jurisdiction thereof rests with the MDEQ or Township and, in some cases, the Federal government. Therefore, there may be adjustments to boundaries based upon review of a regulatory agency. An agency determination can vary, depending on various factors including, but not limited to, experience of the agency representative making the determination and the season of the year. In addition, the physical characteristics of the site can change with time, depending on the weather, vegetation patterns, drainage, activities on adjacent parcels, or other events. Any of these factors can change the nature / extent of wetlands on the site.

June 26, 2018

1448 Grand River Avenue
Meridian Township, Ingham County, Michigan
Page 4 of 4

Thank you for the opportunity to provide this wetland determination. If you have any questions, please contact me at your convenience.

Sincerely,



Marx Wetlands LLC
Bryana J. Guevara, PWS #2949
ISA Certified Arborist – Mi-4202A

Enclosures:

- Photographic Log
- Site Map

PHOTOGRAPHIC LOG



1) A north-facing view from the southwest corner of the Site along Grand River Avenue. Existing single-family house, garage, storage buildings, and associated drive is depicted in this photo.



2) A north-facing of the Site that contains upland old field and a modified pond feature observed in the southwest corner of the Site.



3) View of upland forested and scrub-shrub areas observed along the western boundary of the Site.



4) An east-facing view of the upland forested/scrub-shrub areas observed along the northern boundary of the Site.

PHOTOGRAPHIC LOG



5) A north-facing view of the eastern boundary of the site.



6) Another view of the on-site pond water feature observed in the southwest corner of the site.



SITE MAP

SITE

**POINT SOURCE
FEATURE**

Northview Dr

W Pond Dr

W Grand River Ave

Powell Rd

E Pond Dr

W Dock Dr

Donera Dr



November 2, 2018
Project No. 181576

Mr. Peter Menser
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864-1198

Re: Wetland Verification – WDV 18-11
Lafontaine Automotive
1448, 1476, 1478, and 1492 West Grand River Avenue, Okemos, Ingham County, Michigan

Dear Peter:

On October 17, 2018, Fishbeck, Thompson, Carr & Huber, Inc. (FTCH) staff conducted a field investigation and verified wetland boundaries on the following parcels located in Section 23 of Meridian Township (Town 4 North, Range 1 West):

- 1448 West Grand River Avenue, Parcel Number 33-02-02-23-301-007, 2.40 acres of residential property
- 1476 West Grand River Avenue, Parcel Number 33-02-02-23-301-010, 1.34 acres of commercial property
- 1478 West Grand River Avenue, Parcel Number 33-02-02-23-301-011, 1.51 acres of vacant commercial property
- 1492 West Grand River Avenue, Parcel Number 33-02-02-23-301-004, 0.61 acre of commercial property

The wetlands were recently delineated by Marx Wetlands, LLC, as described in its March 28, 2018, report entitled *Wetland Delineation Report: Grand River Avenue Site*, and its June 26, 2018 report entitled *Wetland Determination Report: 1448 Grand River Avenue* (Reports).

Site Investigation

FTCH staff met Ms. Bryana Guevara of Marx Wetlands at the site on October 17th and inspected the four parcels. Site conditions were consistent as described in the Reports. Wetland was observed north of the parcels in a depression. Based upon aerial photograph interpretation and the Ingham County Drain Commissioner's *Preliminary Meridian Township Southeast Drain Map*, this wetland is contiguous to the Unruh Drain. The subject property's northern parcel boundary was located on top of a bluff and no wetlands were observed on the site in this area.

The eastern parcel contained a manmade water feature that contained approximately 0.05-acre of open water. The south side of the water feature had a wood retaining wall. The remaining sides of the water feature consisted of banks four to six feet high, with approximately 1:1 slopes covered in rock three to four inches in diameter. Weedy vegetation grew on the banks. The water feature contained standing water of an unknown depth. Aquatic vegetation was observed in the water feature. Wetland-ranked vegetation was limited to an approximately two-foot wide band along the edge of water. This vegetation consisted of barnyard grass (*Echinochloa* sp., FAC/OBL), cattails (*Typha* sp., OBL), beggarticks (*Bidens* sp., FACW/OBL), and smartweed (*Persicaria* sp., OBL/FACW). The above observations confirm the presence of dominant wetland vegetation within two feet of the water feature's edge of water and wetland hydrology. It is likely that wetland soil is also present in this area.

The wetland boundary was not flagged. There was no wetland vegetation on the south side of the water feature, next to the retaining wall. The linear length of wetland along the three sides of the water feature was

approximately 152 feet, with a total wetland area of approximately 304 square feet. An approximately 1.8-acre pond is located approximately 250 feet southwest of this wetland, on the south side of Grand River Avenue.



West Side of Water Feature



East Side of Water Feature

Regulatory Review

The regulatory review was based upon the Reports, Google Earth aerial photographs, and site observations. Section 22-116 of the Township's Wetland Protection Ordinance defines "protected wetlands to include wetlands, regardless of size, which are contiguous (i.e. within 500 feet of) to any inland lake, stream, river, or pond, whether partially or entirely within the project site. Based upon Google Earth aerial photography, wetland along the water feature's edge is located within 500 feet of a pond and is therefore regulated by the State and Township.

A Wetland Use Permit would be required from the Township for any of the following activities within wetland regulated by the Township:

- Placing fill or permitting the placement of fill in regulated wetland.
- Dredging, removing, or permitting the removal of soil or minerals from regulated wetland.
- Constructing, operating, or maintaining any use or development in regulated wetland.
- Draining surface water from regulated wetland.

Wetland mitigation will be required for wetland impacts, creating new wetland at a ratio of 1:1.5.

If you have any questions regarding this letter or any other wetland-related issues, please contact me at 616.464.3738 or ehtripp@ftch.com.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.



Elise Hansen Tripp, PWS

pmb

By email

cc: Mr. Mark Kieselbach – Charter Township of Meridian



MARX
WETLANDS
LLC

February 12, 2019

Mr. Mark Kieselbach
Charter Township of Meridian
5151 Marsh Road
Okemos, Michigan 488864

Re: Meridian Township Wetland Use Permit & Mitigation Plan

1448 W. Grand River Ave.- LaFontaine Automotive Group (LAG Wixom LLC)
Section 23 of Meridian Township, Ingham County, Michigan

Dear Mr. Kieselbach:

On behalf of our client, LaFontaine Automotive Group (LAG Wixom, Inc.– Applicant), Marx Wetlands LLC (MW) prepared a Meridian Township wetland use permit and mitigation plan for the wetland impact associated with the project located on parcel (ID #33-02-02-23-301-007) within Section 23 of Meridian Township (T4N, R1W), Ingham County, Michigan.

Project Activities: The proposed project involves a new LaFontaine car dealership, which includes the utilization of an existing building for the dealership office space and the construction of associated parking/utility infrastructure, one (1) access drive from W. Grand River Avenue/M-43), and two (2) proposed on-site stormwater detention basins, which will require one (1) wetland impact as part of the development.

Total Wetland Impact: Approximately 0.007 acres (304 square feet) of Wetland A (emergent fringe surrounding man-modified pond) will be impacted for the construction of the proposed parking infrastructure associated with the development. The total amount of wetland impact at this location includes approximately 78.8 cubic yards of wetland fill.

Summary of Proposed Wetland Mitigation

Pursuant to Meridian Township Wetland Ordinance, the Applicant has prepared a wetland mitigation plan for the proposed wetland impact associated with the project. Because the proposed development will impact a Township-regulated wetland, mitigation will be required in order to meet the Township's goal of no net loss of wetlands. The Applicant is proposing on-site wetland creation as mitigation to satisfy the requirements of Meridian Township Wetland Ordinance.

The on-site impacted wetland (Wetland A; emergent fringe surrounding man-modified pond). Therefore, the Applicant proposes the creation of one (1) emergent wetland mitigation area on-site totaling 456 square feet (0.011 acres) within the project property, meeting the 1.5:1 wetland mitigation ratio

3309 Platt Road
Ann Arbor, Michigan
Mobile: 734-478-8277
e-mail
bg.marxwetlands@gmail.com

Page 2 of 2

requirement for wetland impacts in Meridian Township.

The project appears to meet state and local water quality standards and follows sedimentation and erosion control best management practices (BMPs) through the use of appropriate soil erosion control methods (i.e., silt fencing, matting, and etc.). It is the professional opinion of MW that the proposed project has minimized impacts to natural features to the maximum extent practicable.

Feel free to contact me should you have any questions and/or comments. We appreciate your consideration and attention to this matter.

Sincerely,



Marx Wetlands LLC

Bryana J. Guevara, PWS 2949

ISA Certified Arborist MI-4240A

bg@marxwetlands.com

734-478-8277

CC: Gary Laundroche

LAG Wixom LLC (LaFontaine Automotive Group)

4000 W. Highland Road

Highland, Michigan 48357

Enclosures:

- Summary Report with Wetland Mitigation Plan
- Impact Plans & Wetland Mitigation Plan details

MERIDIAN WETLAND USE PERMIT APPLICATION & WETLAND MITIGATION PLAN

SUMMARY REPORT

for the

1448 W. Grand River Avenue

Prepared for:

**Gary Laundroche
LaFontaine Automotive Group (LAG Wixom LLC)
16555 Silver Parkway,
Fenton MI 48430**



**MARX
WETLANDS
LLC**

February 12, 2019

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APPENDICES

- I. Impact Plans & Proposed Wetland Mitigation
- II. Wetland Delineation Letter Report (Marx Wetlands LLC; Dated June 26, 2018)
- III. FTCH’s Wetland Delineation – WDV 18-11 (Dated November 2, 2018)
- IV. Site Photo Log

1.0 INTRODUCTION

Marx Wetlands LLC (MW) was contracted by LaFontaine Automotive Group (LAG Wixom LLC; Applicant) to prepare a Meridian Township Wetland Use Application for the wetland impact associated with the proposed project located on parcel #33-02-02-23-301-007 in Section 23 of Meridian Township (T4N, R1W), Ingham County, Michigan, located at 1448 W. Grand River Avenue/M-43, north of Grand River Avenue and approximately 0.10 mile east of its intersection with Powell Road (hereafter referred to as “Site”). Refer to the *Location Map* on Sheet 1 of Impact Plans in **Appendix I**.

The overall project does include four (4) parcels: (1448 West Grand River Avenue, Parcel Number 33-02-02-23-301-007; 1476 West Grand River Avenue, Parcel Number 33-02-02-23-301-010; 1478 West Grand River Avenue, Parcel Number 33-02-02-23-301-011; and 1492 West Grand River Avenue, Parcel Number 33-02-02-23-301-004); however, the wetland impact is contained on the easternmost parcel.

2.0 EXISTING SITE CONDITIONS

The region of Ingham County where the Site is situated is largely rural residential with some commercial development; however, contains fragmented natural areas as well. The proposed project is located directly north of W. Grand River Avenue, approximately 0.10 miles east of its intersection with Powell Road. The Site contains a single-family residence, maintained grassy lawn with scattered landscaped trees. The Site contains an existing house, associated driveway, garage, and a few existing barn structures or storage buildings. Upland deciduous forest areas were observed along the northern perimeter of the Site. One (1) man-made/modified pond was observed along the southern boundary near W. Grand River Avenue.

On June 20, 2018, MW conducted a wetland determination and delineation for the Site (parcel 33-02-02-23-301-007) and no on-site wetlands or watercourses were identified; however, one (1) approximately 0.05-acre man-altered pond was observed within the southwest corner of the Site. Based on MW’s site visit, the open water feature (i.e., pond) appeared to have been modified with the addition of crushed rock surrounding the open water component. Sparse vegetation was also observed along the edge of the pond within the rocks and as floating vegetation, such as curly dock (*Rumex crispus*), bluegrasses, pinkweed (*Persicaria pensylvanica*), and yellow floating heart (*Nymphoides peltata*). Although, MW did not consider this feature to be a regulated wetland, it was MW’s professional opinion that this pond may meet the Township’s Zoning Ordinance “Water Feature” definition (see the Township’s Zoning Ordinance § 86-2: Definitions: Water Feature); therefore, it is possible that Meridian Township may regulate this water feature, if it is deemed valuable to the preservation of the natural resources of the Township. Refer to enclosed *Wetland Delineation Letter Report* (Marx Wetlands LLC; Dated June 26, 2018) provided in **Appendix II**.

On October 17, 2018, Fishbeck, Thompson, Carr & Huber, Inc. (FTCH) met with MW for the wetland verification for the Site, which includes four (4) parcels: (1448 West Grand River Avenue, Parcel Number 33-02-02-23-301-007; 1476 West Grand River Avenue, Parcel Number 33-02-02-23-301-010; 1478 West Grand River Avenue, Parcel Number 33-02-02-23-301-011; and 1492 West Grand River Avenue, Parcel Number 33-02-02-23-301-004).

Based on FTCH's findings, three sides of the man-made water feature's edge was considered wetland based on the presence of wetland vegetation and hydrology. Therefore, according to FTCH's verification, the wetland fringe should be considered regulated by both the State of Michigan and Meridian Township because it within 500 feet of an approximately 2-acre pond (south of W. Grand River Ave). Refer to the *FTCH's Wetland Verification – WDV 18-11 (Dated November 2, 2018)* provided in **Appendix III**, for more information regarding this site investigation.

3.0 PROPOSED ACTIVITIES AND IMPACTS

The proposed project involves a new LaFontaine car dealership, which includes the utilization of an existing building for the dealership office space and the construction of associated parking/utility infrastructure, one (1) access drive from W. Grand River Avenue/M-43), and two (2) proposed on-site stormwater detention basins, which will require one (1) wetland impact as part of the development. Refer to the *Site Photo Log* for on-site conditions provided in **Appendix IV**.

Detailed information of proposed activities and impacts to regulated wetland resulting from the proposed development of the Site are described and depicted in the *Impact Plan* presented in **Appendix I**.

3.1 Impact 1–Wetland/Pond

Approximately 0.007 acres (304 square feet) of Wetland A (emergent fringe surrounding man-modified pond) will be impacted for the construction of the proposed parking infrastructure associated with the development. The total amount of wetland impact at this location includes approximately 78.8 cubic yards of wetland fill. The parking lot area is necessary for the car dealership development because it will provide spaces for the cars proposed for sale. Refer to the *Impact Plan* in **Appendix I** for details on the proposed wetland impact to the on-site wetland for the site development.

4.0 ALTERNATIVES ANALYSIS

Meridian Township typically reviews the proposed project development along with any feasible alternatives when considering wetland impacts and permitting.

MW and the Applicant believe that the proposed development is not dependent upon being located in wetland; however, no feasible or prudent alternatives are available given the characteristics of soils, topography, site accessibility, visibility, and the configuration of existing on-site natural features.

The Applicant has developed a site layout that minimizes impacts to the natural features on-site; however, one (1) regulated wetland/pond will be impacted in order to provide a reasonable usage of the available land. Impacts to wetland and natural features were minimized to the maximum extent practicable.

4.1 Project Purpose & Location

The purpose of this project is to provide affordable cars for the rapidly growing and developing community of Meridian Township. The construction of a LaFontaine car dealership fulfills a public's need as well as allows LaFontaine to competitively serve the Meridian Township area.

The overall project includes four (4) adjoining parcels (vacant and residential) all owned by the Applicant, which includes the parcel (#33-02-02-23-301-007, which is proposed for the wetland impact. Several possible sites were examined and all, but the current site selected, failed to meet necessary business needs. The current design proposes to utilize an existing building (office space); however, includes the construction of an associated paved parking infrastructure and one (1) access drive to the proposed development from W. Grand River Avenue, which requires one (1) wetland impact.

The Site is ideally located within close proximity (within 5 miles or less) to three (3) main thoroughfares, including M-14 (W. Grand River Avenue), the interchange for Interstate I-496, and Interstate I-96, which would provide convenient site access and visibility for prospective car buyers. The Applicant has carefully reviewed and considered several site alternatives throughout the site selection process and after examining all of the potential alternatives, the current design was selected.

4.2 Development Site Layout

The Applicant has reviewed and considered alternative layouts to the proposed project design. After review, the proposed layout was selected because it is economically feasible for development given the Site geometric constraints, specific project and site requirements, building requirements and setbacks, visibility and accessibility, safety, and existing natural features. The proposed site layout has been designed to minimize impacts to the to the maximum extent practicable, compared to other possible options that were also feasible.

It was determined that site access and placing the proposed parking infrastructure directly north from W. Grand River Avenue would improve site accessibility and visibility for the proposed car dealership. The placement of an access drive connected directly to W. Grand River would also likely reduce potential traffic safety risks because it would allow for moderate

egress and ingress traffic flow into the proposed site. Ideally, the cars for sale should be on display and visible from the roadside and; therefore, the placement of the parking infrastructure should be sited close to W. Grand River Avenue.

The grading and filling of the on-site wetland (Impact 1) is necessary in order to provide sufficient parking space to accommodate the new car dealership. The small open water/ponded area with the wetland fringe will be filled and replaced by the proposed parking area. The removal of the wetland is necessary to ensure customer safety because this deep, man-made feature has steep slopes, water, and loose rocks that could pose as a safety hazard or liability. Therefore, the proposed parking area utilizes the upland space to the maximum extent practicable. In addition, as part of the project activities, on-site wetland mitigation is proposed and will be submitted to Meridian Township for review and approval.

Therefore, due to the site layout constraints listed above, one (1) wetland will be impacted by the construction of the proposed parking infrastructure for this project. The site design has gone through several iterations in order to minimize the wetland impact; however, the avoidance for the on-site wetland is not feasible given the potential safety hazard and liability. This feature has steep rock landscaped sides and a wood retaining wall and should be considered an on-site public hazard and liability and; therefore, the proposed minor wetland fill impact is necessary to ensure safety. Therefore, MW believes the current design layout both minimizes and mitigates for the wetland impact, while ensuring the project's financial feasibility and public safety. Refer to the *Impact Plan* provided in **Appendix I** of this report.

The Applicant and MW believe that there are no prudent or feasible alternatives to the Preferred Design. This layout plan attempts to preserve the significant natural features that the Site, while still providing an economically feasible development option that requires the dealership's business and access to W. Grand River Avenue.

5.0 PROPOSED WETLAND MITIGATION

Pursuant to Meridian Township Wetland Ordinance, the Applicant has prepared a wetland mitigation plan for the proposed wetland impact associated with the project. Because the proposed development will impact a Township-regulated wetland, mitigation will be required in order to meet the Township's goal of no net loss of wetlands. The Applicant is proposing on-site wetland creation as mitigation to satisfy the requirements of Meridian Township Wetland Ordinance.

The on-site impacted wetland (Wetland A; wetland fringe of the existing pond) is largely an emergent wetland. Therefore, the Applicant proposes the creation of one (1) wetland mitigation area on-site totaling approximately 0.011 acres (456 square feet) within the project property, meeting the 1.5:1 wetland mitigation ratio requirement for wetland impacts in Meridian Township.

5.1 PROPOSED WETLAND MITIGATION GOALS AND OBJECTIVES

The main goal of the mitigation plan will be to recreate the approximate habitat and functional values of the wetlands proposed for impacts:

In order to mitigate for unavoidable wetland impacts (0.007 acres; 304 square feet) applied for in the above-referenced application, a total of 0.011 acres (456 square feet) of newly created wetland area will be placed under a conservation easement as mitigation.

The goal of the mitigation wetland area will be to re-create wetland habitat of similar type and function to the emergent wetland being impacted for the proposed development. The proposed wetland mitigation area will be larger than the proposed wetland impact area, but otherwise will be similar.

Adequate mitigation will be assured by creating a wetland area that is larger than the proposed impacted wetland and by proposing the wetland mitigation area within the existing property. The newly created wetland area is designed to develop into emergent wetland to replace the values and functions of the impacted wetland/ponded. The mitigation area will be excavated down to an elevation 6 inches below the elevation of the existing adjacent on-site pond and brought back to that pond's grade with organic soils. Tree trunks or other habitat structures can be added to the wetland mitigation area to replicate natural wetland conditions and provide micro-habitat structure to allow for a more diverse flora and fauna to develop in these areas.

5.2 PROPOSED WETLAND MITIGATION DESIGN

In order to comply with Meridian Township wetland mitigation requirements, the Applicant proposes to construct one (1) on-site compensatory mitigation wetland area for the creation of 1.5 acres of mitigation for any one (1) acre of permitted impact.

The proposed project proposes impacting approximately 0.007 acres (304 square feet) of total wetland impact. Using the 1.5:1 ratio, mitigation for the site would require approximately 0.011 acres (456 square feet) total acres of emergent wetland mitigation.

Therefore, the Applicant proposes the creation of one (1) small wetland mitigation area on-site within the property. The Applicant proposes the mitigation area to be adjacent to the on-site pavement/developed areas of the project. Refer to Sheets 5 through 7 of the *Impact Plans* in **Appendix I** for additional information on the proposed Wetland Mitigation Plan.

The mitigation area will be constructed in conjunction with site grading and leveling. All excavated material during the wetland mitigation construction will be placed in upland (non-

wetland). The proposed project activities will meet state and local water quality standards and follow sedimentation and erosion control best management practices (BMPs) using appropriate soil erosion control methods (i.e. silt fencing, etc.) to meet requirements of the Ingham County and any best management practices required by Meridian Township Wetland Use Permit.

5.2.1 Proposed Wetland Hydrology

The proposed wetland mitigation area is located adjacent to the proposed developed areas of the project. The proposed wetland mitigation site is designed to receive overland flow and/or stormwater runoff for the purpose of obtaining its hydrology from precipitation and runoff from the developed areas. The mitigation site begins at a crushed rock spillway (pre-treatment structure) from the northern end of the parking lot. Passing through the crushed rock spillway should provide adequate treatment of the stormwater, removing the majority of any particulate matter or other substances that it might contain as it flows off parking areas prior to discharging into the mitigation area. This mitigation site is designed so that in average conditions, the soil in the mitigation site would receive runoff from the developed/paved parking lot and be saturated with some standing water throughout much of the growing season to ensure suitable wetland hydrology for emergent wetland type.

5.2.2 Proposed Mitigation Soils

A minimum of 6 inches of topsoil from the impacted areas or other on-site areas will be spread within the base of the newly excavated wetland mitigation area as shown on plans. Soils shall consist of mineral topsoil and be preapproved by wetland consultant or engineer.

The mitigation area will be excavated to a minimum depth of six (6) inches (or to a depth that matches the thickness of the existing topsoil), stockpiled on-site, and replaced onto the mitigation area bottom, which will have been over-excavated to a depth approximately 12 inches below the finished contour elevation. A six-inch layer of clay will line the bottom of the wetland mitigation area. Then the mitigation area will be topped with a six-inch layer of topsoil. The replacement of this local topsoil will ensure fertile soils with the natural seedbed and will likely allow spontaneous or volunteer plant growth from the nearby wetland areas.

5.2.3 Proposed Mitigation Vegetation

The wetland mitigation area will be applied with emergent wetland seed mix following construction and grading activities. The vegetation will include species and/or varieties native to Michigan or the Midwest, depending on availability at local nurseries.

The proposed wetland mitigation area will be seeded at a rate of 35.44 pounds/acre of Pure Live Seed (PLS) with native emergent vegetation. The seed mix includes several permanent and temporary grasses, sedges, rushes, and herbaceous forbs. The emergent wetland seed mix list is listed below in **Table 1. Wetland Mitigation Seed Mix list** and on Sheet 7 of the Impact Plans with *Wetland Mitigation Plan* provided in **Appendix I**.

| WETLAND MITIGATION SPECIES LIST | | | |
|--|------------------------------|-----------------------|------------------|
| WETLAND MITIGATION SEE LIST SUMMARY | | | |
| SEED MIX | RATE (LBS/ACRES) | ACREAGE | REQUIRED LBS |
| EMERGENT WETLAND SEED MIX | 35.44 | 0.011 | 0.39 |
| Wetland Mitigation Plant List | | | |
| Emergent Wetland Vegetation | | | |
| Species | | Oz/Acre | Indicator |
| <u>Permanent Grasses, Sedes, and Rushes</u> | | | |
| Bristly Sedge | <i>Carex comosa</i> | 2 | OBL |
| Common Lake Sedge | <i>Carex lacustris</i> | 1.5 | OBL |
| Bottlebrush Sedge | <i>Carex lurida</i> | 4 | OBL |
| Spike Rush | <i>Eleocharis obtusa</i> | 3 | OBL |
| Common Rush | <i>Juncus effusus</i> | 4 | OBL |
| Rice Cut Grass | <i>Leersia oryzoides</i> | 3 | OBL |
| Hardstem Bulrush | <i>Schoenoplectus acutus</i> | 6 | OBL |
| Chairmakers Rush | <i>Scirpus pungens</i> | 6 | OBL |
| Softstem Bulrush | <i>Scirpus validus</i> | 8 | OBL |
| | Total | 37.50 oz/acre | |
| Temporary Cover | | | |
| Redtop | <i>Agrostis alba</i> | 4 | |
| Seed Oats | <i>Avena sativa</i> | 360 | |
| Annual Rye | <i>Lolium multiflorum</i> | 100 | |
| | Total | 464.00 oz/acre | |
| Forbs | | | |
| Sweet Flag | <i>Acorus calamus</i> | 3 | OBL |
| Swamp Milkweed | <i>Asclepias incarnata</i> | 2 | OBL |
| Water Plantain | <i>Alisma spp.</i> | 4 | OBL |
| Spotted Joe-Pye-Weed | <i>Eupatorium maculatum</i> | 1 | OBL |
| Rosemallow | <i>Hibiscus spp.</i> | 3 | OBL |
| Blue Flag Iris | <i>Iris virginica</i> | 4 | OBL |
| Cardinal Flower | <i>Lobelia cardinalis</i> | 1 | OBL |
| Great Blue Lobelia | <i>Lobelia siphilitica</i> | 1 | FACW |
| Monkey Flower | <i>Mimulus ringens</i> | 1 | OBL |
| Arrow Arum | <i>Peltandra virginica</i> | 12 | OBL |
| Pickeral Weed | <i>Pontederia cordata</i> | 8 | OBL |
| Broad-leaf Arrowhead | <i>Sagittaria latifolia</i> | 8 | OBL |
| Bur Reed | <i>Sparganium eurycarpum</i> | 4 | OBL |
| Blue Vervain | <i>Verbena hastata</i> | 2 | FACW |
| | Total | 54 oz/acre | |

Following construction, the wetland mitigation area will be seeded with the following temporary cover species: redbud (*Agrostis alba*), seed oats (*Avena sativa*), and annual rye (*Lolium multiflorum*).

5.2.4 Proposed Habitat Structures

The goal of the mitigation wetland area will be to recreate wetland habitat of similar type and function to the impacted wetland areas and provide natural wildlife habitat. The mitigation area includes the creation of an emergent wetland, which can attract wildlife that currently utilize adjacent habitats within undeveloped areas of the property.

Within all mitigation areas a minimum of 6 habitat structures, such as tree stumps, etc., shall be placed per acre, or 1 structure for the 0.011-acre (456 sq ft) site. Below is a detailed description of acceptable habitat structures:

- a. Tree stumps laid horizontally in the created wetland area. Acceptable stumps shall be a minimum of 6 feet long (log and root ball combined) and 12 inches in diameter.
- b. Logs laid horizontally within the created wetland area. Acceptable logs shall be a minimum of 10 feet long and 6-inches in diameter.
- c. Whole trees laid horizontally within the wetland area. Acceptable whole trees shall have all of their fine structure left intact (i.e., not trimmed down to major branches for installation) and be a minimum of 20 feet long (tree and root ball combined) and a minimum of 12 inches in diameter at breast height (DBH).

Any habitat structures will be placed with heavy equipment following a precipitation event in order to create the natural micro-topography within the wetland. The habitat structures may provide breeding, nesting, and feeding grounds for several wildlife species, including amphibians, reptiles, birds, and mammals.

5.3 PROPOSED MITIGATION PERFORMANCE STANDARDS

The Applicant will be responsible for contracting out monitoring of the wetland construction area for five years following the completion of construction of the wetland mitigation area. The monitoring of the wetland mitigation area will be conducted by a qualified wetland consultant. A complete assessment of the development for the wetland mitigation area will be made annually.

The Applicant will provide Meridian with annual reports no later than December 30 of each year following the completion of construction. The reports will be provided to Mr. Mark Kieselbach, Charter Township of Meridian, 1515 Marsh Road, Okemos, MI 48864. Utilizing recognized and established scientific procedures, the annual monitoring report, at a minimum will include:

- 1) Construction has been completed in accordance with approved plans and specifications referenced in the permit and supporting documentation.
- 2) One (1) emergent wetland totaling 0.011 acres (456 square feet) should be constructed and characterized by the presence of water at a frequency and duration sufficient to support predominance of wetland vegetation at the end of the monitoring period.
- 3) A layer of high-quality soil, an organic or loamy texture soil, is placed over the mitigation area at a minimum average thickness of 5 inches.
- 4) The mitigation areas shall be free of oil, grease, debris, and all other contaminants.
- 5) Mean relative percent cover of native species in the herbaceous layer in the mitigation area at the end of the monitoring period is not less than 80 percent for the overall mitigation area.
- 6) Extensive areas of bare soil shall not exceed 5 percent of each mitigation areas. Typically, extensive areas refer to areas greater than 0.01 acre in size.
- 7) The mitigation area supports a predominance of wetland vegetation (defined as more than 50% relative plant cover of species rated FAC or wetter; wetland indicator status during the given monitoring year) and is represented by a minimum number of native wetland species, at the end of the monitoring period.
- 8) At the end of the monitoring period, the mitigation wetland should support a predominance of wetland vegetation in each vegetative layer, represented by a minimum number of native wetland species, which shall not be less than: 8 species within the mitigation wetland area.
- 9) In the mitigation area, the combined percent cover of the following invasive species shall not exceed 10%: common reed (*Phragmites australis*), musk thistle (*Carduus nutans*), field thistle (*Cirsium arvense*), bull thistle (*Cirsium vulgare*), purple loosestrife (*Lythrum salicaria*), and reed canary grass (*Phalaris arundinacea*). In the mitigation area, the percent cover of the following invasive species shall not exceed 2%: autumn-olive (*Elaeagnus umbellata*), common buckthorn (*Rhamnus cathartica*), glossy buckthorn (*Frangula alnus*) and multi-flora rose (*Rosa multiflora*).

5.4 PROPOSED MITIGATION MONITORING PROTOCOL & REPORTING

The mitigation area will be monitored as required in the first full growing season after construction, planting and seeding to document the newly established vegetative community. The Applicant will be responsible for contracting out monitoring of the wetland construction area for five years following the completion of construction of the wetland mitigation area. The monitoring of the wetland mitigation area will be conducted by a qualified wetland consultant. A complete assessment of the development for the wetland mitigation area will be made annually. The Applicant will provide Meridian with annual reports no later than December 30 of each year following the completion of construction. The reports will be provided to Mr. Mark Kieselbach, Charter Township of Meridian, 1515 Marsh Road, Okemos, MI 48864. Utilizing recognized and established scientific procedures, the annual monitoring report, at a minimum will include:

- a) A measure of the percent cover of wetland vegetation species (using USACE plant list of wetland plant species) versus upland plant species;
- b) A measure of vegetation diversity;
- c) A description of vegetative community structure;
- d) A description of wildlife community structure;
- e) A record and description of hydrologic development, including:

Characterization of water regimes, measurement of water depths, periods and degree of inundation (flooding), saturation zones, water clarity, etc.
- f) A record of any oil, grease, man-made debris, and/or other contaminants.
- g) A written summary of wetland development will be provided and will compare data gathered in the current monitoring year with data of all previous monitoring years.
- h) A photographic history of new wetland construction work and development will be kept and submitted with the annual report. The photographic record will visually document all construction phases and shall be designed to also document wetland development through the five-year monitoring period.

All monitoring data will be collected, compiled, and analyzed together for each proposed mitigation area, unless specifically noted otherwise. A monitoring report will be provided by the

Applicant to the Meridian Township by December 30 of each year that follows each of the five (5) consecutive monitoring years.

Monitoring Performance Schedule

End of Year 1: Mitigation area vegetative cover of at least 20% wetland indicator species (FAC or wetter). Approximately 60% of the total original seeded area should be surviving.

End of Year 2: Mitigation area vegetative cover of at least 50% wetland indicator species (FAC or wetter). Approximately 70% of the total original seeded area should be surviving.

End of Year 3-5: Mitigation area vegetative cover of at least 80% wetland indicator species (FAC or wetter). Approximately 80% of the total original seeded area should be surviving, established, and free-to-grow with a minimum of 8 native wetland species.

Should the wetland mitigation area fail to establish after five completed growing seasons, fail to satisfactorily progress to a self-sustaining wetland system as designed and/or the percent cover by invasive species, such as *Phragmites australis* (Common Reed), *Phalaris arundinacea* (Reed Canary Grass) and *Lythrum salicaria* (Purple Loosestrife) is greater than 10%, the Applicant will:

- a) Assess the problem and its probable causes;
- b) Develop reasonable and necessary corrective measures as a revision to the original plan;
- c) Make any reasonable modification deemed necessary by Meridian to assure success of the mitigation wetland development;
- d) Submit a copy of the proposed corrective measures to Meridian for review;
- e) Upon Meridian's approval, immediately implement the corrective measures.

5.5 Long-Term Protection

The Applicant will ensure that no construction activities will occur within wetland mitigation boundaries. In addition, signage will be placed along buffer edges beyond the wetland mitigation area. Typical signage will read: **Wetland Conservation Easement | No construction or placement of structures allowed. | No mowing, cutting, filling, dredging or application of chemicals allowed. | Meridian Township.**

5.6 Financial Assurance

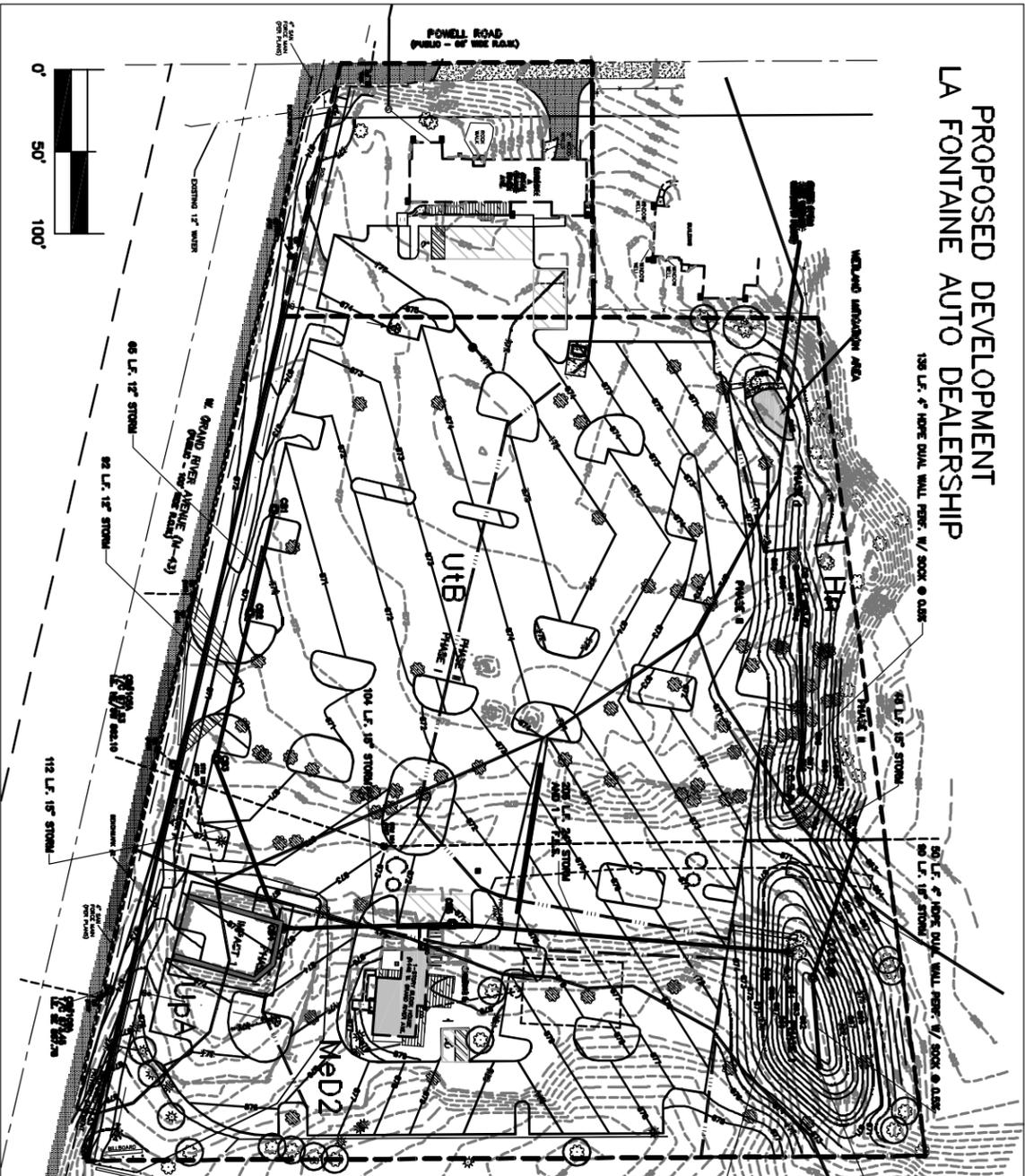
If the proposed Wetland Use Permit Application is approved, the Applicant will post a surety bond to the Meridian Township (if necessary) to ensure the mitigation is timely and properly completed, that the mitigation is thereafter managed, monitored, and protected, as provided by the mitigation plan, and to guarantee compliance with the plan.

APPENDIX I

Impact Plan & Proposed Wetland Mitigation Plan

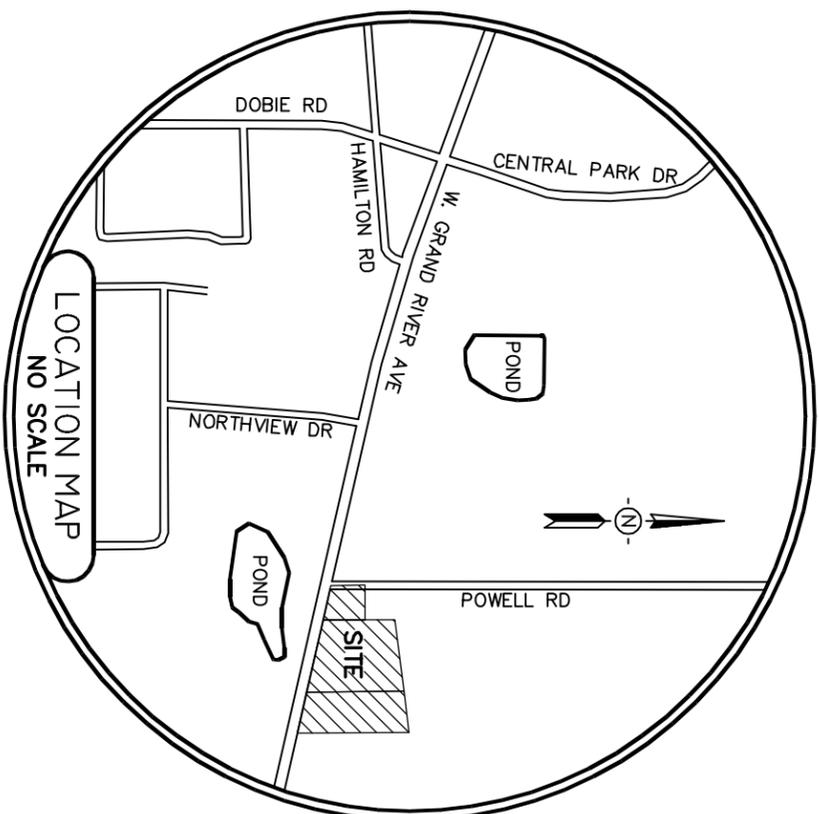
1448 GRAND RIVER AVE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

PROPOSED DEVELOPMENT
 LA FONTAINE AUTO DEALERSHIP



SOILS (FROM NRCS, WEBB SOIL SURVEY)

Co - COLWOOD-BROOKSTON LOAMS
 Hh - HOUGHTON MUCK, 0-1 PERCENT SLOPE
 MeD2 - MARLETTE LOAM, 12 - 18 PERCENT SLOPES
 UPA - URBAN LAND - CAPAC-COLWOOD COMPLEX, 0 - 4 PERCENT SLOPES
 UTB - URBAN LAND - MARLETTE COMPLEX, 2 TO 12 PERCENT SLOPES



LEGAL DESCRIPTION AS SURVEYED:
 (The following legal description describes the same parcel of land as the provided description)

PARCEL A:
 A parcel of land in the Southwest 1/4 of Section 23, T4N, R1W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section; thence S00°19'28"E along the West line of said Section 23 a distance of 810.15 feet to the point of beginning of this description; thence N89°40'56"E 155.53 feet; thence S00°12'59"W 189.31 feet to the Northernly right-of-way line of Grand River Avenue; thence N76°59'56"W along said Northernly line 158.00 feet to said West line; thence N00°19'28"W along said West line 152.90 feet to the point of beginning; said parcel containing 0.60 acres more or less; including 0.11 acre more or less presently in use as public right-of-way; said parcel subject to all easements and restrictions if any.

PARCEL B:
 A parcel of land in the Southwest 1/4 of Section 23, T4N, R1W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section; thence S00°19'28"E along the West line of said Section 23 a distance of 963.05 feet to the Northernly right-of-way line of Grand River Avenue; thence S76°59'56"E along said Northernly line 158.00 feet to the point of beginning of this description; thence N00°12'59"W 325.91 feet; thence N82°40'31"E 325.24 feet; thence S00°45'57"E 443.55 feet to said Northernly line; thence N76°59'56"W along said Northernly line 338.42 feet to the point of beginning; said parcel containing 2.87 acres more or less; said parcel subject to all easements and restrictions if any.

PARCEL C:
 A parcel of land in the Southwest 1/4 of Section 23, T4N, R1W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section; thence S00°19'28"E along the West line of said Section 23 a distance of 963.05 feet to the Northernly right-of-way line of Grand River Avenue; thence S76°59'56"E along said Northernly line 496.42 feet to the point of beginning of this description; thence N00°45'57"W 443.55 feet; thence N82°40'31"E 189.76 feet; thence S00°19'28"E 510.46 feet to said Northernly line; thence N76°59'56"W along said Northernly line 190.05 feet to the point of beginning; said parcel containing 2.04 acres more or less; said parcel subject to all easements and restrictions if any.

SHEET INDEX

1. COVER SHEET
2. EXISTING CONDITIONS
3. SITE OVERVIEW
4. IMPACT 1

KEBS, INC.

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

Marshall Office
 Ph. 269-781-9800



REVISIONS

01-11-19 SUBMITTAL

SCALE: SEE PLAN

PROJECT MGR.
 K. KALMBACH

APPROVED BY: J.W.K.

DRAWN BY: K.J.K.

DATE: 12-7-18

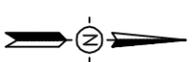
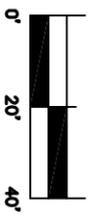
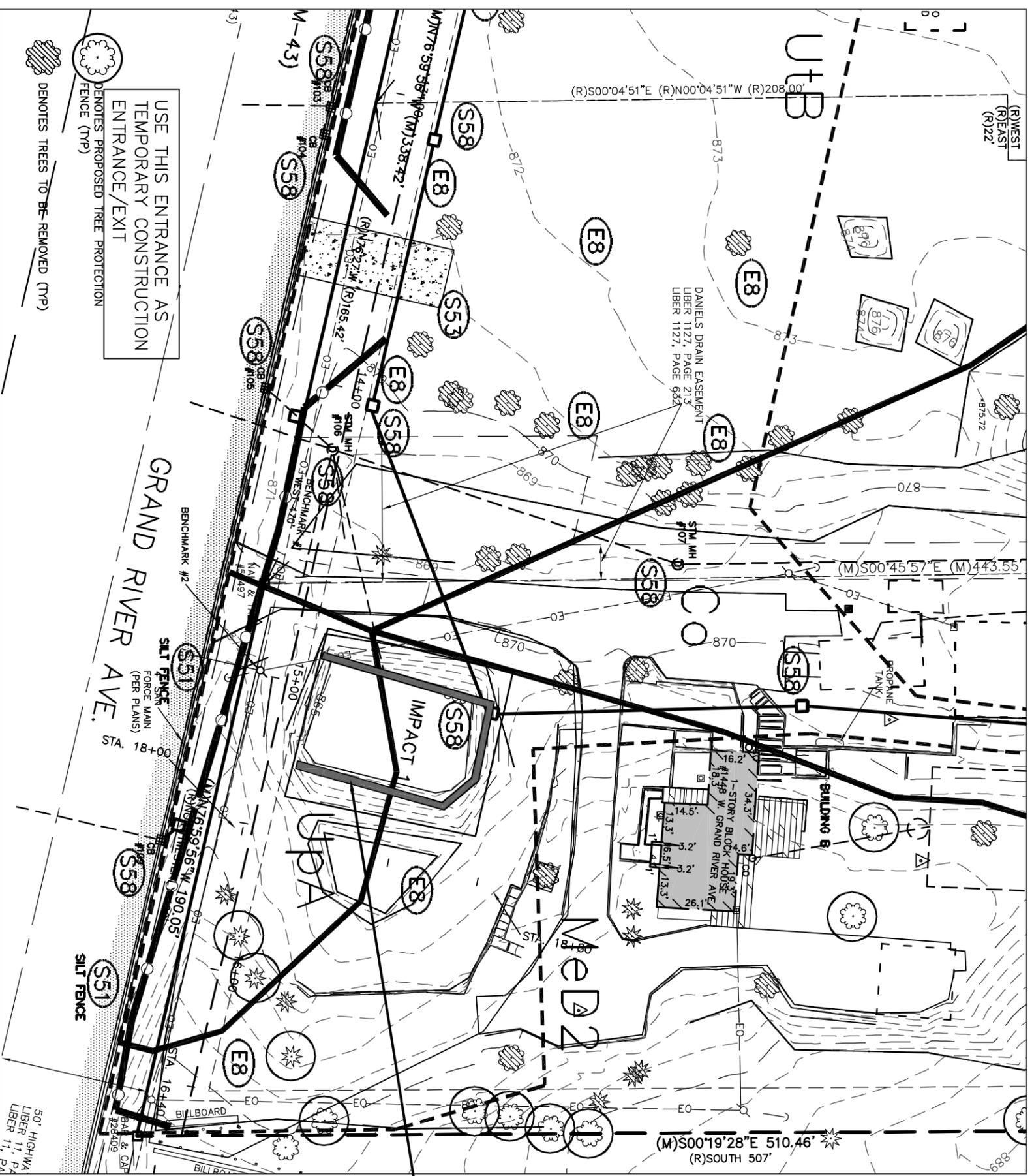
1448 GRAND RIVER AVE.
 LAFONTAINE CAR DEALERSHIP
 LAFONTAINE GROUP

AUTHORIZED BY:
 GARY LAUNDROACHE

JOB #:
 E-93897

SHEET 1 OF 7

1448 GRAND RIVER AVE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



EXISTING WETLAND
 AREA = 304 S.F.T. (0.007 ACRES)
 FILL = 78.8 CU. YDS.

EX LEGEND

- SET 1/2" BAR WITH CAP
- FOUND IRON AS NOTED
- DISTANCE NOT TO SCALE
- FENCE
- ASPHALT
- CONCRETE
- GRAVEL
- DECK
- EXISTING SPOT ELEVATION
- EXISTING CONTOUR ELEVATION
- BUILDING OVERHANG
- OVERHEAD WIRES
- DECIDUOUS TREE
- CONIFEROUS TREE
- GROUND LIGHT
- DRAINAGE MANHOLE
- CATCHBASIN
- FIRE HYDRANT
- VALVE
- UTILITY POLE
- LIGHT POLE
- GUY WIRE
- UTILITY PEDESTAL
- ELECTRIC METER
- GAS METER
- WELL
- MONITORING WELL
- SIGN
- POST
- AIR CONDITIONING UNIT
- DOWNSPOUT

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REVISIONS

01-11-19 SUBMITTAL

SCALE: SEE PLAN

PROJECT MGR.
 K. KALMBACH

APPROVED BY: J.W.K.

DRAWN BY: K.J.K.

DATE: 12-7-18

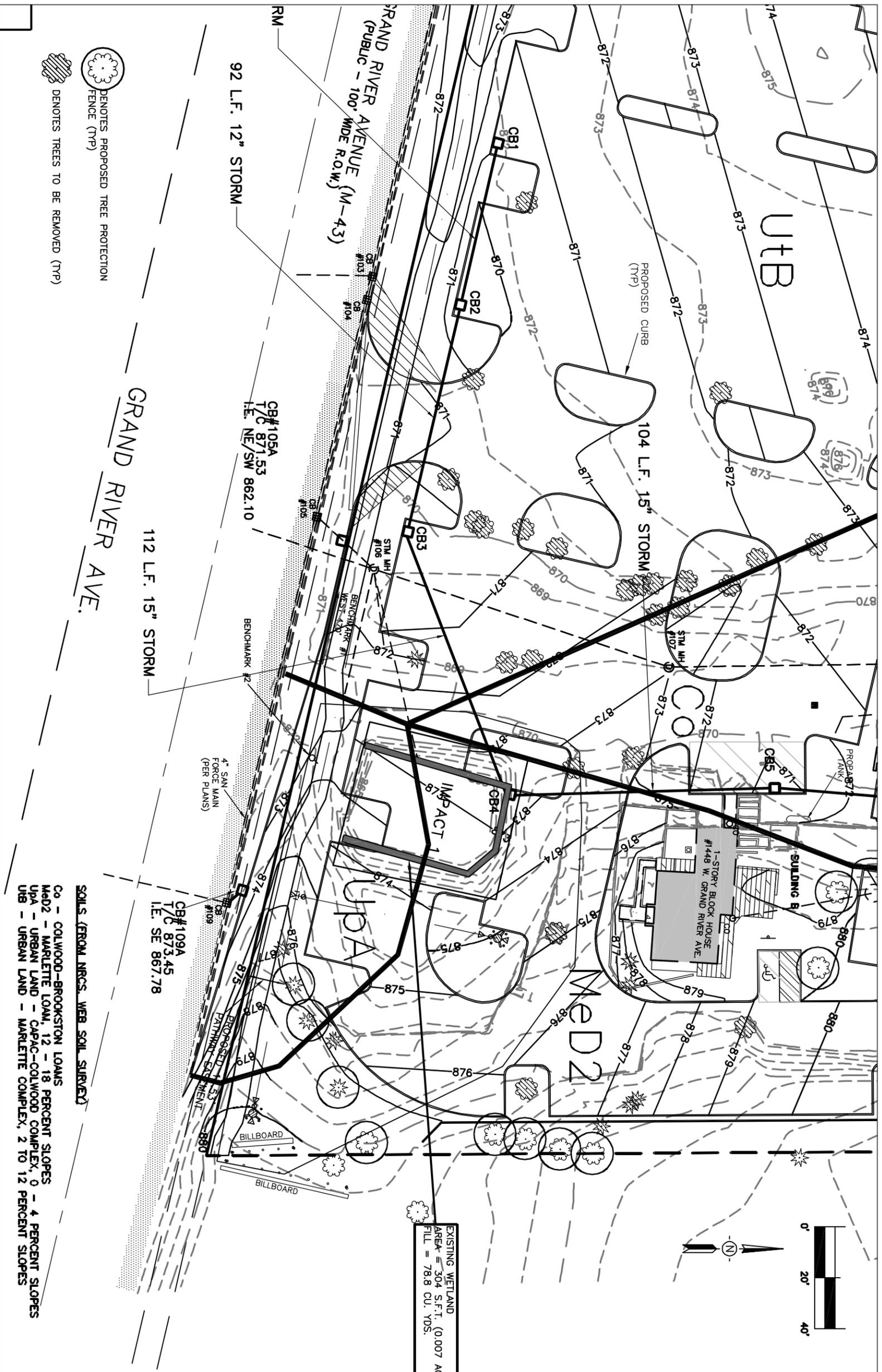
1448 GRAND RIVER AVE.
 LAFONTAINE CAR DEALERSHIP
 EXISTING CONDITIONS

AUTHORIZED BY:
 GARY LAUNDROACHE

JOB #:
 E-93897

SHEET 2 OF 7

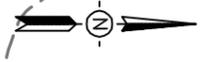
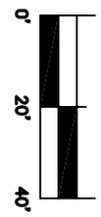
1448 GRAND RIVER AVE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



DENOTES PROPOSED TREE PROTECTION FENCE (TYP)
 DENOTES TREES TO BE REMOVED (TYP)

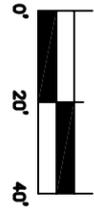
SOILS (FROM NRCS, WEB SOIL SURVEY)
 Co - COLWOOD-BROOKSTON LOAMS
 MeD2 - MARLETTE LOAM, 12 - 18 PERCENT SLOPES
 UpA - URBAN LAND - CAPAC-COLWOOD COMPLEX, 0 - 4 PERCENT SLOPES
 URB - URBAN LAND - MARLETTE COMPLEX, 2 TO 12 PERCENT SLOPES

EXISTING WETLAND
 AREA = 304 S.F.T. (0.007 ACRES)
 FILL = 78.8 CU. YDS.



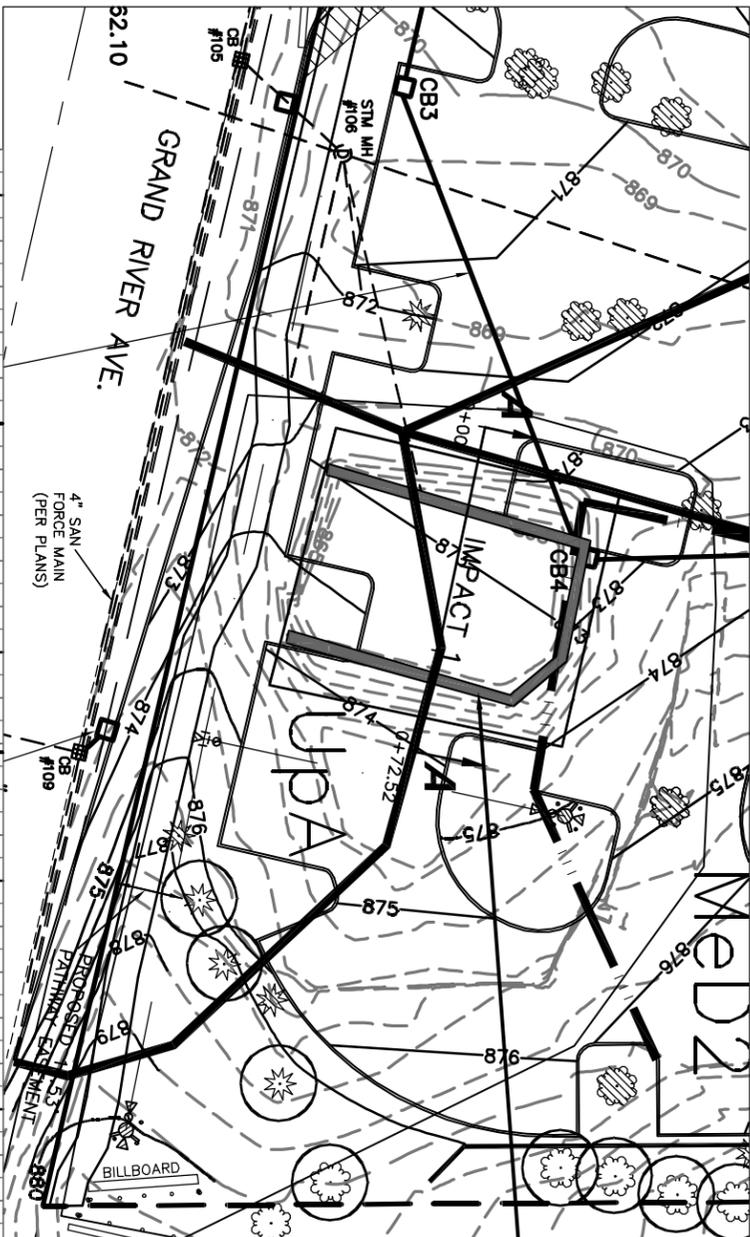
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|---------------------------------|--|---|-------------------|--------------|
| REVISIONS 01-11-19 SUBMITTAL | SCALE: SEE PLAN PROJECT MGR. K. KALMBACH | 1448 GRAND RIVER AVE. LAFONTAINE CAR DEALERSHIP SITE OVERVIEW | | SHEET 3 OF 7 |
| | APPROVED BY: J.W.K. | AUTHORIZED BY: GARY LAUNDROACHE | JOB #: E-93897 | |
| DRAWN BY: K.J.K. | DATE: 12-7-18 | | | |

KEBS, INC.
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1448 GRAND RIVER AVE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

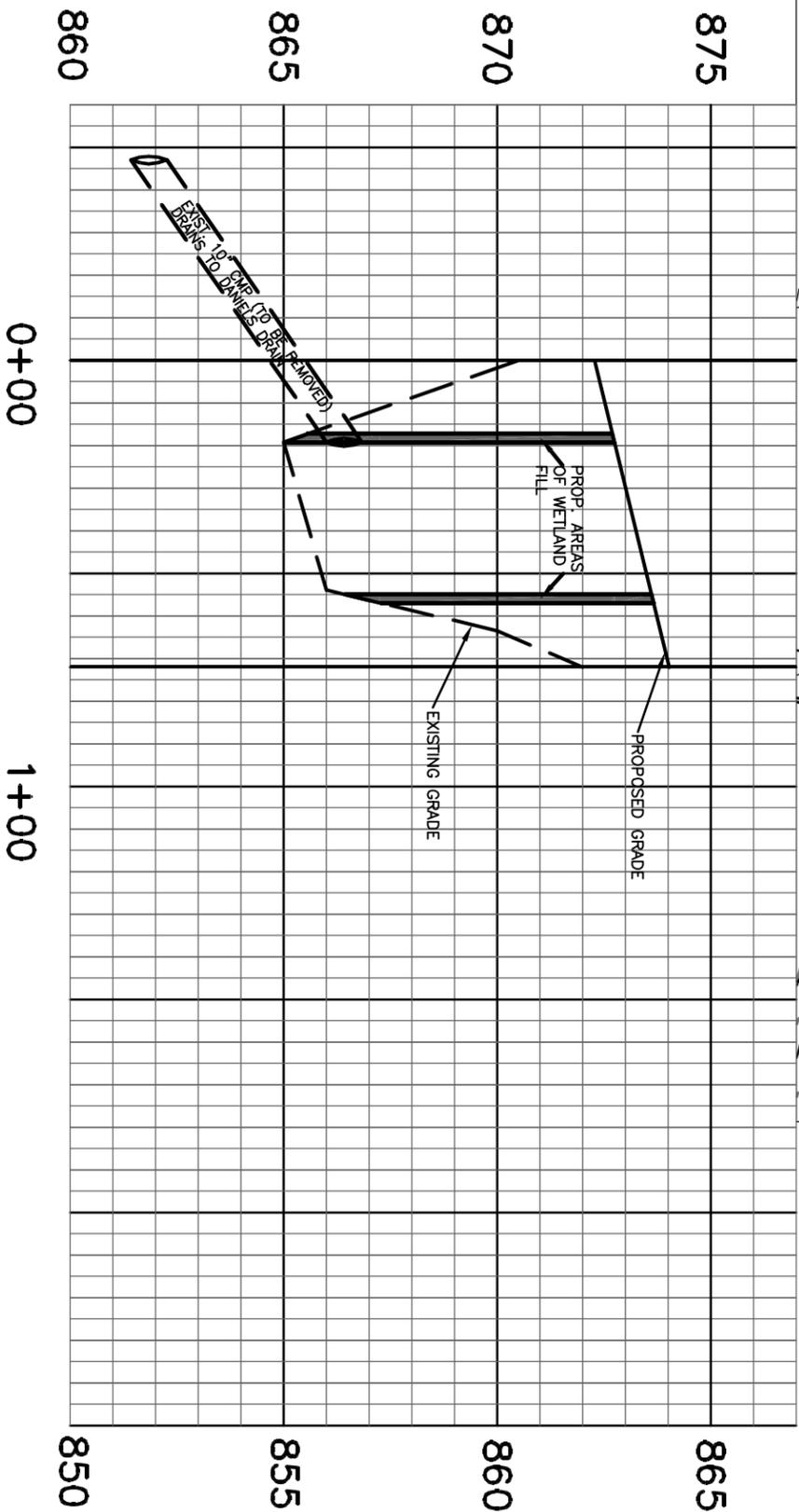
PLAN VIEW
 SCALE: 1" = 40'



EXISTING WETLAND
 AREA = 304 S.F.T. (0.007 ACRES)
 FILL = 78.8 CU. YDS.



PROFILE VIEW
 SCALE: HORIZ. 1" = 40'
 VERT. 1" = 4'



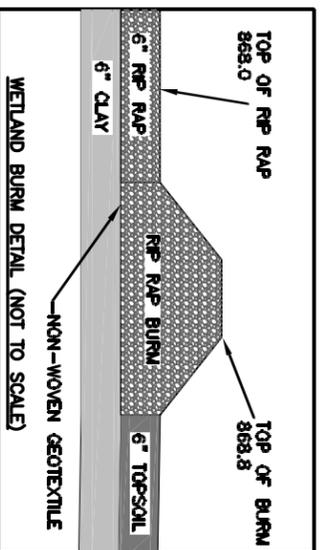
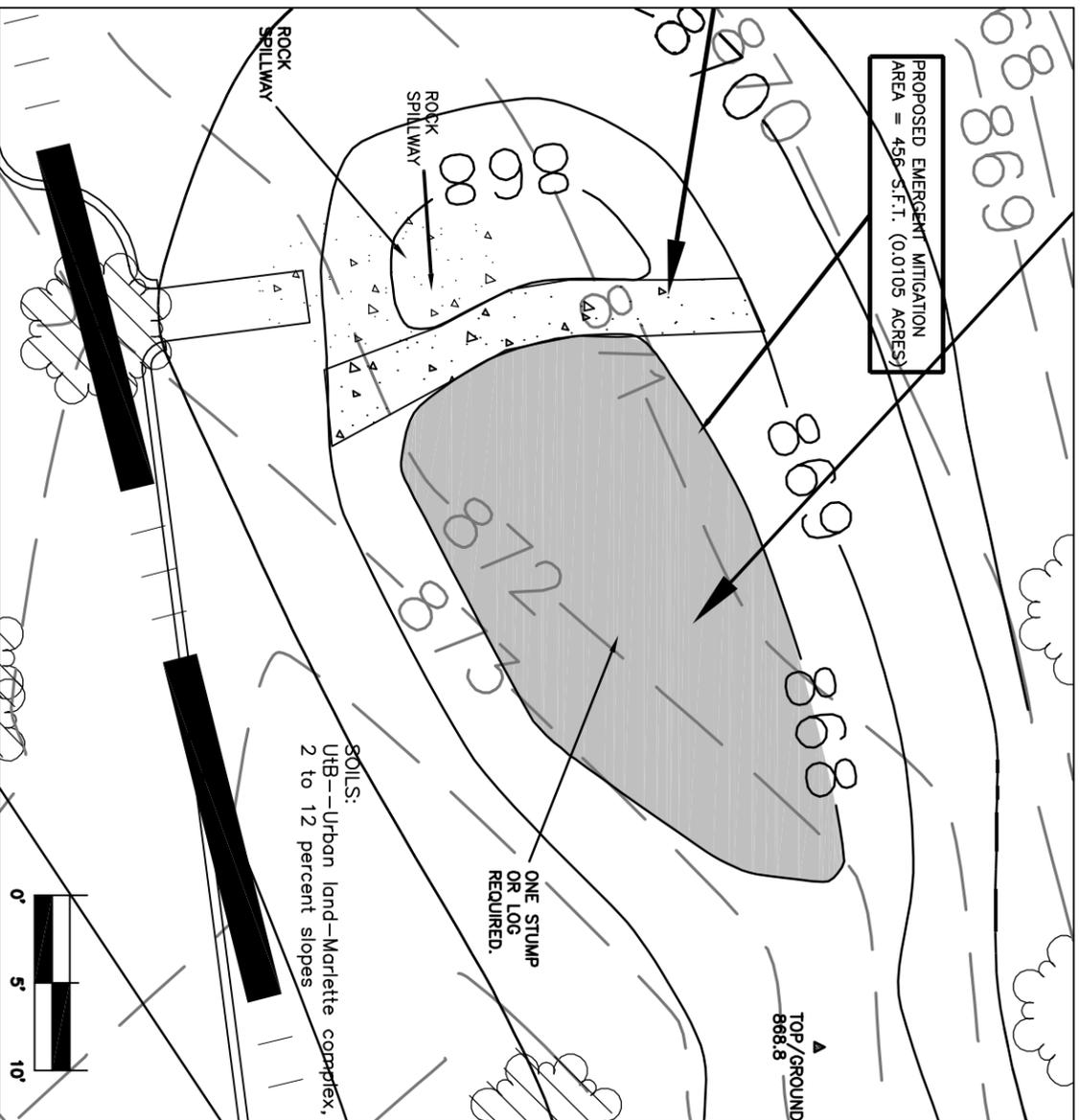
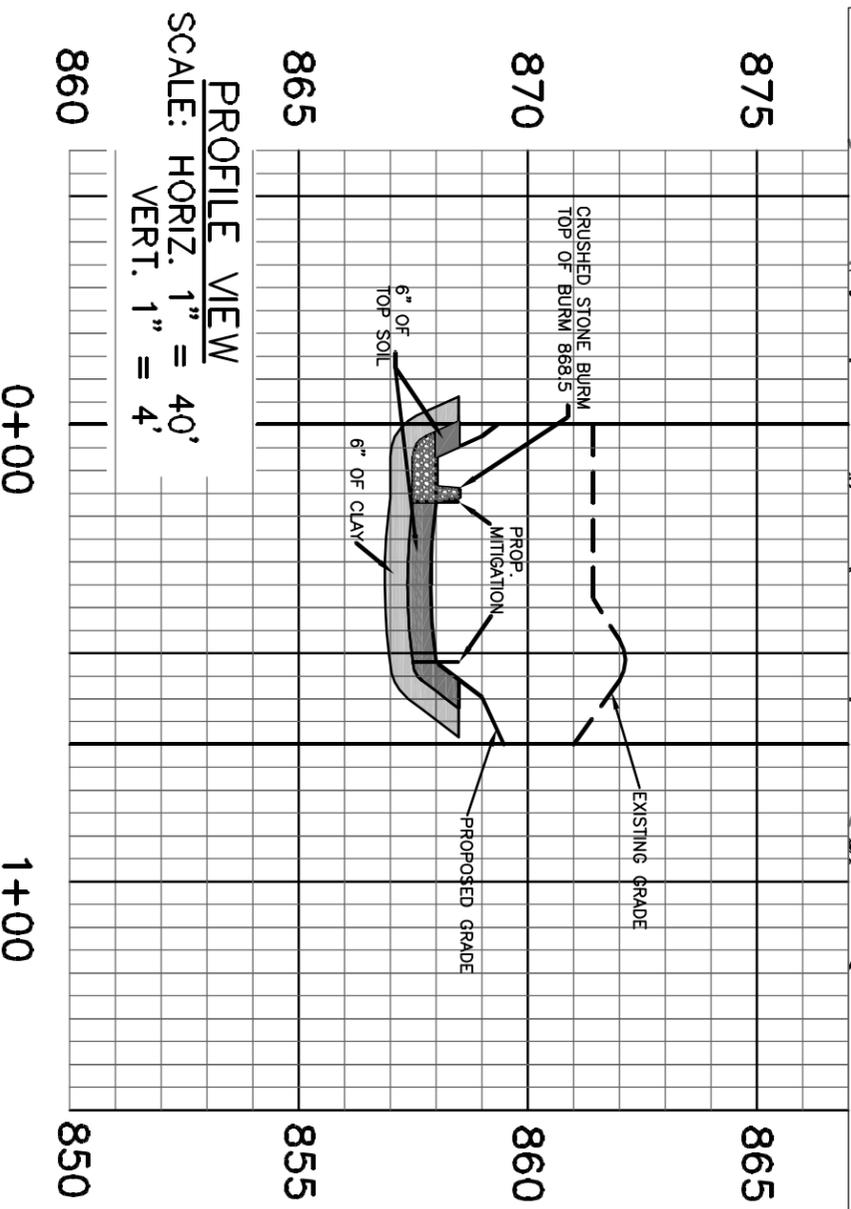
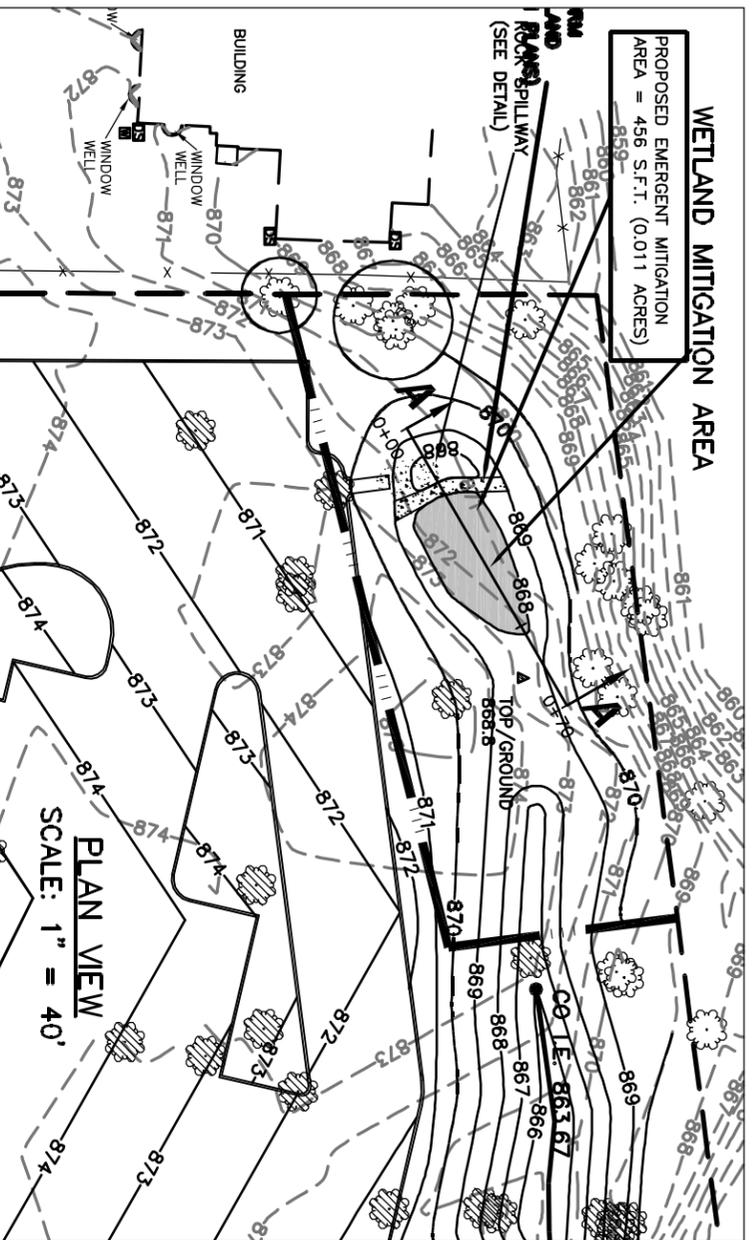
1448 GRAND RIVER AVE.
LAFONTAINE CAR DEALERSHIP
IMPACT 1

| | |
|--------------------|-----------------------------|
| REVISIONS | SCALE: SEE PLAN |
| 01-11-19 SUBMITTAL | PROJECT MGR. K. KALMBACH |
| | APPROVED BY: J.W.K. |
| | DRAWN BY: K.J.K. |
| | DATE: 12-7-18 |

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1448 GRAND RIVER AVE
 MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN



PROPOSED CONTRIBUTING DRAINAGE
 TOTAL = 25296 SFT = 0.58 ACRES
 PERMIOUS = 9,044 SFT = 36%, C = 0.65

ORIGINAL DRAINAGE TO WETLAND
 TOTAL = 18340 SFT = 0.42 ACRES
 GRAVEL = 4,132 SFT = .10 ACRES
 GRASS = 14,208 SFT = .32 ACRES, C = 0.27



| | | | | |
|---------------------------------|-----------------------------|--|------------------------------------|--------------|
| REVISIONS 01-11-19 SUBMITTAL | SCALE: SEE PLAN | 1448 GRAND RIVER AVE. LAFONTAINE CAR DEALERSHIP MITIGATION | | SHEET 5 OF 7 |
| | PROJECT MGR. K. KALMBACH | APPROVED BY: J.W.K. | AUTHORIZED BY: GARY LAUNDROACHE | |
| | DRAWN BY: K.J.K. | DATE: 12-7-18 | | |

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1448 GRAND RIVER AVE

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

Wetland Mitigation Plan

Wetland Use Permit Application - LaFontaine Automotive Group
 1448 W. Grand River Avenue
 Meridian Township, Ingham County, MI

These documents are being submitted in addition to those plans and documents already submitted to and under review by the Charter Township of Meridian (Meridian) in the above-referenced file.

Existing Conditions

A site location map, ownership information, and site development plans have been previously submitted with the application for permit. This previously submitted information, in addition to this mitigation plan is intended to provide the required detail to evaluate the existing conditions and proposed activity immediately surrounding the mitigation site.

The proposed wetland mitigation area is located adjacent to the proposed developed areas of the project. The propose wetland mitigation site is designed to receive overland flow and/or stormwater runoff for the purpose obtaining its hydrology from precipitation and runoff from the developed areas. The mitigation site begins at a crushed rock spillway (pre-treatment structure) from the parking lot associated with the constructed building. This mitigation site is designed so that in average conditions, the soil in the mitigation site would receive runoff from the developed/paved parking lot and be saturated with some standing water throughout much of the growing season to ensure suitable wetland hydrology for emergent wetland type.

Wetland Mitigation Goals and Objectives

In order to mitigate for unavoidable wetland impacts (0.007 acres; 304 square feet) applied for in the above-referenced application, a total of 0.011 acres (456 square feet) of newly created wetland area will be placed under a conservation easement as mitigation. The wetland mitigation area will be created as described below:

- A conservation easement consisting of newly created emergent wetland (0.011 acres) within the above-referenced project.

The newly created wetland area is designed to develop into emergent wetland to replace the values and functions of the impacted wetland/ponded. The mitigation area will be excavated down to an elevation 6 inches below the elevation of the existing adjacent on-site pond and brought back to that pond's grade with organic soils. Tree logs or trunks or other habitat structures can be added to the wetland mitigation area to replicate natural wetland conditions and provide micro-habitat structure to allow for a more diverse flora and fauna to develop in these areas.

Soils

A minimum of 6 inches of topsoil from the impacted areas or other on-site areas will be spread within the base of the newly excavated wetland mitigation area as shown on plans. Soils shall consist of mineral topsoil and be preapproved by wetland consultant or engineer.

The mitigation area will be excavated to a minimum depth of six (6) inches (or to a depth that matches the thickness of the existing topsoil), stockpiled on-site, and replaced onto the mitigation area bottom, which will have been over-excavated to a depth approximately 12 inches below the finished contour elevation. A six-inch layer of clay will line the bottom of the wetland mitigation area. Then the mitigation area will be topped with a six-inch layer of top-soil. The replacement of this local topsoil will ensure fertile soils with the natural seedbed and will likely allow spontaneous or volunteer plant growth from the adjacent wetland areas.

Hydrology

The wetlands receive their hydrology from precipitation and surface water runoff. The primary water supply for the mitigation area will be from stormwater collected in the development portion of the property. This stormwater will be collected and discharge through a crushed rock spillway, directly north of the parking lot, and south of the proposed mitigation area. This water will flow to the north, where it will drop into the lower elevation of the mitigation excavation and be discharged into the native vegetation of the mitigation area. The mitigation area will be designed relatively flat with some concavity and will be lined with a clay-rich layer in order to retain runoff or precipitation and maintain adequate wetland hydrology. Passing through crushed rock spillway should provide adequate treatment of the stormwater, removing the majority of any particulate matter or other substances that it might contain as it flows off parking areas prior to discharging into the mitigation area. It is anticipated that the mitigation area will probably experience similar water regimes as the proposed impact wetland throughout the growing season based on regional weather patterns.

Vegetation Establishment Plan

The mitigation area will be seeded with a wetland seed mix of including a variety of native wetland plants as shown in the wetland seed mix. The seed mix will be planted in accordance with procedures set forth by the seed supplier, and the site mulched to prevent erosion prior to establishment of the wetland flora.

Wildlife Habitat Structures
 Within all mitigation areas a minimum of 6 habitat structures, such as tree stumps, logs, etc., shall be placed per acre, or 1 structure for the 0.011-acre (456 sq ft) site. Below is a detailed description of acceptable habitat structures.

- a. Tree stumps laid horizontally in the created wetland area. Acceptable stumps shall be a minimum of 6 feet long (log and root ball combined) and 12 inches in diameter.
- b. Logs laid horizontally within the created wetland area. Acceptable logs shall be a minimum of 10 feet long and 6-inches in diameter, down to major branches for installation) and be a minimum of 20 feet long (tree and root ball combined) and a minimum of 12 inches in diameter at breast height (DBH).
- c. Whole trees laid horizontally within the wetland area. Acceptable whole trees shall have all of their fine structure left intact (i.e., not trimmed into the created wetland. A variety of tree species should be used for the creation of snag habitat. Acceptable snags shall be a minimum of 12 inches DBH. Snags should be grouped together so as to provide mutual functional support as resting, feeding, and perching sites.
- d. Sand mounds at least 18 inches in depth and places so that they are surrounded by a minimum of 30 feet water measuring at least 18 inches in depth. The sand mound shall have at least a 200 square foot area that is 18 inches above the projected high-water level and oriented to receive maximum amounts of sunlight.

Sequence of Construction and Schedule
 The following sequence of construction explains the methods of establishing the proposed wetland areas.

Mitigation Monitoring

The mitigation area will be monitored as required in the first full growing season after construction, planting and seeding to document the newly established vegetative community.

Monitoring Plan and Management Provisions

The Applicant will be responsible for contracting out monitoring of the wetland construction area for five years following the completion of construction of the wetland mitigation area. The monitoring of the wetland mitigation area will be conducted by a qualified wetland consultant. A complete assessment of the development for the wetland mitigation area will be made annually. The Applicant will provide Meridian with annual reports no later than December 30 of each year following the completion of construction. The reports will be provided to Mr. Mark Kesselbach, Charter Township of Meridian, 1515 Marsh Road, Okemos, MI 48864. Utilizing recognized and established scientific procedures, the annual monitoring report, at a minimum will include:

- a) A measure of the percent cover of wetland vegetation species (using USACE plant list of wetland plant species) versus upland plant species;
- b) A measure of vegetation diversity;
- c) A description of vegetative community structure;
- d) A description of wildlife community structure;
- e) A record and description of hydrologic development, including: Characterization of water regimes, measurement of water depths, periods and degree of inundation (flooding), saturation zones, water clarity, etc.
- f) A record of any oil, grease, man-made debris, and/or other contaminants.
- g) A written summary of wetland development will be provided and will compare data gathered in the current monitoring year with data of all previous monitoring years.
- h) A photographic history of new wetland construction work and development will be kept and submitted with the annual report. The photographic record will visually document all construction phases and shall be designed to also document wetland development through the five-year monitoring period.

Monitoring Performance Schedule

End of Year 1: Mitigation area vegetative cover of at least 20 % wetland indicator species (FAC or wetter). Approximately 60 % of the total original seeded area should be surviving.
 End of Year 2: Mitigation area vegetative cover of at least 50 % wetland indicator species (FAC or wetter). Approximately 70 % of the total original seeded area should be surviving.

End of Year 3-5: Mitigation area vegetative cover of at least 80 % wetland indicator species (FAC or wetter). Approximately 80 % of the total original seeded area should be surviving, established, and free-to-grow with a minimum of 8 native wetland species.

Should the wetland mitigation area fail to establish after five completed growing seasons, fail to satisfactorily progress to a self-sustaining wetland system as designed and/or the percent cover by invasive species, such as *Phragmites australis* (Common Reed), *Phalaris arundinacea* (Reed Canary Grass) and *Lytirum solitana* (Purple Loosestrife) is greater than 10 %, the Applicant will:

- a) Assess the problem and its probable causes;
- b) Develop reasonable and necessary corrective measures as a revision to the original plan;
- c) Make any reasonable modification deemed necessary by Meridian to assure success of the mitigation wetland development;
- d) Submit a copy of the proposed corrective measures to Meridian for review;
- e) Upon Meridian's approval, immediately implement the corrective measures.

**1448 GRAND RIVER AVE.
 LAFONTAINE CAR DEALERSHIP
 MITIGATION DETAILS**

**AUTHORIZED BY:
 GARY LAUNDROACHE**

**JOB #:
 E-93897**

**SCALE: SEE PLAN
 PROJECT MGR.
 K. KALMBACH
 APPROVED BY: J.W.K.
 DRAWN BY: K.J.K.
 DATE: 12-7-18**

**REVISIONS
 01-11-19 SUBMITTAL**

KEBS, INC.

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

**Marshall Office
 Ph. 269-781-9800**



1448 GRAND RIVER AVE

MERIDIAN TOWNSHIP, INGHAM COUNTY, MICHIGAN

| WETLAND MITIGATION SPECIES LIST | | | |
|---|-------------------------------|----------------|--------------|
| WETLAND MITIGATION SEE LIST SUMMARY | | | |
| SEED MIX | RATE (LBS/ACRES) | ACREAGE | REQUIRED LBS |
| EMERGENT WETLAND SEED MIX | 35.44 | 0.011 | 0.39 |
| Wetland Mitigation Plant List | | | |
| Emergent Wetland Vegetation | | | |
| Species | Oz/Acre | Indicator | |
| Permanent Grasses, Sedes, and Rushes | | | |
| Bristly Sedge | <i>Carex comosa</i> | 2 | OBL |
| Common Lake Sedge | <i>Carex lacustris</i> | 1.5 | OBL |
| Bottlebrush Sedge | <i>Carex lurida</i> | 4 | OBL |
| Spike Rush | <i>Eleocharis obtusa</i> | 3 | OBL |
| Common Rush | <i>Juncus effusus</i> | 4 | OBL |
| Rice Cut Grass | <i>Leersia oryzoides</i> | 3 | OBL |
| Hardstem Bulrush | <i>Schoenoplectus acutus</i> | 6 | OBL |
| Chairmakers Rush | <i>Scirpus pungens</i> | 6 | OBL |
| Softstem Bulrush | <i>Scirpus validus</i> | 8 | OBL |
| Temporary Cover | Total | 37.50 oz/acre | |
| Redtop | <i>Agrostis alba</i> | 4 | |
| Seed Oats | <i>Avena sativa</i> | 360 | |
| Annual Rye | <i>Lolium multiflorum</i> | 100 | |
| | Total | 464.00 oz/acre | |
| Forbs | | | |
| Sweet Flag | <i>Acorus calamus</i> | 3 | OBL |
| Swamp Milkweed | <i>Asclepias incarnata</i> | 2 | OBL |
| Water Plantain | <i>Alisma spp.</i> | 4 | OBL |
| Spotted Joe-Pye-Weed | <i>Eupatorium maculatum</i> | 1 | OBL |
| Rosemallow | <i>Hibiscus spp.</i> | 3 | OBL |
| Blue Flag Iris | <i>Iris virginica</i> | 4 | OBL |
| Cardinal Flower | <i>Lobelia cardinalis</i> | 1 | OBL |
| Great Blue Lobelia | <i>Lobelia siphilitica</i> | 1 | FACW |
| Monkey Flower | <i>Mimulus ringens</i> | 1 | OBL |
| Arrow Arum | <i>Peltandra virginica</i> | 12 | OBL |
| Pickeral Weed | <i>Pontederia cordata</i> | 8 | OBL |
| Broad-leaf Arrowhead | <i>Sagittaria latifolia</i> | 8 | OBL |
| Bur Reed | <i>Sporonitium eurycarpum</i> | 4 | OBL |
| Blue Vervain | <i>Verbena hastata</i> | 2 | FACW |
| | Total | 54 oz/acre | |

NOTES:
Seed mix to be broadcast over all wetland mitigation and enhancement areas. This is a similar seed mix found at Cardno Native Plant Nursery's Emergent Wetland (Standard Seed Mix). A total of approximately 0.40 pounds is needed for 40.11 acres of wetland mitigation.

General Notes
1. CONTRACTOR shall furnish all labor, materials, equipment, transportation, services and necessary appurtenant work required to complete work as shown on the Drawings and/or as specified herein.
All work shall comply with all applicable permits. In general, the work includes:

Construction
Clearing and grubbing; erosion control; earthwork; including native cobblestone rip rap and wetland and upland seeding.

1. Conduct site clearing operations to insure minimum interference with roads, streets, walks and other adjacent occupied or used facilities. Do not close or obstruct streets, walks, and other adjacent occupied or used facilities without permission from authorities having jurisdiction.
2. Limits of work are established on the Drawings and shall be verified with the Wetland Consultant prior to any construction activities. No vehicle activity shall occur outside the limit of construction area.
3. Contractor is responsible for procuring and complying with any additional permits that may be required by any governing agency for the completion of this project, including, but not limited to, soil erosion control permits and county drain permits.
4. Disposal of excess excavated soil material and materials not acceptable for use as fill shall be placed at an upland location on-site. Stockpiled excess material shall be graded and stabilized with seed to prevent erosion into any existing wetland or watercourse. Contractor shall not remove and/or fill excess soil material without prior approval of Wetland Consultant and Contractor shall submit cost to transport excess soil material to OWNER prior to removal.

Utilities
Locations of existing underground utilities are shown using the best information available, but with no guarantee that indicated locations are accurate or that lines other than those shown may or may not be present.

2. Contractor and those subcontractors affected by site conditions shall be fully responsible for any deductions or conclusions made on the basis of this information and that of any additional site inspections, if made.
3. "MISS DIG" shall be contacted by Contractor for location of underground utilities prior to start of work. It should be understood that MISS DIG will not locate private lines, only utility company lines and the Contractor will be responsible for verifying all locations.
4. Conflicts between utilities and proposed work shall be reported to Wetland Consultant prior to construction.

Layout
Contractor shall establish and maintain grades, benchmarks, and all other significant reference line or points including mitigation area lines and guaranteeing that adequate acreages are distributed to each wetland mitigation area as shown on the drawings. Layout of elevations and alignments shall be performed by a Licensed Surveyor. Wetland Consultant shall review the layout of all grades/contours and the acreage of the wetland mitigation areas prior to construction and after the establishment of sub-grades.

2. The Contractor shall designate a full-time Project Supervisor, who is authorized to act as his/her agent and to be responsible for all subcontractors. The Project Supervisor shall be designated by name prior to commencement of the work and shall be available for proper supervision of the project for the duration of the MDEQ permit and/or contract.

Sequence of Construction

1. Hold a pre-construction meeting with all parties involved. Examine the site to ascertain the state and conditions under which the work is to be done and review conditions of all applicable permits.
2. Install erosion control measures and tree protection to the limits shown on the wetland mitigation and civil engineering drawings.
3. Clear and grub woody vegetation within the limits of the wetland mitigation areas.
4. Survey and stake proposed layout for site construction. Wetland Consultant to review contour staking for excavators and fills and review the staking for the mitigation area.
5. Excavate and fill within the limits of work to the required sub-grade elevations.
6. Survey and stake site for sub-grade elevations and mitigation area. Wetland Consultant to review and approve the created area of mitigation prior to the placement of topsoil. Any adjustments to the acreage of mitigation shall be decided at this time.
7. Remove any water which may have accumulated in the mitigation areas to prevent soil changes detrimental to the stability of the sub-grade.
8. Place and compact clay layer. See cross section on Sheet 5 for extent.
9. Place and spread topsoil. Finished grades in wetland mitigation and restoration areas are subject to written approval from the Wetland Consultant.
10. Immediately following fire grading, the Wetland Consultant and Contractor shall meet on-site to jointly examine current site conditions under which the work is to be completed.
11. Stake limits of seeding and provide submittals to Wetland Consultant prior to seed placement. Wetland Consultant to approve seed mix and limits of seeding.
12. Seed the wetland mitigation area and any disturbed upland areas.
13. Provide straw mulch over seeding areas and apply erosion control blanket on slopes adjacent to existing wetland and wetland mitigation areas.
14. Contractor to provide as-built drawings to the Wetland Consultant and/or Owner.
15. Meet with Wetland Consultant to review the newly created mitigation efforts and obtain a copy of the as-built drawings.
16. Remove tree protection and soil erosion control measures if approved by Wetland Consultant and provide site clean-up.

Grading Specifications

General Notes

1. Upon issuance, all work shall comply with MDEQ Permit and other issued permits.
2. The contractor is responsible for supplying all materials, labor, equipment, transportation, all services incidental to clearing, grading, seeding, soil stabilization, and clean up of the mitigation areas.
3. Erosion controls are to be installed to the limits indicated on the plan and to the detail provided. Any damage to the existing wetland's not indicated on the plans shall be repaired immediately, with these areas being restored to their original character at the contractor's own expense. All pre-erosion control measures shall be removed after final acceptance of work, unless suggested by the Wetland Consultant to remain in place. Care shall be taken during removal to minimize the loss of the accumulated sediment. If necessary, all silt and sedimentation is to be immediately removed from adjacent wetland or water courses.
4. All trash and debris shall be removed from the site and legally disposed of upon completion of grading activities. Repair to their original character areas outside the work limits damaged by operating under the contract. Repair shall include finish grading and seeding as required to match existing grade and conditions, and maintenance of repaired areas.

**1448 GRAND RIVER AVE.
LAFONTAINE CAR DEALERSHIP
MITIGATION DETAILS**

**AUTHORIZED BY:
GARY LAUNDROACHE**

**JOB #:
E-93897**

SCALE: SEE PLAN
PROJECT MGR.
K. KALMBACH
APPROVED BY: J.W.K.
DRAWN BY: K.J.K.
DATE: 12-7-18

REVISIONS
01-11-19 SUBMITTAL

KEBS, INC.

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

Marshall Office
Ph. 269-781-9800





February 11, 2019
Project No. 190210

Mr. Mark Kieselbach
Charter Township of Meridian
5151 Marsh Road
Okemos, MI 48864

Re: Wetland Use Permit (WUP) #19-01 Application Review
Lafontaine Automotive
1448, 1476, 1478, and 1492 West Grand River Avenue, Okemos, Ingham County, Michigan

Dear Mr. Kieselbach:

LaFontaine Automotive Group (the Applicant) is requesting to impact 456 square feet (0.011 acre) of emergent wetland regulated by the Township of Meridian (Township). The wetland impact would result from construction of a new car dealership at the following four contiguous parcels (the Site):

- 1448 West Grand River Avenue, Parcel Number 33-02-02-23-301-007, 2.40 acres of residential property
- 1476 West Grand River Avenue, Parcel Number 33-02-02-23-301-010, 1.34 acres of commercial property
- 1478 West Grand River Avenue, Parcel Number 33-02-02-23-301-011, 1.51 acres of vacant commercial property
- 1492 West Grand River Avenue, Parcel Number 33-02-02-23-301-004, 0.61 acre of commercial property

The emergent wetland is located along the edge of a manmade water feature located on the easternmost parcel.

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

- A Joint Permit Application (JPA), dated December 14, 2018, prepared by the Applicant;
- *Meridian Wetland Use Permit Application & Wetland Mitigation Plan Summary Report for the 1448 W. Grand River Avenue (Report)*, dated January 10, 2019, prepared by Marx Wetlands LLC (Marx).

This report provides a brief description of the resources that would be impacted by the proposed work, evaluates WUP Application #19-01 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 Site is located on the north side of West Grand River Drive in Section 23, Town 4 North, Range 1 West, Ingham County, Michigan. It consists of residential, commercial, and undeveloped property. The eastern parcel contains a manmade water feature with approximately 0.05-acre of open water. The south side of the water feature has a wood retaining wall. The remaining sides of the water feature consist of banks four to six feet high, with approximately 1:1 (Vertical:Horizontal) slopes covered in rock three to four inches in diameter. Emergent wetland approximately two feet wide is present along the edge of water on these three sides of the water feature. The length of the wetland fringe is approximately 152 feet. The wetland is located within 500 feet of an approximately 2.4-acre pond (south of West Grand River Drive) and is therefore regulated by both the Township and the State of Michigan.

The Applicant has submitted a WUP application to the Township requesting the following:

- Place 78.8 cubic feet of fill in 304 square feet (0.007 acre) of emergent wetland, due to filling of a manmade water feature.
- Construct a 456 square-foot (0.011 acre) emergent mitigation wetland at the northwest end of the Site.

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.*

- The JPA stated the project will provide affordable cars for the rapidly growing and developing community of Meridian Township. No other information regarding the relative extent of the public and private need for the proposed commercial development was provided.

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

- The WUP application stated the Applicant evaluated several sites for the project. All the sites, except for the proposed site, failed to meet necessary business needs. The Site is located within close proximity (within five miles or less) of three main thoroughfares, and therefore would provide convenient site access and visibility for prospective car buyers. The Site can also be developed with minimal wetland constraints and impacts.
- The WUP application stated that alternative layouts for the proposed project design were evaluated. The proposed layout was selected because it is economically feasible considering the Site's geometric constraints, specific site and project requirements, building requirements and setbacks, visibility and accessibility, safety and existing natural features.
- Filling of the manmade water feature was deemed essential to provide sufficient parking spaces to accommodate the new car dealership.
- The manmade water feature was deemed a public safety hazard, due to extremely steep, rocky side slopes and a high retaining wall. Its removal is necessary to protect the Applicant from liability issues.

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 Site is well suited for use as a car dealership. It is located along a commercial corridor and is currently underutilized for commercial endeavors.
- The impacted wetland is very small and of poor quality. Due to its narrow width and poor floristic quality, the impacted wetland provides very limited wetland functions and values.

- The proposed project will result in permanent loss of 304 square feet of wetland. This loss will be compensated by construction of a 456 square foot mitigation wetland on the Site. The mitigation wetland will likely be of higher quality than the wetland impacted by this project.

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.

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.*

- The manmade water feature presents a public hazard due to its steep, rocky side slopes and high retaining wall. Filling the manmade water feature and associated wetland fringe eliminates this hazard.
- The impacted wetlands are fragmented and of poor quality. The proposed mitigation wetland will likely be of higher quality and ecological value.
- No other impacts on recognized historic, cultural, scenic, ecological or recreational values are apparent for the proposed activities. In addition, no impacts on fish or wildlife are apparent.

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

- The question of economic value associated with the proposed activity is beyond the scope of the issues FTCH was retained to address. Accordingly, FTCH offers no opinion, recommendations, or advice with respect to this criterium.

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

- The proposed activities will result in placement of 78.8 cubic yards of fill in 304 square feet of wetland. The impacted wetland is of low quality.

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.*

- The Township wetland map for Section 23 indicates Township Wetland 23-2A, a 41.78-acre, emergent wetland, is located directly north of the Site. This wetland is associated with the Unruh Drain, a designated county drain. Township Wetland 23-20, a 4.82-acre emergent and open water wetland, is located directly south of the Site.
- The Ingham County Drain Commissioner *Preliminary Meridian Township Southeast Drain Map* confirms Township Wetland 23-20 is associated with the Daniels Drain, which flows north through Township Wetland 23-20 into a pipe under Grand River Avenue to the Unruh Drain. The pipe is located under the Site.

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

- The approximately 2.4-acre pond associated with Township Wetland 23-20 is located approximately 245 feet southwest of the manmade water feature and associated wetland.



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

- The wetland fringe in the manmade water feature is protected from erosion by riprap rock on the banks of the basin. The mitigation plan details (Sheet 7 of 7 provided in the WUP application) indicate erosion control measures will be implemented in accordance with the wetland mitigation and civil engineering drawings. Straw mulch will be placed over seeded areas in the mitigation wetland and erosion control blanket will be placed on slopes adjacent to the existing wetland and wetland mitigation area.

Recommendations

Section 22-158(6) of the Township ordinance states “wetland mitigation plans that create less than two-acre wetlands shall meet one of the conditions listed subsection 22-156(a).” Of the listed conditions, the proposed mitigation wetland provides the following functions and values: flood and stormwater control, wildlife habitat, and erosion control.

Based upon our review of the submitted materials, FTCH recommends the Township approve a WUP for the proposed project and wetland mitigation plan, with the following conditions and modifications:

- Mitigate wetland impacts at a ratio of 1.5:1, constructing an emergent wetland at the northwest end of the Site in accordance with the proposed mitigation plan. The minimum size of the mitigation wetland will be 456 square-feet.
- The rock spillway, as proposed, does not provide pretreatment of stormwater entering the mitigation wetland. Provide a construction detail of the rock spillway that includes a depression and overflow berm with spot elevations of the bottom of the depression and the top of berm.
- On Sheet 5 of 7, indicate a spot elevation at the point the mitigation wetland will overflow to the swale to the east. This elevation significantly influences wetland hydrology by controlling the depth of standing water in the mitigation wetland, and therefore must be clearly noted on construction documents.
- The six-inches of topsoil placed in the mitigation wetland shall consist of mineral topsoil (not soil primarily composed of organic matter, such as muck).
- Six inches of clay shall be placed under the topsoil within the mitigation wetland. Note the placement of clay between items 7 and 8 in the Sequence of Construction in Kebs, Inc.’s Mitigation Details (Sheet 7 of 7). Note the clay layer in the mitigation wetland cross-section on Sheet 5 of 7. Extend the clay layer up the side slopes to an elevation that corresponds to the top of the mitigation wetland overflow. Note the extent of clay placement on the mitigation plan design detail (Sheet 5 of 7).
- Install one habitat structure in the mitigation wetland (either a tree stump or log). Delete whole trees, snags and sand mounds as acceptable habitat structures from Kebs, Inc.’s Wetland Mitigation Plan, Sheet 6 of 7 (Mitigation Details).
- The mitigation wetland shall be monitored for a period of five years, starting in the first full growing season after construction. Therefore, if construction is finalized after June 1, a monitoring report will not be required until the following year.
- The mitigation wetland must meet the following performance standards at the end of five full growing seasons:
 - 80% cover of native, wetland species comprised of at least 8 species
 - Less than 10% cover of invasive species, as noted in the mitigation plan.
- **The Township must approve revised mitigation wetland plans before final approval of WUP #19-01.**

Mr. Mark Kieselbach
Page 5
February 11, 2019

The logo for Fishbeck, Thompson, Carr & Huber, Inc. (ftch) is located in the top right corner. It consists of the lowercase letters "ftch" in a white, serif font, set against a dark blue square background.

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, reading "Elise Hansen Tripp". The signature is written in a cursive, flowing style.

Elise Hansen Tripp, PWS

pmb

By email

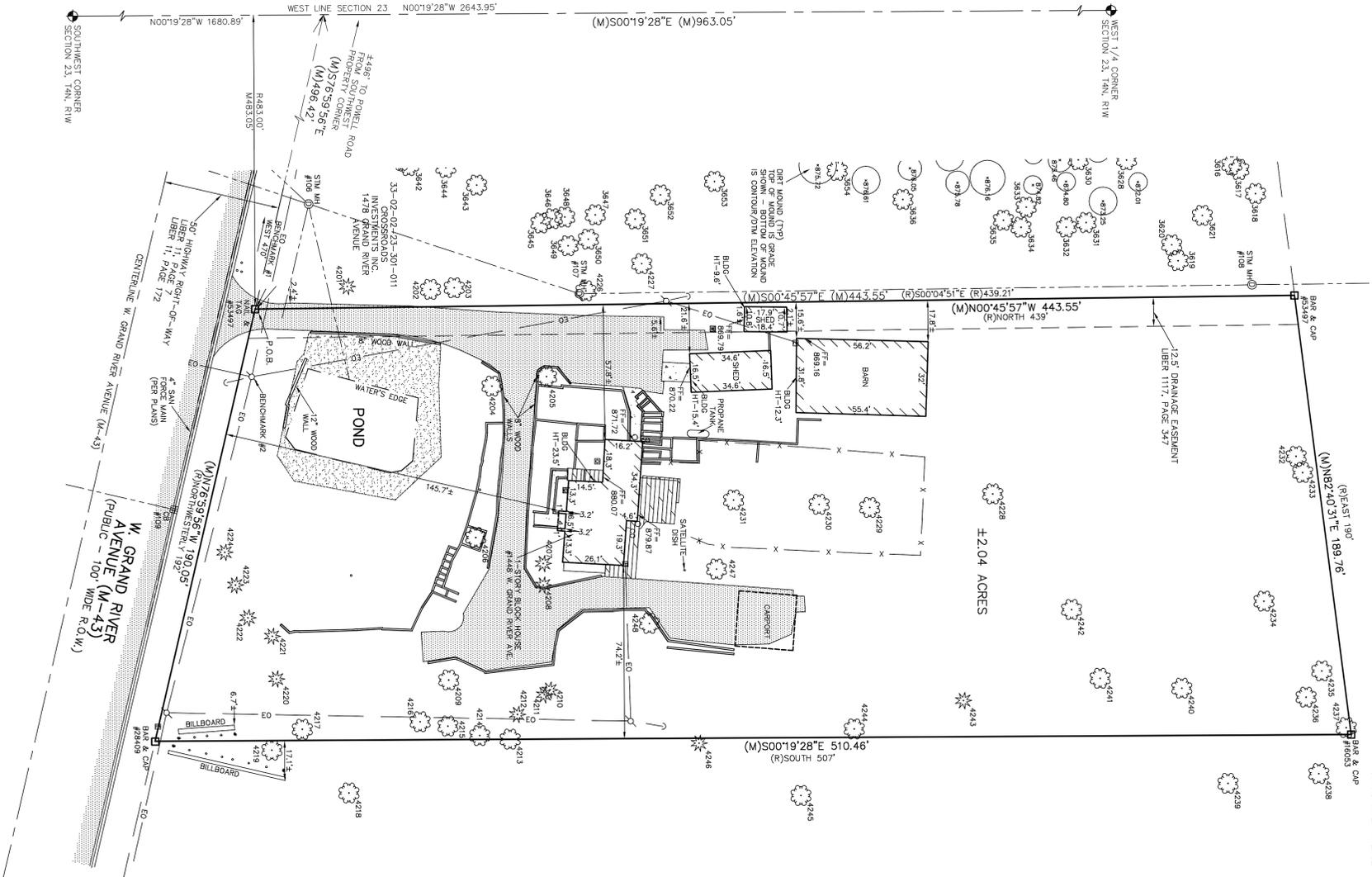
cc: Mr. Peter Menser – Township

ALTA/NSPS LAND TITLE SURVEY

"1448 W. GRAND RIVER AVENUE, OKEMOS, MI 48864"

33-02-02-23-301-012
PENNA. CALESTANO
GRAND RIVER AVENUE

33-02-02-23-301-012
PENNA. CALESTANO
GRAND RIVER AVENUE



BENCHMARKS

- BENCHMARK #1 ELEV. = 875.46
(NAVD88)
NORTHEAST FLANGE BOLT UNDER "E"
IN "E" FIRE HYDRANT, NORTHEAST
QUADRANT OF GRAND RIVER AVENUE &
POWELL ROAD.
BENCHMARK #2 ELEV. = 872.97
(NAVD88)
PK. NAIL, SOUTH SIDE UTILITY POLE, 20'
EAST OF EAST EDGE OF ASPHALT
DRIVE TO #1448 GRAND RIVER AVENUE,
17.5' NORTH OF BACK OF CURB OF
GRAND RIVER AVENUE.

SEWER INVENTORIES

- STORM MANHOLE #106
RM ELEV. = 869.99
24" RCP N INV. = 853.47
10" CMP NE INV. = 861.43
24" RCP E INV. = 861.94
24" RCP S INV. = 853.53
24" RCP SW INV. = 861.41
STORM MANHOLE #107
RM ELEV. = 868.98
24" RCP N INV. = 853.66
24" RCP S INV. = 853.66

STORM MANHOLE #108

- RM ELEV. = 862.94
24" RCP N INV. = 853.23
24" RCP S INV. = 853.25

CATCH BASIN #109

- RM ELEV. = 873.20
15" RCP E INV. = 867.21
12" RCP S INV. = 867.48
15" RCP W INV. = 867.21
SUMP ELEV. = 865.70

SURVEYOR'S NOTES:

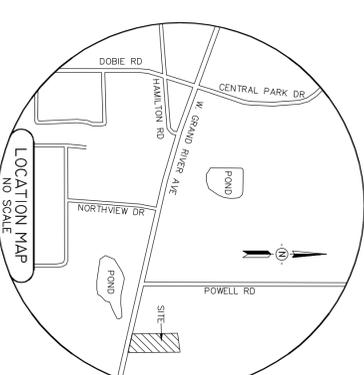
- This plan was made at the direction of the parties named herein and is intended solely for their immediate use. Survey prepared from fieldwork performed in June 2018.
- All bearings and distances on the survey are record and measured unless otherwise noted. All bearings are Michigan State Plane South Zone grid bearings obtained from GPS observations using corrections obtained from the Lansing CORS.
- All dimensions are in feet and decimals thereof.
- All elevations are North American Vertical Datum of 1988 (NAVD88).
- No building dimensions are to be used for establishing the property lines.
- There are no observable potential encroachments onto the subject property from adjoining lands, or from the subject property onto adjoining lands, except as shown herein.
- Force has direct access to public Grand River Avenue.
- Labels for all trees shown are per tag numbers identified by Marx Wetlands, LLC as marked on June 26, 2018.
- Utility information as shown was obtained from available public records and from supporting field observations, where possible, and is subject to verification in the field by the appropriate authorities prior to use for construction. MISS DIG was not contacted to mark utilities on site.
- Utility information as shown was obtained from available public records and from supporting field observations, where possible, and is subject to verification in the field by the appropriate authorities prior to use for construction. MISS DIG was not contacted to mark utilities on site.

ALTA/NSPS LAND TITLE SURVEY - TABLE "A" REQUIREMENTS:

- Item 1: Shown on the survey map.
Item 2: Address of the surveyed property, 1448 Grand River Avenue, Okemos, MI 48864.
Item 3: By scaled map location and graphic plotting only, this property lies entirely within Flood Zone "X", areas outside the 0.2% annual chance floodplain, according to the National Flood Insurance Program, Flood Insurance Rate Map for the Charter Township of Meridian, Ingham County, Michigan, Community Panel No. 260093 0159 D, dated August 16, 2011.
Item 4: 2.04 Acres (89,008 square feet)
Item 5: Shown on the survey map.
Item 6a: Setback information was not provided by the insurer as required.
Item 7a: Shown on the survey map.
Item 7b: Shown on the survey map.
Item 7c: Shown on the survey map.
Item 8: Shown on the survey map.
Item 9: Parking:
Regular Parking Spaces: 0
Disabled Parking Spaces: 0
Total on-site Parking Spaces: 0
Item 10a: There are no party walls on-site.
Item 13: Information for adjoining properties is shown on the survey map per online Geographic Information System mapping for Ingham County and is subject to verification by the appropriate authorities.
Item 14: Shown on the survey map.
Item 16: There is no observable evidence of earth moving work, building construction, or building additions within recent months.
Item 17: There is no observable evidence of proposed changes in street right of way lines, or recent street or sidewalk construction or repairs.
Item 18: A wetland delineation was completed by Marx Wetlands, LLC, on June 28, 2018. No wetlands were determined to be within the property boundaries.
Item 19: Adjacent road right-of-way location abouting property is shown. There were no other easements or rights-of-way per documents provided by client or observed while conducting the field survey.
Item 20: Kebs, Inc. carries Professional Liability Insurance.

LEGEND

- = SET 1/2" BAR WITH CAP
- = FOUND IRON AS NOTED
- = DEED LINE
- = DISTANCE NOT TO SCALE
- = FENCE
- = ASPHALT
- = CONCRETE
- = GRAVEL
- = DECK
- = EXISTING SPOT ELEVATION
- = EXISTING CONTOUR ELEVATION
- = BUILDING OVERHANG
- = STORM SEWER
- = OVERHEAD WIRES
- = DECIDUOUS TREE
- = CONIFEROUS TREE
- ⊙ = DRAINAGE MANHOLE
- ⊕ = CATCHBASIN
- ⊖ = FIRE HYDRANT
- ⊘ = VALVE
- ⊙ = UTILITY POLE
- ⊙ = LIGHT POLE
- ⊙ = GUY WIRE
- ⊙ = UTILITY PEDESTAL
- ⊙ = ELECTRIC METER
- ⊙ = GAS METER
- ⊙ = WELL
- ⊙ = MONITORING WELL
- ⊙ = SIGN
- ⊙ = POST
- ⊙ = AIR CONDITIONING UNIT
- ⊙ = DOWNSPOUT
- ⊙ = GROUND LIGHT



LEGAL DESCRIPTION:

(As provided by Stewart Title Guaranty Company, Commitment No. 18000350088, dated June 21, 2018)
That part of the West 1/4 of the Southwest 1/4 of Section 23, Town 4 North, Range 1 West, Meridian Township, lying North of M-43 (formerly highway US-16) described as beginning on the North line of said M-43 at a point 483 feet due East of the West line of Section 23; thence North 439 feet; thence East 190 feet to a fence; thence South along said fence 507 feet to the North line of M-43; and thence Northwesterly 192 feet to the POINT OF BEGINNING.

AS SURVEYED:

(The following legal description describes the same parcel of land as the provided description)
A parcel of land in the Southwest 1/4 of Section 23, T4N, R1W, Meridian Township, Ingham County, Michigan, the surveyed boundary of said parcel described as: Commencing at the West 1/4 corner of said Section, thence S00°19'28"E along the West line of said Section 23 a distance of 576.5956 feet; thence N00°04'57"W 443.55 feet to the point of beginning; thence along N00°04'57"W 443.55 feet; thence N87°40'31"E 189.76 feet; thence S00°19'28"E 510.46 feet to said North-south line; thence N76°59'56"W along said North-south line 190.05 feet to the point of beginning; said parcel containing 2.04 acres more or less; said parcel subject to all easements and restrictions if any.

SCHEDULE B - SECTION II, EXCEPTIONS:

- (As provided by Stewart Title Guaranty Company, Commitment No. 18000350088, dated June 21, 2018)
Item 12: Drain Easement as recorded in Liber 1117, Page 347, crosses parcel, is platable and shown herein.
Item 13: Right-of-way as recorded in Liber 50, Page 379, crosses parcel; no exact location is described therefore it is not platable and not shown herein.
Item 14: Right-of-way as recorded in Miscellaneous Records 11, Page 172, abuts parcel, is platable and shown herein.
Item 15: Right-of-way as recorded in Miscellaneous Records 11, Page 138, does not cross or abut parcel, therefore not shown herein.
Item 16: Right-of-way as recorded in Miscellaneous Records 11, Page 7, abuts parcel, is platable and shown herein.

CERTIFICATION:

To EVA WEXON, LLC, Stewart Title Guaranty Company, and AMERICREDIT FINANCIAL SERVICES, INC., doing business as OM FINANCIAL, and to any of their affiliates, successors, and assigns:
This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2016 "Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys," jointly established and adopted by ALTA and NSPS, and includes Items 1, 2, 3, 4, 5, 6a, 7a, 7b1, 7c, 8, 9, 10a, 13, 14, 16, 17, 18 and 19 of Table A thereof. The fieldwork was completed on June 26, 2018.

Erick R. Friestrom Date of Plot or Map:
Professional Surveyor No. 53497
erfriestrom@kebs.com

| REVISIONS | COMMENTS | DATE | BY | JOB NUMBER |
|------------|--------------|------|----|------------|
| 08/03/2018 | PRELIMINARY | | | |
| 08/06/2018 | REVISION | | | |
| 08/07/2018 | PRELIMINARY | | | |
| 08/07/2018 | SECOND FINAL | | | |

| | | | |
|---|-------|--|--------------|
| DRAWN BY | SSF | SECTION | 23, T4N, R1W |
| FIELD WORK BY | SL/RR | SHEET | 6C OF 6 |
| KEBS, INC. 218 HASLETT ROAD, HASLETT, MI 48840 PH: 517-538-4444 FAX: 517-538-8047 WWW.KEBS.COM Metrolith Office - Ph: 289-781-9800 | | ENGINEERING AND LAND SURVEYING 23, T4N, R1W 93897/ALT | |