CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION AGENDA
Wednesday, July 17, 2013
Town Hall Room
Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864

WorkSession

1. Call the work session to order at 6:30 p.m.
2. Approval of the work session agenda
3. Review of the minutes of the June 5, 2013 work session/regular meeting
4. Public remarks
5. Adjournment

Regular Meeting

1. Call the regular meeting to order at 7:00 p.m.
2. Approval of the regular meeting agenda
3. Approval of the minutes of the June 5, 2013, work session/regular meeting
4. Public remarks
5. Chair's Report
6. Communications/staff report
    a. Smart Commute 2013 results
7. Other Business
    a. WUP #13-01/SUP #13091 (Ingham County)
    b. Green Theme speakers for the Fall
8. Study groups/liaison reports
9. Public remarks
10. Adjournment

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CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION MINUTES
Meridian Municipal Building
5151 Marsh Road, Okemos, MI 48864-1198
June 5, 2013 - draft

WORK SESSION

PRESENT: Vice-Chair Thomas and Commissioners Donahue, Scherbarth, Searl, and Moran (6:40 p.m.)

ABSENT: Chair Jackson, Commissioner Kielbaso and Student Commissioners Stanley and Martell

STAFF PRESENT: Richard F. Brown, Jr., AICP, Associate Planner

OTHERS PRESENT: Tony Bauer

1. **CALL WORK SESSION TO ORDER**

   Vice-Chair Thomas called the meeting to order at 6:31 p.m.

2. **APPROVAL OF THE WORK SESSION AGENDA**

   The Work Session agenda was approved without objection.

3. **REVIEW OF THE MINUTES OF THE MAY 1, 2013 WORK SESSION AND REGULAR MEETING**

   Minor corrections were noted.

4. **PUBLIC REMARKS**

   Tony Bauer noted concerns about the raising and keeping of animals at the home located at the northwest corner of Hawthorne and Mt. Hope. General discussion on the topic between the Commission and Mr. Bauer.

5. **ADJOURNMENT**

   Work session adjourned without objection at 7:00 p.m.

CHARTER TOWNSHIP OF MERIDIAN
ENVIRONMENTAL COMMISSION MINUTES
Meridian Municipal Building
June 5, 2013 - draft

REGULAR MEETING

PRESENT: Vice-Chair Thomas and Commissioners Donahue, Moran, Scherbarth, Searl, and Kielbaso (7:14 p.m.)

ABSENT: Chair Jackson and Student Commissioners Martell and Stanley

STAFF PRESENT: Richard F. Brown, Jr., AICP, CBSP Associate Planner

OTHERS PRESENT: None

1. CALL REGULAR MEETING TO ORDER

Vice-Chair Thomas called the meeting to order at 7:02 p.m.

2. APPROVAL OF THE REGULAR MEETING AGENDA

- **MOTION** by Commissioner Scherbarth to approve the agenda. Supported by Commissioner Donahue. Approved 5-0.

3. REVIEW AND APPROVAL OF THE MAY 1, 2013 WORK SESSION AND REGULAR MEETING MINUTES

- **MOTION** by Commissioner Searl to approve the minutes with corrections. Supported by Commissioner Moran. Approved 5-0.

4. PUBLIC REMARKS

None

5. CHAIR'S REPORT

Vice-Chair Thomas had no report other than to note that Chair Jackson was at a conference.

6. COMMUNICATIONS/STAFF REPORT

Associate Planner Brown summarized the following:

- 2013 Ride of Silence summary
- Smart Commute will be June 9th-22nd
- Second Downtown Okemos Celebration is coming up.
- Several Smart Commuters, including staff, were interviewed by HOM-TV for the InnerView show.

7. OTHER BUSINESS

Discussion amongst the commissioners about the environmental impacts of the Cornell Road project following the site walk summary given by Commissioner Moran.

8. STUDY GROUPS/LIAISON REPORTS

None

9. PUBLIC REMARKS

None

10. ADJOURNMENT

- **MOTION** by Commissioner Donahue to adjourn the Regular Meeting. Supported by Commissioner Moran. Approved 6-0. Meeting adjourned at 7:43 p.m.

U.S. Army Corps of Engineers www.lre.usace.army.mil http://www.lre.usace.army.mil/ Michigan Department of Environmental Quality www.mi.gov/jointpermit

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)	Zip Code	Municipality (Township/Village/City)	County
Cornell Rd over Jeffries Drain	*48864*	*Meridian Twp*	*Ingham*
Property Tax Identification Number(s) *n/a*	Latitude *42.73753* N		Township/Range/Section (TRS) T *4N* N or S; R *1W* E or W; Sec *14*
Subdivision/Plat and Lot Number	Longitude - *84.39298* W		OR Private Claim # ____

2 Applicant and Agent Information

Owner/Applicant (individual or corporate name)	Agent/Contractor (firm name and contact person)
Ingham Department of Transportation and Roads	*Bergmann Associates, Inc.*
Mailing Address *301 Bush Street (P.O. Box 38)*	Mailing Address *1427 W Saginaw Street, Suite 200*
City *Mason* State *MI* Zip Code *48854*	City *East Lansing* State *MI* Zip Code *48823*
Contact Phone Number *517-676-9722* Fax *517-676-2085*	Contact Phone Number *517-272-9835* Fax *517-272-9836*
Email *rpeterson@inghamcrc.org*	E-mail *cmccollum@bergmannpc.com*

☐ No ☒ 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)	Mailing Address
Contact Phone Number	City State Zip Code

3 Project Description

Project Name *Cornell Rd resurfacing Grand River to Orlando Dr*	Preapplication File Number – – –P
Name of Water body *Jeffries Drain*	Date project staked/flagged

The proposed project is on, within, or involves (check all that apply)

☐ an inland lake (5 acres or more)
☐ a pond (less than 5 acres)
☒ a stream, river, ditch or drain
☐ a legally established County Drain
Date Drain was established
☐ a channel/canal
☐ 500 feet of an existing water body
☐ a Great Lake or Section 10 Waters
☐ a wetland
☒ a 100-year floodplain
☐ a dam
☐ a designated high risk erosion area
☐ a designated critical dune area
☐ a designated environmental area

Project Use
☐ private
☐ commercial
☒ public/government
☐ project is receiving federal/state transportation funds
☐ Wetland Restoration
☐ other

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

Written Summary of All Proposed Activities *See the attached information packet (Item 3a).*

Construction Sequence and Methods *See the attached information packet (Item 3b).*

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.

See the attached information packet (Item 4a).

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.

See the attached information packet (Item 4b).

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

Names of roads of closest intersection *Grand River Ave / Cornell Rd to Orlando Dr / Cornell Rd*

Directions from main intersection to the project site, with distances from the best and nearest visible landmark and water body *This project extends from Grand River Ave in a northerly direction along Cornell Rd for 1.844 mile to Orlando Rd. Jeffries Drain is located approximately 1550 ft south of Orlando Dr / Cornell Rd intersection*

Description of buildings on the site *(color; 1 or 2 story, other)*	Description of adjacent landmarks or buildings *(address; color; etc)*
	The existing culvert conveying the Jeffries Drain is projecting and is visible.

How can your site be identified if there is no visible address? *Jeffries Drain is the only defined channel within the surrounding wetland area*

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

7 Compliance

If a permit is issued, when will the activity begin? (M/D/Y) *8/1/2013*	Proposed completion date (M/D/Y) *11/15/2013*

☒ 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 Adjacent Property Owners *Provide current mailing addresses. Attach additional sheets/labels for long lists.*

☐ Established Lake Board ☐ Lake Association	Contact Person	Mailing Address	City	State and Zip Code

List all adjacents. If you own the adjacent lot, provide the requested information for the first adjacent parcel that is not owned by you.

Property Owner's Name	Mailing Address	City	State and Zip Code
See the attached site plan			

9 Applicant's Certification *Read carefully before signing.*

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

	Printed Name	Signature	Date
☐ Property Owner ☒ Agent/Contractor ☐ Corp. or Public Agency / Title	*Robert Peterson*		*7/8/13*

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

- Complete only those sections A through M applicable to your project.
- If your project impacts wetlands also complete Section 12. If your project impacts regulated floodplains also complete Section 13.
- To calculate volume in cubic yards (cu yd), multiply the average length in feet (ft) times the average width (ft) times the average depth (ft) and divide by 27. Example: (25 ft long x 10 ft wide x 2 feet deep) / 27 = 18.5 cubic yards
- Some projects on the Great Lakes require an application for conveyance prior to Joint Permit Application completeness.

➧Provide a black and white overall site plan, with cross-section and profile drawings. Show existing lakes, streams, wetlands, and other water features; existing structures; and the location of all proposed structures, land change activities and soil erosion and sedimentation control measures. Review Appendix B and EZ Guides for aid in providing complete site-specific drawings.

➧Provide tables for multiple impact areas or multiple activities such as multiple fill areas or multiple culverts. Include your calculations.

Water Level Elevation

On inland waters ☐ NGVD 29 ☒ NAVD 88 ☐ other Observed water elevation (ft) *841.9* date of observation (M/D/Y) *3/27/13*

On a Great Lake ☐ IGLD 85 ☐ surveyed ☐ converted from observed still water elevation.

☒ A. PROJECTS REQUIRING FILL (See All Sample Drawings)

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

Purpose ☐ bioengineered shore protection ☐ boat ramp ☐ boat well ☒ bridge or culvert ☐ crib dock ☐ riprap ☐ seawall ☐ swim area ☐ other

Dimensions of fill (ft)	Total volume (cubic yards)	Volume below OHWM (cubic yards)
Length *60* Width *32* Maximum Depth *6.75*	*109 (for culvert replacement only)*	*20 (for culvert replacement only)*
Maximum water depth in fill area (ft) *2*	Area filled (sq ft) *2048 (for culvert replacement only)*	Will filter fabric be used under proposed fill? ☐ No ☒ Yes (If Yes, type) *Geotextile*

Fill will extend *18* feet into the water from the shoreline and upland 17 feet out of the water.

Type of clean fill ☐ peastone % ☐ sand % ☐ gravel % ☒ other *Regular Earth*

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

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

- Refer to www.mi.gov/jointpermit for spoils disposal and authorization requirements.

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

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

Dimensions (ft)	Total volume (cu yds)	Volume below OHWM (cu yds)
Length *60* Width *32* Maximum Depth *6.25*	*70 (for culvert replacement only)*	*19 (for culvert replacement only)*

Has this same area been previously dredged?	☒ No ☐ Yes	If Yes, provide date and permit number:
Will the previously dredged area be enlarged?	☐ No ☐ Yes	If Yes, when and how much?
Is long-term maintenance dredging planned?	☒ No ☐ Yes	If Yes, how often?

Dredge or Excavation Method ☐ Hydraulic ☒ Mechanical ☐ other

Spoils Disposal

Dredged or excavated spoils will be placed ☐ on-site ☐ landfill ☐ USACE confined disposal facility ☒ other upland off-site
For disposal, provide a ➧Detailed spoils disposal area location map and site plan with property lines.
➧Letter of authorization from property owner of spoils disposal site, if disposed off-site.

For volumes less than 5,000 cu yards, has proposed dredge material been tested for contaminants within the past 10 years?
☒ No ☐ Yes ➧If Yes, provide test results with a map of sampling locations.

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

Riprap water ward of the ordinary high water mark: dimensions (ft) length *10* width *16.5* depth *1*	Volume(cu yd) *6*
Riprap landward of the ordinary high water mark: dimensions (ft) length *10* width *16.5* depth *1*	Volume(cu yd) *6*

Type and size of riprap (inches) ☒ field stone < *8"* ☒ angular rock <*8"* ☐ other	Will filter fabric or pea stone be used under proposed riprap? ☐ No ☒ Yes, Type *geotextile*

☐ **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) ☐ bioengineering (ft) ☐ revetment (ft) ☐ riprap (ft) ☐ seawall/bulkhead (ft)	
Structure is ☐ new ☐ repair ☐ replacement of an existing structure	Will the existing structure be removed? ☐ No ☐ 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 ☐ brush bundles ☐ coir log ☐ live stakes ☐ tree revetment ☐ other	

☐ **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 ☐ open pile ☐ filled ☐ crib ☐ floating ☐ cantilevered ☐ spring piles ☐ piling clusters ☐ other	
Is the structure within the applicant's riparian area interest area? ☐ No ☐ Yes ➧Show parcel property lines on the site plan.	
Proposed structure dimensions (ft) length width	Use ☐ private ☐ public ☐ commercial
Dimensions of nearest adjacent structures (ft) length width	Distance of dock from adjacent property lines (ft)

☐ **F. BOAT WELL** (See EZ Guide. Complete Sections 10A and 10B)

Dimensions (ft) length width depth	Number of boats
Type of sidewall stabilization ☐ concrete ☐ riprap ☐ steel ☐ vinyl ☐ wood ☐ other	
Volume of backfill behind sidewall stabilization (cu yd)	Distance of boat well from adjacent property lines (ft)

☐ **G. BOAT RAMP** (See EZ Guide. Complete sections 10A, 10B, and 10C for mattress and pavement fill, dredge, and riprap)

Type ☐ new ☐ existing ☐ maintenance/improvement		Use ☐ private ☐ public ☐ commercial
Existing overall boat ramp dimensions (ft) length width depth		Type of construction material ☐ concrete ☐ wood ☐ stone ☐ 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)

☐ **H. BOAT HOIST – ROOFS** (See EZ Guide)

Type ☐ cradle ☐ side lifter ☐ other	Located on ☐ seawall ☐ dock ☐ 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 ☐ No ☐ Yes ➧ If Yes, how is the roof supported?	Maximum Roof Dimensions (ft): length width height

☐ **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 ☐ on pilings ☐ on fill Dimensions (ft) length width	Deck ☐ on pilings ☐ on fill Dimensions (ft) length width	Boardwalk ☐ on pilings ☐ on fill Dimensions (ft) length width	Deck ☐ on pilings ☐ on fill Dimensions (ft) length width

☐ **J. INTAKE PIPES** (See Sample Drawing 16) or **OUTLET PIPES** (See Sample Drawing 22)

If outlet pipe, discharge is to ☐ inland lake ☐ stream, drain or river ☐ overland flow ☐ Great Lake ☐ wetland ☐ other			
Number of pipes	Pipe diameters and invert elevations	Does pipe discharge below the OHWM?	☐ No ☐ Yes
		Is the water treated before discharge?	☐ No ☐ Yes
Type ☐ headwall ☐ end section ☐ other		Dimensions of headwall OR end section (ft) length width height	

☐ **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 ☐ mooring ☐ navigation ☐ scientific structures ☐ swimming ☐ other

Number of buoys	Dimensions of buoys (ft) width height swing radius chain length	Boat Lengths	Type of anchor system

Buoy Location: Latitude . N Longitude -- . W. ➡ Provide a table for multiple buoys.

Do you own the property along the shoreline?	☐ No ☐ Yes	➡ If No, attach an authorization letter from the property owner(s).
Do you own the bottomlands?	☐ No ☐ Yes	➡ If No, attach an authorization letter from the property owner(s).

☐ **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 ☐ Airport ☐ Cervidae ☐ Livestock ☐ Residential ☐ Security ☐ Other

Total length (ft) of fence through streams wetlands floodplains	Fence height (ft)	Fence type and material

☐ **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)
☐ mining ☐ recreation ☐ storm water retention basin ☐ wastewater basin ☐ wildlife ☐ other

Water source for lake/pond
☐ groundwater ☐ natural springs ☐ Inland Lake or Stream ☐ storm water runoff ☐ pump ☐ sewage ☐ other

Location of the lake/basin/pond ☐ floodplain ☐ wetland ☐ stream (inline) ☐ upland

Maximum dimensions (ft) length width depth	Maximum Area: ☐ acres ☐ sq ft

Has the there been a hydrologic study performed on the site?	☐ No ☐ Yes	➡ If Yes, provide a copy.
Has the DEQ conducted a wetland assessment for this parcel?	☐ No ☐ Yes	➡ If Yes, provide a copy or WIP number:
Has a professional wetland delineation been conducted for this parcel?	☐ No ☐ Yes	➡ If Yes, provide a copy with data sheets.

Spoils Disposal

Dredged or excavated spoils will be placed ☐ on-site ☐ landfill ☐ USACE confined disposal facility ☐ other upland off-site
For disposal, provide a ➡Detailed spoils disposal area location map and site plan with property lines.
➡Letter of authorization from property owner of spoils disposal site, if disposed off-site.

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

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

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

Proposed Activity

☐ boardwalk or deck (Section 10I)	☐ bridges and culverts (Section 14)	☐ designated environmental area
☐ dewatering	☐ draining surface water	☒ driveway / road
☐ fences (Section 10L)	☐ fill or dredge	☐ restoration
☐ septic system	☐ stormwater discharge (Section 10J)	☐ other

	Dimensions	Area	Average depth (ft)	Volume (cu yd)
FILL	maximum length (ft) *Varies* maximum width (ft) *Varies*	☐ acres ☒ sq ft *See attached wetland impact sheets*	*See Attached*	*See attached wetland impact sheets*
DREDGE	maximum length (ft) *Varies* maximum width (ft) *Varies*	☐ acres ☒ sq ft *See attached wetland impact sheets*	*See Attached*	*See attached wetland impact sheets*

Spoils Disposal

Dredged or excavated spoils will be placed ☐ on-site ☐ landfill ☐ USACE confined disposal facility ☒ other upland off-site

For disposal, provide a ➡ Detailed spoils disposal area location map and site plan with property lines.

➡ Letter of authorization from property owner of spoils disposal site, if disposed off-site.

Septic System

The proposed project will be serviced by:
☐ public sewer ☐ private septic system
➡ Show system on plans.

If a private septic system is proposed, has an application for a permit been made to the County Health Department? ☐ No ☐Yes
If Yes, has a permit been issued? ☐ No ☐ Yes ➡ Provide a copy of the permit.

Describe the wetland impacts, the proposed use or development, and the alternatives considered:

2 ft shoulders are being added to the existing roadway to improve safety and pavement stablity. The increased road width and proposed side slopes will cause an impact to the existing wetlands. This alternative was selected because it re-establishes a stable pavement section while minimizing impacts to the wetlands

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:

Impacts were minimized with the use of 1:3 sideslopes and a minimal grade raise

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.

All of the impacted wetlands are within the existing Right-of-Way of the roadway. Under the Meridan Twp Ordinance 22-152-a.12 these activities do not need to be permited. Additionally there are not suitable sites within the vicintiy of this project to preform wetland mitigation.

13 Floodplain Activities (See Sample Drawing 5 and others. Complete other applicable sections.)

- For more information go to www.mi.gov/floodplainmanagement. This site also lists the projects and requirements for an expedited floodplain review under "Expedited Review Information for Minor Floodplain Projects."
- Examples of projects proposed within the non-floodway portions of the 100-year-floodplain which may qualify for an expedited review: Open pile decks and boardwalks; residences, commercial/industrial facilities, garages and accessory structures; parking lots; pavilions, gazebos, large community playground structures; residential swimming pools
- Examples of projects proposed within the floodway portions of the floodplain which may qualify for an expedited review: Open pile decks and boardwalks, (non-enclosed) that are anchored to prevent floatation and that do not extend over the bed and bank of a watercourse; parking lots constructed at grade or resurfacing that is no more than 4 inches above the existing grade; dry hydrants that do not require fill placement; scientific structure such as staff gauges, water monitoring devices, water quality testing devices, and core sampling devices which meet specific design criteria and fish structures that meet specific design criteria.
- For expedited review include:
  - ➡ Photographs of the work site labeled to identify what is being shown and with the direction of the photo clearly indicated. Include photographs of any river or stream adjacent to the project.
  - ➡ A letter or statement from the local unit of government acknowledging your proposed application. See the website for sample wording.
- A hydraulic analysis or hydrologic analysis may be required to fully assess floodplain impacts.
- The state building code requires an Elevation Certificate for any building construction or addition in a floodplain. A sample form can be found at www.fema.gov/nfip/elvinst.shtm.
  - ➡Attach additional sheets or tables for multiple proposed floodplain activities and provide hydraulic calculations.
  - ➡Show reference datum used on plans.

Proposed Activity ☒ fill ☒ excavation or cut ☐ other	100-year floodplain elevation (ft) (if known) *847 (FEMA mapping)* Datum ☐ NGVD 29 ☒ NAVD 88 ☐ other
Site is 0 feet above ☐ ordinary high water mark (OHWM) OR ☒ observed water level. Date of observation (M/D/Y) *3/27/13*	
Fill volume below the 100-year floodplain elevation (cu yds) *109 (for culvert replacement only)*	Compensating cut volume below the 100-year floodplain elevation (cu yds) *70 (for culvert replacement only)*

Buildings and/or Additions

Type of construction is ☐ residential ☐ garage/pole barn ☐ non residential ☐ other

Construction is ☐ new ☐ addition AND Serviced by ☐ public sewer ☐ private septic ☐ other

Lowest adjacent grade (ft): existing proposed

datum ☐ NGVD 29 ☐ NAVD 88 ☐ other

Existing Structure Information	Proposed Structure Information
Foundation type ☐ basement ☐ concrete slab on grade ☐ pilings ☐ crawl space ☐ other	Foundation type ☐ basement ☐ concrete slab on grade ☐ pilings ☐ crawl space ☐ other
Foundation floor elevation (ft)	Foundation floor elevation (ft)
Height of crawl space/basement from finished foundation floor to bottom of floor joists (ft)	Height of crawl space/basement from finished foundation floor to bottom of floor joists (ft)
Elevation of 1st floor above basement floor/crawl space (ft)	Elevation of 1st floor above basement floor/crawl space (ft)

For enclosed areas below the flood elevation, such as a crawl space, garages and accessory structures:

Area of proposed foundation (sq ft)

Elevation of proposed enclosed area (ft) datum ☐ NGVD 29 ☐ NAVD 88 ☐ other

Number of flood vents net opening of each vent (sq inches) lowest elevation of flood vents (ft)

14 Bridges and Culverts Including Foot and Cart Bridges. (See EZ Guides and Sample Drawings 5, 14A, 14B, 14C, 14D.)

- Complete other applicable Sections, including 10A-C.
- A hydraulic analysis or hydrologic analysis may be required to fully assess impacts. ➡Attach hydraulic calculations.
- High Water Elevation - describe reference point and highest known water level above or below reference point and date of observation.

➡Attach additional sheets for multiple bridges and/or culverts.

➡Provide detailed site-specific drawings of existing and proposed Plan and Elevation View at a scale adequate for detailed review.

➡Provide all information in the boxes below; do not write in a reference to plan sheets. Show reference datum used on plans.

Stream Information

The site has a high water elevation (ft) *847* ☐ above or ☐ below the Reference Point of	Date observed *FEMA mapping*	
Reference datum used ☐ NGVD 29 ☒ NAVD 88 ☐ IGLD 85 (Great Lakes coastal areas) ☐ other		
Average stream width (ft) at the ordinary high water mark (OHWM) outside the influence of any ponding or scour holes around the structure	Upstream	*4*
	Downstream	*4*
Cross-sectional area of primary channel (sq ft) *4.5* (See Sample Drawing 14C for more information)		
The width of the stream where the water begins to overflow its banks. Bankfull width (ft) *6*		
The invert of the stream 100-feet from structure (ft)	Upstream	*841.00*
	Downstream	*841.00*

Is the existing culvert perched? ☒ No ☐ Yes If Yes, provide a profile of the channel bottom at the high and low points for a distance of 200 feet upstream and downstream of the culvert.

	Complete this form for each bridge / culvert location.		Existing	Proposed
Bridge	Number of bridge spans			
	Bridge type (concrete box beam, concrete I-beam, timber, etc.)			
	Bridge span (length perpendicular to stream) (ft)			
	Bridge width (parallel to stream) (ft)			
	Bottom of bridge beam (ft)	Upstream		
		Downstream		
	Stream invert elevation at bridge (ft)	Upstream		
		Downstream		
	Bridge rise from bottom of beam to streambed (ft)			
Culvert	Number of culverts		*1*	*1*
	Culvert type (arch, bottomless, box, circular, elliptical, etc.)		*elliptical*	*arch*
	Culvert material (concrete, corrugated metal, plastic, etc.)		*CMP*	*CMP*
	Culvert length (ft)		*38*	*60*
	Culvert ☒ width ☐ diameter (ft)		*5*	*5.5*
	Culvert height prior to any burying (ft)		*4.5*	*4.25*
	Depth culvert will be buried (ft)		*0.25*	*0.25*
	Elevation of culvert crown (ft)	Upstream	*845.48*	*845.30*
		Downstream	*845.58*	*845.20*
	Higher elevation of ☒ culvert invert OR ☐ streambed within culvert (ft)	Upstream	*840.98*	*841.05*
		Downstream	*841.08*	*840.95*
Complete for both Bridges and Culverts	Entrance design (mitered, projecting, wingwalls, etc.)		*Projecting*	*Projecting*
	Total structure waterway opening above streambed (sq ft)		*17.3*	*19.0*
	Total structure waterway area below the 100-year elevation (sq ft) (if known)		*17.3*	*19.0*
	Elevation of road grade at structure (ft)		*847.02*	*847.02*
	Elevation of low point in road (ft)		*846.73*	*846.73*
	Distance from low point of road to mid-point of bridge crossing (ft)		*90*	*90*
	Length of approach fill from edge of bridge/culvert to existing grade (ft)		*Varies*	*Varies*

A Licensed Professional Engineer may certify that your project will not cause a harmful interference for a range of flood discharges up to and including the 100-year flood discharge. The "Required Certification Language" is found under "forms" on the "maps, forms and documents" link from the www.mi.gov/jointpermit page or a copy may be requested by phone, email, or mail. A hydraulic report supporting this certification may also be required.

Is Certification Language attached? ☒ No ☐ Yes

15 Stream, River, or Drain Construction , Relocation and Enclosure Activities

- Complete Section 10C for riprap activities.
- If side casting or other proposed activities will impact wetlands or floodplains, complete Sections 12 and 13, respectively.

➡Provide a scaled overall site plan showing existing lakes, streams, wetlands, and other water features; existing structures; and the location of all proposed structures and land change activities.

➡Provide scaled cross-section (elevation) drawings necessary to clearly show existing and proposed conditions.

➡For activities on legally established county drains, provide original design and proposed dimensions and elevations.

Stream Information

Water elevation (ft) *841.9* datum ☐ NGVD 29 ☒ NAVD 88 ☐ IGLD 85 (Great Lakes coastal areas) ☐ other
➡ Show elevation on plans with description.

Dimensions (ft) of existing stream/drain channel (ft) length *60 (existing 38 ft enclosed)* width *4* depth *1*

Existing channel average water depth in a normal year (ft) *1.1*

Proposed Activity ☐ enclosure ☐ improvement ☐ maintenance ☐ new drain ☐ relocation ☐ wetlands ☒ other *culvert replacement*

If an enclosed structure is proposed, check material type ☐ concrete ☒ corrugated metal ☐ plastic ☐ other

Dimensions (ft) of the structure: diameter *5.5 by 4.25* length *60*	Volume of fill (cu yds) *109 (for culvert replacement only)*
Will old/enclosed stream channel be backfilled to top of bank grade? ☒ No ☐ Yes	
Length of channel to be abandoned (ft) *0*	Volume of fill (cu yds) *0*
Dimensions (ft) of improved, maintained, new, relocated or wetland stream/drain channel. length width depth	Volume of dredge/excavation (cu yds) *70 (for culvert replacement only)*
How will slopes and bottom be stabilized? *The flat nature of drain makes the bottom stable. The slopes will be restored and will become vegetated*	Proposed side slopes (vertical / horizontal) *Varies*

Spoils Disposal

Dredged or excavated spoils will be placed ☐ on-site ☐ landfill ☐ USACE confined disposal facility ☒ other upland off-site
For disposal, provide a ➡ Detailed spoils disposal area location map and site plan with property lines.
➡ Letter of authorization from property owner of spoils disposal site, if disposed off-site.

16 Drawdown of an Impoundment

- If wetlands will be impacted, complete Section 12.

Type of drawdown ☐ over winter ☐ temporary ☐ one-time event ☐ annual event ☐ permanent (dam removal) ☐ other

Reason for drawdown

Has there been a previous drawdown? ☐ No ☐ Yes If Yes, provide date (M/D/Y)		Previous DEQ permit number, if known
Does waterbody have established legal lake level? ☐ No ☐ Yes ☐ Not Sure		Dam ID Number, if known
Extent of vertical drawdown (ft)	Impoundment design head (ft)	Number of adjacent or impacted property owners
Date drawdown would start (M/D/Y)	Date drawdown would stop (M/D/Y)	Rate of drawdown (ft/day)
Date refilling would start (M/D/Y)	Date refill would end (M/D/Y)	Rate of refill (ft/day)
Type of outlet discharge structure to be used ☐ surface ☐ bottom ☐ mid-depth	Impoundment area at normal water level (acres)	Sediment depth behind impoundment discharge structure (ft)

17 Dam, Embankment, Dike, Spillway, or Control Structure Activities (See Sample Drawing 15)

- For more information go to www.mi.gov/damsafety. If wetlands will be impacted, complete Section 12.
- Information on removing a dam is available at www.mi.gov/damsafety and following the Related Link – DEQ Dam Removal web site.

➡Attach site-specific conceptual plans for construction of a new dam, reconstruction of a failed dam, or enlargement of an existing dam for resource impact review. Detailed engineering plans are required once the activity has been determined to be permitable.

➡Attach detailed signed and sealed engineering plans for a Part 315 dam repair, dam alteration, dam abandonment, or dam removal.

➡Part 315 Dam Safety application fees are added to all other application fees.

Proposed Activity	☐ abandonment	☐ alteration	☐ enlargement of an existing dam
	☐ removal	☐ repair	☐ reconstruction of a failed dam
	☐ new dam construction	☐ other	

Dam ID Number, if known	Type of outlet discharge structure ☐ surface ☐ bottom ☐ mid-depth

Will proposed activities require a drawdown of the waterbody to complete the work? ☐ No ☐ Yes ➡ If Yes, complete Section 16.

Does the structure allow complete drainage of the waterbody? ☐ No ☐ Yes	Impoundment size (acres)
Benchmark elevation (ft) Describe the benchmark and show on the plans	Datum ☐ NGVD 29 ☐ NAVD 88 ☐ Local ☐ other

Dredging/excavation volume (cu yd)	Fill volume (cu yd)	Riprap volume (cu yd)

Have you engaged the services of a Licensed Professional Engineer? ☐ No ☐ Yes

Engineer's Name | Registration Number | Mailing Address

Will a water diversion during construction be required? ☐ No ☐ Yes

If Yes, describe how the stream flow will be controlled through the dam construction area during the proposed project activities:

Complete the following for a new dam, reconstruction of a failed dam or enlargement of an existing dam

Describe the type of dam and how you will design the dam and embankment to control seepage through and underneath the dam.

Embankment top elevation (ft)	Streambed elevation at downstream embankment toe (ft)

Structural height (difference between embankment top elevation and streambed elevation at downstream embankment toe) (ft)

Embankment dimensions	length (ft)	top width (ft)	bottom width (ft)	slopes (vertical / horizontal)	Upstream Downstream

Proposed normal pool elevation (ft)	Impoundment flood elevation (ft)

Maximum vertical drawdown capability (ft) Attach operational procedure of the proposed structure, if available.

Have soil borings been taken at dam location?	☐ No ☐ Yes	➡ If Yes, attach results.
Will a cold water underspill be provided?	☐ No ☐ Yes	➡ If Yes, provide the invert elevation (ft)
Do you have flowage rights to all proposed flooded property at the design flood elevation?	☐ No ☐ Yes	➡ If No, provide a letter of authorization from the property owner.

18 Utility Crossings (See Sample Drawings 12 and 13, and EZ Guide)

- If side casting is proposed, complete Sections 10A and 10B. If spoils will be placed in or impact wetlands, complete Section 12.
  - ➡Attach additional sheets or tables with the requested information as needed for multiple crossings.
  - ➡For wetland crossings using the open trench method show clay plugs at the wetland/upland boundaries on the plans.

Crossing of ☐ Inland Lake or Stream ☐floodplain ☐ Great Lake ☐ wetlands (also complete Section 12)

What method will be used to construct the crossings? ☐ directional boring ☐ jack and bore ☐ open trench ☐ plow / knife ☐ flume

Utility Type	Number of lake or stream crossings	Number of wetland crossings	Pipe diameter with casing (in)	Pipe length per crossing (ft)	Distance below streambed or wetland (in)	Trench width (ft)
☐ sanitary sewer						
☐ storm sewer						
☐ watermain						
☐ cable						
☐ electric						
☐ fiber optic cable						
☐ oil/gas pipeline						

19 Marina Construction, Expansion and Reconfiguration (See Sample Drawing 21)

- For more information go to www.mi.gov/marinas
- Marinas located on the Great Lakes, including Lake St. Clair, may be required to secure leases or conveyances from the state of Michigan to place structures on the bottomlands. If a conveyance is necessary, an application must be submitted before the Joint Permit Application can be determined complete.
  - ➡Fully complete Section 10 E. For multiple structures provide a table with the requested information.
  - ➡Enclose a copy of any current pump-out agreement with another marina facility, if on-site sanitary pump out facilities are not available.
  - ➡Attach a copy of the property legal description, mortgage survey, or a property boundary survey to your application.
  - ➡ The WRD may require a riparian interest area (RIA) estimate survey, sealed by a licensed surveyor, in order to determine whether the proposed project will adversely impact riparian rights. Include any available sealed RIA estimate survey and/or written authorizations from affected adjacent riparian owners with your application.

Proposed Marina Activity ☐ New construction ☐ Expansion ☐ Reconfiguration

Do you have an existing Great Lake Conveyance? ☐ No ☐ Yes For more information visit www.mi.gov/deqgreatlakes.

Are sanitary pump-out facilities available? ☐ No ☐ Yes | Is there a pump out agreement? ☐ No ☐ Yes If Yes, provide a copy.

Marina Description	Current Count	Final Count
Number of boat slips/wells (do not include broadside dockage or mooring buoys)		
Lineal feet of broadside dockage		
Maximum number of boats at broadside dockage		
Number of mooring buoys		
Number of launch ramps/lanes		

20 Critical Dune Areas and High Risk Erosion Areas (See Sample Drawings 19 and 20, also Sample Drawing 9 for wetlands)

Critical Dune Areas (See Sample Drawing 20)

- For more information go to www.mi.gov/deqsanddunes/
- All property boundaries, proposed structure corners including decks, septic system, water well, driveway, grading, and terrain alteration locations must be staked before the WRD site inspection.
- Scaled overhead and cross-section plans that include all property boundaries, location and dimensions of all structures and terrain alterations, and construction access must be included. Cross-sections must show existing and proposed grades including foundations.
- Additional information may be required to complete the application review.
  - ➡ Construction in critical dune areas requires the following written assurances submitted with the application:
    1) permit or letter from County Enforcing Agent stating project complies with Part 91 (Soil Erosion and Sedimentation Control),
    2) permit or letter from County Health Department for work on a septic system, and
    3) a copy of the assurance letter received from the local Conservation District indicating your project has been reviewed and the prepared instructions or plans for vegetation removal will be followed during and after the construction process.
- Construction in critical dune areas on slopes greater than 33 percent (1vertical: 3 horizontal) is prohibited without a special exception.
- Construction in critical dune areas on slopes that measure from 25 percent (1 vertical: 4 horizontal) to less than 33 percent requires plans prepared by a registered architect or licensed professional engineer.

High Risk Erosion Areas (See Sample Drawing 19)

- For more information go to www.mi.gov/jointpermit , select HREA under "related links"
- All property boundaries and proposed structure corners and septic system locations must be staked before the WRD site inspection.
- Scaled overhead plans that include all property boundaries, and the location and dimensions of all structures and septic systems must be included.
- Additional information, including the building construction plans, may be required to complete the application review.

Complete for all Critical Dune Areas and/or High Risk Erosion Areas

Parcel dimensions (ft) width depth	Date project staked (M/D/Y)
Property is a ☐ platted lot ☐ unplatted parcel	Year current property boundaries created
Type of construction activities ☐ addition ☐ driveway ☐ garage ☐ home ☐ renovation ☐ septic ☐ other	
The proposed project will be serviced by ☐ public sewer ☐ private septic system. ➡ On the plans show the location and dimensions of the private septic system. If a private septic system is proposed has application been made to the County Health Department for a permit? ☐ No ☐ Yes If Yes, has a permit been issued? ☐ No ☐ Yes ➡ If Yes, provide a copy of the permit for all Critical Dune Area projects.	
If in a High Risk Erosion Area provide the number of individual living-units in the proposed building	

Critical Dune Areas

Utility Installation	Proposed New Construction
Installation Method ☐ directional bore ☐ plowing in ☐ open trench ☐ other	Foundation type ☐ basement ☐ concrete slab ☐ pilings ☐ crawl space ☐ other
➡Show utility locations and dimensions on the site plan.	Area of existing structure (sq ft)
➡Show construction access route on the site plan.	Area of proposed structure (sq ft)
➡Show existing and proposed grades on the cross-section.	Area of existing deck (sq ft)
➡Show locations of vegetation to be removed on the site plan.	Area of proposed deck (sq ft)

High Risk Erosion Areas

Existing Structure Information	Proposed New Construction
Foundation type ☐ basement ☐ concrete slab ☐ pilings ☐ crawl space ☐ other	Foundation type ☐ basement ☐ concrete slab ☐ pilings ☐ crawl space ☐ other
Material above foundation wall ☐ block ☐ log ☐ stud frame ☐ other	Material above foundation wall ☐ block ☐ log ☐ stud frame ☐ other
Siding material ☐ block ☐ vinyl ☐ wood ☐ other	Siding material ☐ block ☐ vinyl ☐ wood ☐ other
Area of the foundation, excluding attached garage (sq ft)	Area of the foundation, excluding attached garage (sq ft)
Area of the garage foundation (sq ft)	Area of garage foundation (sq ft)
If renovating or restoring an existing structure, indicate the renovation or restoration cost $	
Current structure replacement value $	
Tax assessed value of existing structure excluding land value $	Assessment Year

Cornell from Grand River Ave to Orlando Dr (including Cornell Road over Jeffries Drain)

MDEQ Information Packet

Jeffries Drain under Cornell Road
Job Number: 210 800930

7/2/13

Item 3 Proposed Activities and Construction Sequence and Methods:

a. The existing 60" X 54" elliptical cmp culvert conveying Jeffries Drain under Cornell Road will be removed and replaced in kind with an equivalent 66" span X 51" rise pipe-arch in conjunction with the proposed reconstruction of Cornell Road. The proposed culvert will be longer than the existing culvert to improve clear zone safety.

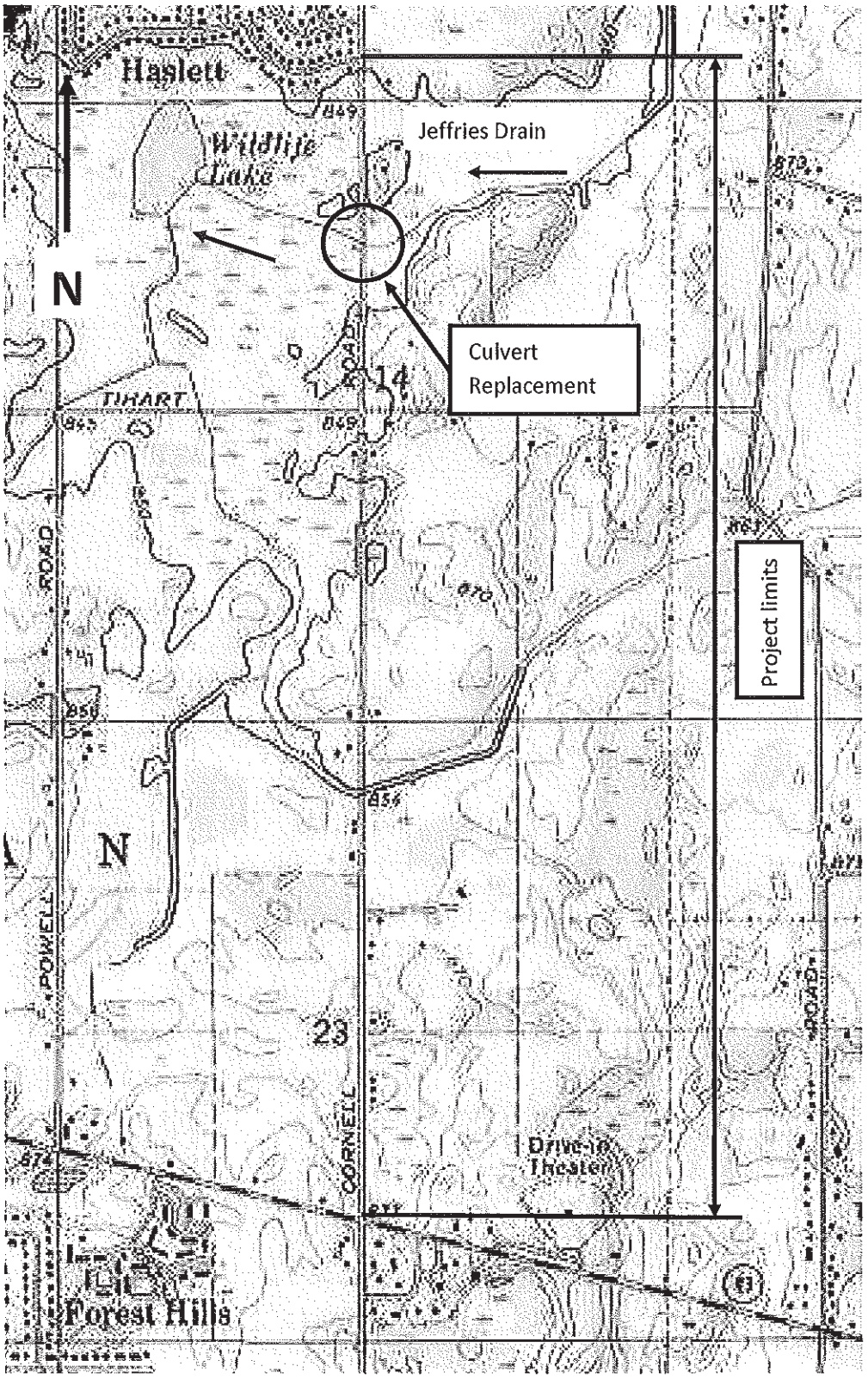
b. The Jeffries Drain will be temporarily diverted to allow for "in the dry" construction with typical techniques. The existing culvert will be removed with typical excavation equipment such as a backhoe. Culvert bed material and the proposed culvert will be placed in the trench used to remove the existing culvert with standard construction equipment. The proposed culvert will be backfilled and the proposed roadway will be constructed above the culvert.

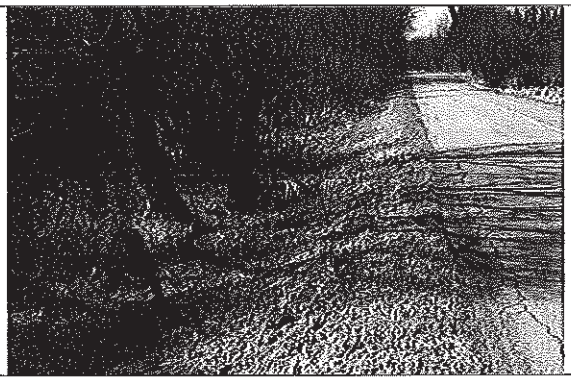
Item 4 Justification of Proposed Work and Efforts Taken to Minimize Environmental Impacts:

a. The proposed reconstruction of Cornell Road will restore the ride quality of the roadway and improve safety. To minimize environmental impacts, 1:2 (with guardrail) and 1:3 side slopes have been proposed throughout the corridor. The deteriorated condition and insufficient length of the existing culvert warrants replacement. The proposed culvert will be longer than the existing culvert to shift the outlets away from the roadway, which will improve the clear zone safety.

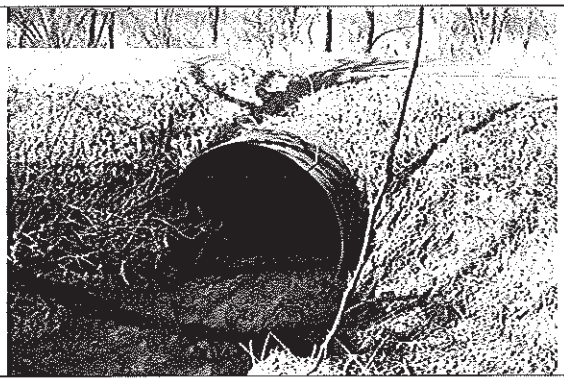
b. The environmental impacts associated with the reconstruction of Cornell Road have been minimized with the use of 1:2 (with guardrail) and 1:3 side slopes. These side slopes restrict the extent of impacts outside of the existing footprint of the roadway. The environmental impacts associated with replacing the existing culvert conveying Jeffries Drain will be minimal because the limits of construction will be isolated to the excavation/construction trench and the modified approaches. Sand bags (or a suitable replacement) will be placed to isolate the work zone from the surrounding features and to temporarily divert the Jeffries Drain. Geotextile silt fence will be placed to limit the amount of sediment transport during construction and impacts to Jeffries Drain.

Item 5 Location map showing the proposed culvert reconstruction site.

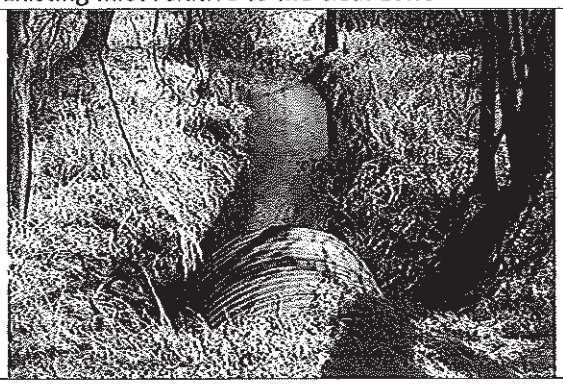




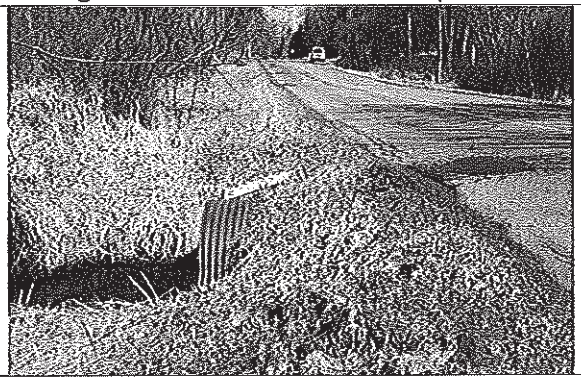
Existing inlet relative to the clear zone



Existing inlet in relation to the roadway



Approaching waterway



Existing outlet relative to the clear zone

Existing outlet in relation to the roadway

Departing water

Item 10 Culvert crossing plans

- Plan view
- Elevation
- Cross section

Item 12 Wetland impact maps

Wetland	Fill Volume (cyd)	Average Depth (ft)	Area (sq ft)	Area (Acre)
23-14	28.6	0.4	1875	0.04
23-15A	17.7	0.4	1179	0.03
23-2C	33.2	0.2	3612	0.08
23-15B	66.6	0.6	2798	0.06
23-2A	136.2	1.5	2429	0.06
23-2B	3.6	0.3	288	0.01
14-17	365.7	1.4	7165	0.16
14-12	19.6	0.4	1408	0.03
14-9	15.4	2.1	193	0.00
14-8	15.8	0.5	798	0.02
14-7	0.8	0.2	131	0.00
14-4	0.03	0	390	0.01
14-3A	51.5	0.7	2138	0.05
14-1	99.8	0.7	3681	0.08
Total	**854.5**	**-**	**28085**	**0.65**

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

SPECIAL USE PERMIT APPLICATION

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

Part I

A. Applicant: Ingham Department of Transportation and Roads
Address of Applicant: 301 Bush Street (P.O. Box 38) Mason, Mi 48854
Telephone - Work _____ Home 517-676-9722 Fax 517-676-2085 Email rpeterson@inghamcrc.org
Interest in property (circle one): Owner her
(Please attach a list of all persons with an ownership interest in the property.)

B. Site address / location / par: Cornell Rd Between Grand River Ave & Orlando Dr
Legal description (please attach if necessary)
Current zoning: N/A (Roadway)
Use for which permit is requested: The reconstruction of Cornell Rd and the Jeffries Drain crossing
Corresponding ordinance number _____

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

D. Architect, Engineer Planner or Surveyor responsible for design of project if different from applicant:
Name: Bergmann Associates 1427 W Saginaw St Suite 200 East Lansing, MI 48823
Address _____
Telephone – Work 517-272-9835 Home _____ Fax _____

E. Acreage of all parcels in the project: Gross _____ Net 14.75

F. Explain the project and development phases: See the attached

G. Total number of:
Existing: structures 0 bedrooms 0 offices 0 parking spaces 0 carports 0 garages 0 Proposed: structures 0 bedrooms 0 offices 0 parking spaces 0 carports 0 garages 0

H. Square footage: existing buildings 0 proposed buildings 0
Usable Floor area: existing buildings 0 proposed buildings 0

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

J. Existing Recreation: Type N/A Acreage N/A
Proposed Recreation: Type N/A Acreage N/A

Existing Open Space: Type Roadway and Right-of-Way Acreage 14.75
Proposed Open Space: Type Roadway and Right-of-Way Acreage 14.75

K. If Multiple Housing:
Total acres of property _____
Acres in floodplain _____ Percent of total _____
Acres in wetland (not in floodplain) _____ Percent of total _____
Total dwelling units _____
Dwelling unit mix:
Number of single family detached: for Rent _____ Condo _____
Number of duplexes: for Rent _____ Condo _____
Number of townhouses: for Rent _____ Condo _____
Number of garden style apartments: for Rent _____ Condo _____
Number of other dwellings: for Rent _____ Condo _____

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

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

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

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

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

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

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

1. A description of the operations proposed in sufficient detail to indicate the effects of those operations in producing traffic congestion, noise, glare, air pollution, water pollution, fire hazards or safety hazards or the emission of any potentially harmful or obnoxious matter or radiation.
2. Engineering and architectural plans for the treatment and disposal of sewerage and industrial waste tailings, or unusable by-products.
3. Engineering and architectural plans for the handling of any excessive traffic congestion, noise, glare, air pollution, or the emission of any potentially harmful or obnoxious matter or radiation.

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

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

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

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

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

S.

Part II

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

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

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

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

(3) The project is designed, constructed, operated, and maintained so as to be harmonious and appropriate in appearance with the existing or intended character of the general vicinity and that such a use will not change the essential character of the same area.

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

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

(6) The project is adequately served by public facilities, such as existing roads, schools, stormwater drainage, public safety, public transportation, and public recreation, or that the persons or agencies responsible for the establishment of the proposed use shall be able to provide any such service.

(7) The project is adequately served by public sanitation facilities if so designed. If on-site sanitation facilities for sewage disposal, potable water supply, and storm water are proposed, they shall be properly designed and capable of handling the longterm needs of the proposed project.

(8) The project will not involve uses, activities, processes, materials, and equipment and conditions of operation that will be detrimental to any persons, property, or the general welfare by reason of excessive production of traffic, noise, smoke, fumes, glare, or odors.

(9) The project will not directly or indirectly have a substantial adverse impact on the natural resources of the Township, including, but not limited to, prime agricultural soils, water recharge areas, lakes, rivers, streams, major forests, wetlands, and wildlife areas.

Part III

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

☒ Yes ☐ No (Please check one)

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

Signature of Applicant _____ Date _____

Type/Print Name _____

Fee: n/a Received by/Date: 7/9/13

Special Use Permit Application Attachment
Site Plan Requirements Per Section 86-124(c)(4)

A site plan, drawn to a legible scale, containing the following information where applicable:

a. Boundaries of the subject property.

b. Total area of the subject property.

c. Location of all existing and proposed structures.

d. Approximate location and distance of all structures within 100 feet of the subject property.

e. Uses of existing and proposed buildings, on the subject site.

f. Proposed means of vehicular and pedestrian ingress and egress to the subject property.

g. Public and private roads and streets, rights-of-way, and easements, indicating names and widths, which abut or cross the site.

h. Existing and proposed parking spaces, and vehicular and pedestrian circulation patterns.

i. The buildable area of the subject property indicating all required setbacks, yards and open space.

j. Zoning classification of the subject and adjacent properties.

k. Existing and proposed fencing, screening, landscaping, and buffers.

l. Location and sizes of existing utilities including power lines and towers, both above and below the ground.

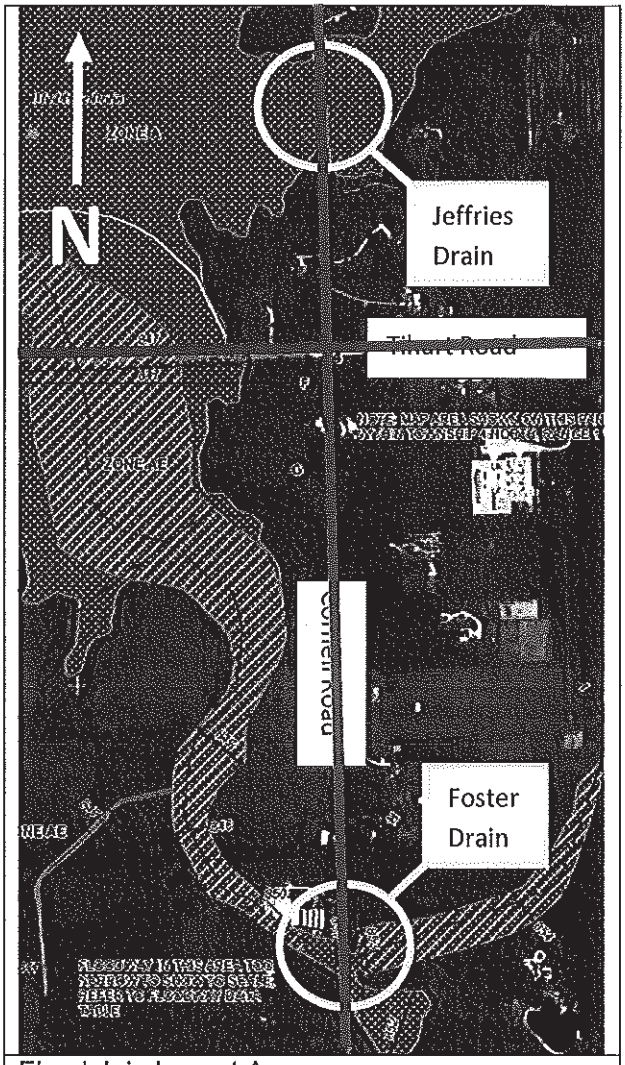
m. Amount and location of all impervious surfaces.

n. The verified boundaries of all natural water features and required setback lines.

Attached information for the Charter Township of Meridian Special Use Permit

The proposed reconstruction of Cornell Road between Grand River Ave and Orlando Dr will impact floodplain for the Foster Drain and Jeffries Drain. The impact locations have been noted in the Exhibit to the right.

Approximately 42 cyd of floodplain fill is anticipated near the Foster Drain crossing. This fill is intended to replace the material that has been lost due to erosion, to re-establish stable side slopes, and to provide additional cover over the existing crossing. The amount of fill that is proposed has been minimized with the use of 1:3 side slopes. The modified side slopes will allow this area to blend into the surrounding area and be harmonious in appearance. This will not be hazardous to the surrounding properties or be detrimental to the economic welfare of the surrounding properties. Regular earth material will be used as the fill material, so the excessive production of traffic, noise, smoke, fumes, glare, and odors are not expected. 650 sqft of wetland impacts are anticipated as a part of this fill activity. This impact is believed to be insignificant when compared to total wetland size.



Floodplain Impact Areas

The impacts at the Jeffries Drain crossing are associated with the removal of the existing 38' culvert and the construction of a 60' culvert. The total fill and excavation associate with this work is approximately 109 cyd and 70 cyd, respectfully. The net floodplain fill associated with this work is 39 cyd. This fill and culvert replacement is intended to provide cover over the proposed culvert and improve the safety of the roadway clear zone. The amount of fill that is proposed has been minimized with the use of 1:3 side slopes. The modified side slopes will allow this area to blend into the surrounding area and be harmonious in appearance. This will not be hazardous to the surrounding properties or be detrimental to the economic welfare of the surrounding properties. Regular earth material will be used as the fill material, so the excessive production of traffic, noise, smoke, fumes, glare, and odors are not expected. 1140 sqft of wetland impacts are anticipated as a part of this fill activity. This impact is believed to be insignificant when compared to total wetland size.