Section 404 Application for Department of Army Permit

and

Section 401 Application for Ohio EPA Water Quality Certification

LUC-475/20 Interchange Upgrade
PID No. 88252

Prepared for:
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Date: January 12, 2015

By: **Davey Resource Group,**
a division of the Davey Tree Expert Company
1500 North Mantua Street
Kent, Ohio 44240
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APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT *(33 CFR 325)*	OMB APPROVAL NO. 0710-003 Expires: 31 August 2012

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no persons shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USaC 1344; Maritime Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. . Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal , state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instruction) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME			8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)		
First – Jerry	Middle -	Last - Wray	First – Adrienne	Middle -	Last – Earley
Company – Ohio Department of Transportation, Office of Environmental Services			Company – Ohio Department of Transportation, Office of Environmental Services		
E-mail Address - tim.hill@dot.state.oh.us			E-mail Address - adrienne.earley@dot.state.oh.us		
6. APPLICANT'S ADDRESS: Address - 1980 West Broad Street City - Columbus State – Ohio Zip-43223 Country - USA			9. AGENT'S ADDRESS: Address - 1980 West Broad Street City - Columbus State - Ohio Zip - 43223 Country - USA		
7. APPLICANT'S PHONE NOS. W/AREA CODE a. Residence ( ) - b. Business (614) 644-0377 Attn : Tim Hill c. Fax ( )			10. AGENT'S PHONE NOS. W/AREA CODE a. Residence ( ) b. Business (614) 466-2159 c. Fax ( ) -		

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Adrienne Earlev to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT

12. PROJECT NAME OR TITLE (see instructions): LUC-475/20 Interchange Upgrade (PID 88252)

13. NAME OF WATERBODY, IF KNOWN (if applicable) Wetland A and Wetland B (04100001-03-07)	14. PROJECT STREET ADDRESS (if applicable) Address – I-475/US 23 and US 20 interchange City - Toledo State - Ohio Zip -
15. LOCATION OF PROJECT Latitude: 41.675110 N Longitude:-83.693989 W	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID – Municipality - Toledo

Section – Township – Springfield Range –

17. DIRECTIONS TO THE SITE: See 404 Permit Application Supplement

18. Nature of Activity (description of project, include all features)

See 404 Permit Application Supplement

19. Project Purpose (describe the reason or purpose of the project, see instructions)

See 404 Permit Application Supplement

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

See 404 Permit Application Supplement

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

Type – clean earthen fill	Type –	Type –
Amount in Cubic Yards – ~11,939 CY	Amount in Cubic Yards –	Amount in Cubic Yards –

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres The proposed project will result in permanent impacts to 7.40 acres of Category 1 non-forested wetlands.

Or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

See 401 Permit Application Supplement

24. Is Any Portion of the Work Already Complete? Yes ☐ No ☑ IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses if Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list).

Address – See 404 Permit Application Supplement

City - State - Zip -

26. List of Other Certifications or Approvals/Denials Received for other Federal, State or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
ODNR	Ecological Coordination	13-419	2014-08-20	2013-09-16	
USFWS	Section 7	PID 88252	2014-08-20	2013-09-05	
SHPO/OES	Section 106	PID 88252	2013-02-25	2013-03-07	
FHWA	CE	PID 88252		2013-12-09	
USACE	Jurisdictional Determination	LRH-2013-00808-OTT-Schlicker Ditch	2014-01-10	2013-10-02	
USACE	Section 404	LRH-2013-00808-OTT-Schlicker Ditch		Pending	
OEPA	Section 401	PID 88252		Pending	

27. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT | DATE | SIGNATURE OF AGENT | DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner with the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material Fact or makes false, fictitious or fraudulent statements or represents or makes or uses any false writing or document knowingly same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

ENG FORM 4345, SEPT 2009

404 Permit Application Supplement

17. Directions to the Site

From Columbus, Ohio: Take SR 315 N. Drive approximately 22.0 miles, then turn left onto US 23 N. Drive approximately 55.7 miles, then continue onto SR 15 W. Drive approximately 17.0 miles, then keep right at the fork, following signs for I-75 N. Merge onto I-75 N, and drive approximately 35.3 miles. Take exit 192 on the left to merge onto I-475 N/US 23 N. Drive 13.0 miles. Site is located at the intersection of I-475 and US 20.

18. Nature of Activity

Under the Preferred Alternative, the proposed project, located in Toledo, Lucas County, will;

- re-construct and widen 1.97 miles of I-475/US 23, and 0.71 mile of US 20;
- rebuild and modify the I-475/US 23 and US 20 interchange from the existing configuration to a Single Point Urban Interchange (SPUI); and
- install associated infrastructure improvements, including lighting, traffic controls, retaining walls, noise walls, and bridges.

Construction activities will include the relocation of US 20 to the south to allow for the new SPUI to reside within the infield areas of the existing folded cloverleaf interchange. The project will interface with the proposed I-475/US 23 Systems Interchange project (PID 94732), and will include numerous adjustments to exit ramp movements in order to address congestion and safety issues at the interchange. The proposed project will impact two Category 1 non-forested wetlands located within the infield of the existing interchange.

19. Project Purpose

The purpose of the project is to:

- develop geometric improvements and safety countermeasures to reduce existing and projected future interchange congestion and safety problems to provide a traffic level of service D or better at the I-475/US 23 and US 20 interchange through the year 2035;
- reduce existing and projected future congestion and safety problems on mainline I-475/US 23 within the US 20 project area to provide a traffic level of service D or better along the mainline through the year 2035;
- reduce existing and future safety problems by eliminating existing geometric design deficiencies at the I-475/US 23 and US 20 interchange and along the mainline of I-475/US 23 in the project area wherever practical and cost effective;
- eliminate the weave condition between I-475/US 23 and US 20 interchange and the I-475/US 23 systems interchange by separating US 20 southbound exit movements from I-475 westbound and US 23 southbound from the mainline I-475/US 23 into separate nested ramps to eliminate the southbound weave movement; and
- eliminate the US 23 southbound drop lane to the US 20 exit ramp.

20. Reason(s) for Discharge

Discharges to regulated waters will be necessary in order to accommodate the reconstruction of the I-475/US 23 and US 20 interchange into a SPUI under the Preferred Alternative. This interchange modification will require the relocation of US 20 to the south into the existing folded cloverleaf interchange infield in order to accommodate the new SPUI and to meet the project purpose. These activities will result in impacts to two Category 1 non-forested wetlands within the existing interchange infield.

23. Description of Avoidance, Minimization, and Compensation

Please see Block 10 of the 401 permit application supplement beginning on page 10 for more details concerning avoidance, minimization, and compensation.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody

Ralph Obenour III
2845 Moffat Drive
Toledo, Ohio 43615

Donna Mace
2849 Moffat Drive
Toledo, Ohio 43615

Glenn and Loral Holmes
2875 Moffat Drive
Toledo, Ohio 43615

Cathy Hanson
9001 S. River Road
Waterville, Ohio 43566

Bobbi Hanson
2920 Moffat Drive
Toledo, Ohio 43615

Jeffrey Klingshirn and Andrea Clarkson
3035 Moffat Drive
Toledo, Ohio 43615

Cuspide Properties LTD
402 Grenelefe Court
Holland, Ohio 43528

Bef Reit INC Corporation
3776 South High Street
Columbus, Ohio 43207

6300 W. Central Ave. LLC
6300 W. Central Avenue
Toledo, Ohio 43615

Brown Family Real Estate LLC
5625 W. Central Avenue
Toledo, Ohio 43615

Stephen D. Taylor Family Properties LLC
PO Box 351750
Toledo, Ohio 43635

John Begin
4951 County Road 1
Swanton, Ohio 43558

Louisville Title Agency for NW Ohio INC
626 Madison Avenue
Toledo, Ohio 43604

Samuel Bolotin
PO Box 8828
Toledo, Ohio

ASC Investment Holdings LLC
6448 W. Central Avenue
Toledo, Ohio 43615

Tanya and Daniel Pernig, Trustees
30302 Via Rivera
Ranchos Palos Verdes, California 90275

Wilford Central LLC & Ohio LLC
3034 Wilford Drive
Toledo, Ohio 43607

Joseph Finch, Trustees Et Al.
28592 Simmons Road
Perrysburg, Ohio 43551

Mark Herr, Trustees
18478 Scott Street
Bowling Green, Ohio 43402

Derby Village LLC
PO Box 167928
Irving, Texas 75016

APPLICATION FOR OHIO EPA
SECTION 401 WATER QUALITY CERTIFICATION

Effective October 1, 1996
Revised August, 1998

This application must be completed whenever a proposed activity requires an individual Clean Water Act Section 401 Water Quality Certification (Section 401 certification) from Ohio EPA. A Section 401 certification from the State is required to obtain a federal Clean Water Act Section 404 permit from the U.S. Army Corps Engineers, or any other federal permits or licenses for projects that will result in a discharge of dredged or fill material to any waters of the State. To determine whether you need to submit this application to Ohio EPA, contact the U.S. Army Corps of Engineers District Office with jurisdiction over your project, or other federal agencies reviewing your application for a federal permit to discharge dredged or fill material to waters of the State, or an Ohio EPA Section 401 Coordinator at (614) 644-2001.

The Ohio EPA Section 401 Water Quality Certification Program is authorized by Section 401 of the Clean Water Act (33 U.S.C. 1251) and the Ohio Revised Code Section 6111.03(P). Ohio Administrative Code (OAC) Chapter 3745-32 outlines the application process and criteria for decision by the Director of Ohio EPA. In order for Ohio EPA to issue a Section 401 certification, the project must comply with Ohio's Water Quality Standards (OAC 3745-1) and not potentially result in an adverse long-term or short-term impact on water quality. Included in the Water Quality Standards is the Antidegradation Rule (OAC Rule 3745-1-05), effective October 1, 1996, revised October, 1997 and May, 1998. The Rule includes additional application requirements and public participation procedures. **Because there is a lowering of water quality associated with every project being reviewed for Section 401 certification, every Section 401 certification applicant must provide the information required in Part 10 (pages 3 and 4) of this application**. In addition, applications for projects that will result in discharges of dredged or fill material to wetlands must include a wetland delineation report approved by the Corps of Engineers, a wetland assessment with a proposed assignment of wetland category (ies), official documentation on evaluation of the wetland for threatened or endangered species, and appropriate avoidance, minimization, and mitigation as prescribed in OAC 3745-1-50 to 3745-1-54. Ohio EPA will evaluate the applicant's proposed wetland category assignment and make the final assignment.

Information provided with the application will be used to evaluate the project for certification and is a matter of public record. If the Director determines that the application lacks information necessary to determine whether the applicant has demonstrated the criteria set forth in OAC Rule 3745-32-05(A) and OAC Chapter 3745-1, Ohio EPA will inform the applicant in writing of the additional information that must be submitted. The application will not be accepted until the application is considered complete by the Section 401 Coordinator. An Ohio EPA Section 401 Coordinator will inform you in writing when your application is determined to be complete.

Please submit the following to "Section 401 Supervisor, Ohio EPA/DSW, P.O. Box 1049, Columbus, Ohio 43216-1049:

- Four (4) sets of the completed application form, including the location of the project (preferably on a USGS quadrangle), and 8-1/2" x 11" scaled plan drawings and sections.
- One (1) set of original scaled plan drawings and cross-sections (or good reproducible copies).

(See Application Primer for detailed instructions)

1. The federal permitting agency has determined this project: (check appropriate box and fill in blanks)

   a. [X] requires an individual 404 permit/401 certification- Public Notice # (if known)_____

   b. [ ] requires a Section 401 certification to be authorized by Nationwide Permit #_____

   c. [ ] requires a modified 404 permit/401 certification for original Public Notice #_____

   d. [ ] requires a federal permit under _____ jurisdiction identified by #_____

   e. [ ] requires a modified federal permit under_____jurisdiction identified by #_____

2. Application number (to be assigned by Ohio EPA):

3. Name and address of applicant:
Jerry Wray, Director
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Telephone number during business hours:
(614) 644-0377 (Office)
(614) 728-7368 (Fax)

3a. Signature of Applicant: Date:

4. Name, address and title of authorized agent:
Adrienne Earley, Environmental Supervisor
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Telephone number during business hours:
(614) 466-2159 (Office)
(614) 728-7368 (Fax)

4a. Statement of Authorization: I hereby designate and authorize the above-named agent to act in my behalf in the processing of this permit application, and to furnish, upon request, supplemental information in support of the application.

Signature of Applicant: Date:

5. Location on land where activity exists or is proposed. Indicate coordinates of a fixed reference point at the impact site (if known) and the coordinate system and datum used.

Address: See 401 Permit Application Supplement

Street, Road, Route, and Coordinates, or other descriptive location

Watershed	County	Township	City	State	Zip Code
04100001	Lucas	Springfield	Toledo	Ohio	43615, 43617, 43560, 46323

6. Is any portion of the activity for which authorization is sought complete? ____Yes __x__No
If answer is "yes," give reasons, month and year activity was completed. Indicate the existing work on the drawings.

7. List all approvals or certifications and denials received from other federal, interstate, state or local agencies for any structures, construction, discharge or other activities described in this application.

Issuing Agency	Type of Approval	Identification No.	Date of Application	Date of Approval	Date of Denial
ODNR	Ecological Coordination	13-419	2014-08-20	2013-09-16	
USFWS	Section 7	PID 88252	2014-08-20	2013-09-05	
SHPO/OES	Section 106	PID 88252	2013-02-25	2013-03-07	
FHWA	CE	PID 88252		2013-12-09	
USACE	Jurisdictional Determination	LRH-2013-00808-OTT-Schlicker Ditch	2014-01-10	2013-10-02	
USACE	Section 404	LRH-2013-00808-OTT-Schlicker Ditch		Pending	
OEPA	Section 401	PID 88252		Pending	

8. **DESCRIPTION OF THE ACTIVITY (fill in information in the following four blocks - 8a, 8b, 8c & 9)**

8a. Activity: Describe the Overall Activity:

See 401 Permit Application Supplement

8b. Purpose: Describe the purpose, need and intended use of the activity:

See 401 Permit Application Supplement.

8c. Discharge of dredged or fill material: Describe type, quantity of dredged material (in cubic yards), and quantity of fill material (in cubic yards).

Preferred alternative

- Permanent: approximately 11,939 cubic yards, clean earthen fill

9. Waterbody and location of waterbody or upland where activity exists or is proposed, or location in relation to a stream, lake, wetland, wellhead or water intake (if known). Indicate the distance to, and the name of any receiving stream, if appropriate.

The proposed project will impact two Category 1 non-forested wetlands located within the infields of the existing I-475/US 23 and US 20 interchange within the Heldman Ditch-Ottawa River 12-digit Hydrologic Unit Code watershed (04100001-03-07).

10. To address the requirements of the Antidegradation Rule, your application must include a report evaluating the:

- o Preferred Alternative (your project) and Mitigative Techniques
- o Minimal Degradation Alternative(s) (scaled-down version(s) of your project) and Mitigative Techniques
- o Non-Degradation Alternative(s) (project resulting in avoidance of all waters of the state)

At a minimum, item a) below must be completed for the Preferred Alternative, the Minimal Degradation Alternative(s), and the Non- Degradation Alternative(s), followed by completion of item b) for each alternative, and so on, until all items have been discussed for each alternative (see Primer for specific instructions).

10a) Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water.

10b) Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation.

10c) Include a discussion of the technical feasibility, cost effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.)

10d) For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents.

10e) To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities
on the affected water resource.

10f) Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project.

10g) Describe any impacts on human health and the overall quality and value of the water resource.

10h) Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy.

10i) Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans.

10j) Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species.

10k) Describe mitigation techniques proposed (except for the Non-Degradation Alternative):

- o Describe proposed Wetland Mitigation (see **OAC 3745-1-54** and Primer)
- o Describe proposed Stream, Lake, Pond Mitigation (see Primer)

11. Application is hereby made for a Section 401 Water Quality Certification. I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true, complete and accurate. I further certify that I possess the authority to undertake the proposed activities or I am acting as the duly authorized agent of the applicant.

Signature of Applicant	Date	Signature of Agent

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in Block 3 has been filled out and signed.

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401 Permit Application Supplement

5. Address

The proposed LUC-475/20 Interchange Upgrade project will occur from Wilford Drive to Warner Avenue along US 20, and from 600 feet south of the Dorr Street overpass to the I-475/US 23 Systems Interchange located approximately ½ mile north of the I-475/US 23 and US 20 interchange along the I-475/US 23 mainline. Two Category 1 non-forested wetlands located within the infield of the existing I-475/US 23 and US 20 interchange will be impacted by the proposed project under the preferred alternative. See Table 1 in Appendix A for coordinates and other location information for impacted water resources.

8a. Activity: Describe the Overall Activity

Under the Preferred Alternative, the proposed project, located in Toledo, Lucas County, will;

- re-construct and widen 1.97 miles of I-475/US 23, and 0.71 mile of US 20;
- rebuild and modify the I-475/US 23 and US 20 interchange from the existing folded cloverleaf configuration to a Single Point Urban Interchange (SPUI); and
- install associated infrastructure improvements, including lighting, traffic controls, retaining walls, noise walls, and bridges.

Construction activities will include the relocation of US 20 to the south to allow for the new SPUI to reside within the infield area of the existing folded cloverleaf interchange. The project will interface with the proposed I-475/US 23 Systems Interchange project (PID 94732), and will include numerous adjustments to exit ramp movements in order to address congestion and safety issues at the interchange. The proposed project will impact two Category 1 non-forested wetlands located within the infield of the existing interchange.

8b. Purpose: Describe the purpose, need and intended use of the activity:

The purpose of the project is to:

- develop geometric improvements and safety countermeasures to reduce existing and projected future interchange congestion and safety problems to provide a traffic level of service D or better at the I-475/US 23 and US 20 interchange through the year 2035;
- reduce existing and projected future congestion and safety problems on mainline I-475/US 23 within the US 20 project area to provide a traffic level of service D or better along the mainline through the year 2035;
- reduce existing and future safety problems by eliminating existing geometric design deficiencies at the I-475/US 23 and US 20 interchange and along the mainline of I-475/US 23 in the project area wherever practical and cost effective;
- eliminate the weave condition between I-475/US 23 and US 20 interchange and the I-475/US 23 systems interchange by separating US 20 southbound exit movements from I-475 westbound and US 23 southbound from the mainline I-475/US 23 into separate nested ramps to eliminate the southbound weave movement; and

- eliminate the US 23 southbound drop lane to the US 20 exit ramp.

The need for the project is driven by safety and congestion concerns along this portion of the I-475/US 23 and US 20 corridor: a 2007 *Planning Study Report I-475 Strategic Plan* identified the I-475/US 23 and US 20 interchange as a high priority for upgrade to improve safety and capacity. This report showed that the I-475/US 23 mainline between US 20 and the US 23 interchanges had the highest crash rate along the entire I-475/US 23 corridor. Tight horizontal curves on the existing loop ramps contribute to operational and safety issues, with superelevations and curves no longer meeting current design standards. Additionally, the weave condition between US 20 and the I-475/US 23 Systems Interchange to the north also contributes to operational and safety issues; based upon an Interchange Modification Study completed in 2012, the weaving area will operate at Level of Service F (forced or breakdown flow) in the non-degradation alternative due to congestion from the high volume of weaving vehicles that occur on the short distance between the interchanges. Finally, operational and safety issues related to the southbound US 23 outside through lane (that drops into an interchange off ramp for US 20) contributes to lane balance irregularities where the number of through lanes is reduced unexpectedly to motorists. This situation creates bottlenecks for higher traffic volume areas and prevents smooth merging.

10a. Provide a detailed description of any construction work, fill or other structures to occur or to be placed in or near the surface water. Identify all substances to be discharged, including the cubic yardage of dredged or fill material to be discharged to the surface water.

Preferred Alternative: The proposed project will involve shifting US 20 south of its existing alignment by approximately 350 linear feet. The existing folded cloverleaf interchange will be reconstructed into a SPUI. The SPUI will combine the two existing, signaled ramp terminal intersections into a single intersection located on the US 20 bridge over I-475/US 23. Due to the relocation of US 20 to the south and the layout of the SPUI, grading and fill will be required within Wetlands A and B (located in the infields of the existing interchange) to construct the relocated portion of US 20 and embankments for the new SPUI. Impacts totaling 7.40 acres (3.546 of Wetland A and 3.854 acres of Wetland B) will result from construction of the Preferred Alternative. A total of approximately 11,939 cubic yards of clean earthen fill will be placed within Wetlands A and B in order to construct the Preferred Alternative.

No impacts are proposed to Schlicker Ditch, Hill Ditch, Haefner Ditch, or Wetland C under the preferred alternative. Schlicker Ditch, Hill Ditch, and Haefner Ditch are perennial streams that cross beneath I-475/US 23, while Wetland C is located in a woodlot southwest of US 20. Best Management Practices as outlined in the most recent version of ODOT's Construction and Material Specifications and SS 832 Temporary Sediment and Erosion Control will be followed to minimize siltation during construction.

Minimal Degradation Alternative: The minimal degradation alternative will involve shifting US 20 south of its existing alignment by approximately 350 feet. The existing folded cloverleaf interchange will be reconstructed into a tight urban diamond interchange, with two separate signalized intersections for the I-475/US 23 on- and off-ramps located along US 20. Although grading and fill within regulated aquatic resources will still be required, a reduction in impacts to Wetlands A and B located in the infield of the existing interchange was realized due to the configuration of the

interchange design for the minimal degradation alternative. Impacts totaling 6.893 acres (3.235 acres of Wetland A and 3.658 acres of Wetland B) are proposed under the minimal degradation alternative. A total of approximately 11,121 cubic yards of clean earthen fill will be placed within Wetlands A and B in order to construct the minimal degradation alternative. This alternative does not fully meet the purpose and need of the project, for the close proximity of the two separate signalized intersections within the interchange will only somewhat reduce existing and projected future congestion and safety problems within the US 20 project area.

No impacts are proposed to Schlicker Ditch, Hill Ditch, Haefner Ditch, or Wetland C under the minmal degradation alternative. Schlicker Ditch, Hill Ditch, and Haefner Ditch are perennial streams that cross beneath I-475/US 23, while Wetland C is located in a woodlot southwest of US 20. Best Management Practices as outlined in the most recent version of ODOT's Construction and Material Specifications and SS 832 Temporary Sediment and Erosion Control will be followed to minimize siltation during construction.

Non-Degradation Alternative: The non-degradation alternative for this project would involve the no-build alternative. Consequently, there would be no work associated with the project, and no placement of fill into or near regulated waters. The non-degradation alternative will not address the conditions contributing to congestion and will not address safety concerns at the I-475/US 23 and US 20 interchange. As such, the non-degradation alternative will not meet the purpose and need for the project.

10b. Describe the magnitude of the proposed lowering of water quality. Include the anticipated impact of the proposed lowering of water quality on aquatic life and wildlife, including threatened and endangered species (include written comments from Ohio Department of Natural Resources and U.S. Fish and Wildlife Service), important commercial or recreational sport fish species, other individual species, and the overall aquatic community structure and function. Include a Corps of Engineers approved wetland delineation.

Preferred Alternative: Although of low ecological quality, the wetlands located within the infields of the existing I-475/US 23 and US 20 interchange do provide limited water quality benefits (through nutrient assimilation and flood water storage). The loss of 7.40 acres of Category 1 non-forested wetlands will result in a slight decrease of water quality within the Heldman Ditch-Ottawa River 12-digit Hydrologic Unit Code watershed (04100001-03-07). However, many of the water quality functions provided by the wetlands will be partially replaced through the use of post-construction BMPs, including but not limited to bio-filters and/or vegetation filter strips.

On October 11, 2012, Ohio Department of Natural Resources (ODNR) Division of Wildlife reviewed the Natural Heritage Program database for records of state endangered or listed species within a 1-mile radius of the LUC-475/20 Interchange Upgrade project. Records of the following species were identified within the search area: *Anenome cylindrical* (prairie thimbleweed, threatened), *Arabis pycnocarpa* var. *adpressipilis* (southern hairy rock cress, potentially threatened), *Carex longii* (Long's sedge, endangered), *Desmodium sessilifolium* (sessile tick-trefoil, threatened), *Emodoidea blandingii* (Blanding's turtle, threatened), *Euthamia remota* (Great Lakes goldenrod, threatened), *Hedeoma hispida* (rough pennyroyal, potentially threatened), *Helianthemum bicknellii* (plains frostweed, potentially threatened), *Helianthemum canadense* (Canada frostweed, species of concern), *Koeleria*

macrantha (June grass, endangered), *Lechea villosa* (hairy pinweed, potentially threatened), *Lithospermum caroliniense* (plains puccoon, threatened), *Lupinus perennis* (wild lupine, potentially threatened), *Prunus pumila* var. *cuneata* (sand cherry, endangered), *Rhexia virginica* (Virginia meadow beauty, potentially threatened), and *Solidago speciosa* (showy goldenrod, threatened). Many of these plant species are associated with Oak Openings habitat located near the project area. Although suitable habitat exists within the project area for some of these species, ecological surveys conducted for the project did not locate individuals of any of the species listed above. The project will not impact these listed species.

On September 16, 2013, ODNR Office of Real Estate reviewed the LUC-475/20 Interchange Upgrade project and determined that the project area is in the range of the following species: the federally endangered Indiana bat (*Myotis sodalis*), rayed bean mussel (*Villosa fabalis*), piping plover (*Charadrius melodus*), and Kirtland's warbler (*Dendroica kirtlandii*), all state endangered and federal endangered species; the American bittern (*Botaurus lentiginosus*), black tern (*Chlidonias niger*), common tern (*Sterna hirundo*), king rail (*Rallus elegans*), lark sparrow (*Chondestes grammacus*), and loggerhead shrike (*Lanius ludovicianus*), all state endangered birds; the Eastern massasauga (*Sistrurus catenatus*), a state endangered and a federal candidate snake species; the blue-spotted salamander (*Ambystoma laterale*), a state endangered species; Canada darner (*Aeshna canadensis*), a state endangered dragonfly, and the Hine's emerald (S*omatochlora hinean*a), a state and federally endangered dragonfly; the Persius dusky wing (*Erynnis persius*), a state endangered butterfly, the Karner blue (*Lycaeides melissa samuelis*), a state and federally endangered butterfly, the frosted elfin (*Incisalia irus*), a state endangered butterfly), and the purplish copper (*Lycaena helloides*), a state endangered butterfly. Due to the location and type of habitat that will be affected by construction activities, ODNR determined that the project is not likely to impact these state listed species.

On September 5, 2013, U.S. Fish and Wildlife Service (USFWS) reviewed the LUC-475/20 Interchange Upgrade Project and I-475/U.S. 23 Systems Interchange project. USFWS concurred with ODOT's determination that the project will have no effect on the federally endangered Indiana bat (*Myotis sodalis*), piping plover (*Charadrius melodus*), Kirtland's warbler (*Dendroica kirtlandii*), rayed bean (*Villosa fabalis*), Karner blue butterfly (*Lycaeides melissa samuelis*), the federally threatened eastern prairie fringed orchid (*Patanthera leucophaea*), and the Federal candidate eastern massasauga (*Sisturus catenatus*).

A preliminary jurisdictional determination from the U.S. Army Corps of Engineers is included as Document 2 in Appendix F. ODNR and USFWS comments are included as Documents 4-5, and 7 in Appendix F.

Minimal Degradation Alternative: Wetland impacts will be reduced in the minimal degradation alternative due to the use of the tight urban diamond interchange design that incorporates relocation of US 20 to the south of its existing alignment. Permanent impacts to Category 1 non-forested wetlands have been reduced by 0.507 acre. Impacts to Wetlands A and B are still required to construct the new interchange under the minimal degradation alternative. Functions provided by the wetlands will be partially replaced through the use of post-construction BMPs, including but not limited to bio-filters and/or vegetation filter strips. The reduction of water quality from the project will be lower under the minimal degradation alternative when compared to the Preferred

Alternative. As in the Preferred Alternative, impacts to aquatic wildlife or threatened or endangered species are not anticipated under the minimal degradation alternative.

Non-Degradation Alternative: There will be no lowering of water quality with the non-degradation alternative, and no impacts to aquatic species or federal or state endangered species will occur.

10c. Include a discussion of the technical feasibility, cost-effectiveness, and availability. In addition, the reliability of each alternative shall be addressed (including potential recurring operational and maintenance difficulties that could lead to increased surface water degradation.)

Preferred Alternative: The Preferred Alternative is technically feasible, cost-effective, and available. By shifting US 20 south and constructing a SPUI with I-475/US 23, this design will help to substantially reduce the public safety hazard posed by traffic congestion related to the I-475/US 23 corridor and the existing US 20 interchange. Once the proposed project is complete, future maintenance activities will be minimal and are not expected to lead to further surface water degradation. The Preferred Alternative has a total estimated cost of $51.9 million.

Minimal Degradation Alternative: The minimal degradation alternative is cost-effective and available. However, the interchange design selected as a the minimal degradation alternative (tight urban diamond involving shifting of US 20 to the south) suffers from poor Level of Service and volume/capacity along US 20 due to two signalized intersections being located on the US 20 bridge at the I-475/US 23 on- and off-ramps. As such, the minimal degradation alternative fails to fully meet the project purpose, as conditions which contribute to congestion and safety concerns at the US 20 interchange will not be addressed and the design will not accommodate existing and future traffic within the project segment. Due to these deficiencies, the minimal degradation alternative is not a practicable option for ODOT from a technical standpoint. Future maintenance activities resulting from the construction of the minimal degradation alternative will be minimal and are not expected to lead to further surface water degradation. The minimal degradation alternative has a total estimated cost of $49.4 million.

Non-Degradation Alternative: The non-degradation alternative is not feasible since it will not meet the purpose and need for the project*, i.e.,* it will not address safety concerns related to the I-475/US 23 and US 20 interchange; and it will not accommodate existing and future traffic within the project segment. ODOT has a responsibility to maintain the roadways under its jurisdiction and to look after public welfare; consequently, the non-degradation alternative is not a technically feasible option for ODOT.

10d. For regional sewage collection and treatment facilities, include a discussion of the technical feasibility, cost effectiveness and availability, and long-range plans outlined in state or local water quality management planning documents and applicable facility planning documents.

Preferred Alternative: n/a

Minimal Degradation Alternative: n/a

Non-Degradation Alternative: n/a

10e. To the extent that information is available, list and describe any government and/or privately sponsored conservation projects that exist or may have been formed to specifically target improvement of water quality or enhancement of recreational opportunities on the affected water resource.

Preferred Alternative: Two government and/or privately sponsored conservation projects that specifically target water quality or enhancement of recreational opportunities within the Ottawa River-Frontal Lake Erie 10-digit HUC (04100001-03) watershed were identified.

1) The Ottawa River-Frontal Lake Erie watershed falls under the umbrella of the Maumee Area of Concern (AOC). The U.S.–Canada Great Lakes Water Quality Agreement (Annex 2 of the 1987 protocol) defines AOCs as, "*…geographic areas that fail to meet the general or specific objectives of the agreement where such failure has caused or is likely to cause impairment of beneficial use of the area's ability to support aquatic life*". The Maumee AOC is comprised of five watersheds located in northwest Ohio. The Maumee Remedial Action Plan Committee, currently a part of Partners for Clean Streams nonprofit group, developed the Maumee AOC Stage 2 Watershed Plan in 2006. For the purpose of obtaining a fully endorsed watershed plan from the Ohio Department of Natural Resources, the plan is in the process of being updated. This plan includes specific action steps designed to improve water quality, educate the public about the importance of water resources, and protect the Maumee and its tributaries.
2) In 2009, Partners for Clean Stream developed the Wetland & Riparian Inventory Restoration Plan for the Swan Creek and Ottawa River Watersheds. This plan focuses on restoring and protecting fish and wildlife habitat and water quality through the restoration and enhancement of wetlands and stream segments within the watersheds.

Minimal Degradation Alternative: Same as Preferred Alternative.

Non-Degradation Alternative: Same as Preferred Alternative.

10f. Provide an outline of the costs of water pollution controls associated with the proposed activity. This may include the cost of best management practices to be used during construction and operation of the project.

Preferred Alternative: Costs for the installation of erosion control materials and preparation of a Stormwater Pollution Prevention Plan for the Preferred Alternative are estimated to be approximately $724,791.06. Please see Appendix A for a breakdown of estimated costs.

Minimal Degradation Alternative: Costs for the installation of erosion control materials and preparation of a Stormwater Pollution Prevention Plan for the minimal degradation alternative are estimated to be the same as the Preferred Alternative. Please see Appendix A for a breakdown of estimated costs.

Non-Degradation Alternative: Since the non-degradation alternative is a no-build alternative, there is no cost for water pollution controls associated with this alternative.

10g. Describe any impacts on human health and the overall quality and value of the water resource.

Preferred Alternative: Filling of non-forested wetlands within the road ROW associated with the construction of the SPUI for the I-475/US 23 and US 20 interchange will result in a lowering of water quality within the Heldman Ditch-Ottawa River watershed. However, this loss of aquatic resources will not have a significant negative effect on the watershed. Although the wetlands do provide benefits to water quality through storm water storage and nutrient filtration, they only offer limited habitat for wildlife due to an abundance of non-native invasive species. Post construction BMPs, including bio-filters and vegetation filter strips that will be incorporated into the project at the new interchange will provide similar water quality functions as the wetlands.

The Preferred Alternative will positively affect human health, as roadway conditions which contribute to high accident rates on the I-475/US 23 mainline and off-ramps to US 20 and US 23 will be addressed. As documented in the 2007 *Planning and Study Report I-475 Strategic Plan*, the I-475 mainline between the US 20 and US 23 interchanges had the highest crash rate along the entire I-475 corridor. In addition, the number of crashes on the northbound off-ramp to US 20 and the northbound I-475/US 23 ramp terminal intersection with US 20 place both of these locations in the top five crash listing of freeway ramps and freeway ramp terminals in the I-475 corridor. These high crash rates triggered an evaluation of the interchange and consideration of measures to help mitigate their occurrences. As documented in the response to Question 8b, numerous conditions (including design deficiencies, weaving areas, and drop lanes) exist in the project area which will result in a Level of Service F (forced or breakdown flow) in the non-degradation alternative by 2035.

Shifting of US 20 to the south to accommodate the construction of a SPUI will allow for increased distance between the US 20 and US 23 interchanges. Coupled with widening of the I-475/US 23 mainline, construction of nested ramps, and elimination of the US 23 to US 20 drop lane, the project will allow for conditions which contribute to crashes and congestion to be addressed.

Minimal Degradation Alternative: Construction of the minimal degradation alternative will result in a lowering of water quality of the water resources within the construction area. This loss of water quality will be less than in the Preferred Alternative due to the reduction in total impacts. As in the Preferred Alternative, some water quality functions of the impacted wetlands will be replaced by post construction BMPs that will be implemented at the new interchange.

The minimal degradation alternative will positively affect human health, but the effects will be reduced when compared to the Preferred Alternative. The minimal degradation alternative will not completely address the conditions which contribute to congestion and high crash rates along this stretch of I-475/US 23 and US 20, as this alternative will still utilize two signalized intersections along US 20. Congestion along US 20, indicated by a Level of Service E (unstable flow at capacity) and volume/capacity values approaching 1.0 in the 2035 design year, results in unacceptable performance of this alternative. This congestion may continue to contribute to unacceptably high accident rates along US 20. A description of the safety concerns related with current roadway conditions is provided in the response given for the Preferred Alternative in item 10g above.

Non-Degradation Alternative: The non-degradation alternative will not impact the quality or value of the wetlands located within the infields of the existing interchange. However, conditions along the I-475/US 23 and US 20 corridors that contribute to high accident rates at the interchange will not be addressed. Human health could be negatively impacted under the non-degradation alternative, as injury and fatal crashes will still occur at rates above acceptable levels.

10h. Describe and provide an estimate of the important social and economic benefits to be realized through this project. Include the number and types of jobs created and tax revenues generated and a brief discussion on the condition of the local economy.

Preferred Alternative: While economic development is not a primary objective of the LUC-475/20 Interchange Upgrade project, construction of the Preferred Alternative will have a positive economic impact on Lucas County by providing much needed construction and other jobs in the community. ODOT estimates that the construction of the Preferred Alternative will generate 485 full-time construction jobs for two construction seasons (18 months) at an average hourly wage of $27.25/hour (including fringe benefits). Using a standard 40-hour work week, this translates to an average annual salary of $42,500 per worker and a total payroll of approximately $20.6 million.

The U.S. Census Bureau (http://quickfacts.census.gov/qfd/states/39/39095.html) reports that 436,393 people lived in Lucas County in 2013. This is a 1.2% decrease from the population in 2010, when 441,815 people were reported to live in the county. In 2010, the median household income in the county was $41,436, which was less than the statewide median household income of $48,246. The U.S. Census Bureau also reported that between 2008 and 2012, 20.5% of the people in Lucas County lived below poverty level. According to data published by the U.S. Bureau of Labor Statistics (April 2014), Lucas County had an unemployment rate of 5.7%, which matched the Ohio unemployment rate of 5.7%.

In addition to the direct economic impact that will be realized by construction workers who are employed on this project, indirect economic benefits will occur as these construction workers spend portions of their salaries to purchase goods and services in and around the construction site and in their own communities. Additionally, improvement of the I-475/US 23 and US 20 interchange will help to address congestion and safety concerns in the area. Visits to commercial enterprises near the project may increase due to the enhanced, safer interchange layout that will result from the project.

Adjacent property values are not expected to increase as a result of the construction of the Preferred Alternative.

Minimal Degradation Alternative: It is expected that the number of jobs generated for the minimal degradation alternative will be slightly lower due to the decreased overall construction cost for this alternative. Based on the overall project construction cost and an estimated labor cost of 40% of the total construction budget, it is estimated that the minimal degradation alternative will generate 462 full-time construction jobs for two construction seasons (18 months) at an average hourly rate of $27.25/hour (including fringe benefits). Using a standard 40-hour work week, this translates to a total payroll of approximately $19.64 million. This is a reduction of 23 full-time jobs from the Preferred Alternative.

Like the Preferred Alternative, in addition to the direct economic impact that will be realized by construction workers who are employed on this project, indirect economic benefit will occur as these construction workers spend portions of their wages to purchase goods and services in and around the construction site and in their own communities.

Adjacent property values are not expected to increase as a result of the construction of the minimal degradation alternative. As the minimal degradation alternative will result in improvements to the I-475/US 23 and US 20 interchange, secondary commercial benefits may result (like in the Preferred Alternative) through the improved safety and reduction in congestion at the interchange. However, these secondary benefits will likely be lower than in the Preferred Alternative, as the interchange layout under the minimal degradation alternative will not completely address conditions which currently contribute to crashes and congestion at the I-475/US 23 and US 20 interchange.

Non-Degradation Alternative: No social or economic benefit will be derived from the non-degradation alternative for this project. Commercial enterprises that operate near the I-475/US 23 and US 20 interchange may in fact be negatively affected by the non-degradation alternative for the project, as conditions which contribute to congestion and safety issues at the interchange will not be rectified. Continuing safety and congestion problems at the interchange may deter the public from making shopping visits to businesses in this portion of Toledo, resulting in a loss of customers for these enterprises.

10i. Describe and provide an estimate of the important social and economic benefits that may be lost as a result of this project. Include the effect on commercial and recreational use of the water resource, including effects of lower water quality on recreation, tourism, aesthetics, or other use and enjoyment by humans.

Preferred Alternative: No important social and economic benefits will be lost as a result of the construction of the Preferred Alternative for this project. Tourism and aesthetics will not be adversely affected by the construction of the Preferred Alternative. The wetlands impacted by the proposed project are not used for recreation or tourism by humans, as they are located within the road ROW. As such, there will be no effect on commercial or recreational use of the water resources. The preferred alternative will involve only minor right-of-way takes; two single-family homes will be displaced as a result of the construction of the Preferred Alternative.

Minimal Degradation Alternative: Similar to the Preferred Alternative, tourism and aesthetics will not be adversely affected by the construction of the minimal degradation alternative as no humans utilize the wetlands for these purposes.

The minimal degradation alternative will result in economic losses to the community, as the interchange design utilized in the minimal degradation alternative will result in right-of-way takes to a commercial enterprise (Kia car dealership) located in the northeast quadrant of the existing interchange. Although a retaining wall could be employed to avoid complete take of the dealership building, substantial impacts to customer and inventory parking will still result. These impacts would negatively affect the operation of the dealership; car dealerships rely on maintaining large amounts of in-stock vehicles to provide customers with numerous purchase options (model, colors, and features). A reduction in available inventory could impact the operating profit of the dealership,

which could result in a loss of jobs and a decrease in sales/income taxes for the local community and State. In addition to impacts to the Kia dealership, construction of the minimal degradation alternative will result in more impacts of single-family homes; a total of four residences will be displaced under the minimal degradation alternative.

Non-Degradation Alternative: Commercial and recreational use of water resources will not be adversely impacted by the no-build alternative. However, social and economic benefits may be lost as a result of continuing safety issues associated with the I-70/SR 48 interchange, continued congestion at the interchange, and the potential loss of commercial visits to businesses in close proximity to the interchange. The non-degradation alternative will not result in right-of-way impacts to homes or businesses.

10j. Describe environmental benefits, including water quality, lost and gained as a result of this project. Include the effects on the aquatic life, wildlife, threatened or endangered species.

Preferred Alternative: The Preferred Alternative will result in a loss of 7.40 acres of Category 1 non-forested wetlands located within the infield of the existing I-475/US 23 and US 20 interchange. Overall, these losses will result in a slight decrease in water quality of the Heldman Ditch-Ottawa River watershed. However, these wetlands only provide limited habitat for aquatic species and wildlife, as the wetlands contain an abundance of non-native invasive species and are located within a heavily disturbed area within the I-475/US 23 road right-of-way.

Only a few trees will be removed by the project under the Preferred Alternative. No contiguous forested area will be cleared by the project. Impacts to terrestrial species occupying the disturbed areas adjacent to I-475/US 23 are anticipated to be negligible under the Preferred Alternative. Impacts to threatened or endangered species are not anticipated under the Preferred Alternative.

Minimal Degradation Alternative: The minimal degradation alternative will involve reduced impacts to the non-forested wetlands located within the infields of the existing I-475/US 23 and US 20 interchange. Because of the reduced wetland impacts, the minimal degradation alternative will also result in reduced losses of habitat for wildlife and aquatic species. Like the Preferred Alternative, impacts to threatened and endangered species are not anticipated from construction of the minimal degradation alternative. Similar avoidance and minimization efforts to limit potential impacts to aquatic species are present in the minimal degradation alternative. Impacts to terrestrial species occupying the disturbed areas adjacent to I-475/US 23 are anticipated to be negligible under the minimal degradation alternative.

Non-Degradation Alternative: As the non-degradation alternative is the no-build alternative, no loss of water quality or impacts to aquatic or terrestrial species, wildlife, or threatened and endangered species will occur.

10k. Describe mitigation techniques proposed (except for the Non-Degradation Alternative):
-Describe proposed Wetland Mitigation (see OAC 3745-1-54 and Primer)
-Describe proposed Stream, Lake, Pond Mitigation (see Primer)

Preferred Alternative: For the Preferred Alternative, ODOT proposes to provide off-site wetland mitigation through the purchase of credits at an Ohio Interagency Review Team-approved wetland mitigation bank. Per guidance provided by the Ohio Interagency Review Team (*Guidelines for Wetland Mitigation Banking in Ohio 2011*), mitigation for jurisdictional or isolated Category 1 wetlands of any size may occur anywhere within the Ohio portion of the Corps District where the impacts are located. Based upon the table provided in OAC-3745-1-54, impacts to 7.4 acres of Category 1, non-forested wetlands will require a total of 11.1 acres of mitigation at a 1.5:1 mitigation to impact ratio. ODOT will purchase 11.1 wetland mitigation credits from an approved wetland mitigation bank located within the USACE Buffalo District.

Minimal Degradation Alternative: ODOT proposes to provide off-site wetland mitigation through the purchase of credits at an Ohio Interagency Review Team-approved wetland mitigation bank. Per guidance provided by the Ohio Interagency Review Team (*Guidelines for Wetland Mitigation Banking in Ohio 2011*), mitigation for jurisdictional or isolated Category 1 wetlands of any size may occur anywhere within the Ohio portion of the Corps District where the impacts are located. Based upon the table provided in OAC-3745-1-54, impacts to 6.893 acres of Category 1, non-forested wetlands will require a total of 10.4 acres of mitigation at a 1.5:1 mitigation to impact ratio. ODOT will purchase 10.4 wetland mitigation credits from an approved wetland mitigation bank located within the USACE Buffalo District.

APPENDIX A
Supplemental Data Tables

Tables

Table 1
Wetlands Affected by the Proposed Project

Wetland	USGS Coordinates	Acreage Within Project	Hydrologic Unit Code (HUC)	Drainage Basin	Cowardin et al. Classification	ORAM v. 5.0 Score	OEPA Wetland Category	Connectivity to Other Waters	Jurisdictional Status	Does the Wetland Continue Outside of Project?
Wetland A	41.674698 N -83.695290 W	3.546 AC	04100001-03-07	Heldman Ditch-Ottawa River	PSS1, PEM1	13.5	1	abutting	jurisdictional (pre-JD)	no
Wetland B	41.674940 N -83.692572 W	3.854 AC	04100001-03-07	Heldman Ditch-Ottawa River	PEM1	13.5	1	abutting	jurisdictional (pre-JD)	no

Table 2
Nature of Proposed Activities by Impacted Feature for the Preferred Alternative

Wetlands						Existing Culvert	Existing Culvert Replaced (overlap)	Permanent Fill Within Wetland Boundary										Total Permanent Fill Within Wetland Boundary			Total Temporary Fill Within Wetland Boundary			TOTAL IMPACT	TOTAL NEW IMPACT (Total - Existing)
								Proposed Concrete (Includes Culvert, Piers, Walls, Abutments, etc.)			Proposed RCP			Proposed Earthen, Granular, or Embankment Fill			Proposed Other (Steel, Etc.)										
Aquatic Resource ID	USGS Coordinates	Description of Impacts/Activities within Wetland Boundary	Total Acreage Within Project Area	Width (LF)	Depth (LF)	Length (LF)	Length (LF)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Length (LF)	Area (AC)	Volume (CY)	Area (AC)	Area (AC)
Wetland A	41.674698 N -83.695290 W	grading/fill	3.546 AC	varies	varies	–	–	–	–	–	–	–	–	–	3.546 AC	5,721 CY	–	–	–	–	3.546 AC	5,721 CY	–	–	–	3.546 AC	3.546 AC
Wetland B	41.674940 N -83.692572 W	grading/fill	3.854 AC	varies	varies	–	–	–	–	–	–	–	–	–	3.854 AC	6,218 CY	–	–	–	–	3.854 AC	6,218 CY	–	–	–	3.854 AC	3.854 AC
					SUM:			–	–	–	–	–	–	–	**7.40 AC**	**11,939 CY**	–	–	–	–	**7.40 AC**	**11,939 CY**	–	–	–	**7.40 AC**	**7.40 AC**

Table 3
Proposed Lowering of Water Quality by the Preferred and Antidegradation Alternatives

Alternative	Direct Stream Impacts	Direct Wetland Impacts	Direct Impacts to Other Waters	Aquatic Biota	Threatened and Endangered Species	Terrestrial Impacts (plants, animals, riparian habitat)	Summary of Alternative Impacts
Preferred	No impacts	7.40 AC	No impacts	No impacts	No impacts	No impacts	7.40 AC wetlands
Minimal	No impacts	6.893 AC	No impacts	No impacts	No impacts	No impacts	6.893 AC wetlands
Non-degradation	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts	No impacts

Table 4

Estimated Costs of Water Pollution Controls by Alternative

Item Description	Preferred Alternative ($)	Minimal Degradation Alternative ($)	Non-Degradation Alternative ($)
Rock Channel Protection, Type C with Filter	$2,722.23	$2,722.23	–
Soil Analysis Test	$66.23	$66.23	–
Seeding and Mulching	$39,929.15	$39,929.15	–
Repair Seeding and Mulching	$2,304.24	$2,304.24	–
Commercial Fertilizer	$10,715.00	$10,715.00	–
Water	$311.70	$311.70	–
Mowing	$616.95	$616.95	–
Slope Erosion Protection	$55,424.35	$55,424.35	–
Ditch Erosion Protection	$3,849.00	$3,849.00	–
Ditch Erosion Protection Mat, Type A	$1,228.21	$1,228.21	–
Stormwater Pollution Prevention Plan	$50,000.00	$50,000.00	–
Erosion Control	$557,624.00	$557,624.00	
Total Costs ($)	**$724,791.06**	**$724,791.06**	–

Table 5

Proposed Wetland Mitigation for the Preferred Alternative and Minimal Degradation Alternative

Wetland	Impacted Amount	ORAM Category	Vegetative Classification	Jurisdictional Status	Type of Mitigation	Watershed (8-digit HUC)		Ratio	Mitigated Amount	
						Impacted	Mitigated		On-site	Off-site
Preferred Alternative										
Wetland A	3.546 AC	1	non-forested	jurisdictional	restoration	04100001	TBD	1.5:1	–	5.319 AC
Wetland B	3.854 AC	1	non-forested	jurisdictional	restoration	04100001	TBD	1.5:1	–	5.781 AC
Minimal Degradation Alternative										
Wetland A	3.235 AC	1	non-forested	jurisdictional	restoration	04100001	TBD	1.5:1	–	4.853 AC
Wetland B	3.658 AC	1	non-forested	jurisdictional	restoration	04100001	TBD	1.5:1	–	5.487 AC

Table 6

Estimated Project Cost Breakdowns for the Preferred Alternative and Minimum Degradation Alternative

	Cost Item	Preferred Alternative	Minimal Degradation Alternative
Central Avenue	Roadway	$1,744,000.00	$1,744,000.00
	Drainage	$455,000.00	$455,000.00
	Traffic Control	$750,000.00	$750,000.00
	Pavement	$2,120,000.00	$2,120,000.00
	Side Roads	$255,000.00	$255,000.00
	Subtotal	***$5,324,000.00***	***$5,324,000.00***
Ramps/Ramp Spurs	Roadway	$931,000.00	$882,000.00
	Drainage	$931,000.00	$931,000.00
	Traffic Control	$200,000.00	$200,000.00
	Pavement	$1,967,000.00	$1,873,000.00
	Retaining Walls	$30,000.00	$30,000.00
	Subtotal	***$4,059,000.00***	***$3,916,000.00***
I-475	Roadway	$1,028,000.00	$1,028,000.00
	Drainage	$785,000.00	$785,000.00
	Traffic Control	$400,000.00	$400,000.00
	Pavement	$6,685,000.00	$6,685,000.00
	Noise Walls	$4,000,000.00	$4,000,000.00
	Lighting	$725,000.00	$725,000.00
	Subtotal	***$13,623,000.00***	***$13,623,000.00***
Miscellaneous Costs	SWPPP	$50,000.00	$50,000.00
	Erosion Control	$724,791.06	$724,791.06
	Mobilization	$1,200,000.00	$1,200,000.00
	MOT	$2,000,000.00	$2,000,000.00
	Landscaping	$340,000.00	$340,000.00
	80/20 Rule - Minor Items	$5,751,500.00	$5,715,750.00
	Bridge and Bridge Removal	$5,665,975.00	$4,000,000.00
	PDP Design Risk Contingency	$9,603,369.00	$9,142,188.00
	Inflation Per ODOT Calculator	$3,534,040.00	$3,364,325.00
	Subtotal	***$28,869,675.06***	***$26,537,054.06***
	Grand Total	***$51,875,675.06***	***$49,400,054.06***

APPENDIX B
General Maps and Design Drawings

Exhibits

1. Location of Site on Ohio County and USGS Topographic Map
2. Ecological Resources Map
3-5. Preferred Alternative Plan and Cross Sections
6-8. Minimal Degradation Alternative Plan and Cross Sections
9. FEMA FIRM Map

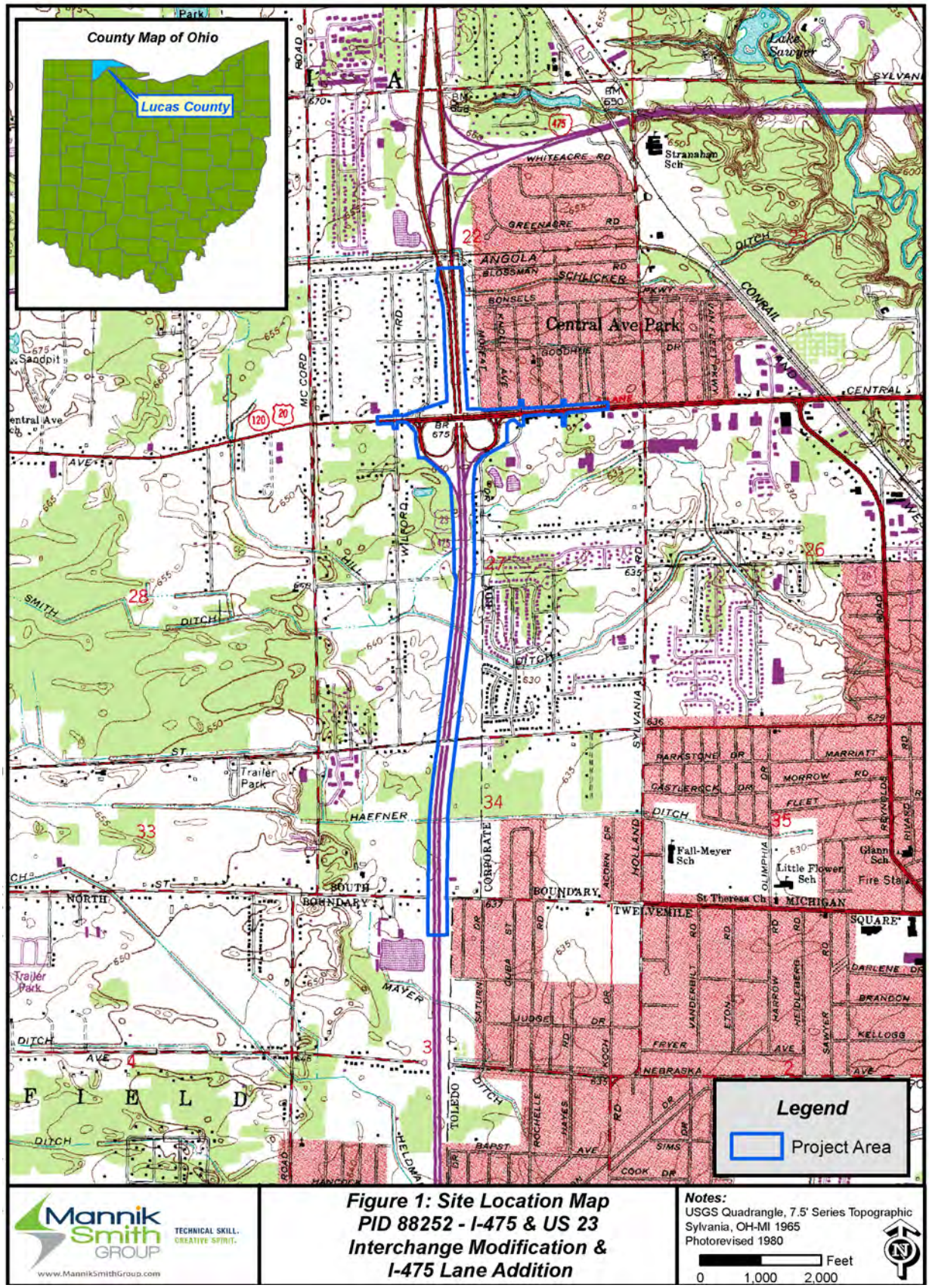


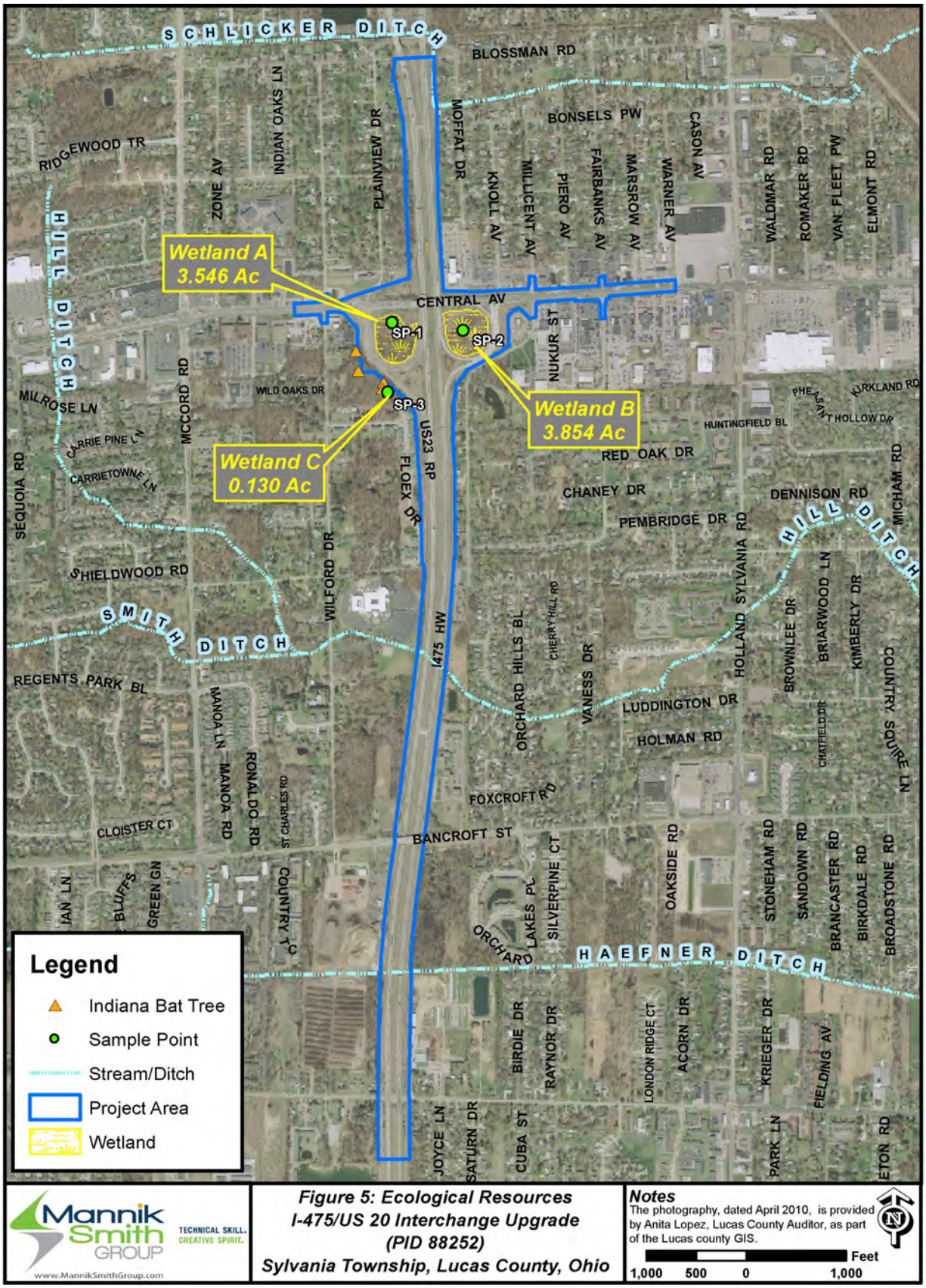
Figure 1: Site Location Map
PID 88252 - I-475 & US 23
Interchange Modification & I-475 Lane Addition

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Location of Project on Ohio County and USGS Topographic Maps

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 1/21

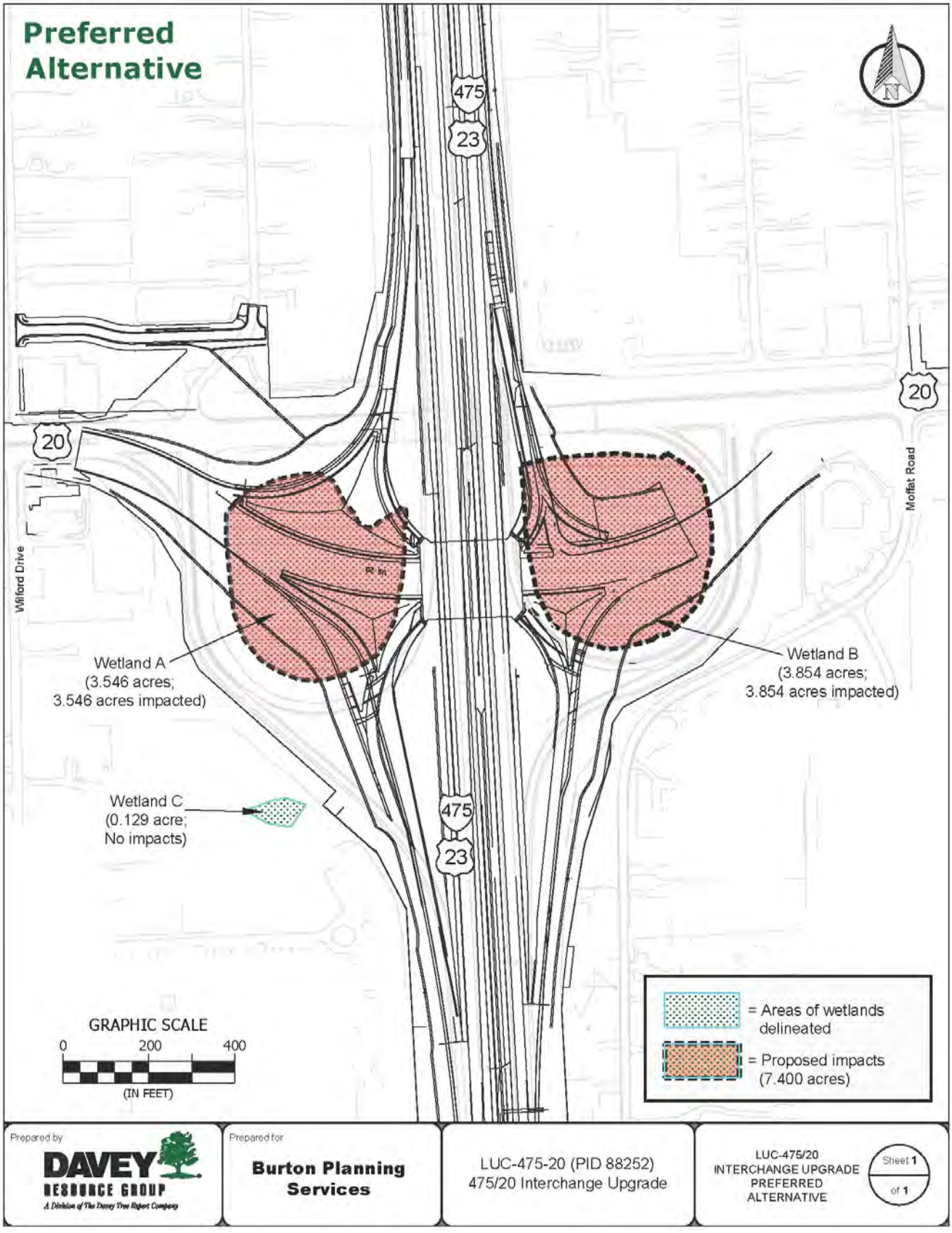


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Ecological Resources Map

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 2/21

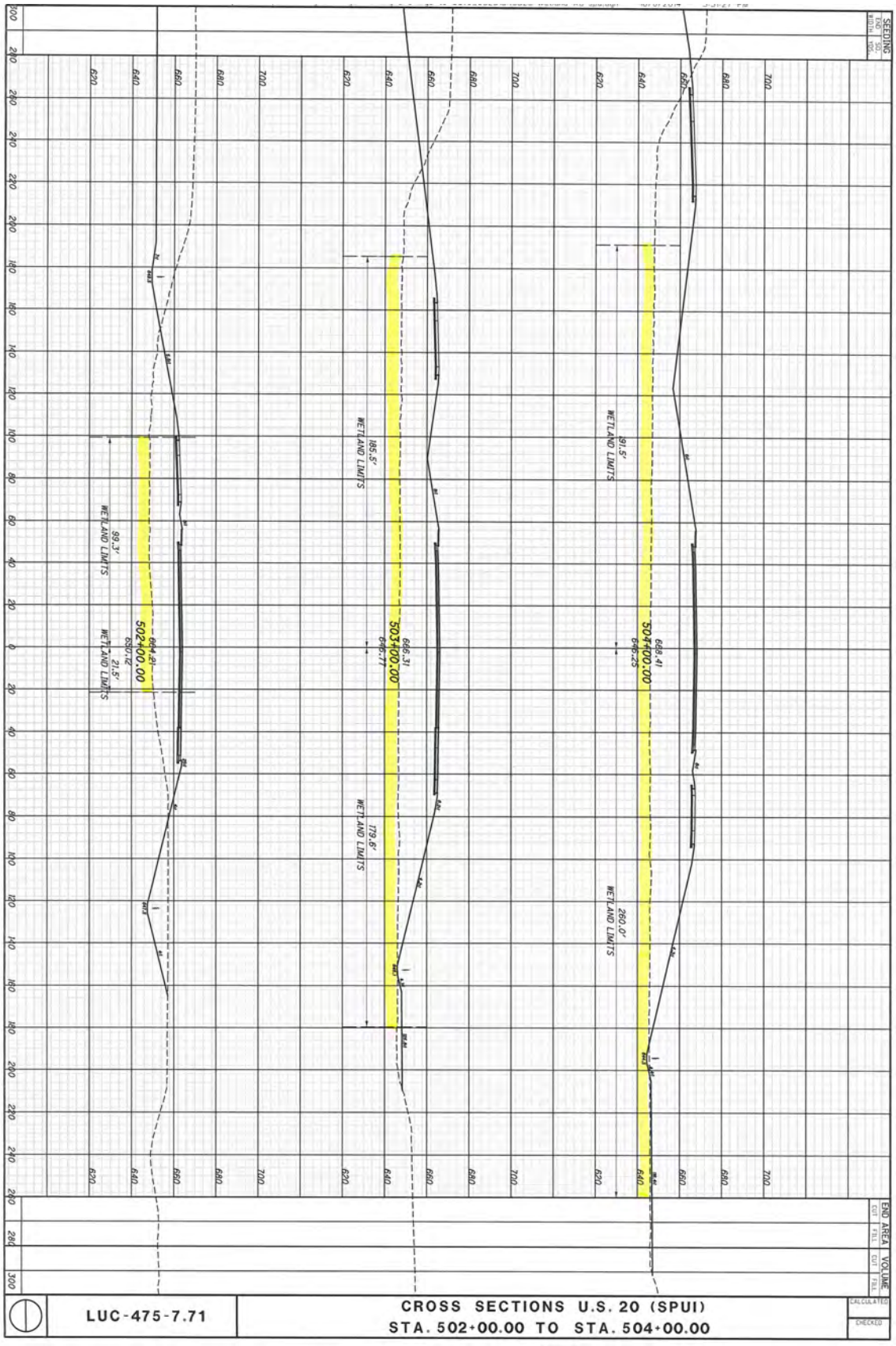


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Preferred Design Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 3/21

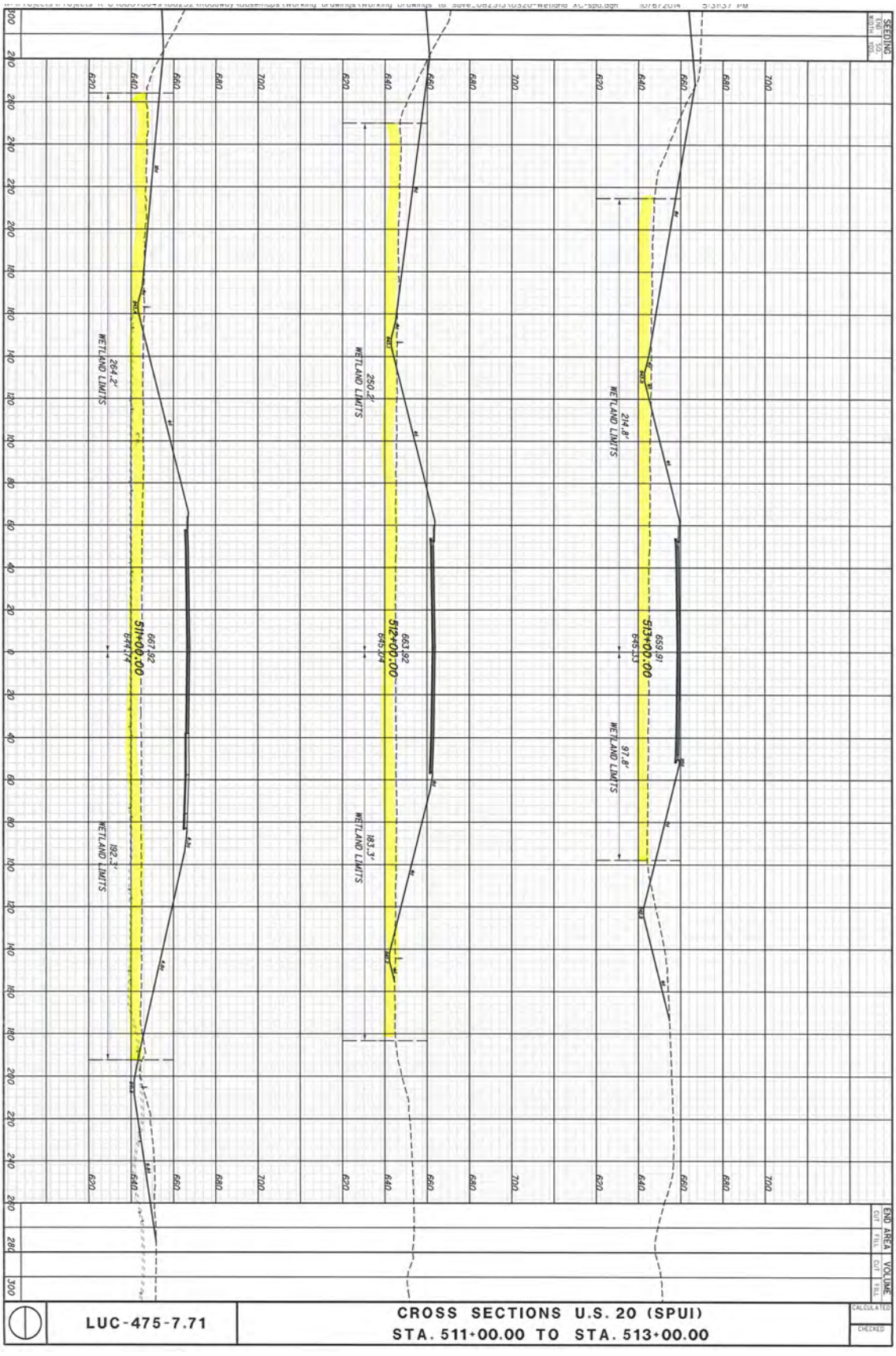


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Preferred Design Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

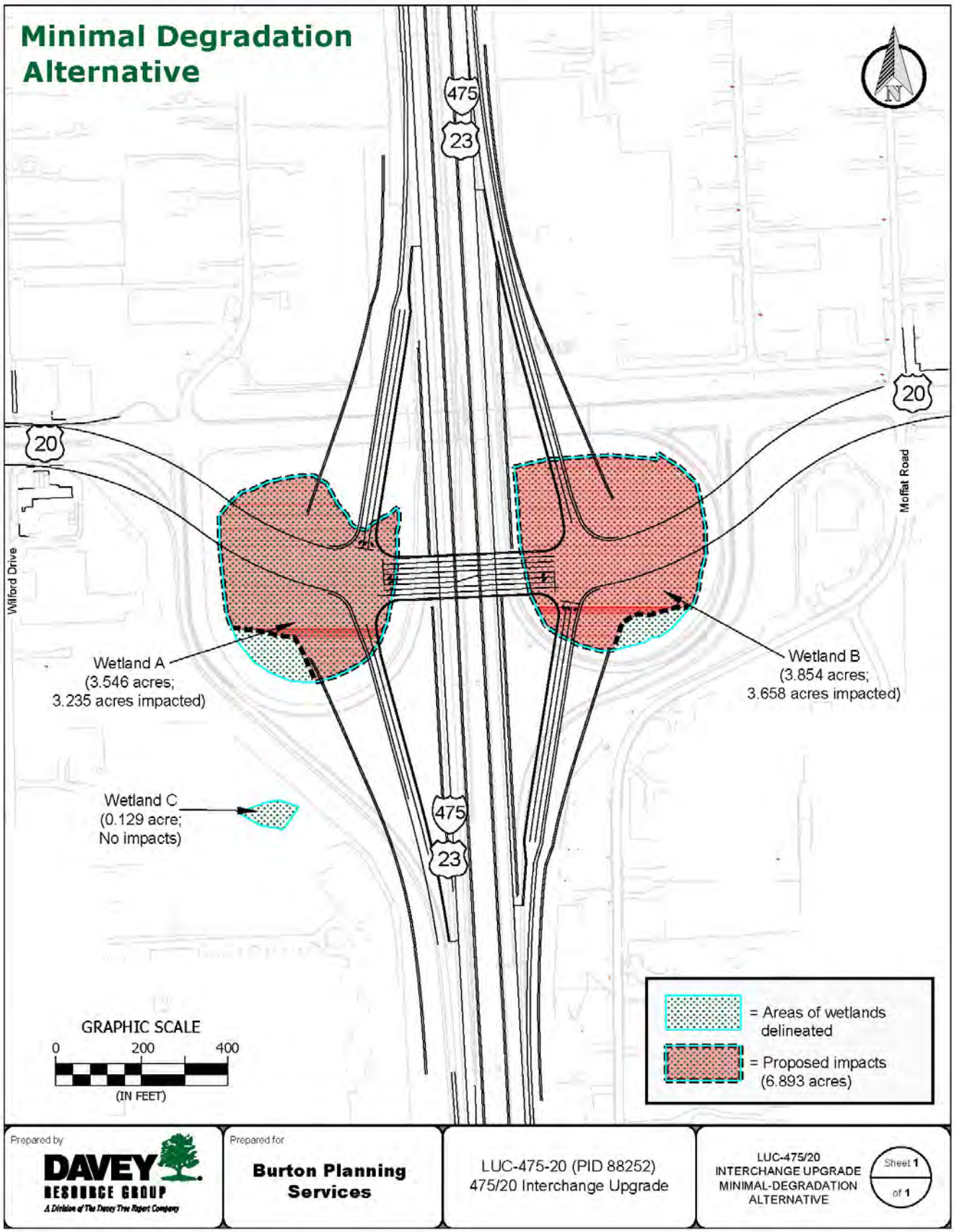
Exhibit: 4/21



LUC-475/21 Interchange Upgrade (PID 88252)
Preferred Design Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 5/21

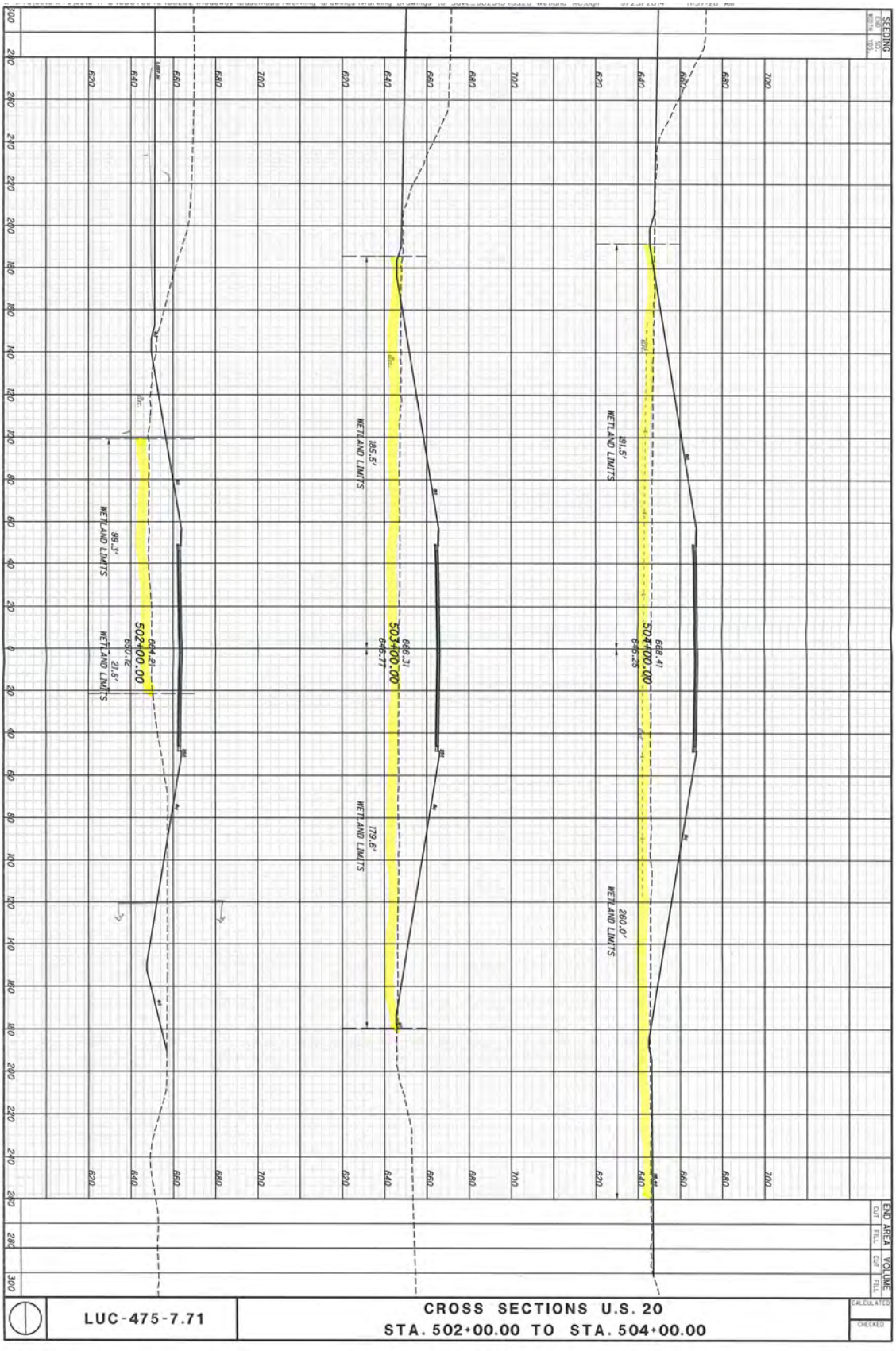


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Minimal Degradation Alternative Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

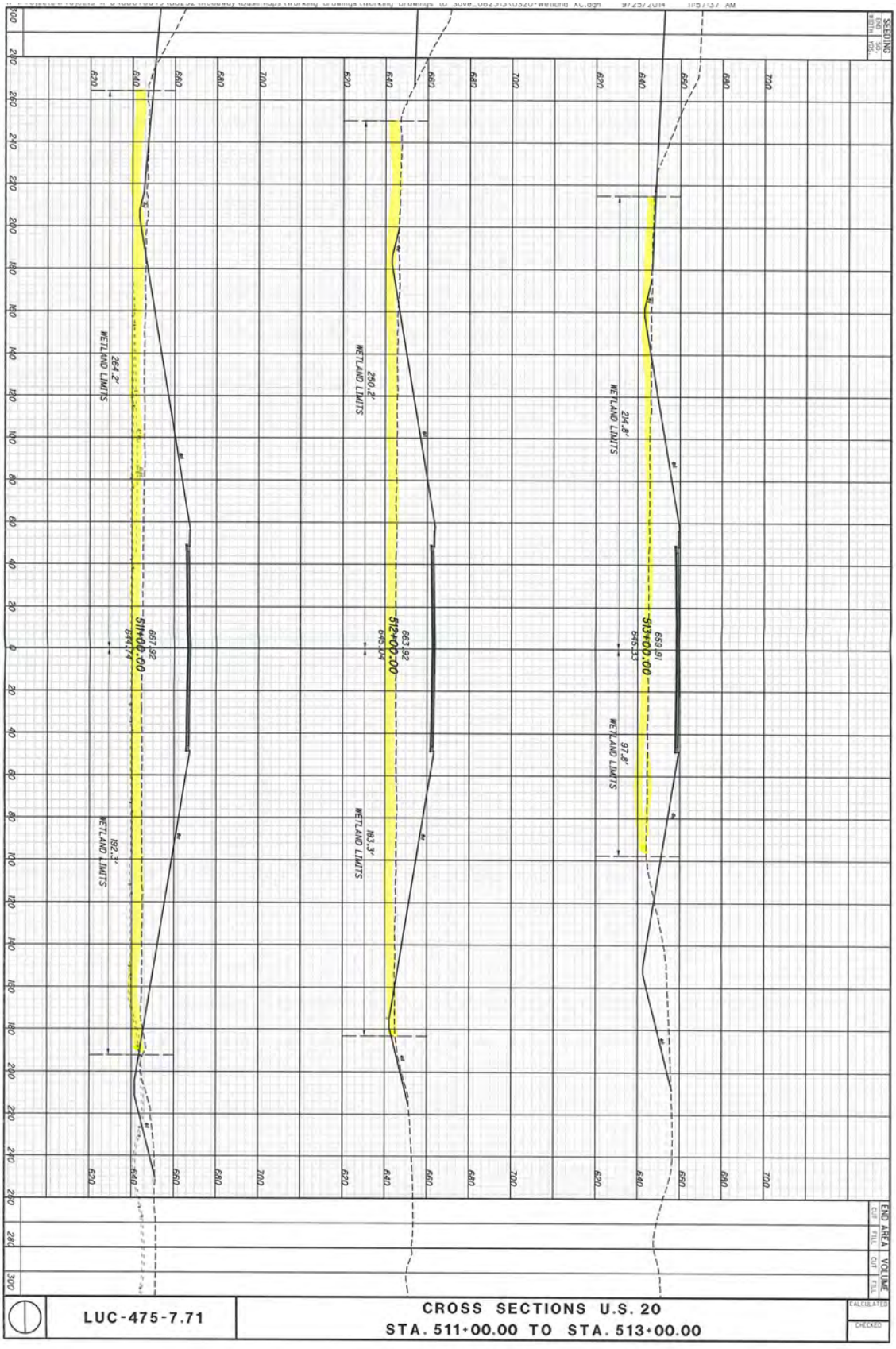
Exhibit: 6/21



LUC-475/21 Interchange Upgrade (PID 88252)
Minimal Degradation Alternative Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 7/21

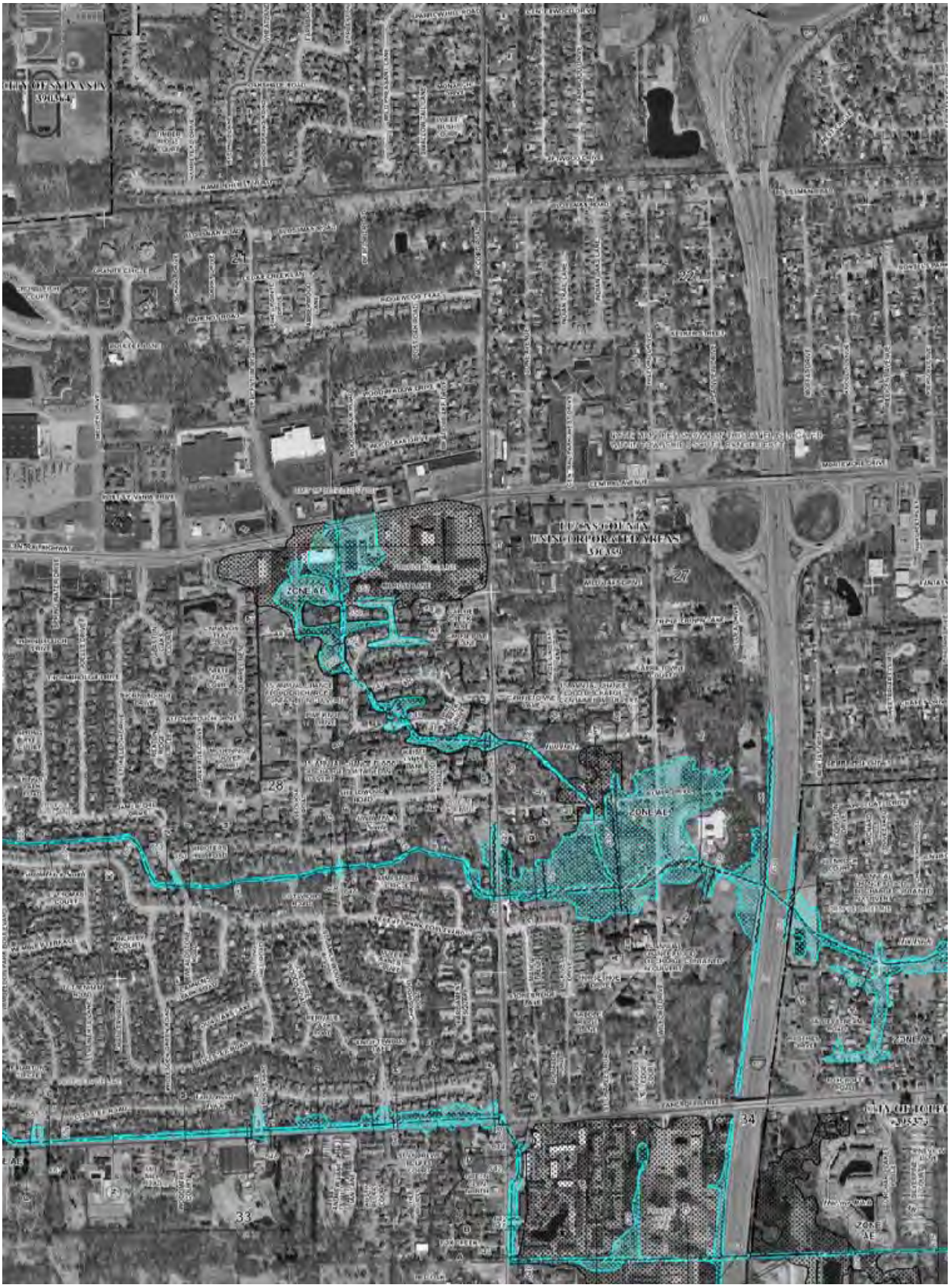


STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Minimal Degradation Alternative Plan and Cross Sections

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 8/21



LUC-475/21 Interchange Upgrade (PID 88252)
FEMA FIRM Map

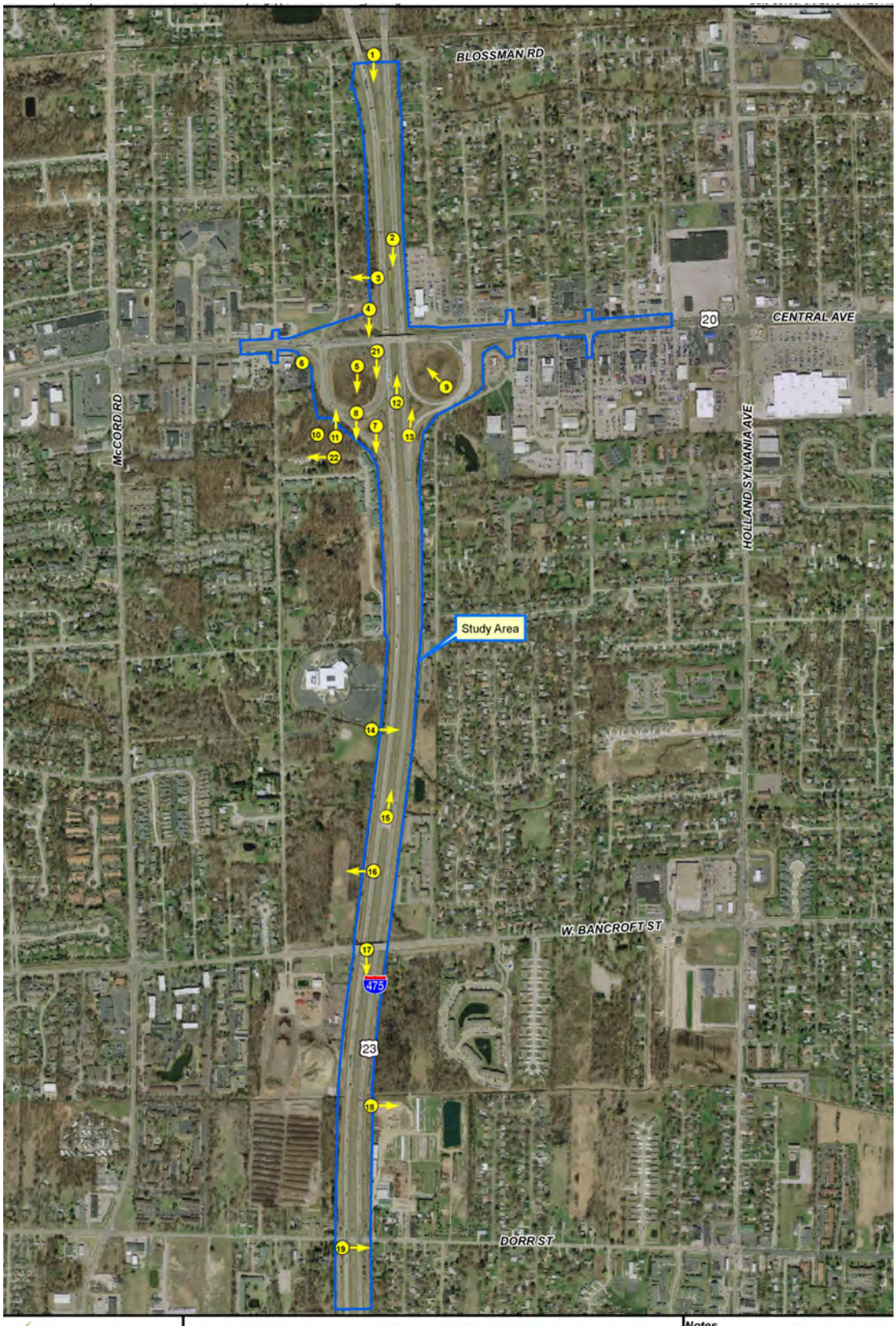
USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 9/21

APPENDIX C
Photographs of Project Area

Exhibits

10. Photograph Location Map
11-21. Site Photographs



Mannik Smith GROUP — TECHNICAL SKILL. CREATIVE SPIRIT.

Photo Locations
PID 88252 - I-475 & US 20
Interchange Modification & I-475 Lane Addition

Notes
The photography, dated April 2010, is provided by Anita Lopez, Lucas County Auditor, as part of the Lucas county GIS.

Feet
0 375 750

STATE OF OHIO DEPARTMENT OF TRANSPORTATION

LUC-475/21 Interchange Upgrade (PID 88252)
Photograph Location Map Overview

USACE 404 Permit and OEPA 401 Water Quality Certification Application
Date: 1/12/2015

Exhibit: 10/21

Photograph 1. Maintained median facing south.

Photograph 2. Maintained right-of-way facing south.

Photograph 3. Maintained right-of-way and upland forest north of US 20.

Photograph 4. Upland forest north of US 20.

Photograph 5. Wetland A facing south.

Photograph 6. Indiana bat tree in Wetland C.

Photograph 7. Roadside drainage.

Photograph 8. Maintained and unmaintained right-of-way.

Photograph 9. Wetland B.

Photograph 10. Watermarks in Wetland C.

Photograph 11. Wetland C.

Photograph 12. Maintained right-of-way.

Photograph 13. Roadside drainage south of US 20.

Photograph 14. Stream 2 (Hill Ditch) south of Westgate Church.

Photograph 15. Maintained median facing north.

Photograph 16. Upland area facing west.

Photograph 17. View of Bancroft Street facing south on US 23 S along right-of-way.

Photograph 18. Stream 3 (Haefner Ditch) facing east.

Photograph 19. View from Dorr Street facing east along right of way.

Photograph 20. View of right-of-way facing south.

Photograph 21. View of northeast corner of Wetland A.

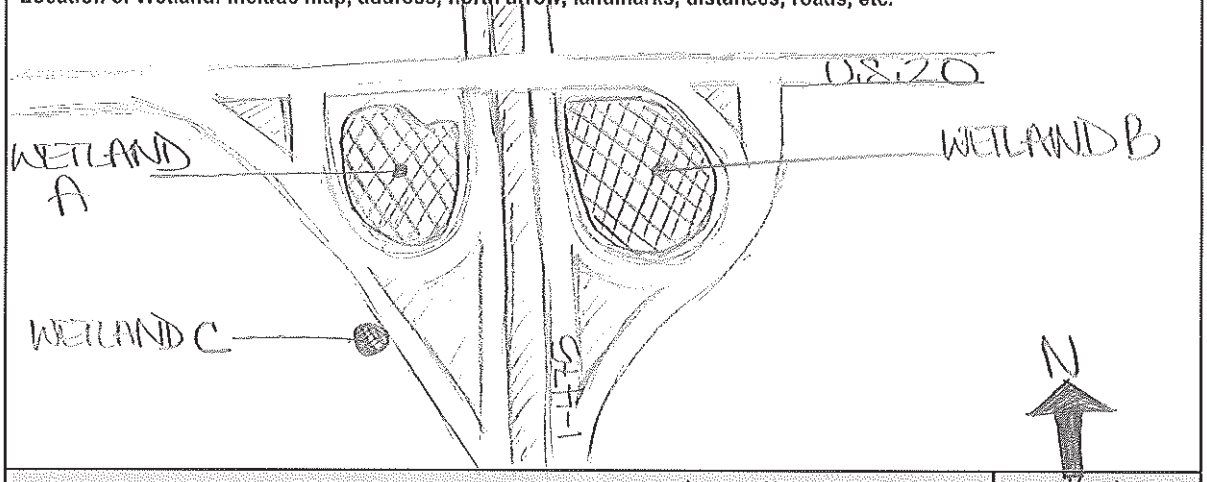
Photograph 22. View of Wetland C.

APPENDIX D
Ohio Rapid Assessment Method (ORAM) v. 5.0 Forms

Background Information

Name:	KATIE SIMON
Date:	7/29/13
Affiliation:	MANNIK+SMITH GROUP
Address:	1800 INDIAN WOODS CIRCLE, MAUMEE, OHIO
Phone Number:	419-891-2222
e-mail address:	ksimon@mannik-smithgroup.com
Name of Wetland:	WETLAND A, B + C
Vegetation Communit(ies):	EMERGENT, SCRUB/SHRUB, FOREST
HGM Class(es):	

Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc.



Lat/Long or UTM Coordinate	WETLAND A - 41°40'29"N 83°41'43"W WETLAND B - 41°40'29"N 83°41'33"W. WETLAND C - 41°40'23"N 83°41'43"W
USGS Quad Name	SYLVANIA
County	LUCAS
Township	SPRINGFIELD
Section and Subsection	
Hydrologic Unit Code	04100001-020-180
Site Visit	10/4/2012
National Wetland Inventory Map	YES
Ohio Wetland Inventory Map	NO
Soil Survey	YES
Delineation report/map	

Name of Wetland: WETLAND A, B+C	
Wetland Size (acres, hectares):	

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

SEE PAGE 1

Comments, Narrative Discussion, Justification of Category Changes:

NONE.

Final score : WETLAND-A = 13.5	**Category:** 1
WETLAND B = 13.5	1
WETLAND C = 23.5	1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	✓	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		✓
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	✓	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	✓	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		✓
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		✓

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	(NO) Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland Is a Category 3 wetland. Go to Question 3	(NO) Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland Is a Category 3 wetland Go to Question 4	(NO) Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	(NO) Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	(NO) Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland Is a Category 3 wetland Go to Question 7	(NO) Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	(NO) Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	(NO) Go to Question 8b

8b	**Mature forested wetlands.** Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands.** Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies.** Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

Invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: ODOT0049, Wetland A	**Rater(s):** B.Boos, K. Carr, J. Stratigakos	**Date:** 10-04-2012

Metric 1. Wetland Area (size).

3.0	3.0
max 6 pts.	subtotal

Select one size class and assign score.

3.0

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [x] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [x] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

1.0	4.0
max 14 pts.	subtotal

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

0.0

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [x] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

1.0

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [ ] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [ ] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [x] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

6.0	10.0
max 30 pts.	subtotal

3a. Sources of Water. Score all that apply.

1.0

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

0.0

- [ ] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [ ] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

1.0

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

2.0

- [ ] Semi- to permanently inundated/saturated (4)
- [ ] Regularly inundated/saturated (3)
- [x] Seasonally inundated (2)
- [ ] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

2.0

- [ ] None or none apparent (12)
- [ ] Recovered (7)
- [x] Recovering (3)
- [x] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [ ] road bed/RR track
- [ ] dredging
- [ ] other_____

Metric 4. Habitat Alteration and Development.

5.5	15.5
max 20 pts.	subtotal

4a. Substrate disturbance. Score one or double check and average.

1.5

- [ ] None or none apparent (4)
- [ ] Recovered (3)
- [x] Recovering (2)
- [x] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

2.0

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [x] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

2.0

- [ ] None or none apparent (9)
- [ ] Recovered (6)
- [x] Recovering (3)
- [x] Recent or no recovery (1)

Check all disturbances observed

- [x] mowing
- [ ] grazing
- [ ] clearcutting
- [ ] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

15.5
subtotal this page

last revised 1 February 2001 jjm

Site: ODOT0049, Wetland A	**Rater(s):** B.Boos, K. Carr, J. Stratigakos	**Date:** 10-04-2012

15.5
subtotal first page

0.0 max 10 pts. | 15.5 subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2.0 max 20 pts. | 13.5 subtotal

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

- [ ] Aquatic bed
- [1] Emergent
- [1] Shrub
- [ ] Forest
- [ ] Mudflats
- [ ] Open water
- [ ] Other_____

2.0

6b. horizontal (plan view) Interspersion.
Select only one.

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [X] Low (1)
- [ ] None (0)

1.0

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- [X] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

-5.0

6d. Microtopography.
Score all present using 0 to 3 scale.

- [0] Vegetated hummucks/tussucks
- [0] Coarse woody debris >15cm (6in)
- [0] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

0.0

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

13.5

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

WETLAND A		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	5.5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-2	
	TOTAL SCORE	13.5	Category based on score breakpoints 1

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status.	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

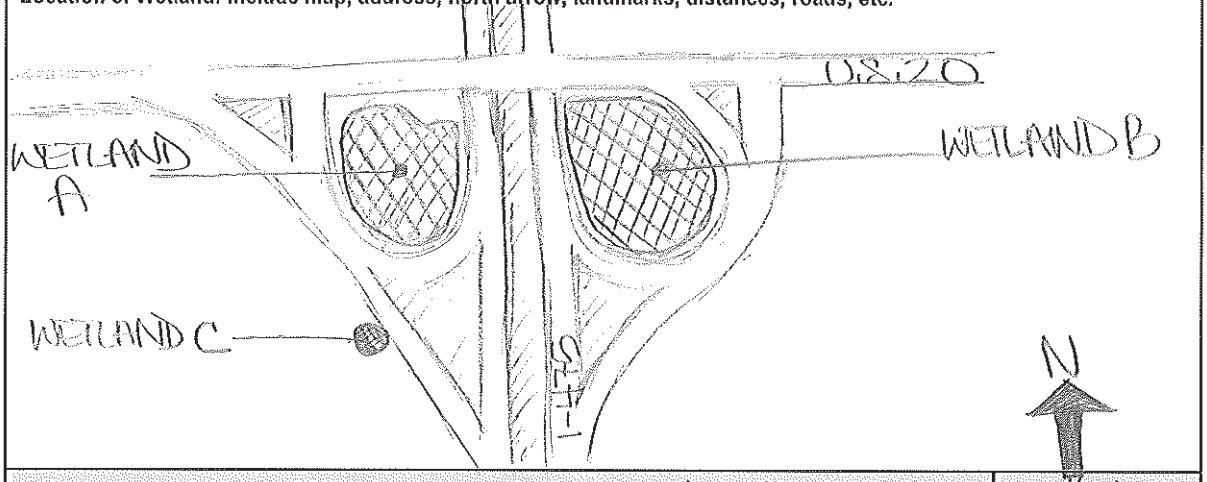
	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Background Information

Name:	KATIE SIMON
Date:	7/29/13
Affiliation:	MANNIK+SMITH GROUP
Address:	1800 INDIAN WOODS CIRCLE, MAUMEE, OHIO
Phone Number:	419-891-2222
e-mail address:	ksimon@mannik-smithgroup.com
Name of Wetland:	WETLAND A, B + C
Vegetation Communit(ies):	EMERGENT, SCRUB/SHRUB, FOREST
HGM Class(es):	

Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc.



Lat/Long or UTM Coordinate	WETLAND A - 41°40'29"N 83°41'43"W WETLAND B - 41°40'29"N 83°41'33"W. WETLAND C - 41°40'23"N 83°41'43"W
USGS Quad Name	SYLVANIA
County	LUCAS
Township	SPRINGFIELD
Section and Subsection	
Hydrologic Unit Code	04100001-020-180
Site Visit	10/4/2012
National Wetland Inventory Map	YES
Ohio Wetland Inventory Map	NO
Soil Survey	YES
Delineation report/map	

Name of Wetland: WETLAND A, B+C	
Wetland Size (acres, hectares):	

Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.

SEE PAGE 1

Comments, Narrative Discussion, Justification of Category Changes:

NONE.

Final score : WETLAND-A = 13.5	**Category:** 1
WETLAND B = 13.5	1
WETLAND C = 23.5	1

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM is to identify the "scoring boundaries" of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the "jurisdictional boundaries." For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland's jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland's scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.	✓	
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		✓
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.	✓	
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.	✓	
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		✓
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		✓

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), http://www.dnr.state.oh.us/dnap . The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	**Critical Habitat.** Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	(NO) Go to Question 2
2	**Threatened or Endangered Species.** Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland Is a Category 3 wetland. Go to Question 3	(NO) Go to Question 3
3	**Documented High Quality Wetland.** Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland Is a Category 3 wetland Go to Question 4	(NO) Go to Question 4
4	**Significant Breeding or Concentration Area.** Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	(NO) Go to Question 5
5	**Category 1 Wetlands.** Is the wetland less than 0.5 hectares (1 acre) in size and **hydrologically isolated** and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by *Phalaris arundinacea, Lythrum salicaria,* or *Phragmites australis*, or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	(NO) Go to Question 6
6	**Bogs.** Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly *Sphagnum* spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland Is a Category 3 wetland Go to Question 7	(NO) Go to Question 7
7	**Fens.** Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral ph (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	(NO) Go to Question 8a
8a	**"Old Growth Forest."** Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	(NO) Go to Question 8b

8b	**Mature forested wetlands.** Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	**Lake Erie coastal and tributary wetlands.** Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	**Lake Plain Sand Prairies (Oak Openings)** Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	**Relict Wet Prairies.** Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

Invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
Lythrum salicaria	*Zygadenus elegans var. glaucus*	*Calla palustris*	*Carex cryptolepis*	*Calamagrostis canadensis*
Myriophyllum spicatum	*Cacalia plantaginea*	*Carex atlantica var. capillacea*	*Carex lasiocarpa*	*Calamogrostis stricta*
Najas minor	*Carex flava*	*Carex echinata*	*Carex stricta*	*Carex atherodes*
Phalaris arundinacea	*Carex sterilis*	*Carex oligosperma*	*Cladium mariscoides*	*Carex buxbaumii*
Phragmites australis	*Carex stricta*	*Carex trisperma*	*Calamagrostis stricta*	*Carex pellita*
Potamogeton crispus	*Deschampsia caespitosa*	*Chamaedaphne calyculata*	*Calamagrostis canadensis*	*Carex sartwellii*
Ranunculus ficaria	*Eleocharis rostellata*	*Decodon verticillatus*	*Quercus palustris*	*Gentiana andrewsii*
Rhamnus frangula	*Eriophorum viridicarinatum*	*Eriophorum virginicum*		*Helianthus grosseserratus*
Typha angustifolia	*Gentianopsis spp.*	*Larix laricina*		*Liatris spicata*
Typha xglauca	*Lobelia kalmii*	*Nemopanthus mucronatus*		*Lysimachia quadriflora*
	Parnassia glauca	*Schechzeria palustris*		*Lythrum alatum*
	Potentilla fruticosa	*Sphagnum spp.*		*Pycnanthemum virginianum*
	Rhamnus alnifolia	*Vaccinium macrocarpon*		*Silphium terebinthinaceum*
	Rhynchospora capillacea	*Vaccinium corymbosum*		*Sorghastrum nutans*
	Salix candida	*Vaccinium oxycoccos*		*Spartina pectinata*
	Salix myricoides	*Woodwardia virginica*		*Solidago riddellii*
	Salix serissima	*Xyris difformis*		
	Solidago ohioensis			
	Tofieldia glutinosa			
	Triglochin maritimum			
	Triglochin palustre			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: ODOT0049, Wetland B	**Rater(s):** B.Boos, K. Carr, J. Stratigakos	**Date:** 10-4-2012

Metric 1. Wetland Area (size).

3.0	3.0
max 6 pts.	subtotal

Select one size class and assign score.

3.0

- [ ] >50 acres (>20.2ha) (6 pts)
- [ ] 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- [ ] 10 to <25 acres (4 to <10.1ha) (4 pts)
- [x] 3 to <10 acres (1.2 to <4ha) (3 pts)
- [ ] 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- [x] 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- [ ] <0.1 acres (0.04ha) (0 pts)

Metric 2. Upland buffers and surrounding land use.

1.0	4.0
max 14 pts.	subtotal

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

0.0

- [ ] WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- [ ] MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- [ ] NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- [x] VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

1.0

- [ ] VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- [ ] LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- [ ] MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- [x] HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

Metric 3. Hydrology.

6.0	10.0
max 30 pts.	subtotal

3a. Sources of Water. Score all that apply.

1.0

- [ ] High pH groundwater (5)
- [ ] Other groundwater (3)
- [x] Precipitation (1)
- [ ] Seasonal/Intermittent surface water (3)
- [ ] Perennial surface water (lake or stream) (5)

3b. Connectivity. Score all that apply.

0.0

- [ ] 100 year floodplain (1)
- [ ] Between stream/lake and other human use (1)
- [ ] Part of wetland/upland (e.g. forest), complex (1)
- [ ] Part of riparian or upland corridor (1)

3c. Maximum water depth. Select only one and assign score.

1.0

- [ ] >0.7 (27.6in) (3)
- [ ] 0.4 to 0.7m (15.7 to 27.6in) (2)
- [x] <0.4m (<15.7in) (1)

3d. Duration inundation/saturation. Score one or dbl check.

2.0

- [ ] Semi- to permanently inundated/saturated (4)
- [ ] Regularly inundated/saturated (3)
- [x] Seasonally inundated (2)
- [ ] Seasonally saturated in upper 30cm (12in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

2.0

- [ ] None or none apparent (12)
- [ ] Recovered (7)
- [x] Recovering (3)
- [x] Recent or no recovery (1)

Check all disturbances observed

- [ ] ditch
- [ ] tile
- [ ] dike
- [ ] weir
- [ ] stormwater input
- [ ] point source (nonstormwater)
- [ ] filling/grading
- [x] road bed/RR track
- [ ] dredging
- [ ] other_____

Metric 4. Habitat Alteration and Development.

5.5	15.5
max 20 pts.	subtotal

4a. Substrate disturbance. Score one or double check and average.

1.5

- [ ] None or none apparent (4)
- [ ] Recovered (3)
- [x] Recovering (2)
- [x] Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

2.0

- [ ] Excellent (7)
- [ ] Very good (6)
- [ ] Good (5)
- [ ] Moderately good (4)
- [ ] Fair (3)
- [x] Poor to fair (2)
- [ ] Poor (1)

4c. Habitat alteration. Score one or double check and average.

2.0

- [ ] None or none apparent (9)
- [ ] Recovered (6)
- [x] Recovering (3)
- [x] Recent or no recovery (1)

Check all disturbances observed

- [x] mowing
- [ ] grazing
- [ ] clearcutting
- [ ] selective cutting
- [ ] woody debris removal
- [ ] toxic pollutants
- [ ] shrub/sapling removal
- [ ] herbaceous/aquatic bed removal
- [ ] sedimentation
- [ ] dredging
- [ ] farming
- [ ] nutrient enrichment

15.5
subtotal this page

last revised 1 February 2001 jjm

Site: ODOT0049, Wetland B	**Rater(s):** B.Boos, K. Carr, J. Stratigakos	**Date:** 10-4-2012

15.5
subtotal first page

0.0 max 10 pts. | 15.5 subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

0.0

- [ ] Bog (10)
- [ ] Fen (10)
- [ ] Old growth forest (10)
- [ ] Mature forested wetland (5)
- [ ] Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- [ ] Lake Erie coastal/tributary wetland-restricted hydrology (5)
- [ ] Lake Plain Sand Prairies (Oak Openings) (10)
- [ ] Relict Wet Prairies (10)
- [ ] Known occurrence state/federal threatened or endangered species (10)
- [ ] Significant migratory songbird/water fowl habitat or usage (10)
- [ ] Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-2.0 max 20 pts. | 13.5 subtotal

Metric 6. Plant communities, interspersion, microtopography.

6a. Wetland Vegetation Communities.
Score all present using 0 to 3 scale.

2.0

- [0] Aquatic bed
- [1] Emergent
- [1] Shrub
- [0] Forest
- [0] Mudflats
- [0] Open water
- [ ] Other_____

6b. horizontal (plan view) Interspersion.
Select only one.

1.0

- [ ] High (5)
- [ ] Moderately high(4)
- [ ] Moderate (3)
- [ ] Moderately low (2)
- [X] Low (1)
- [ ] None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

-5.0

- [-5] Extensive >75% cover (-5)
- [ ] Moderate 25-75% cover (-3)
- [ ] Sparse 5-25% cover (-1)
- [ ] Nearly absent <5% cover (0)
- [ ] Absent (1)

6d. Microtopography.
Score all present using 0 to 3 scale.

0.0

- [0] Vegetated hummucks/tussucks
- [0] Coarse woody debris >15cm (6in)
- [0] Standing dead >25cm (10in) dbh
- [0] Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

13.5

End of Quantitative Rating. Complete Categorization Worksheets.

ORAM Summary Worksheet

WETLAND B		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES (NO)	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES (NO)	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES (NO)	If yes, Category 3.
	Question 4. Significant bird habitat	YES (NO)	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES (NO)	If yes, Category 1.
	Question 6. Bogs	YES (NO)	If yes, Category 3.
	Question 7. Fens	YES (NO)	If yes, Category 3.
	Question 8a. Old Growth Forest	YES (NO)	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands – Unrestricted with native plants	YES (NO)	If yes, Category 3
	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES (NO)	If yes, Category 3
	Question 11. Relict Wet Prairies	YES (NO)	If yes, evaluate for Category 3; may also be 1 or 2.
Quantitative Rating	Metric 1. Size	3	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	10	
	Metric 4. Habitat	5,5	
	Metric 5. Special Wetland Communities	0	
	Metric 6. Plant communities, interspersion, microtopography	-2	
	TOTAL SCORE	13,5	Category based on score breakpoints 1

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one		Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score *less* than the Category 2 scoring threshold (*excluding* gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score *greater* than the Category 2 scoring threshold *(including* any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the *"gray zone"* for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc, and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit *moderate OR superior* hydrologic OR habitat, OR recreational functions AND the wetland was *not* categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

	Final Category		
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

APPENDIX E
Agency Correspondence

Documents

1. USACE Coordination Letter
2. USACE Preliminary-Jurisdictional Determination
3. ODNR Coordination Letter
4. ODNR ETR Response
5. USFWS Coordination Letter
6. USFWS ETR Response
7. Ohio EPA Coordination Letter
8. Ohio EPA Response
9. Section 106 IOC

OHIO DEPARTMENT OF TRANSPORTATION

CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223

JOHN R. KASICH, GOVERNOR • JERRY WRAY, DIRECTOR

U.S. Army Corps of Engineers
Ohio Regulatory Transportation Office
Building 10 Section 10
3990 E. Broad St.
Columbus, OH 43218

January 10, 2013

Attention: Peter Clingan

Re: LUC-475-8.03 (PID 88252)
Ecological Coordination

Dear Mr. Clingan:

Enclosed for your review is an ecological survey report for a proposed project. The proposed interchange modification will interface with the I-475/U.S. 23 systems interchange improvements. The modifications will include the reconstruction of the interchange to a Single Point Urban Interchange (SPUI) including new ramps and a new U.S. 20 bridge over I-475/U.S. 20. Additionally, a third through lane will be constructed from just north of the Bancroft Avenue overpass to the I-475 and U.S. 23 systems interchange. U.S. 20 southerly will be relocated to allow for the new SPUI to reside within the infield areas of the former folded cloverleaf interchange. The modifications will also include access management on U.S. 20 from the existing access management portion at U.S. 20 and Wilford Drive to Warner Avenue which is adjacent to the intersection safety project for the U.S. 20 and Holland-Sylvania Road intersection improvements.

Currently detailed design has not been completed for the proposed project. Therefore, ecological impacts are estimates biased on the largest area of construction limits that would be necessary to complete the project. The impacts described in this report are the largest estimate of impacts biased on current preliminary construction limits. As design is refined impacts will likely be reduced.

The project is anticipated to result in impacts to two Category 1 wetlands totaling 7.4 acres of wetland impacts.

No in stream work is proposed as part of this project.

This office is requesting a Jurisdictional Determination field meeting as soon as possible for this project.

Your concurrence and/or comments would be appreciated as soon as possible. If comments or notification of when comments will be furnished are not received within 30 days, we will proceed with project development. If you have any questions or concerns contact Chris Staron, Environmental Specialist at (614) 466-5112.

Sincerely,.

Timothy M. Hill
Administrator
Office of Environmental Services

TMH:MAP:cjs

c: District 2 - File

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070

OCT 2 2013

REPLY TO
ATTENTION OF

Regulatory Division
South/Transportation Branch
LRH-2013-00808-OTT – Schlicker Ditch
LUC-475-8.03, PID 88252

Mr. Timothy M. Hill
Ohio Department of Transportation
Office of Environmental Services
1980 West Broad Street, Mail Stop 4170
Columbus, Ohio 43223

Dear Mr. Hill:

This letter is in response to the Level 2 Ecological Survey Report (ESR) prepared by the Mannik & Smith Group received in this office on August 20, 2013. The information provided included six (6) potential jurisdictional waters identified as Schlicker Ditch, Hill Ditch, Haefner Ditch; and Wetlands A, B, and C within an approximate 328-acre study area located in the City of Toledo, Lucas County, Ohio.

The United States Army Corps of Engineers (Corps) authority to regulate waters of the United States (U.S.) is based on the definitions and limits of jurisdiction contained in 33 CFR 328 and 33 CFR 329. Section 404 of the Clean Water Act (CWA) requires that a Department of the Army (DA) permit be obtained prior to discharging dredged or fill material into waters of the U.S., including wetlands. Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for any work in, on, over or under a navigable water.

You have requested we provide a preliminary jurisdictional determination (PJD) for the aquatic resources within the proposed study area. The attached Figure 5 correctly describes waters within the study area. Based on a review of the information provided, a site visit conducted on September 23, 2013, and other information available to us, Schlicker Ditch (214 linear feet), Hill Ditch (355 linear feet), Haefner Ditch (350 linear feet), Wetland A (3.55 acres), Wetland B (3.85 acres), and Wetland C (0.13 acre) are located within the study area. This office has determined the streams and wetlands **may** be jurisdictional waters of the U.S. This determination has been made in accordance with the Regulatory Guidance Letter for Jurisdictional Determinations issued by the Corps on June 26, 2008 (RGL No. 08-02). As indicated in the guidance, this PJD is non-binding and cannot be appealed (33 C.F.R. 331.2) and only provides a written indication that waters of the U.S. may be present on-site.

You have declined to exercise the option to obtain an approved jurisdictional determination in this instance and at this time. For the purposes of the determination of impacts, compensatory mitigation, and other resource protection measures for activities that require authorization from this office, the streams and wetlands described in the attached PJD will be evaluated as if they are waters of the U.S.

Attached please find two copies of the PJD. If you agree with the findings of this PJD and understand your options regarding the same, please sign and date one copy of the form and return it to this office within 30 days of receipt of this letter. You should submit the signed copy to the following address:

Mr. Tim Long (LRH-2013-00808-OTT)
U.S. Army Corps of Engineers - Huntington District
Building 10/ Section 10
PO Box 3990
Columbus, OH 43218-3990

If you have any questions concerning the above information, please contact Tim Long at 614-692-4660 or by email at Timothy.M.Long@usace.army.mil.

Sincerely,

Susan A. Porter

Susan A. Porter
Chief, South/Transportation Branch

Enclosures

Copy Furnished w/enclosure via email:
Joni Lung
Ohio EPA
Division of Surface Water
P.O. Box 1049
Columbus, OH 43216-1049
Joni.Lung@epa.state.oh.us

Mike Pettegrew
Ohio Department of Transportation
1980 West Broad Street, Mail Stop 4170
Columbus, Ohio 43223
Mike.Pettegrew@dot.state.oh.us

Adrienne Earley
Ohio Department of Transportation
1980 West Broad Street, Mail Stop 4170
Columbus, Ohio 43223
Adrienne.Earley@dot.state.oh.us

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 2 October 2013

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Ohio Department of Transportation
1980 West Broad Street, Mail Stop 4170
Columbus, Ohio 43223

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Huntington District, LUC-475-8.03 PID 88252 _2013-00808-OTT

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

State: Ohio
County: Lucas
City: Toledo
Center coordinates of site: 41.667 North, 83.694 West
Name of nearest waterbody: Ottawa River

Identify (estimate) amount of waters in the review area:

Potentially Jurisdictional Streams: There are three (3) perennial streams with a cumulative total of 919 linear feet within the approximate 328-acre review area. Refer to the attached table and maps for a detailed stream summary.

Potentially Jurisdictional Wetlands: There are three (3) wetlands with a cumulative total of 7.53 acres in the review area. These wetlands appear to have continuous surface or subsurface connections to waters of the United States (U.S.). Refer to the attached table and maps for a detailed wetland summary.

Name of any water bodies on the site that have been identified as Section 10 waters:

None

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):
☒ Office (Desk) Determination: Date: 27 September 2013
☒ Field Determination: Date(s): 23 September 2013

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: Refer to ODOT submitted Level 2 Ecological Survey Report (ESR) for LUC-475-8.03 PID 88252, received on 20 August 2013.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☒ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps:

☐ Corps navigable waters' study:

☐ U.S. Geological Survey Hydrologic Atlas:

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s): retrieved from Appendix 1of Level 2 ESR.

☒ USDA Natural Resources Conservation Service Soil Survey: retrieved from ORM database NRCS Soil Survey Geographic layer. Accessed 27 September 2013.

☒ National wetlands inventory map(s): retrieved from ORM database USFWS Wetland layer. Accessed 27 September 2013.

☐ State/Local wetland inventory map(s):

☐ FEMA/FIRM maps:.

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date): Level 2 ESR for LUC-475-8.03 PID 88252, Appendix 1 (dates unknown).

or ☒ Other (Name & Date): Level 2 ESR for LUC-475-8.03 PID 88252, Appendix 2 (dates unknown).

☐ Previous determination(s).

☐ Other information (please specify):

See Attached Tables 1-2 and Figure 5

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

LONG.TIMOTHY.M.1396142585

Digitally signed by LONG.TIMOTHY.M.1396142585
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=LONG.TIMOTHY.M.1396142585
Date: 2013.10.02 14:35:22 -04'00'

Signature and date of
Regulatory Project Manager
(REQUIRED)

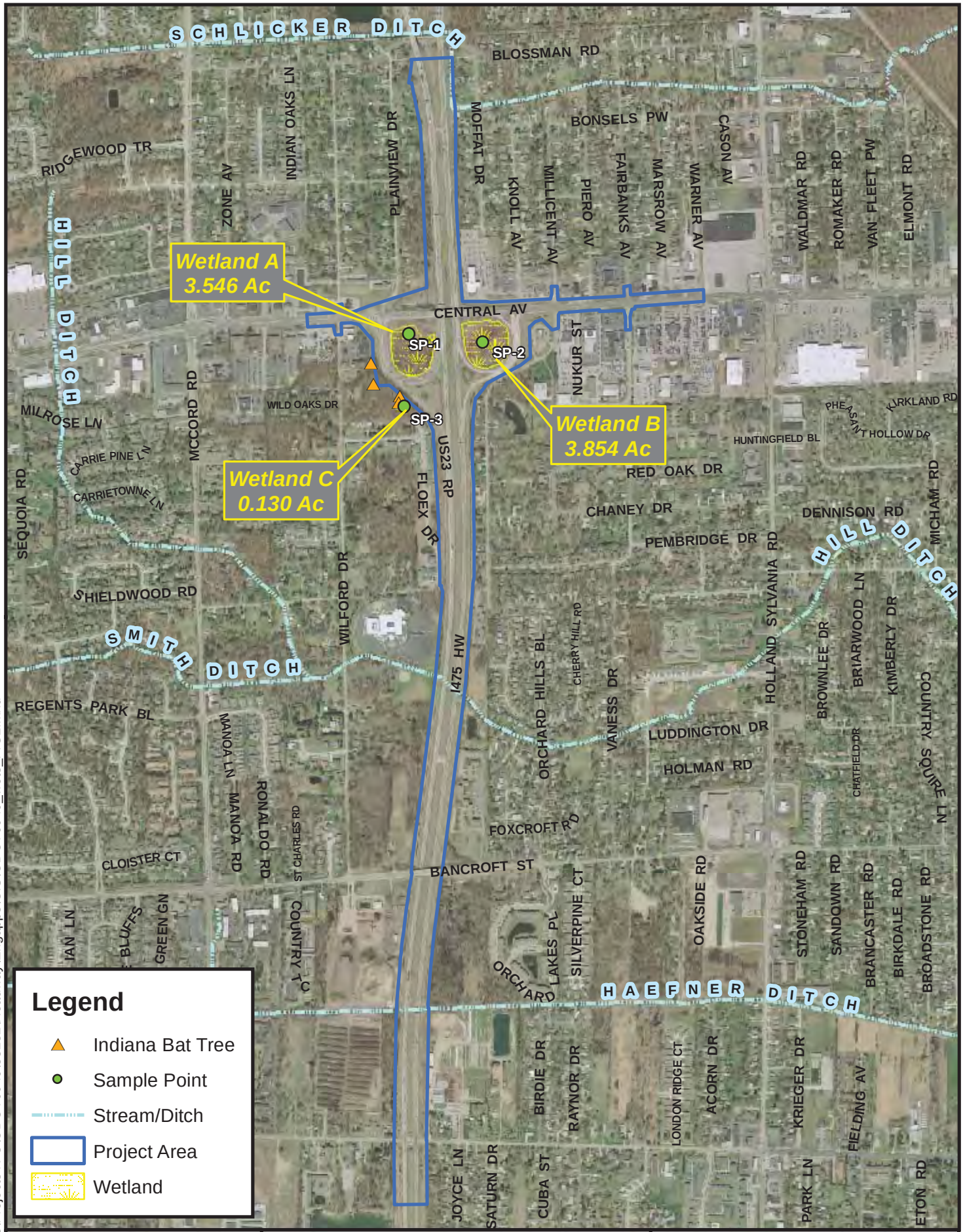
Signature and date of
person requesting preliminary JD
(REQUIRED, unless obtaining the signature is impracticable)

Table 1 – Potentially Jurisdictional Stream Summary
2013-00808-OTT: LUC-475-8.03 PID 88252

Stream ID	Flow Regime	Linear Feet
Schlicker Ditch	Perennial	214
Hill Ditch	Perennial	355
Haefner Ditch	Perennial	350
	Total:	**919**

Table 2 – Potentially Jurisdictional Wetland Summary
2013-00808-OTT: LUC-475-8.03 PID 88252

Wetland ID	Cowardin Class	Size in Acre(s)
A	PEM / PSS	3.55
B	PEM	3.85
C	PEM / PSS / PFO	0.13
	Total:	**7.53**



Date Saved: 7/29/2013 4:56:15 PM

Path: W:\Projects\Projects K-O\ODOT0049\88252\Roadway\Engapps\GIS\ODOT0049_wets_FIG2.mxd

Mannik Smith GROUP
TECHNICAL SKILL. CREATIVE SPIRIT.
www.MannikSmithGroup.com

Figure 5: Ecological Resources
I-475/US 20 Interchange Upgrade
(PID 88252)
Sylvania Township, Lucas County, Ohio

Notes
The photography, dated April 2010, is provided by Anita Lopez, Lucas County Auditor, as part of the Lucas county GIS.

Feet
1,000 500 0 1,000

OHIO DEPARTMENT OF TRANSPORTATION
INTEROFFICE COMMUNICATION
Office of Environmental Services

DATE: August 20, 2013

TO: Brian Mitch, ODNR, Office of Real Estate

FROM: Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Ecological Coordination

PROJECT: LUC-475-8.03 (PID 88252)

Enclosed for your review is an Ecological Survey Report for the subject project. The proposed interchange modification will interface with the I-475/U.S. 23 systems interchange improvements. The modifications will include the reconstruction of the interchange to a Single Point Urban Interchange (SPUI) including new ramps and a new U.S. 20 bridge over I-475/U.S. 20. Additionally, a third through lane will be constructed from just north of the Bancroft Avenue overpass to the I-475 and U.S. 23 systems interchange. U.S. 20 southerly will be relocated to allow for the new SPUI to reside within the infield areas of the former folded cloverleaf interchange. The modifications will also include access management on U.S. 20 from the existing access management portion at U.S. 20 and Wilford Drive to Warner Avenue which is adjacent to the intersection safety project for the U.S. 20 and Holland-Sylvania Road intersection improvements.

Currently detailed design has not been completed for the proposed project. Therefore, ecological impacts are estimates biased on the largest area of construction limits that would be necessary to complete the project. The impacts described in this report are the largest estimate of impacts biased on current preliminary construction limits. As design is refined impacts will likely be reduced.

The project is anticipated to result in impacts to two Category 1 wetlands totaling 7.4 acres of wetland impacts.

No in stream work is proposed as part of this project.

ODNR's concurrence and/or comments on the project would be appreciated as soon as possible. If comments or notification of when comments will be furnished are not received within 30 days, we will proceed with project development.

If you have any questions or concerns contact Chris Staron, Environmental Specialist, at (614) 466-5112.

TMH:MAP:cjs
Enclosure

c: District 2 – File

Ohio Department of Natural Resources
JOHN R. KASICH, GOVERNOR JAMES ZEHRINGER, DIRECTOR

Office of Real Estate
Paul R. Baldridge, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

September 16, 2013

Timothy M. Hill, Environmental Administrator
Office of Environmental Services
Ohio Department of Transportation
1980 West Broad Street
Columbus, Ohio 43223

Attn: Matt Perlik, Mike Pettegrew, Chris Staron

Re: 13-419; Ecological Coordination for LUC-475-8.03 (PID 88252)

Project: The Ohio Department of Transportation (ODOT) has authorized a study to evaluate potential environmental concerns associated with proposed improvements to I-475/U.S.

Location: The project is located within the City of Toledo, Springfield and Sylvania Township, Lucas County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: Shagbark hickory (*Carya ovata*), Shellbark hickory (*Carya laciniosa*), Bitternut hickory (*Carya cordiformis),* Black ash (*Fraxinus nigra*), Green ash (*Fraxinus pennsylvanica*), White ash (*Fraxinus americana*), Shingle oak (*Quercus imbricaria*), Northern red oak (*Quercus rubra*), Slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), Eastern cottonwood (*Populus deltoides*), Silver maple (*Acer saccharinum*), Sassafras (*Sassafras albidum*), Post oak (*Quercus stellata*), and White oak (*Quercus alba*). Indiana bat habitat consists of suitable trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. If suitable trees occur within the project area, these trees should be conserved. If suitable habitat occurs on the project area and trees must be cut, cutting must

occur between October 1 and March 31. If suitable trees must be cut during the summer months, a net survey must be conducted between June 15 and July 31, prior to cutting. Net surveys shall incorporate either two net sites per square kilometer of project area with each net site containing a minimum of two nets used for two consecutive nights, or one net site per kilometer of stream within the project limits with each net site containing a minimum of two nets used for two consecutive nights. If no tree removal is proposed, the project is not likely to impact this species.

The project is within the range of the rayed bean (*Villosa fabalis*), a state endangered and federal endangered mussel species. Since no in-water work in a perennial stream planned, this project is not likely to impact this species.

The project is within the range of the piping plover (*Charadrius melodus*), a state and federally endangered bird species, and the Kirtland's warbler (*Setophaga kirtlandii*), a state and federally endangered species. These species do not nest in the state but only utilize stopover habitat as they migrate through the region. Therefore, the project is not likely to have an impact on these species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the black tern (*Chlidonias niger*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. The black tern prefers large, undisturbed inland marshes with fairly dense vegetation and pockets of open water. They nest in various kinds of marsh vegetation but cattail marshes are generally favored. Nests are built on top of muskrat houses or on top of floating vegetation. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the common tern (*Sterna hirundo*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. The preferred nesting sites of common terns are natural or man-made islands that are free of mammalian predators and human disturbance. They will also utilize mainland beaches and dredge disposal areas but only when islands are unavailable. The common tern nests in colonies. Their eggs are laid in a grass-lined depression in the sand. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the king rail (*Rallus elegans*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Nests for this species are deep bowls constructed out of grass and usually hidden very well in marsh vegetation. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the lark sparrow (*Chondestes grammacus*), a state endangered bird. This sparrow nests in grassland habitats with scattered shrub layers, disturbed open areas, as well as patches of bare soil. In the Oak Openings area west of Toledo, lark sparrows occupy open grass and shrubby fields along sandy beach ridges. These summer residents normally migrate out of Ohio shortly after their young fledge or leave the nest. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the loggerhead shrike (*Lanius ludovicianus*), a state endangered bird. A statewide survey has not been completed for this species. A lack of records does not indicate the species is absent from the area. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the Eastern massasauga (*Sistrurus catenatus*), a state endangered and a federal candidate snake species. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the blue-spotted salamander (*Ambystoma laterale)*, a state endangered species. Records show this species has been found in the same township as the proposed project area. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is within the range of the Canada darner (*Aeshna canadensis*), a state endangered dragonfly, and the Hine's emerald (*Somatochlora hineana*), a state and federally endangered dragonfly. Due to the location and the habitat being affected, this project is not likely to impact this species.

The project is in the range of the Persius dusky wing (*Erynnis persius*), a state endangered butterfly, the Karner blue (*Lycaeides melissa samuelis*), a state and federally endangered butterfly, and the frosted elfin (*Incisalia irus*), a state endangered butterfly. All of these species are found in oak savanna habitat. Due to the location and the habitat being affected, this project is not likely to impact these species.

The project is within the range of the purplish copper (*Lycaena helloides*), a state endangered butterfly. Due to the habitat used by these species and the type of work proposed, the project is not likely to impact these species.

The ODNR Natural Heritage Database has no additional records for rare or endangered species at this project site. We are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, nature preserves, parks or forests, national wildlife refuges or other protected natural areas within the project area. Our inventory program does not provide a complete survey of Ohio wildlife, and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area.

ODNR appreciates the opportunity to provide these comments. Please contact Brian Mitch at (614) 265-6387 if you have questions about these comments or need additional information.

Brian Mitch
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
(614) 265-6387
brian.mitch@dnr.state.oh.us

OHIO DEPARTMENT OF TRANSPORTATION
CENTRAL OFFICE • 1980 WEST BROAD STREET • COLUMBUS, OH 43223
JOHN R. KASICH, GOVERNOR • JERRY WRAY, DIRECTOR

August 20, 2013

Mary Knapp, Supervisor
U.S. Fish and Wildlife Service
4625 Morse Road, Suite 104
Columbus, Ohio 43230

Re: LUC-475-8.03 (PID 88252)
Ecological Coordination

Dr. Knapp:

Enclosed for your review is an Ecological Survey Report for the subject project. The proposed interchange modification will interface with the I-475/U.S. 23 systems interchange improvements. The modifications will include the reconstruction of the interchange to a Single Point Urban Interchange (SPUI) including new ramps and a new U.S. 20 bridge over I-475/U.S. 20. Additionally, a third through lane will be constructed from just north of the Bancroft Avenue overpass to the I-475 and U.S. 23 systems interchange. U.S. 20 southerly will be relocated to allow for the new SPUI to reside within the infield areas of the former folded cloverleaf interchange. The modifications will also include access management on U.S. 20 from the existing access management portion at U.S. 20 and Wilford Drive to Warner Avenue which is adjacent to the intersection safety project for the U.S. 20 and Holland-Sylvania Road intersection improvements.

Currently detailed design has not been completed for the proposed project. Therefore, ecological impacts are estimates biased on the largest area of construction limits that would be necessary to complete the project. The impacts described in this report are the largest estimate of impacts biased on current preliminary construction limits. As design is refined impacts will likely be reduced.

The project is anticipated to result in impacts to two Category 1 wetlands totaling 7.4 acres of wetland impacts.

No in stream work is proposed as part of this project.

This project is within the known range of the Indiana Bat (*Myotis sodalis*, **E**), the Bald Eagle (*Haliaeetus leucocephalus,* **SC**), the Piping Plover (*Charadrius melodus*, **E**), the Kirtlands Warbler *(Dendroica kirtlandii*, **E**), the Eastern Massasauga (*Sisturus catenatus*, **C**), the Rayed Bean (*Villosa fabalis*, **E**), the Karner Blue Butterfly (*Lycaeides melissa samuelis*, **E**), and the Eastern Prairie Fringed Orchid (*Platanthera leucophaea*, **T**).

The write-up for these species are found in the Level II Ecological Resource Report. The project will have No Effect on these species.

If a listed or proposed species is subsequently found to occur in the project area, the Federal Highway Administration will initiate coordination with the U.S. Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act of 1973, as amended.

Your concurrence and/or comments would be appreciated as soon as possible. If comments or notification of when comments will be furnished are not received within 30 days, we will proceed with project development. If you have any questions or concerns, please call Chris Staron, Environmental Specialist, at (614) 466-5112.

Sincerely,

Timothy M. Hill
Administrator
Office of Environmental Services

TMH:MAP:cjs
Enclosure

c: District 2 – File

From: Staron, Chris
To: Smith, Kacey; Acuna, Jennifer
Cc: Pettegrew, Mike
Subject: FW: LUC-475-8.03 (PID 88252) ESR Level II
Date: Thursday, September 05, 2013 3:32:06 PM

USFWS concurrence on the subject project.

If you have any questions, please contact me.

Thanks

Chris

From: Applegate, Jeromy [mailto:jeromy_applegate@fws.gov]
Sent: Thursday, September 05, 2013 3:23 PM
To: Staron, Chris
Cc: Karen Hallberg
Subject: LUC-475-8.03 (PID 88252) ESR Level II

Chris,

This email is in response to a request for ecological coordination for the subject project, which would involve improvements to the I-475/U.S. 23 systems interchange.
ODOT has determined that the project will have no effect on the Federally endangered Indiana bat (*Myotis sodalis*), piping plover (*Charadrius melodus*), Kirtland's warbler (*Dendroica kirtlandii*), rayed bean (*Villosa fabalis*), and Karner blue butterfly (*Lycaeides melissa samuelis*), the Federally threatened eastern prairie fringed orchid (*Patanthera leucophaea*), and the Federal candidate eastern massasauga (*Sisturus catenatus*). Therefore, consultation under section 7(a)(2) of the ESA is not required.
Should, during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the actions that were not previously considered, consultation with the Service should be reinitiated to assess whether the determinations are still valid.
You have determined that the project will have no effect on the bald eagle (*Haliaeetus leucocephalus*). We agree that the project will have no effect on this species.
The proposed project would impact approximately 7.4 acres of Category 1 wetlands. The ESR indicates that these wetlands have been heavily modified by human activity. We have no comments pursuant to the Fish and Wildlife Coordination Act.
Thank you for the opportunity to provide comments on this project. Please contact me with any questions.
Jeromy
Jeromy Applegate
Fish and Wildlife Biologist
U S Fish and Wildlife Service
Ohio Ecological Services Field Office
4625 Morse Rd., Suite 104
Columbus, OH 43230
Phone: 614-416-8993 ext. 21

Ohio Department of Transportation
INTER-OFFICE COMMUNICATION
Office of Environmental Services

TO: Ric Queen, OEPA - DSW **DATE:** August 20, 2013

FROM: Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: Pre-application Coordination

PROJECT: LUC-475-8.03 (PID 88252)

Enclosed for your review is an Ecological Survey Report for the subject project. The proposed interchange modification will interface with the I-475/U.S. 23 systems interchange improvements. The modifications will include the reconstruction of the interchange to a Single Point Urban Interchange (SPUI) including new ramps and a new U.S. 20 bridge over I-475/U.S. 20. Additionally, a third through lane will be constructed from just north of the Bancroft Avenue overpass to the I-475 and U.S. 23 systems interchange. U.S. 20 southerly will be relocated to allow for the new SPUI to reside within the infield areas of the former folded cloverleaf interchange. The modifications will also include access management on U.S. 20 from the existing access management portion at U.S. 20 and Wilford Drive to Warner Avenue which is adjacent to the intersection safety project for the U.S. 20 and Holland-Sylvania Road intersection improvements.

Currently detailed design has not been completed for the proposed project. Therefore, ecological impacts are estimates biased on the largest area of construction limits that would be necessary to complete the project. The impacts described in this report are the largest estimate of impacts biased on current preliminary construction limits. As design is refined impacts will likely be reduced.

The project is anticipated to result in impacts to two Category 1 wetlands totaling 7.4 acres of wetland impacts.

No in stream work is proposed as part of this project.

This information is being provided for the purposes of pre-application coordination. Your concurrence and/or comments would be appreciated as soon as possible. If comments or notification of when comments will be furnished are not received within 30 days, we will proceed with project development.

If you have any questions or concerns contact Chris Staron, Environmental Specialist, at (614) 466-5112.

TMH:MAP:cjs
Enclosure

c: District 2 – File

From: Staron, Chris
To: Smith, Kacey
Cc: Pettegrew, Mike
Subject: FW: LUC-475-8.03 (PID 88252) ESR Level II
Date: Thursday, August 22, 2013 9:45:31 AM

Below are OEPA's comments on the Level II ESR.

If you have any questions, please contact me.

Thanks

Chris

From: Lung, Joni
Sent: Thursday, August 22, 2013 9:31 AM
To: Staron, Chris
Subject: RE: LUC-475-8.03 (PID 88252) ESR Level II

Hi Chris,
At this time Ohio EPA does not have any official comments regarding the above subject project. However, I did notice one error in the ORAM forms for the three wetlands. The consultant answered "yes" to question 5 (Category 1 wetlands) of the narrative rating for each wetland. Based on the provided information, none of the wetlands fit the criteria (<1 acre AND either >80% cover (Phalaris, Lythrum, or Phragmites) or an acidic pond on minded lands). It's not really a big deal, but it is a common mistake that we see on the ORAM forms. If you could relay this information to the consultant, that would be helpful.
Also, I would like to attend the j.d. visit for this site due to the potential for large isolated wetland impacts.
Thanks,
Joni

Joni Lung
Ohio EPA Division of Surface Water
401/Isolated Wetland Permitting Section
614-644-2152
joni.lung@epa.ohio.gov

From: Staron, Chris
Sent: Tuesday, August 20, 2013 2:04 PM
To: Mitch, Brian; Lung, Joni; Clingan, Peter M LRH; Brett.C.Latta@usace.army.mil; Timothy.M.Long@usace.army.mil; Karen_Hallberg@fws.gov; Sarah_Bowman@fws.gov
Cc: Pettegrew, Mike; Smith, Kacey; Acuna, Jennifer
Subject: LUC-475-8.03 (PID 88252) ESR Level II

Below for your review are signed coordination letters and a Level II Ecological Survey Report.

If you have any questions, please contact this office.

Thanks

Chris Staron
(614) 466-5112

http://defaultextranet.dot.state.oh.us/divisions/Planning/enviro/eco/Level%202%20ESR/Forms/AllItems.aspx?RootFolder=%2Fdivisions%2FPlanning%2Fenviro%2Feco%2FLevel%202%20ESR%2FLUC%2D475%2D8%2E03%20%28PID%2088252%29&FolderCTID=0x01200056FC47B37CD9F64F8F4046FFB149A046&View={0AB0FE28-C020-4C92-BCD2-7860164DB09B}

OHIO DEPARTMENT OF TRANSPORTATION
INTER-OFFICE COMMUNICATION
Office of Environmental Services

LUC-475/US20 INTERCHANGE
PID 88252
SCB
SWB
3/7/13

CLEARANCE DATE: 3/7/13

TO: Todd Audet, District 2 Deputy Director
Attention: Kacey Smith, DEC

FROM: Timothy M. Hill, Administrator, Office of Environmental Services

SUBJECT: **Cultural Resource Coordination – Stipulation 4(A) – Appendix B – Undertaking with Minimal Potential to Cause Effects**

PROJECT (CRS): LUC-475/US 20 Interchange Upgrade (PID: 88252)

The subject project, submitted electronically on 2/25/13, involves modernization activities and safety upgrades along US 475 at the interchange for US 20 in Springfield and Sylvania townships, Lucas County, Ohio. The existing interchange exhibits geometric design deficiencies. Steady urban growth and traffic congestion has degraded the safe operation of the interchange and associated street grid pattern. The proposed project will replace the existing folded diamond interchange with a single point urban interchange. The southbound I-475 weaving area between US 23 and US 20 will be eliminated by braiding the propose ramps between the interchanges. Lane reconfigurations, intersection improvement, and upgraded signals may be required along US 20. Proposed work along the interstate main-line will be limited to the existing limited access right-of-way. However, ramp reconfiguration and work along West Central Ave (US Route 20) may require a very limited amount of new strip right-of-way. The Area of Potential Effects (APE) is considered only those areas of existing interstate right-of-way, associated street right-of-way, and areas previously disturbed by interstate development where construction will occur.

An electronic records check was completed to review on-line data provided by the Ohio Historic Preservation Office. This search focused on the area surrounding the interchange where modernization will occur. No known or inventoried architectural or archaeological resources will be impacted by proposed modernization activities. No Historic Properties (resources listed or eligible for the NRHP) or National Historic Landmarks were identified. A review of aerial photo from the 1950s and 1960s depict an area of urban development that was stripped away to make room for I-475 and to relocate Moffat Street. This street is a north/south connector that was found in the proposed right-of-way but is now located just east of the current interchange. The Interstate Highway System itself is generally exempt from further consideration based on the FHWA's SAFETEA-LU (Section 6007) re-authorization legislation of August 10, 2005. Furthermore, improvements to interchanges and divided highways in urban settings beyond Historic Property boundaries have a minimal potential to cause effects to historic properties. No further cultural resource investigations are recommended.

In accordance with Stipulation 4A and Appendix B of the Section 106 Programmatic Agreement approved on November 30, 2011 (*Agreement No. 16734)*, ODOT-OES has determined that the proposed project is a type of undertaking with "minimal potential to cause effects" and is not a part of a larger undertaking. This completes the Section 106 review and no further cultural resource investigations are required at this time. You may process the environmental document with no further comment or involvement from the ODOT-OES unless the scope of the proposed undertaking was to change. The environmental document should note the date of this IOC for project Section 106 clearance. The environmental document should also note the date of the November 30, 2011 Programmatic Agreement as the basis for the Section 106 approval. A copy of this IOC should be attached to the appropriate environmental document. If you have any comments or questions regarding this determination, they may be addressed to *Stanley W. Baker* at stanley.baker@dot.state.oh.us or *614-466-5143*.

TMH:swb
c: File w/att; SHPO/PA file