



INDIANA DEPARTMENT OF TRANSPORTATION

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Eric Holcomb, Governor Joe McGuinness, Commissioner

Date: February 14, 2019

To: Site Assessment & Management

Environmental Policy Office—Environmental Services Division

Indiana Department of Transportation (INDOT)

100 North Senate Avenue, Room N642

Indianapolis, IN 46204

From: Jaime Byerly

RQAW Corporation

8770 North Street, Suite 110

Fishers, IN 46038 jbyerly@rgaw.com

Re: RED FLAG INVESTIGATION

Des. Number 1601072, State Project

Added Travel Lane Project

US 36

Hendricks and Marion Counties, Indiana

PROJECT DESCRIPTION

The Federal Highway Administration and the INDOT Crawfordsville District propose to proceed with an added travel lane project located on US 36 through the Town of Avon in Hendricks and Marion Counties, Indiana. The project begins at Shiloh Park Drive, continues east for approximately 1.1 miles and ends approximately 1,500 feet east of Raceway Road. Generally, the preferred alternative involves milling, resurfacing and widening of the existing roadway to provide an additional through lane in each direction.

A 36-inch corrugated metal pipe (CMP) structure (unknown structure number) is approximately 670 feet east of the US 36/Ronald Reagan Parkway Intersection; this structure is not associated with jurisdictional waters. Structure CV 036-032-64.80 is approximately 230 feet west of the US/36 Ronald Reagan Parkway Intersection; the 108-inch diameter and 183-foot long CMP conveys Avon Creek under US 36. An existing 16-foot span and 70.5-foot long concrete arch top box culvert with 15-foot long wingwalls (unknown structure number) is under Shiloh Crossing Drive, approximately 550 feet northwest of the US 36/Ronald Reagan Parkway Intersection; the structure conveys Avon Creek under Shiloh Crossing Drive.

Any work to the CMP east of the US 36/Ronald Reagan Parkway Intersection will be determined once design has progressed. Work to Structure CV 036-032-64.80 will involve extending the length of the pipe approximately 10 feet north of US 36 and approximately 22 feet south of US 36. Work to the structure that conveys Avon Creek under Shiloh Crossing Drive may involve work to the southern wingwalls.

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Des. Number 1601072 Appendix D: Red Flag Investigation and Hazardous Materials

Bridge and/or culvert Project: Yes $oxtimes$ ino $oxdot$ Structure # $\underline{\text{CV 036-032-64.80}}$ and two structures with unknown structure
<u>numbers</u>
If this is a bridge project, is the bridge Historical? Yes \square No \boxtimes , Select \square Non-Select \square
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations
Section of the report).
Proposed right-of-way: Temporary ⊠ # Acres <u>To be determined</u> Permanent ⊠ # Acres <u>To be determined</u>
Type of excavation: The maximum depth of excavation is anticipated to be approximately 8 feet below ground surface.
Maintenance of traffic: Construction will be phased, and two lanes of traffic will be maintained in each direction. Access
to all properties will be maintained during construction.
Work in waterway: Yes $oxtimes$ No $oxtimes$ Above ordinary high water mark: Yes $oxtimes$ No $oxtimes$
State Project: ⊠ LPA: □
Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:				
Religious Facilities	1	Recreational Facilities	2	
Airports ¹	1	Pipelines	1	
Cemeteries	N/A	Railroads	6	
Hospitals	N/A	Trails	3	
Schools	N/A	Managed Lands	N/A	

¹In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Duides and Jan Colleget Dusington Van Maria (1997)

Religious Facilities: One religious facility is located within the 0.5 mile search radius. The Rainbow Acres Church of God is mapped adjacent to the project area. Coordination with the church will occur.

Airports: Although not located within the 0.5 mile search radius, one public airport, Speedway Public Airport, is located within 3.8 miles (20,000 feet) of the project area. Coordination with the INDOT Office of Aviation will occur.

Recreational Facilities: Two recreational facilities are located within the 0.5 mile search radius. The nearest recreational facility, associated with Steeplechase Apartments, is mapped approximately 0.15 mile north of the project area. No impact is expected.

Pipelines: One pipeline segment is located within the 0.5 mile search radius. The refined products pipeline segment is mapped approximately 0.35 mile west of the project area. No impact is expected.

Railroads: Six railroad segments are located within the 0.5 mile search radius. Two railroad segments, both associated with CSX Railroad, are mapped approximately 0.26 mile south of the project area. No impact is expected.

Trails: Three trail segments are located within the 0.5 mile search radius. Two trail segments (one under development and one potential) transect the project area on the west side of Ronald Reagan Parkway. One trail segment (under development) abuts the north project area along the east side of Ronald Reagan Parkway. All trail segments are part of the Ronald Reagan Parkway Corridor. Coordination with the managing entity, Hendricks County Planning and Building Commission, will occur.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:					
NWI - Points	N/A	Canal Routes - Historic	N/A		
Karst Springs	N/A	NWI - Wetlands	18		
Canal Structures – Historic	N/A	Lakes	*19		
NPS NRI Listed	S NRI Listed N/A Floodplain - DFIRM 7				
NWI-Lines	4	Cave Entrance Density	N/A		
IDEM 303d Listed Streams and Lakes (Impaired)	2	Sinkhole Areas	N/A		
Rivers and Streams	4	Sinking-Stream Basins	N/A		

National Wetlands Inventory (NWI) – Lines: Four NWI line segments are located within the 0.5 mile search radius. One NWI line segment, Avon Creek, transects the project area. A Waters of the U.S. Determination Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

Indiana Department of Environmental Management (IDEM) 303d Listed Streams and Lakes (Impaired): Two IDEM 303d Listed Streams are located within the 0.5 mile search radius. One IDEM 303d Listed Stream, Avon Creek, transects the project area. Avon Creek is listed as impaired for Escherichia coli (E. coli). Workers who are working in or near water with E. coli should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit exposure.

Rivers and Streams: Four stream segments are located within the 0.5 mile search radius. One stream segment, Avon Creek, transects the project area. A Waters of the U.S. Determination Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

NWI – *Wetlands*: Eighteen NWI wetland polygons are located within the 0.5 mile search radius. The nearest wetland polygon is mapped adjacent to the project area. A Waters of the U.S. Determination Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

*Lakes: Nineteen lakes/ponds are located within the 0.5 mile search radius. Seventeen lakes/ponds are unmapped but are shown in the aerial. One lake/pond is mapped adjacent to the project area; however, per the aerial, the lake/pond is not present. No impact is expected.

Floodplains – DFIRM: Seven floodplain polygons are located within the 0.5 mile radius. The nearest floodway polygon is mapped approximately 0.25 mile southeast of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Urbanized Area Boundary (UAB): The project area lies within the Town of Avon/Hendricks County UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Town of Avon Municipal Separate Storm Sewer System (MS4) Coordinator at 6570 East US 36, Avon, Indiana 46123, and the Hendricks County MS4 Coordinator at 355 South Washington Street, Suite 214, Danville, Indiana 46122.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration					
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items,					
	please indicate N/A:				
Petroleum Wells 1 Mineral Resources N/A					
Mines – Surface N/A Mines – Underground N/A					

Petroleum Wells: One petroleum well is located within the 0.5 mile search radius. The petroleum well is mapped approximately 0.36 mile southeast of the project area. No impact is expected.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:					
Superfund	N/A	Manufactured Gas Plant Sites	N/A		
RCRA Generator/TSD	N/A	Open Dump Waste Sites	N/A		
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A		
State Cleanup Sites	1	Waste Transfer Stations	N/A		
Septage Waste Sites	N/A	Tire Waste Sites	N/A		
Underground Storage Tank (UST) Sites		Confined Feeding Operations (CFO)	N/A		
Voluntary Remediation Program	N/A	Brownfields	N/A		
Construction Demolition Waste	N/A	Institutional Controls	N/A		
Solid Waste Landfill	N/A	NPDES Facilities	5		
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	1		
Leaking Underground Storage (LUST) Sites	3	Notice of Contamination Sites	N/A		

State Cleanup Sites: One state cleanup site is located within the 0.5 mile search radius. The state cleanup site (Coach and Horses Restaurant, 9251 Rockville Road, Agency Interest ID 21024) is mapped within the project area. Per the IDEM Virtual File Cabinet (VFC), IDEM issued a No Further Action (NFA) for this site on July 20, 2004; however, residual petroleum impacts were left in place and extend under Rockville Road. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

Leaking Underground Storage Tank (LUST) Sites: Three LUST sites are located within the 0.5 mile search radius. One LUST site (Speedway/Sm #6125, 10908 East US 36, Facility ID 6682) is mapped within the project area. Per the IDEM VFC, a release of petroleum was reported to IDEM in 1991. Documents from 2007 indicate that IDEM issued a NFA for the site on March 7, 2007 following the recording of an Environmental Restrictive Covenant (ERC) on the deed of the property. Residual chemicals of concern (CoCs) remain on-site and do not appear to extend to the project area. No impact is expected.

One LUST site (Autobahn Inc., 8921 East 116th Street, Agency Interest ID 21603) is mapped adjacent to the project area. However, per the IDEM VFC, the LUST icon is misplaced; it is in Fishers, Indiana. No impact is expected. There is a Meijer Gas Station there now and it does not appear they have a release.

National Pollutant Discharge Elimination System (NPDES) Facilities: Five NPDES facilities are located within the 0.5 mile search radius. One NPDES facility (LA-Z-Boy Home Furnishings and Décor, Rockville Road and Raceway Road, Permit Number INR 10K783), is mapped adjacent to the project area. Information on this site was not found in the IDEM VFC. No impact is expected.

NPDES Pipe Locations: One NPDES pipe is located within the 0.5 mile search radius. The pipe, associated with the Hendricks County Regional Sewer District, is mapped approximately 0.24 mile south of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Hendricks and Marion counties listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Crawfordsville District did not indicate the presence of endangered species within the 0.5 mile search radius. Coordination with the Indiana Department of Natural Resources (IDNR) will occur.

Due to the nature of project activities, this project will fall under the guidelines set forth under the U.S. Fish and Wildlife Service (USFWS) Interim Policy for the Review of Highway Transportation Projects in Indiana dated May 29, 2013. No further coordination is necessary.

Indiana Bat and Northern Long-Eared Bat:

A review of the USFWS database by INDOT Crawfordsville District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is in a developed area surrounded by residential and commercial properties. The December 24, 2015 inspection report for CV 036-032-64.80 contains no information about whether bats are present or absent in the culvert. Additional investigations to confirm the presence or absence of bats in the culvert will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

Rusty Patched Bumble Bee:

An inquiry using the USFWS Information for Planning and Consultation (IPaC) website did not indicate the presence of the federally endangered species, the Rusty Patched Bumble Bee, in or within 0.5 mile of the project area. No impact is expected.

RECOMMENDATIONS SECTION

INFRASTRUCTURE:

- Religious facility: The Rainbow Acres Church of God is mapped adjacent to the project area. Coordination with the church will occur.
- *Airports:* One public airport, Speedway Public Airport, is located within 3.8 miles (20,000 feet) of the project area. Coordination with the INDOT Office of Aviation will occur.
- Trails: Two trail segments (one under development and one potential) transect the project area on the west side of Ronald Reagan Parkway. One trail segment (under development) abuts the north project area along the east side of Ronald Reagan Parkway. All trail segments are part of the Ronald Reagan Parkway Corridor. Coordination with the managing entity, Hendricks County Planning and Building Commission, will occur.

WATER RESOURCES:

The presence of the following water resources will require the preparation of a Waters of the U.S. Determination Report and coordination with INDOT Ecology and Waterway Permitting:

- One NWI line segment, Avon Creek, transects the project area.
- One stream segment, Avon Creek, transects the project area.
- One NWI wetland polygon is mapped adjacent to the project area.

One IDEM 303d Listed Stream, Avon Creek, transects the project area. Avon Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit exposure.

URBANIZED AREA BOUNDARY: The project area lies within the Town of Avon/Hendricks County UAB. Post construction Storm Water Quality BMPs may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Town of Avon MS4 Coordinator at 6570 East US 36, Avon, Indiana 46123, and the Hendricks County MS4 Coordinator at 355 South Washington Street, Suite 214, Danville, Indiana 46122.

MINING/MINERAL EXPLORATION: N/A

HAZMAT:

One state cleanup site is located within the 0.5 mile search radius. The state cleanup site (Coach and Horses Restaurant, 9251 Rockville Road, Agency Interest ID 21024) is mapped within the project area. Per the IDEM VFC, IDEM issued a NFA for this site on July 20, 2004; however, residual petroleum impacts were left in place and extend under Rockville Road. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

ECOLOGICAL INFORMATION:

Coordination with the IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Longeared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects." Additional investigations to confirm the presence or absence of bats will be necessary.

Breting

Nicole Fohey

Digitally signed by Nicole Fohey-Breting
DN: cn-Nicole Fohey-Breting, o-iNDOT,
ou-Environmental Services, HazMat,
email=NFoheyBreting@indot.in.gov,

(Signature)

C=US Date: 2019,02.15 10:07:23 -05'00'

INDOT Environmental Services concurrence:

Prepared by:

Jame Byerly

Jaime Byerly

Environmental Scientist RQAW Corporation

Graphics:

SITE LOCATION: YES

Removed to avoid duplication. See graphic in Appendix A of this EA document.

INFRASTRUCTURE: YES

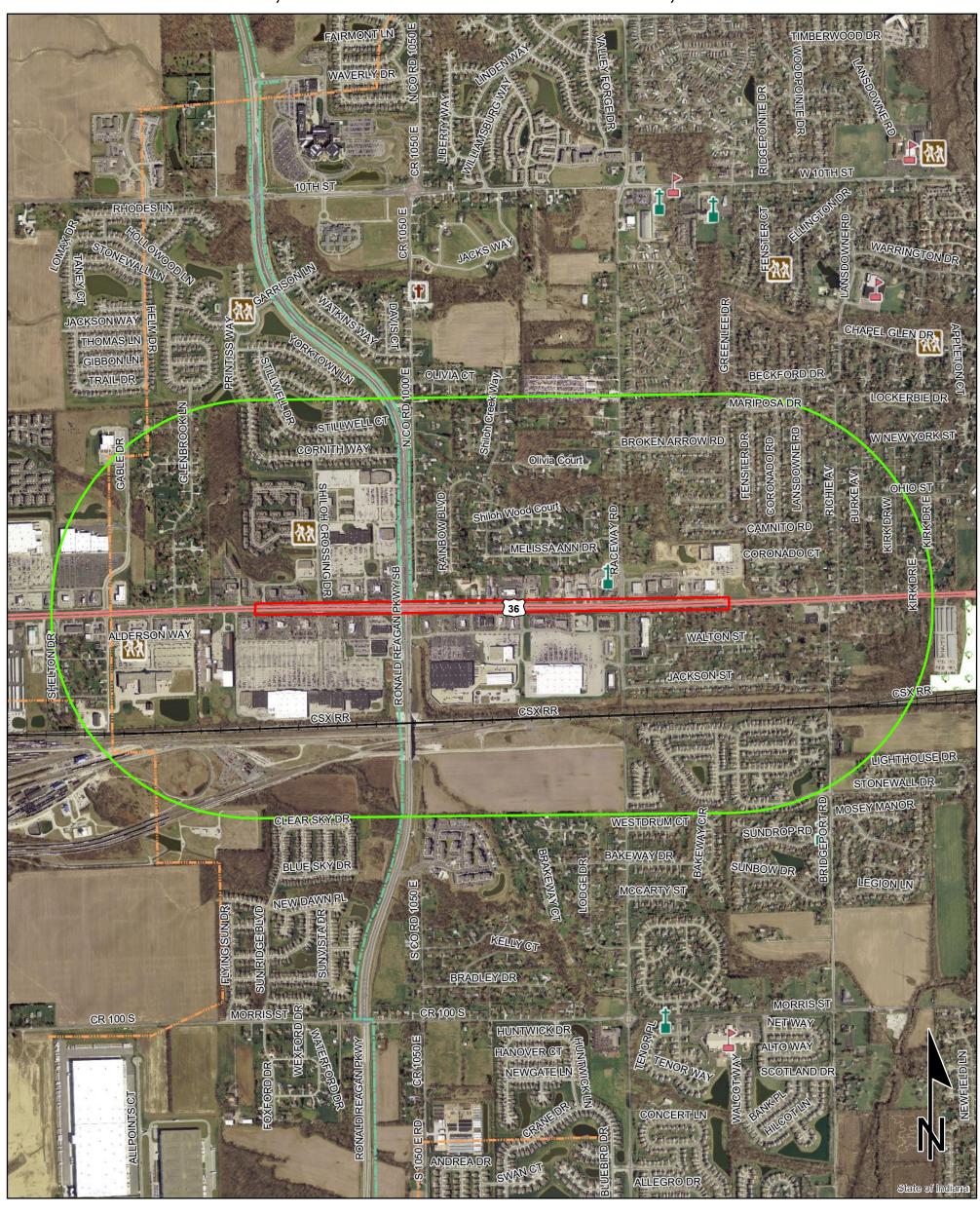
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

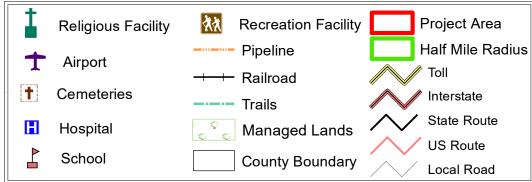
Red Flag Investigation - Infrastructure US 36 Added Travel Lanes Des. Number 1601072, Road Project Avon, Hendricks and Marion Counties, Indiana



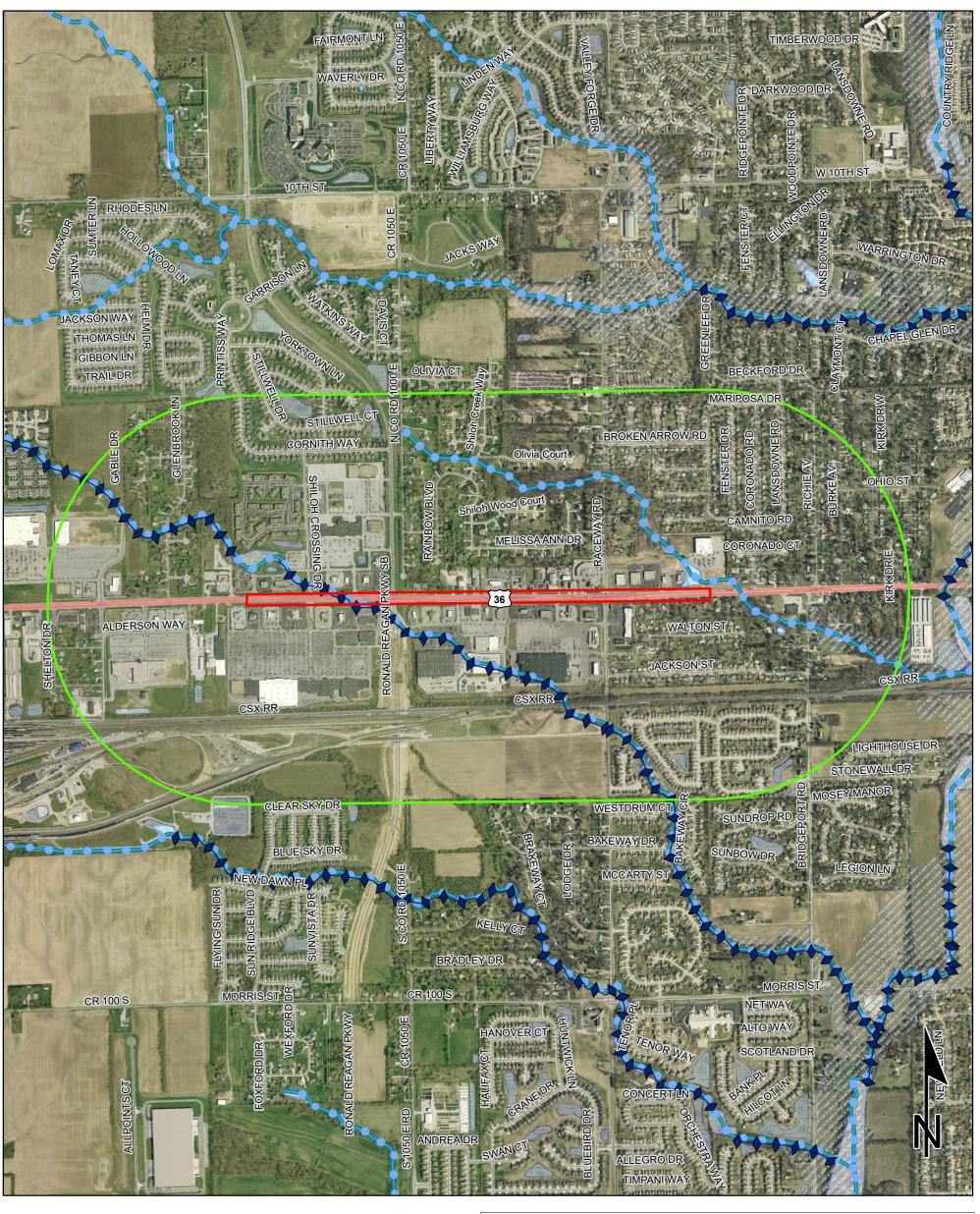
Sources:
Non Orthophotography

Data - Obtained from the State of Indiana Geographical
Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data
(www.indianamap.org)
Map Projection: UTM Zone 16 N Map Datum: NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.



Red Flag Investigation - Water Resources **US 36 Added Travel Lanes** Des. Number 1601072, Road Project Avon, Hendricks and Marion Counties, Indiana



0.3 0.15 0 0.3 Sources: NWI - Point Wetlands Project Area ■ Miles Non Orthophotography Lake Half Mile Radius Data - Obtained from the State of Indiana Geographical Karst Spring Information Office Library NWI- Line Floodplain - DFIRM Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org) - Impaired Stream Lake Interstate Cave Entrance Density Map Projection: UTM Zone 16 N Map Datum: NAD83 NPS NRI listed State Route Sinkhole Area This map is intended to serve as an aid in graphic River Sinking-Stream Basin **US** Route representation only. This information is not warranted Canal Structure - Historic for accuracy or other purposes.

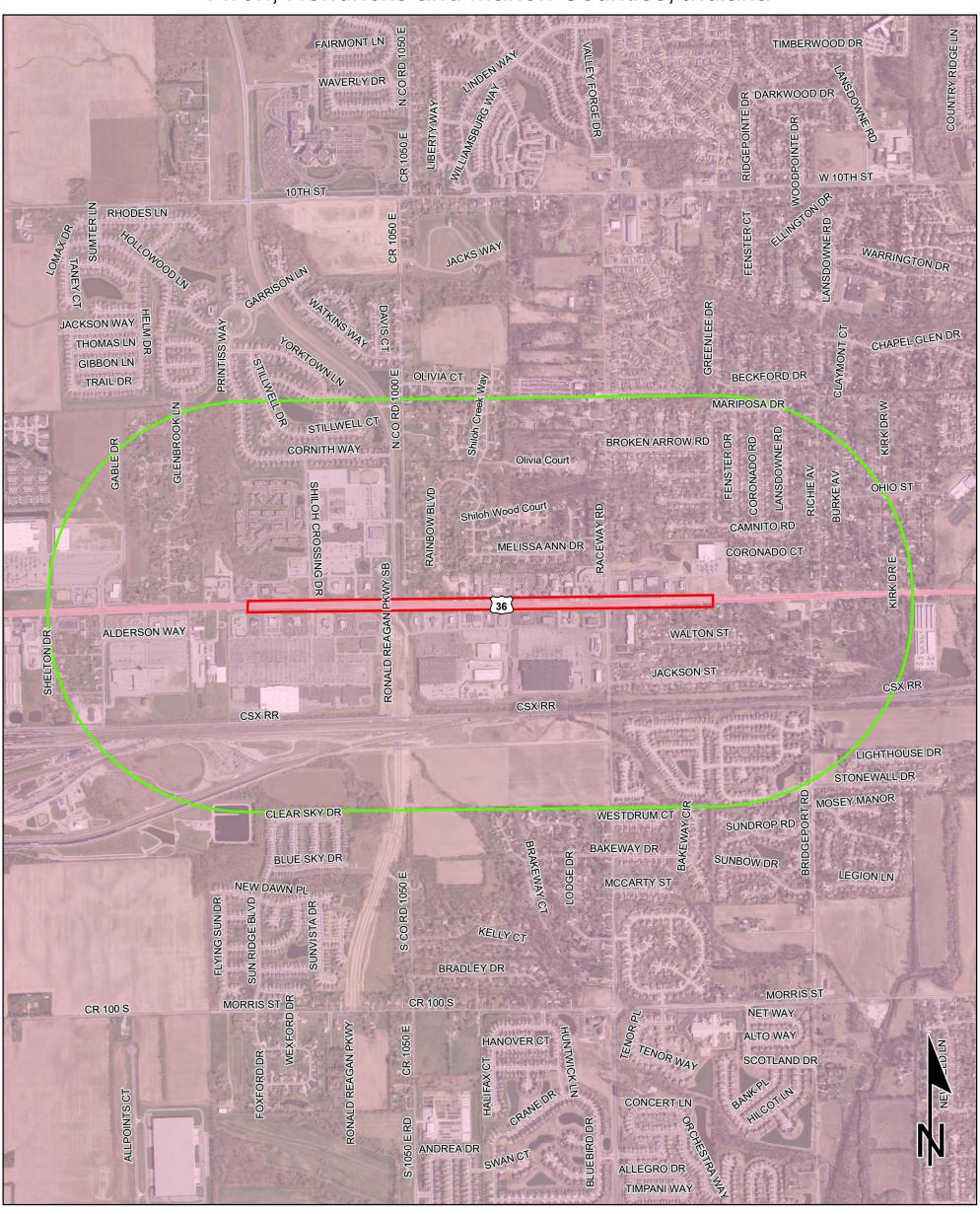
Canal Route - Historic

County Boundary

Local Road

D-8

Red Flag Investigation - Urbanized Area Boundary US 36 Added Travel Lanes Des. Number 1601072, Road Project Avon, Hendricks and Marion Counties, Indiana

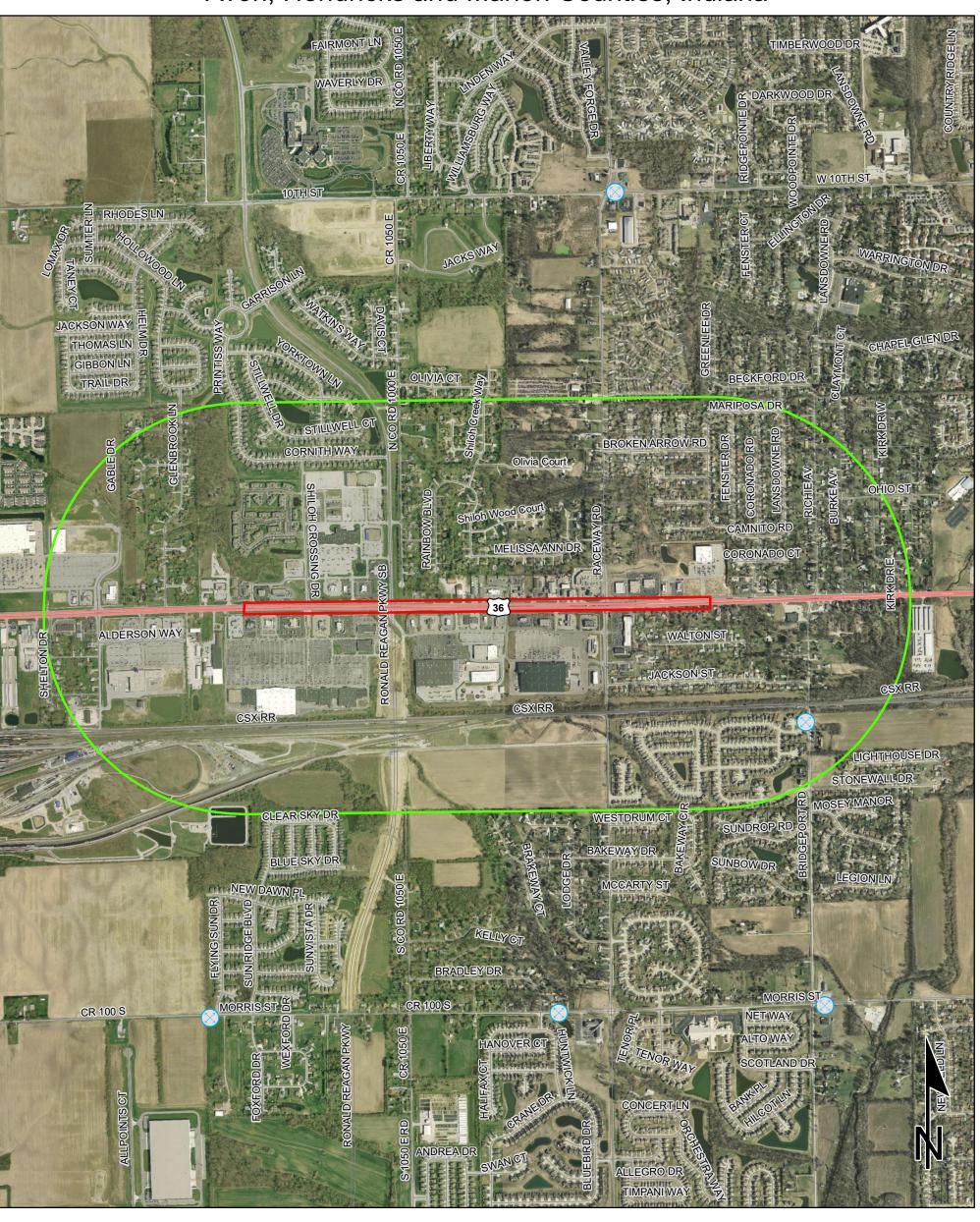


Sources:
Non Orthophotography

Data - Obtained from the State of Indiana Geographical
Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data
(www.indianamap.org)
Map Projection: UTM Zone 16 N Map Datum: NAD83

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Red Flag Investigation - Mining and Mineral Exploration US 36 Added Travel Lanes Des. Number 1601072, Road Project Avon, Hendricks and Marion Counties, Indiana

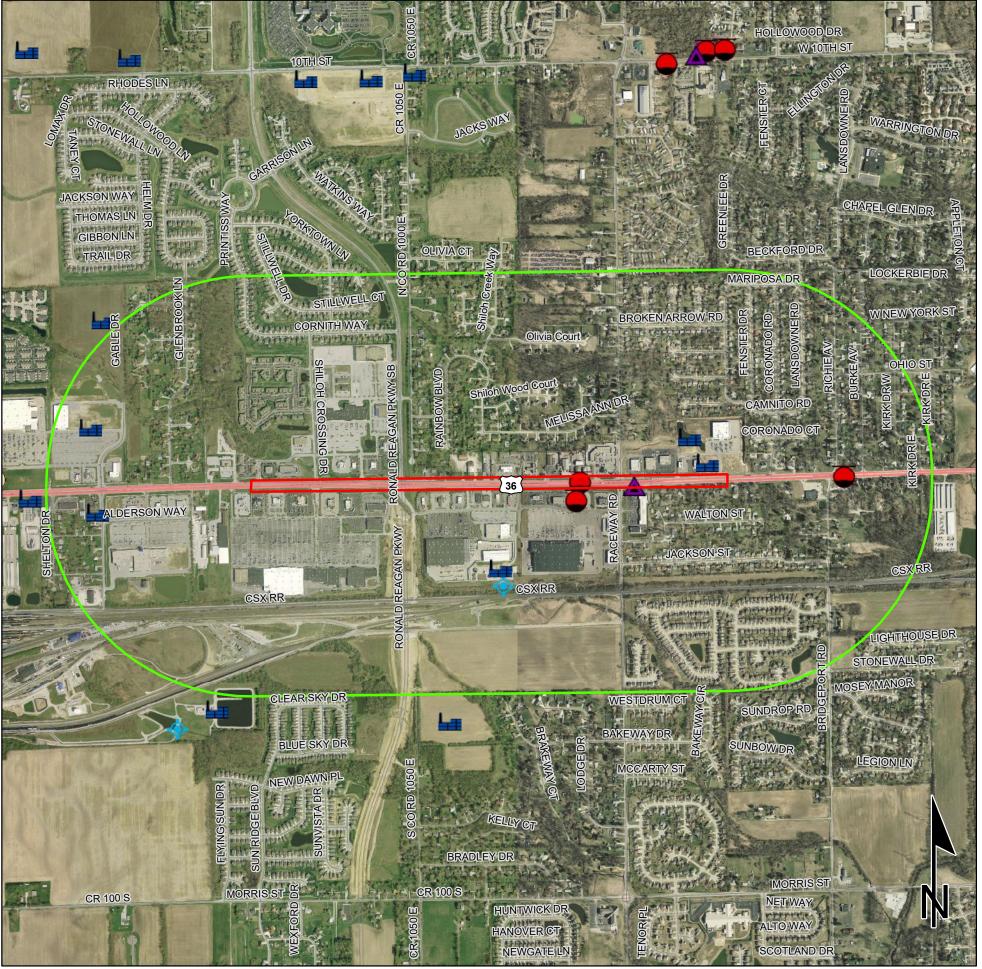


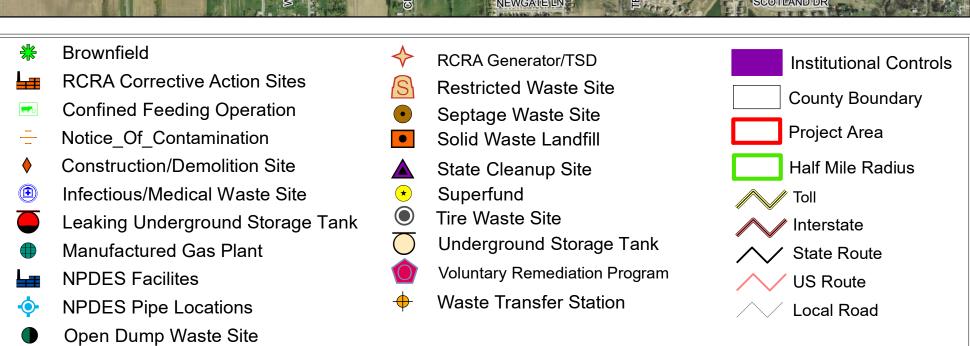
0.3 0.15 0 0.3 Toll ■ Miles Oil and Gas Wells **County Boundary** Sources: Non Orthophotography Interstate <u>Data</u> - Obtained from the State of Indiana Geographical Mineral Resources Project Area Information Office Library State Route Orthophotography - Obtained from Indiana Map Framework Data Half Mile Radius Mine - Surface (www.indianamap.org) **US Route** Map Projection: UTM Zone 16 N Map Datum: NAD83 Mine -This map is intended to serve as an aid in graphic Local Road Underground

for accuracy or other purposes.

representation only. This information is not warranted

Red Flag Investigation - Hazardous Material Concerns **US 36 Added Travel Lanes** Des. Number 1601072, Road Project Avon, Hendricks and Marion Counties, Indiana





0.3 0.15 0 0.3 Miles

This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

Sources: Non Orthophotography

<u>Data</u> - Obtained from the State of Indiana Geographical Information Office Library Orthophotography - Obtained from Indiana Map Framework Data

(www.indianamap.org) Map Projection: UTM Zone 16 N Map Datum: NAD83

Indiana County Endangered, Threatened and Rare Species List County: Hendricks

Ptychobranchus fasciolaris Kidneyshell SSC G4G5 \$2 Villosa lienosa Little Spectaclecase SSC G5 \$3 Insect: Odonata (Dragonflies & Damselflies) Turquoise Bluet SR G5 \$3 Reptile Sistrurus catenatus catenatus Eastern Massasauga LT SE G3 \$2 Bird Bartramia longicauda Upland Sandpiper SE G5 \$3B Clistothorus platensis Sedge Wren SE G5 \$3B Haliaeetus leucocephalus Bald Eagle SSC G5 \$2 Helmitheros vermivorus Worm-eating Warbler SSC G5 \$3B Pandion haliaetus Osprey SE G5 \$3B Veltelmitheros vermivorus Worm-eating Warbler SSC G5 \$3B Pandion haliaetus Osprey SE G5 \$3B Wilsonia citrina Hooded Warbler SSC G5 \$3B Wilsonia citrina Eastern Red Bat SSC G5	Species Name	Common Name	FED	STATE	GRANK	SRANK
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Enallagma divagans Turquoise Bluet SR G5 S3 Reptile Sistrurus catenatus catenatus TT SE G3 S2 Bird Bartramia longicauda Upland Sandpiper SE G5 S3B Cistothorus platensis Sedge Wren SE G5 S3B Haliaeetus leucocephalus Bald Eagle SSC G5 S2 Helmitheros vermivorus Worm-eating Warbler SSC G5 S3B Pandion haliaetus Osprey SE G5 S1B Setophaga cerulea Cerulean Warbler SSC G5 S1B Wilsonia citrina Hooded Warbler SSC G5 S3B Wilsonia citrina Eastern Red Bat SSC G5 S3B Mastela nivalis Eastern Red Bat SSC G5 S2? Myotis lucifugus Little Brown Bat C SSC G3 S2 Myotis septentrionalis Northern Long Earde Bat LT SSC G2 S1	Villosa lienosa	Little Spectaclecase		SSC	G5	S3
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Haliaeetus leucocephalus	Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Helmitheros vermivorus Worm-eating Warbler SSC G5 S3B Pandion haliaetus Osprey SE G5 S1B Setophaga cerulea Cerulean Warbler SE G4 S3B Wilsonia citrina Hooded Warbler SSC G5 S3B Wilsonia citrina Hooded Warbler SSC G5 S3B Mammal	Cistothorus platensis	Sedge Wren		SE	G5	S3B
Pandion haliaetus Osprey Setophaga cerulea Cerulean Warbler Set G4 S3B Wilsonia citrina Hooded Warbler SSC G5 S3B Mammal Lasiurus borealis Least Weasel Least Weasel Least Weasel SSC G3 Myotis septentrionalis Northern Long Eared Bat Northern Long Eared Bat Nyotis septentrionalis Northern Long Eared Bat Nyoticeius humeralis Evening Bat SSC G3 S2 S2 Nyoticeius humeralis Evening Bat SSC G3 S2 S2 S3 Nyotica subflavus Tricolored Bat SSC G3 S2 S2 S3 Nyotica subflavus Tricolored Bat SSC G3 S2 S2 S3 S3 Nyoticeius humeralis SSC G2 S3 S2 S3 Nyoticeius humeralis SSC G3 S3 S3 S3 S3 Nyoticeius humeralis SSC G3 S3 S3 S3 S3 S3 S4 S5	Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Setophaga cerulea Cerulean Warbler SE G4 S3B Wilsonia citrina Hooded Warbler SSC G5 S3B Mammal Lasiurus borealis Eastern Red Bat SSC G3G4 S4 Mustela nivalis Least Weasel Myotis lucifugus Little Brown Bat C SSC G3 S2? Myotis septentrionalis Northern Long Eared Bat IT SSC G1G2 S2S3 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 S2 Willian Flatwoods SG G3 S2 Willian Flatwoods SG G3 S2 SSC G5 S2 SSC G5 S3 SSC G5 S3 SSC G5 S3 SSC G5 S3 SSC G5 S5 SSC G5	Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Wilsonia citrina Hooded Warbler SSC G5 S3B Mammal Lasiurus borealis Eastern Red Bat Least Weasel SSC G5 S2? Myotis lucifugus Little Brown Bat C SSC G3 S2 Myotis septentrionalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Nyoticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SC G3 S2	Pandion haliaetus	Osprey		SE	G5	S1B
Mammal Lasiurus borealis Eastern Red Bat SSC G3G4 S4 Mustela nivalis Least Weasel Little Brown Bat C SSC G3 S2 Myotis septentrionalis Morthern Long Eared Bat LT SSC G1G2 S283 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut Butternut Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SSC G3 S2 S2 S2 S2 S2 S3 S4 S4 S4 S4 S4 S4 S4 S4 S4 S5 S6 S7 S8 S8 S8 S8 S8 S9 S1 S1 S8 S8 S8 S9 S1 S1 S8	Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Lasiurus borealis Eastern Red Bat Least Weasel Least Weasel Little Brown Bat C SSC G3 S2 Myotis lucifugus Little Brown Bat C SSC G3 S2 Myotis septentrionalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat Evening Bat Tricolored Bat Tricolored Bat Tricolored Bat SSC G2G3 S2S3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut Butternut Butternut Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SSC G3G4 S4 S4 S4 S4 S4 S4 S5C G3G5 S2 S1 S2 S2 S3 S4 S4 S4 S4 S5C S5C S5C S5C S5	Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mustela nivalis Least Weasel Least Weasel Least Weasel Little Brown Bat C SSC G5 S2? Myotis lucifugus Little Brown Bat C SSC G3 S2 Myotis septentrionalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S2 S2 S2 S3 S4 S5 S6 S7 S8 S8 S8 S8 S8 S8 S8 S8 S8	Mammal					
Myotis lucifugus Little Brown Bat C SSC G3 S2 Myotis septentrionalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut Butternut Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S2 S2S3 S2S3 S2S3 S2S3 S2S3 S2S3 S3	Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Myotis septentrionalis Northern Long Eared Bat LT SSC G1G2 S2S3 Myotis sodalis Indiana Bat or Social Myotis LE SE G2 S1 Nycticeius humeralis Evening Bat SE G5 S1 Perimyotis subflavus Tricolored Bat American Badger SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S2 S2 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SC G1G2 S2S3 S2B3 S2 S1 SSC G2G3 S2S3 S3	Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis sodalis Nycticeius humeralis Evening Bat Evening Bat Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut Butternut Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods Evening Bat SE G3 S2 S1 S2S3 S2S3 S2S3 S2S3 S2S3 S2S3 S2S3	Myotis lucifugus	Little Brown Bat	C	SSC	G3	S2
Nycticeius humeralis Evening Bat Ferimyotis subflavus Tricolored Bat Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2 S2 S2 S2 S3 S4 S5 S1 S2 S2 S2 S3 S4 S5 S6 S7 S8 S8 S8 S9 S9 S9 S9 S9 S9 S9	Myotis septentrionalis	Northern Long Eared Bat	LT	SSC	G1G2	S2S3
Perimyotis subflavus Tricolored Bat SSC G2G3 S2S3 Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SSC G5 S2 Vascular Plant SE G3G5Q S1 WL G3 S3 S3	Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Taxidea taxus American Badger SSC G5 S2 Vascular Plant Crataegus grandis Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Nycticeius humeralis	Evening Bat		SE	G5	S1
Vascular Plant Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Perimyotis subflavus	Tricolored Bat		SSC	G2G3	S2S3
Crataegus grandis Grand Hawthorn SE G3G5Q S1 Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Taxidea taxus	American Badger		SSC	G5	S2
Juglans cinerea Butternut WL G4 S3 Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Vascular Plant					
Poa paludigena Bog Bluegrass WL G3 S3 High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Crataegus grandis	Grand Hawthorn		SE	G3G5Q	S1
High Quality Natural Community Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Juglans cinerea	Butternut		WL	G4	S3
Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	Poa paludigena	Bog Bluegrass		WL	G3	S3
Forest - flatwoods central till plain Central Till Plain Flatwoods SG G3 S2	High Quality Natural Community					
Wetland - seep circumneutral Circumneutral Seep SG GU S1	Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2
	Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1

Indiana Natural Heritage Data Center Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delistingDivision of Nature Preserves State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list Indiana Department of Natural Resources This data is not the result of comprehensive county GRANK:

Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant

globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

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Des. Number 1601072

surveys.

Indiana County Endangered, Threatened and Rare Species List County: Marion

Species Name		Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)						
Cyprogenia stegaria		Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
<mark>Epioblasma obliquata perobliqua</mark>		White catspaw	LE	SE	G1T1	SX
Epioblasma torulosa rangiana		Northern Riffleshell	LE	SE	G2T2	S1
Epioblasma triquetra		Snuffbox	LE	SE	G3	S1
usconaia subrotunda		Longsolid	C	SE	G3	SX
ampsilis fasciola		Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda		Round Hickorynut	C	SE	G4	S1
Plethobasus cicatricosus		White Wartyback	LE	SE	G1	SX
Plethobasus cooperianus		Orangefoot Pimpleback	LE	SE	G1	SX
Plethobasus cyphyus		Sheepnose	LE	SE	G3	S 1
Pleurobema clava		Clubshell	LE	SE	G1G2	S 1
Pleurobema plenum		Rough Pigtoe	LE	SE	G1	S 1
Pleurobema pyramidatum		Pyramid Pigtoe		SE	G2G3	SX
Ptychobranchus fasciolaris		Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica		Rabbitsfoot	LT	SE	G3G4T3	S1
Toxolasma lividus		Purple Lilliput	С	SSC	G3Q	S2
Venustaconcha ellipsiformis		Ellipse		SSC	G4	S2
Villosa lienosa		Little Spectaclecase		SSC	G5	S3
Insect: Hymenoptera <mark>Bombus affinis</mark>		Rusty-patched Bumble Bee	LE	SE	G1	S1
Insect: Lepidoptera (Butterflies & Moths) Hyperaeschra georgica		A Prominent Moth			G5	S2
nsect: Neuroptera <mark>Sisyra sp. 1</mark>		Indiana Spongilla Fly		ST	GNR	S2
Fish						
Percina evides		Gilt Darter		SE	G4	S1
Amphibian Lithobates pipiens		Northern Leopard Frog		SSC	G5	S2
Necturus maculosus		Common mudpuppy		SSC	G5	S2
		сопшон шаарарру		ВВС	30	S -
Reptile <mark>Clemmys guttata</mark>		Spattad Turtla	C	CE	G5	S2
Clonophis kirtlandii		Spotted Turtle Virtland's Spake	C	SE	G2	S2 S2
Emydoidea blandingii		Kirtland's Snake	C	SE	G2 G4	S2 S2
Thamnophis butleri		Blanding's Turtle Butler's Garter Snake		SE SE	G4 G4	S1
		Butter 5 Carter Strake		<u>DL</u>		
Bird Aimophila aestivalis		Bachman's Sparrow			G3	SXB
Ardea alba		-		SSC	G5	S1B
Bartramia longicauda		Great Egret			G5	S1B S3B
zartialilia longioauda		Upland Sandpiper		SE	U.S	מכט
Indiana Natural Heritage Data Center	Fed:	LE = Endangered; LT = Threatened; C = candid				
Division of Nature Preserves Indiana Department of Natural Resources	State:	SE = state endangered; ST = state threatened; SI SX = state extirpated; SG = state significant; W.		C = state species	s of special concer	rn;
Indiana Department of Natural Resources This data is not the result of comprehensive county	GRANK:	Global Heritage Rank: G1 = critically imperiled		nperiled globall	y; G3 = rare or un	common
surveys.		globally; G4 = widespread and abundant globall			-	nd abundant
	SRANK:	globally; G? = unranked; GX = extinct; Q = un State Heritage Rank: S1 = critically imperiled in				non in state;
	142	G4 = widespread and abundant in state but with	long term concern	n; SG = state sig	gnificant; SH = hi	storical in
		state; SX = state extirpated; B = breeding status unranked	S? = unranked; S	NR = unranked	I; SNA = nonbree	ding status

Indiana County Endangered, Threatened and Rare Species List County: Marion

Species Name	Common Name	FED	STATE	GRANK	SRANK
Botaurus lentiginosus	American Bittern		SE	G5	S2B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B
Certhia americana	Brown Creeper			G5	S2B
Chordeiles minor	Common Nighthawk		SSC	G5	S4B
Falco peregrinus	Peregrine Falcon		SSC	G4	S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
xobrychus exilis	Least Bittern		SE	G5	S3B
_anius ludovicianus	Loggerhead Shrike		SE	G4	S3B
Mniotilta varia	Black-and-white Warbler		SSC	G5	S1S2B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Pandion haliaetus	Osprey		SE	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Sitta canadensis	Red-breasted Nuthatch			G5	S1B
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Myotis lucifugus	Little Brown Bat	C	SSC	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT	SSC	G1G2	S2S3
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Crataegus grandis	Grand Hawthorn		SE	G3G5Q	S1
Deschampsia cespitosa	Tufted Hairgrass		SR	G5	S2
Hydrastis canadensis	Golden Seal		WL	G3G4	S3
Juglans cinerea	Butternut		WL	G4	S3
Melanthium virginicum	Virginia Bunchflower		SE	G5	S1
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Poa wolfii	Wolf Bluegrass		SR	G4	S2
Rubus odoratus	Purple Flowering Raspberry		ST	G5	S2
Frifolium stoloniferum	Running Buffalo Clover	LE	SE	G3	S1
High Quality Natural Community			6.6	<i>G</i> 2	92
Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - floodplain wet	Wet Floodplain Forest		SG	G3?	S3
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3

Indiana Natural Heritage Data Center Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting Division of Nature Preserves State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;

SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

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Des. Number 1601072

Indiana Department of Natural Resources This data is not the result of comprehensive county

surveys.

Appendix D: Red Flag Investigation and Hazardous Materials

Indiana County Endangered, Threatened and Rare Species List

County:	Ma	rion	
		**	

Species Name	Common Name	FED	STATE	GRANK	SRANK	
Forest - upland dry-mesic Central Till Plain	Central Till Plain Dry-mesic			GNR	S2	
Forest - upland mesic Central Till Plain	Upland Forest Central Till Plain Mesic Upland Forest			GNR	S3	
Wetland - fen	Fen		SG	G3	S3	
Wetland - marsh	Marsh		SG	GU	S4	

Indiana Natural Heritage Data Center Division of Nature Preserves Indiana Department of Natural Resources This data is not the result of comprehensive county surveys. Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern;

SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant

globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state;

G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status

unranked

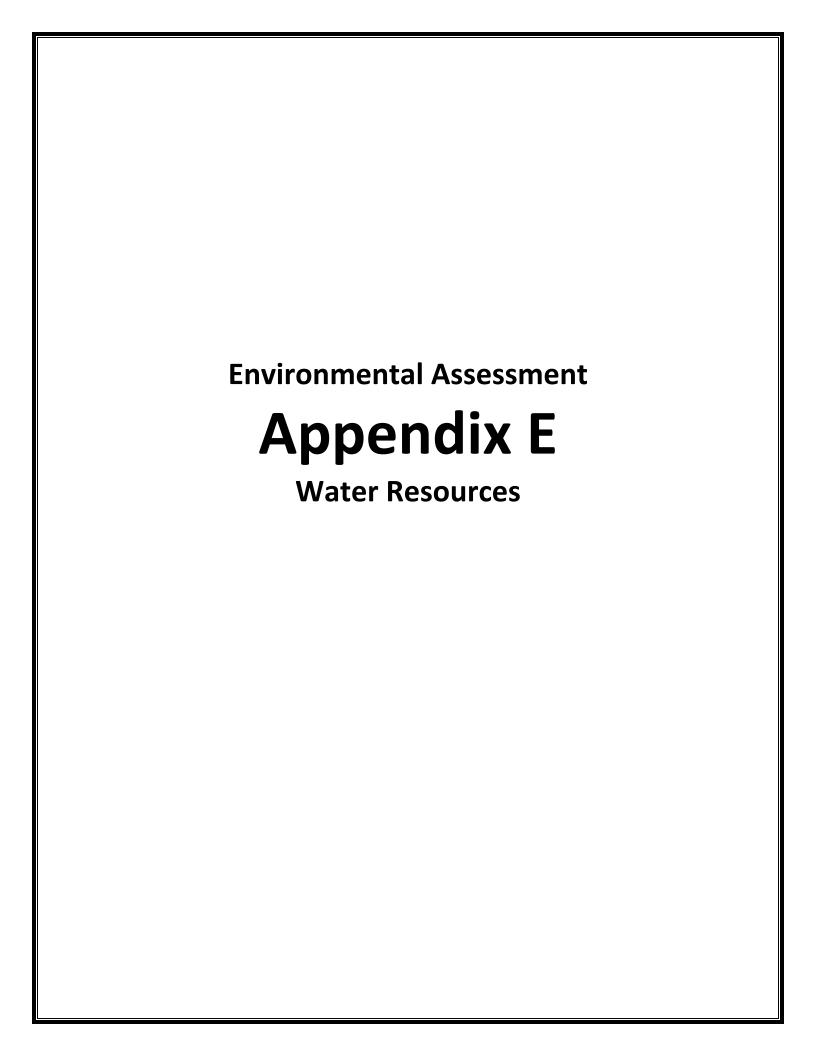
Appendix D: Red Flag Investigation and Hazardous Materials

Des. Number 1601072

HAZARDOUS MATERIALS SITE VISIT FORM

Des. Number: 1601072 Project Number: N/A Type of Project: Added Travel Lanes Description of Area (either general location or exact location of parcel): The project begins at Shiloh Park Drive, continues east for approximately 1.1 miles, and ends approximately 1,500 feet east of Raceway Road in Avon, Hendricks and Marion Counties, Indiana. Person Completing Field Check: Ben DeMaria and Joe Dabkowski, RQAW, on May 25, 2018. ⊠ Yes ☐ No 1. Has a Red Flag Investigation been completed? Notes: The Red Flag Investigation was completed by RQAW and was approved by INDOT on February 15, 2019. One state cleanup site (Coach and Horses Restaurant, 9251 Rockville Road, Agency Interest ID 21024) is mapped within the project area. Per the IDEM Virtual File Cabinet (VFC), IDEM issued a No Further Action (NFA) for this site on July 20, 2004. No impact is expected. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. One leaking underground storage tank (LUST) site (Speedway/Sm #6125, 10908 East US 36, Facility ID 6682) is mapped within the project area. Per the IDEM VFC, a release of petroleum was reported to IDEM in 1991. Documents from 2007 indicate that IDEM issued a NFA for the site on March 7, 2007 following the recording of an Environmental Restrictive Covenant (ERC) on the deed of the property. Residual chemicals of concern (CoCs) remain on-site and do not appear to extend to the project area. No impact is expected. One LUST site (Autobahn Inc., 8921 East 116th Street, Agency Interest ID 21603) is mapped adjacent to the project area. However, per the IDEM VFC, the LUST icon is misplaced; it is in Fishers, Indiana. No impact is expected. There is a Meijer Gas Station there now and it does not appear they have a release. 2. Right-of-Way Requirements: No New ROW Strip ROW Minor Take | Whole Parcel Take | Information Not Available Notes: 3. Land Use History and Development: (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.) Setting (rural or urban): Urban – visual inspection, aerial photos, USGS map Current Land Uses: Transportation, residential, commercial – visual inspection, aerial photos Previous Land Uses: Transportation, residential, commercial – aerial photos Adjacent Land Uses: Residential, commercial – visual inspection, aerial photos Describe any Structures on the Property: Other than those described above, no obvious hazmat concerns were observed during the field visit. 4. Visual Inspection: **Property** Adjoining Property Adjoining **Property Property Storage Structures: Evidence of Contamination: Underground Tanks** Χ Junkyard **Surface Tanks** Auto Graveyard Transformers **Surface Staining** Oil Sheen Sumps Ponds/Lagoons Odors Drums Vegetation Damage

Basins Landfills Other		Dumps Fill Dirt Evidence Vent pipes or fill pipes Other	
5. Is a Phase I, Initial Sit	e Assessment required? Yes	No	





Fishers, IN - Corporate 8770 North St., Ste. 110 Fishers, IN 46038 317.588.1798

F-1

Waters of the U.S. Determination / Wetland Delineation Report
US 36 Added Travel Lanes Project
Hendricks and Marion County, Indiana
Des. No. 1601072
Prepared by Ben DeMaria, RQAW Corporation
Proviously Submitted on: November 29, 2018

Previously Submitted on: November 29, 2018 Resubmitted: April 30, 2019

Introduction

RQAW Corporation conducted a *Waters of the United States* determination on May 25, 2018 for US 36 Added Travel Lanes Project in Hendricks and Marion County, Indiana. The proposed project would involve adding travel lanes along US 36 from Shiloh Park Drive to approximately 1500 feet east of Raceway Road in Hendricks and Marion County, Indiana. An additional field visit was conducted on April 3, 2019 by RQAW Corporation as the scope of the project was expanded slightly. This resulted in the verification of an additional stream within the survey area. A discussion of the additional stream is provided in the streams section of the narrative, along with photos provided in the attachments.

The existing roadway consists of two 10-foot wide travel lanes with 2-foot wide gravel shoulders and a center two way left turn lane. The proposed project involves an added travel lanes project beginning at Shiloh Park Drive and continuing east to approximately 1500 feet east of Raceway Road. The proposed improvements will involve milling, resurfacing and widening of the existing roadway to provide three through travel lanes in both the eastbound and westbound directions on US 36. The typical cross section of each direction will consist of two 11-foot wide travel lanes and a 12-foot wide right travel lane bordered by curb and gutter with a 2- foot offset. A single turn lane will be provided in both the eastbound and westbound directions at each signalized intersection.

Project Changes: The scope of the project was modified slightly after the approval of the waters report. Due to the changes in the scope, a revised report with additional information is being submitted per guidance by INDOT. An additional field investigation was conducted on April 3, 2019 to observe and document water resources in the survey area. Upon the field investigation, an additional roadside ditch (RSD 13) and unnamed tributary (UNT to Shiloh Creek) were observed to be within the survey area. A description of the RSD and UNT is provided within their respective sections of this report.

Location

Section 4, 5, 8 and 9, Township 15 N, Range 2 Clermont U.S. Geological Survey (USGS) Quadrangle Hendricks and Marion County, Indiana

Latitude: 39.76374 ° N Longitude: -86.33677 ° W

Universal Transverse Mercator: Quadrant 16 557043 4401750

NWI Wetlands

NWI wetlands were not identified within the survey area. There are 22 NWI wetlands within a 0.5 mile radius of the project area. The closest NWI wetland is 0.077 miles from the project area. No impacts to any NWI wetlands are anticipated.

8 Digit Hydrological Unit Code (HUC)

Patoka- White River Basin Hydrological Unit Code 8 Digit: 05120201

12 Digit Hydrological Unit Code (HUC)

Headwaters East Fork White Lick Creek Hydrological Unit Code 12 Digit: 051202011308

FISHERS VINCENNES LA PORTE WWW.RQAW.COM

Des. Number 1601072 Appendix E: Water Resources

Attachments Removed to avoid duplication. See graphics in Appendices A of this EA document.

Project Location Maps.	A1 – A3
Natural Resources Conservation Service (NRCS) Soil Map & Survey Report	A4 – A6
Floodplain Map, StreamStats, NWI Map, Water Resource Maps	A7 – A16
Photography Location Maps & Photographs	A17 – A89
Wetland Data Forms	
Pre-Jurisdictional Determination Form.	A114– A117

Soils

According to the Soil Survey Geographic (SSURGO) Database of Hendricks and Marion Counties, hydric soils are listed within the project area.

Map Abbreviation	Soil Name	Classification
Bs & Br	Brookston silty clay loam (0	Hydric (95%)
	to 2% slopes	
CrA	Crosby silt loam (0 to 2%	Not Hydric (2%) with Treaty-Drained Hydric Components
	slopes)	
CsB2	Crosby-Miami silt loams (2	Not Hydric (3%) with Treaty-Drained Hydric Components
	to 4% slopes)	
MmB2	Miami silt loam (2 to 6%	Not Hydric (5%) with Treaty Hydric Components
	slopes)	
MmD2	Miami silt loam (12 to 18%	Not Hydric (2%)
	slopes)	
Sh	Shoals (0 to 2% slopes)	Not Hydric (9%) with Sloan Hydric Components
MmC2	Miami silt loam (6 to 12%	Not Hydric (3%) with Treaty Hydric Components
	slopes)	
Sn	Sloan silt loam	Hydric (100%)

Streams

Avon Creek is an intermittent stream that flows in a northwest to southeast direction flowing under US 36. This stream exhibited Ordinary High Water Mark (OHWM) characteristics of 82 inches in width and 8 inches in depth, as measured by a break in vegetation. The gradient of this stream is 20.3 ft/mile and the drainage area is 1.03square miles. The substrate for Avon Creek predominately consisted of gravel and sand. Avon Creek has moderate quality, crayfish were observed in the stream. Based on these criteria and its connectivity to the White River, a Traditionally Navigable Waterway (TNW), this stream is likely to be considered a *Waters of the United States*.

UNT 1 to Avon Creek flows in a northeast to southwest direction on the north side of US 36 and flows into Avon Creek. This stream exhibited Ordinary High-Water Mark (OHWM) characteristics of 42 inches in width and 3 inches in depth, as measured by matted down vegetation. The drainage area for UNT 1 to Avon Creek is <0.1 square mile. The substrate for UNT 1 to Avon Creek predominately consisted of gravel and sand. UNT 1 to Avon Creek has poor quality due to its proximity to the roadway and high traffic areas. Based on these criteria and its connectivity to the White River, a TNW, this stream is likely to be considered a *Waters of the United States*.

UNT 2 to Avon Creek flows in a northwest to southeast direction on the south side of US 36 and flows into Avon Creek. This stream exhibited Ordinary High Water Mark Characteristics (OHWM) of 25 inches in width and 2 inches in depth, as measured by matted down vegetation. UNT 2 to Avon Creek begins where the concrete channel of RSD 4 ends. The drainage area for UNT 2 to Avon Creek is <0.1 square mile. The substrate for UNT 2 to Avon

Creek predominately consisted of silt. UNT 2 to Avon Creek has poor quality due to its proximity to the roadway and high traffic areas. Based on these criteria and its connectivity to the White River, a TNW, it is likely a *Waters of the United States*.

UNT to Shiloh Creek flows in a southwest to northeast direction on the north side of US 36 and flows into Shiloh Creek. This stream exhibited Ordinary High Water Mark Characteristics (OHWM) of 28 inches in width and 11 inches in depth, as measured by matted down vegetation. UNT to Shiloh Creek begins where RSD 13 ends at the eastern end of the survey area. The substrate predominantly consists of silt and sand. UNT to Shiloh Creek exhibited poor quality due to its proximity to the roadway and high traffic areas, and due to the amount of garbage observed in its riparian area. Based on these criteria and connectivity to the White River, a TNW, it is likely a *Waters of the United States*.

Roadside Ditches

The survey area is well drained. Thirteen roadside ditches (RSDs 1-13) were identified within the survey area along the north and south sides of US 36. These roadside ditches convey stormwater drainage from the existing roadway to Avon Creek, UNT 1 to Avon Creek, UNT 2 to Avon Creek and UNT to Shiloh Creek. The roadside ditches did not exhibit Ordinary High Water Mark (OHWM) and are not captured streams. Therefore, the roadside ditches are not likely to be considered *Waters of the United States*.

Roadside Ditch 1 (RSD 1) is located on the north side of US 36; west of Ronald Reagan Parkway. RSD 1 flows west to east and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 2 (RSD 2) is located on the north side of US 36; west of Ronald Reagan Parkway. RSD 2 flows west to east and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 3 (RSD 3) is located on the south side of US 36; west of Ronald Reagan Parkway. RSD 3 flows west to east and empties into UNT 2 to Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 4 (RSD 4) is located on the south side of US 36; west of Ronald Reagan Parkway. RSD 4 is concrete lined with no defined bed or bank (see Photo 22). RSD 4 flows west to east and empties into UNT 2 to Avon Creek. UNT 2 to Avon Creek starts where RSD 4 ends. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 5 (RSD 5) is located on the north side of US 36; west of Ronald Reagan Parkway. RSD 5 flows north to south and empties into UNT 1 to Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 6 (RSD 6) is located on the north side of US 36; east of Ronald Reagan Parkway. RSD 6 flows north to south and empties into UNT 1 to Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 7 (RSD 7) is located on the south side of US 36; east of Ronald Reagan Parkway. RSD 7 flows west to east and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 8 (RSD 8) is located on the north side of US 36; east of Ronald Reagan Parkway. RSD 8 flows east to west to east and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and

adjacent area. Photo 95 shows RSD 8 before maintenance work (taken May 25, 2018), while Photo 96 shows RSD 8 (taken August 30, 2018) after maintenance work.

Roadside Ditch 9 (RSD 9) is located on the north side of US 36; east of Ronald Reagan Parkway. RSD 9 flows east to west and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 10 (RSD 10) is located on the north side of US 36; east of Ronald Reagan Parkway. RSD 10 flows east to west and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 11 (RSD 11) is located on the south side of US 36; east of Ronald Reagan Parkway. RSD 11 flows east to west and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 12 (RSD 12) is located on the north side of US 36; east of Raceway Road. RSD 12 flows east to west and empties into Avon Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Roadside Ditch 13 (RSD 13) is located on the north side of US 36; west of Coronado Road. RSD 13 flows west to east and empties into UNT to Shiloh Creek. The roadside ditch conveys stormwater runoff from the roadway and adjacent area.

Wetlands

The field investigation identified six wetlands within the project area.

Wetland A is located on the north side of US 36 just west of the Ronald Reagan/US 36 Intersection. Wetland A is located within a low-lying swale on the south bank of Avon Creek that holds floodwater during storm events. Wetland A has poor quality due to its proximity to the roadway and high traffic areas. Wetland A drains southeast into Avon Creek. This wetland is likely considered a *Waters of the United States* due to its connectivity to Avon Creek, a tributary to the White River, a TNW.

Data point A1 was taken within Wetland A and exhibited hydrophytic vegetation, hydric soil, and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed at data point A1 was common reed (*Phragmites australis*), which is a facultative wet (FACW) plant. This data point exhibited two primary wetland hydrology indicators including saturation and drift deposits.

Data point A2 was taken approximately 50 feet west of data point from data point A1. The dominant vegetation observed at data point A2 was creeping thistle (*Cirsium avense*) and tall fescue (*Festuca arundincea*). Creeping thistle (*Cirsium avense*) is an upland (UPL) plant and tall fescue (*Festuca arundincea*) is a facultative upland (FACU) plant. This data point did not exhibit hydrophytic vegetation, hydric soils or wetland hydrology. Due to not meeting all three criteria, this data point is not considered within a wetland.

Wetland B is located just east of Shiloh Crossing Drive, on the north side of US 36. Wetland B is located within a low-lying swale on the south bank of Avon Creek that holds floodwater during storm events. Wetland B has poor quality due to its proximity to the roadway and high traffic areas. Wetland B drains east into Avon Creek. This wetland is considered a *Waters of the United States* due to its connectivity to Avon Creek, a tributary to the White River, a TNW.

Data point B1 was taken within Wetland B and exhibited hydrophytic vegetation, hydric soil, and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed

at data point B1 was common reed (*Phragmites australis*), which is a facultative wet (FACW) plant. This data point exhibited two primary wetland indicators including saturation and drift deposits.

Data point B2 was taken approximately 15 feet east outside of Wetland B. The dominant vegetation observed at data point B2 was tall fescue (*Festuca arundincea*), which is a facultative upland (FACU) plant. Data point B2 did not exhibit hydrophytic vegetation, hydric soil or wetland hydrology. Due to not meeting all three criteria, this data point is not considered to be within a wetland.

Wetland C is located on the east side of Ronald Reagan parkway just north of US 36. Wetland C is located within a widened section of Roadside Ditch 6. Wetland C has poor quality due to its proximity to the roadway and high traffic areas. Wetland C drains via south via a drain inlet near just northeast of the Ronald Reagan/US 36 intersection. It then flows west into UNT 1 to Avon Creek, which then flows into further west into Avon Creek. This wetland is likely considered to be a *Waters of the United States* due to its connectivity to Avon Creek, a tributary to the White River, a TNW.

Data point C1 was taken within Wetland C and exhibited hydrophytic vegetation, hydric soil, and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed at data point C1 was eastern fox sedge (*Carex triangularis*) and barnyard grass (*Echinochloa muricata*). Both eastern fox sedge (*Carex triangularis*) and barnyard grass (*Echinochloa muricata*) are obligate (OBL) plants. This data point exhibited a primary wetland hydrology indicator of saturation and a secondary wetland hydrology indicator of drainage patterns.

Data Point C2 was taken approximately 10 feet east outside of Wetland C. The dominant vegetation observed at data point C2 was tall fescue (*Festuca arundincea*), which is a facultative upland (FACU) plant. This data point did not exhibit hydrophytic vegetation, hydric soil, or wetland hydrology. Due to not meeting all three criteria, this data point is not considered to be within a wetland.

Wetland D is located on the south side of US 36 just west of the Ronald Reagan/US 36 intersection. Wetland D is located within a depression that receives roadside drainage before draining to Avon Creek. Wetland D has poor quality do to its proximity to the roadway and high traffic areas. Wetland D drains south into Avon Creek. Wetland D is likely to be considered a *Waters of the United States* due to its connectivity to Avon Creek, a tributary to the White River, a TNW.

Data point D1 was taken within Wetland D and exhibited dominance of hydrophytic vegetation, hydric soils and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed at this data point was common reed (*Phragmites australis*), narrowleaf cattail (*Typha angustifolia*), and blunt spikerush (*Eleocharis obtusa*). Common reed (*Phragmites australis*) is a facultative wetland (FACW) plant while blunt spikerush (*Eleocharis obtusa*) and narrowleaf cattail (*Typha angustifolia*) are both obligate (OBL) plants. This data point exhibited a primary wetland indicator of saturation and a secondary wetland indicator of drainage patterns.

Data point D2 was taken approximately 20 feet west of Wetland D. The dominant vegetation observed at data point D2 was wild teasel (*Dipsacus sylvestris*) and tall fescue (*Festuca arundinacea*), both of which are facultative upland (FACU) plants. This data point did not exhibit hydrophytic vegetation or wetland hydrology or hydric soil. Due to not meeting all three criteria, this data point is not considered to be within a wetland.

Wetland E is located on the south side of US 36 just west of the Ronald Reagan/US 36 intersection. Wetland E is located within a widened section of UNT 2. Wetland E has poor quality due to its proximity to the roadway and high traffic areas. Wetland E drains east into Avon Creek. Wetland E is likely to be considered a *Waters of the US* due to its connectivity to the White River, a TNW.

Data point E1 was taken within Wetland E and exhibited dominance of hydrophytic vegetation, hydric soils and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed at data point E1 was reed canary grass (*Phalaris arundinacea*), which is a facultative wetland (FACW) plant. This data point also exhibited hydric soils and wetland hydrology. The primary indicators for wetland hydrology observed at this data point was surface water, a high water table, and saturation.

Data point E2 was taken approximately 10 feet southeast outside of Wetland E. The dominant vegetation observed at data point E2 was tall fescue (*Festuca arundinacea*), which is a facultative upland (FACU) plant. This data point did not exhibit hydrophytic vegetation or wetland hydrology but exhibited hydric soil. Due to not meeting all three criteria, this data point is not considered to be within a wetland.

Wetland F is located on the south side of US 36 just east of the Ronald Reagan/ US 36 intersection. Wetland F is located within a widened section of Roadside Ditch 7. Wetland F has poor quality due to its proximity to the roadway and high traffic areas. Wetland F is likely to be considered a *Waters of the United States* due to its connectivity to the White River, a Traditionally Navigable Waterway (TNW).

Data point F1 was taken within Wetland F and exhibited dominance of hydrophytic vegetation, hydric soils and wetland hydrology. This data point meets all three criteria to be classified as a wetland. The dominant vegetation observed at data point F1 was common reed (*Phragmites australis*) and bulrush (*Typha latifolia*). Common reed (*Phragmites australis*) is a facultative wetland (FACW) plant, and bulrush (*Typha latifolia*) is an obligate plant (OBL). The primary indicator for wetland hydrology at this data point was saturation.

Data point F2 was taken approximately 20 feet north outside of Wetland F. The dominant vegetation observed at data point F2 was tall fescue (*Festuca arundinacea*), which is a facultative upland (FACU) plant. This data point did not exhibit a dominance of hydrophytic vegetation or hydric soils but did exhibit wetland hydrology. The primary indicator for wetland hydrology observed at this data point was saturation. Due to not meeting all three criteria, this data point is not considered to be within a wetland.

Table 1: Stream Summary
US 36 Added Travel Lanes
Des. No. 1601072
Hendricks and Marion County, Indiana

Stream Name	Photos	Lat/Long	OHWM Width (feet)	OHW M Depth (feet)	USGS Blue- line?	Riffle s/Pool s?	Quality QHEI/ HHEI Score(s)	Likely Water of U.S.?
	10-11, 13-							
	14, 16-19,							
	21, 23-25,							
Avon	32, 35, 38.	39.76414° N						
Creek	57	-86.34013° W	6.83	0.67	Yes	Yes	N/A	Yes
UNT 1								
to Avon		39.76639° N						
Creek	3637	-86.33706° W	3.5	0.25	No	No	N/A	Yes
UNT 2								
to Avon		39.76352° N						
Creek	53-56	-86.33917° W	2.08	0.17	No	No	N/A	Yes
UNT to								
Shiloh		39.76405°N						
Creek	117-122	-86.32098° W	2.333	.916	No	No	N/A	Yes

Table 2: Roadside Ditch Summary US 36 Added Travel Lanes Project Des. No. 1601072 Hendricks and Marion County, Indiana

Quality Likely **OHWM OHWM USGS** Riffles/ QHEI/ Water Stream **Photos** Lat/Long Width **Depth** Blue-HHEI Pools? of Name (inches) line? (feet) Score **U.S.?** 39.76391°N RSD 1 1-2 N/A N/AN/A N/A No No -86.34436° W 39.76352° N RSD 2 3, 4 N/A N/A N/A N/A No No -86.34447° W 39.76391°N RSD 3 5-7, 9 N/A N/A N/A N/A No No -86.34316° W 39.76355° N RSD 4 22, 48 N/A N/A N/A N/A No No -86.34052° W 39.76422° N RSD 5 36, 37 N/A N/A N/A N/A No No -86.33700° W 39.76465° N 74 RSD 6 N/A N/A No N/A N/A No -86.33660° W 39.76345° N RSD 7 93-94 N/A N/A N/A N/A No No -86.33644° W 39.76384° N RSD8 95-96 N/A N/A No N/A N/A No -86.33127° W 39.76386° N 97-98 RSD 9 N/A N/A N/A N/A No No -86.33127° W 39.76373° N **RSD 10** 99-100 N/AN/A N/A N/A No No -86.33003° W 101-39.76347° N **RSD 11** N/A N/A N/A N/A No No 104 -86.32705° W 39.76391° N **RSD 12** 105 N/A N/A No N/A N/A No -86.32457° W 109, 39.76401° N 111-**RSD 13** N/A N/A N/A N/A No No 112, -86.32147° N 116

Table 3: Data Point Summary US 36 Added Travel Lanes Project Des. No. 1601072 Hendricks and Marion County, Indiana

Data Point	Vegetation	Soils	Hydrology	Wetland
A1	Yes	Yes	Yes	Yes
A2	No	No	No	No
B1	Yes	Yes	Yes	Yes

B2	No	No	No	No
C1	Yes	Yes	Yes	Yes
C2	No	No	No	No
D1	Yes	Yes	Yes	Yes
D2	No	No	No	No
E1	Yes	Yes	Yes	Yes
E2	No	No	No	No
F1	Yes	Yes	Yes	Yes
F2	No	No	Yes	No

Table 4: Wetland Summary US36 Added Travel Lanes Project Des. No. 1601072 Hendricks and Marion County, Indiana

Wetland Name	Photos	Lat/Long	Туре	Total Area (acres)	Likely Water of U.S.?
		39.76395 N	Palustrine		
Wetland A	26-35	-86.33804 W	Emergent	0.03	Yes
		39.76397 N	Palustrine		
Wetland B	11-21	-86.33928 W	Emergent	0.02	Yes
		39.76430 N	Palustrine		
Wetland C	69-78	-86.33658 W	Emergent	0.01	Yes
		39.76340 N	Palustrine		
Wetland D	60-68	-86.33713 W	Emergent	0.05	Yes
	22, 38-	39.76353 N	Palustrine		
Wetland E	51	-86.33839 W	Emergent	0.12	Yes
		39.67297 N	Palustrine		
Wetland F	83-92	-86.33646 W	Emergent	0.02	Yes

Conclusions

A field reconnaissance was conducted to evaluate the presence of *Waters of the United States* for the proposed US 36 Added Travel Lanes Project in Hendricks and Marion County, Indiana. Field observations identified Avon Creek and 2 Unnamed Tributaries (UNTs) to Avon Creek, and UNT to Shiloh Creek within the project limits. Field observations identified 6 wetlands within or adjacent to the project area. Field observations identified 13 roadside ditches (RSDs 1-13).

Every effort should be taken to avoid and minimize impacts to the water resources listed above. Based on Avon Creek, UNT 1 to Avon Creek, UNT 2 to Avon Creek, UNT to Shiloh Creek and the six identified wetlands connectivity to the White River, a TNW, all 10 of these water resources are likely to be considered *Waters of the United States*. If construction limits exceed the limits of the survey area illustrated in this document, further investigation will be needed. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers (USACE) and this report is our best judgement based on the guidelines set forth by the USACE.

Acknowledgement:

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 Corps of Engineers Wetlands Delineation Manual, the appropriate regional supplement, the USACE Jurisdictional Determination Form Instructional Guidebook, and other appropriate agency guidelines.

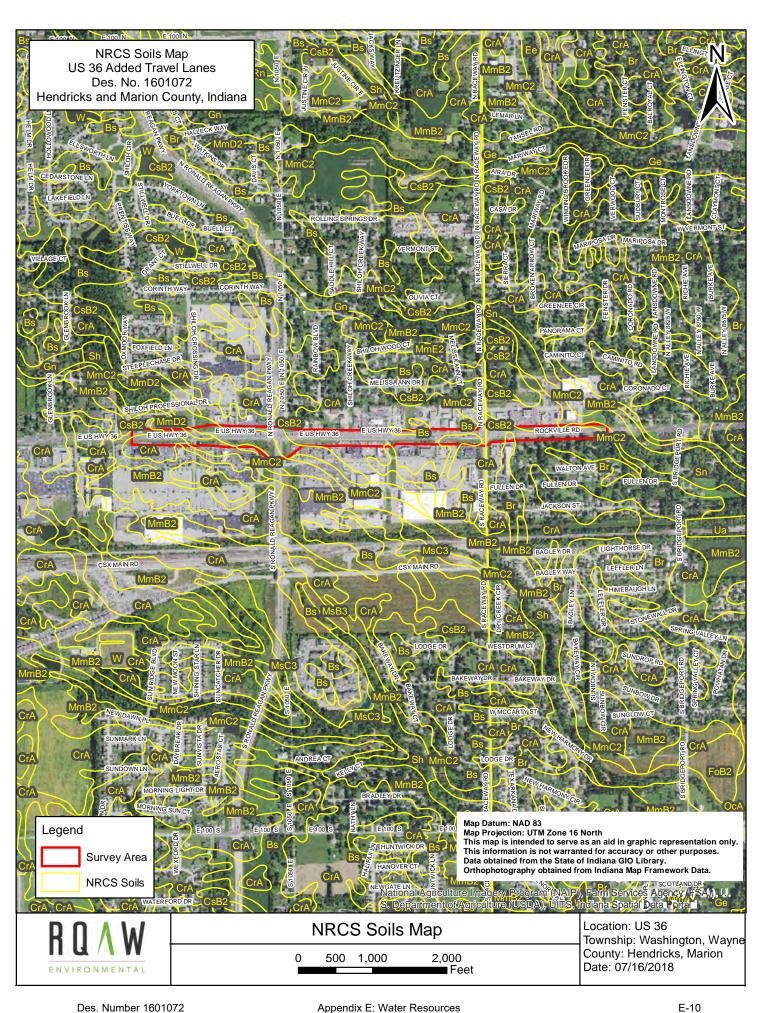
Prepared by:

Ben Dellaria

Ben DeMaria

Environmental Scientist

RQAW | Environmental Department



Report—Hydric Soil List - All Components

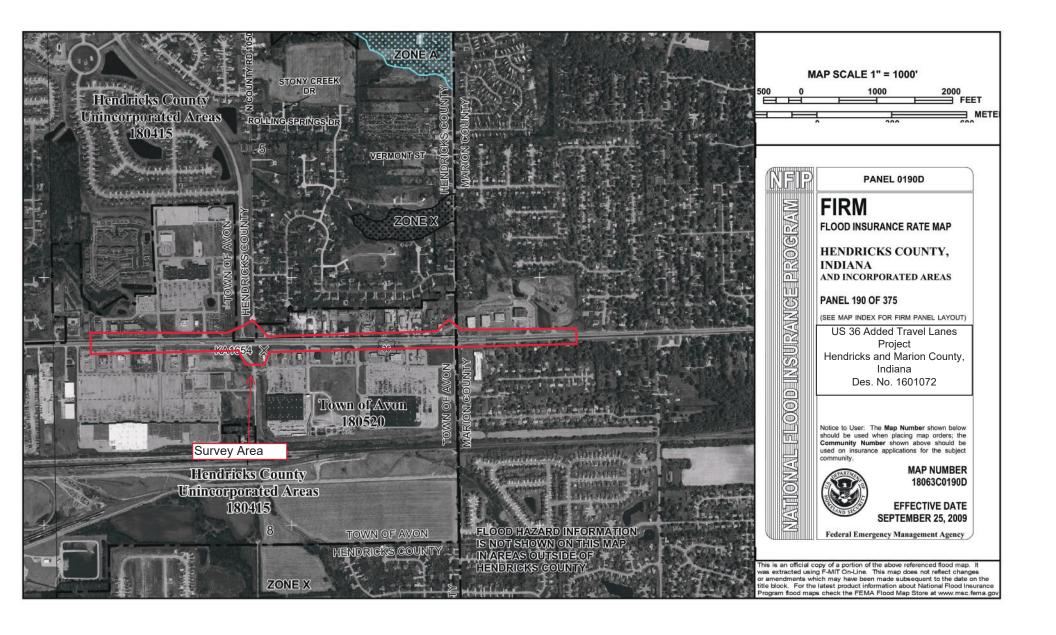
Hydric Soil List - All Components-IN063-Hendricks County, Indiana									
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)				
Bs: Brookston silty clay loam, 0 to 2 percent slopes	Brookston	90-100	Depressions,till plains	Yes	2,3				
	Crosby	0-10	Till plains	No	_				
CrA: Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	Crosby	80-100	80-100 Ground moraines,recessioni al moraines,water-lain moraines		_				
	Williamstown-Eroded	0-10	Ground moraines,recessioni al moraines,water- lain moraines	No	_				
	Treaty-Drained	0-5	Depressions,swales,w ater-lain moraines	Yes	2				
CsB2: Crosby-Miami silt loams, 2 to 4 percent slopes, eroded	Crosby-Eroded	60-80	Ground moraines,recessioni al moraines,water- lain moraines	No	_				
	Miami-Eroded	20-35	Ground moraines,recessioni al moraines,water- lain moraines	No	_				
	Treaty-Drained	0-5	Depressions,swales,w ater-lain moraines	Yes	2				
MmB2: Miami silt loam, 2 to 6 percent slopes, eroded	Miami-Eroded	50-100	Till plains	No	_				
	Crosby	2-15	Till plains	No	_				
	Williamstown	2-15	Till plains	No	_				
	Treaty	2-15	Till plains	Yes	2,3				
MmC2: Miami silt loam, 6 to 12 percent slopes, eroded	Miami-Eroded	80-98	Till plains	No	_				
	Rainsville-Eroded	2-15	Till plains	No	_				
	Treaty	2-15	Till plains	Yes	2,3				
	Crosby	0-5	Till plains	No	_				
MmD2: Miami silt loam, 12 to 18 percent slopes, eroded	Miami-Eroded	80-100	Till plains	No	_				
	Rainsville-Eroded	2-15	Till plains	No	_				
	Crosby	0-10	Till plains	No	_				
Sh: Shoals silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Shoals	75-95	Flood plains	No	_				
	Eel	3-5	Flood plains	No	_				

Web Soil Survey National Cooperative Soil Survey

Des. Number 1601072 Appendix E: Water Resources E-11

Hydric Soil List - All Components-IN063-Hendricks County, Indiana										
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)					
	Sloan	0-15	Backswamps,flood plains,meander scars	Yes	2					
	Genesee	0-5	Flood plains,flood- plain steps,natural levees	No	_					

Hyd	Hydric Soil List - All Components–IN097-Marion County, Indiana									
Map symbol and map unit name	Component/Local Phase	Comp. pct.	Landform	Hydric status	Hydric criteria met (code)					
Br: Brookston silty clay loam, 0 to 2 percent slopes	Brookston	90-100	Depressions,till plains	Yes	2,3					
	Crosby	0-10	Till plains	No	_					
CrA: Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	Crosby	80-100	Ground moraines,recessioni al moraines,water- lain moraines	No	_					
	Williamstown-Eroded	0-10	Ground moraines,recessioni al moraines,water- lain moraines	No	_					
	Treaty-Drained	0-5	Depressions,swales,w ater-lain moraines	Yes	2					
CsB2: Crosby-Miami silt loams, 2 to 4 percent slopes, eroded	Crosby-Eroded	60-80	Ground moraines,recessioni al moraines,water- lain moraines	No	_					
	Miami-Eroded	20-35	Ground moraines,recessioni al moraines,water- lain moraines	No	_					
	Treaty-Drained	0-5	Depressions,swales,w ater-lain moraines	Yes	2					
MmC2: Miami silt loam, 6 to 12 percent slopes, eroded	Miami-Eroded	80-98	Till plains	No	_					
	Rainsville-Eroded	2-15	Till plains	No	_					
	Treaty	2-15	Till plains	Yes	2,3					
	Crosby	0-5	Till plains	No	_					
Sn: Sloan silt loam	Sloan	100	Backswamps,flood plains,meander scars	Yes	2					

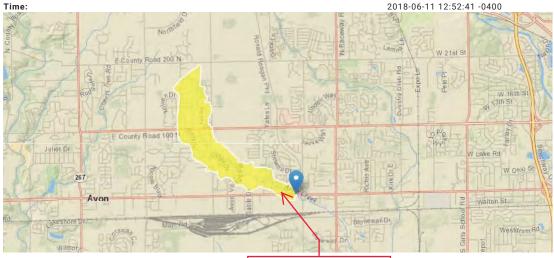


StreamStats Report

Region ID: Workspace ID:

Clicked Point (Latitude, Longitude):

IN IN20180611165418412000 39.76380, -86.33818 2018-06-11 12:52:41 -0400



Avon Creek

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.031	square miles
T2INDNR	Average transmissivity (ft2/d) for the full depth of unconsolidated deposits from InDNR well database.	686	square feet per day
LOWREG	Low Flow Region Number	1729	dimensionless
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	20	ft per day
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	78.62	dimensionless
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	6.1	percent
BFREGNO	BFREGNO	1566	dimensionless
BSLDEM10M	Mean basin slope computed from 10 m DEM	1.31	percent
CONTDA	Area that contributes flow to a point on a stream	1.031	square miles
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	19.5	feet per mi
HIGHREG	HIGHREG	1008	dimensionless
INSINKHOLE	Percent Sinkhole drainage area per basin from Indiana Geological Survey.	0	percent
INSINKING	Percent Sinking stream drainage area from Indiana Geological Survey.	0	percent
K1INDNR	Average hydraulic conductivity (ft/d) for the top 70 ft of unconsolidated deposits from InDNR well database.	9	ft per day
LAT_OUT	Latitude of Basin Outlet	39.763744	degrees
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	75	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	23.9	percent
ST2INDNR	Average transmissivity (ft2/d) for the full depth of unconsolidated deposits within 1000 ft of stream channel from InDNR well database.	757	square feet pe day
URBAN	Percentage of basin with urban development	4.9	percent
WETLAND	Percentage of Wetlands	1.52	percent

E-14

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: US36 in Avon			City/Co	ounty:	Avon/ Her	ndricks & Marion County	Sampling	Date: 5/25/	18
Applicant/Owner: INDOT			-			State: IN			
Investigator(s): Joseph Dabkowski						nge: 5/8 15N 2E			
Landform (hillslope, terrace, etc.): Depressi						(concave, convex, none):	concave		
Slope (%): 2 Lat: 39.76395								AD 83	
Soil Map Unit Name: Miami silt loam; shoal						NWI classific			
Are climatic / hydrologic conditions on the s		his time of ve							
Are Vegetation, Soil, or Hyd		-				Normal Circumstances" p		es X	No
Are Vegetation, Soil, or Hyd						eded, explain any answe			
SUMMARY OF FINDINGS – Attac					,			,	es, etc.
Hydrophytic Vegetation Present?	Yesx	No							
	Yesx				Sampled				
	Yesx	No		withi	n a Wetlan	nd? Yes^	No_		
Remarks: This data point met all three criterion to be cons	idorod within a	wotland							
This data point met all tillee chterion to be cons	idered williin a	welland.							
VEGETATION – Use scientific nan	nes of plant	S.							
Trac Street in (Diet sine)	`	Absolute			Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size:		% Cover				Number of Dominant Sp That Are OBL, FACW, of	pecies	1	(4)
2						That Are OBL, FACW, t	JI FAC		_ (^)
3						Total Number of Domini Species Across All Stra		1	(B)
4						'			_ (5)
5						Percent of Dominant Sp That Are OBL, FACW, of		100	(A/B)
			= Tota	al Cov	er				_ (''')
Sapling/Shrub Stratum (Plot size:						Prevalence Index work			
1						Total % Cover of: OBL species0		Multiply by:	_
2						FACW species 90			_
3						FAC species0			_
4 5						FACU species1			
5ft			= Tota	al Cov	er	UPL species 0			
Herb Stratum (Plot size:	_)					Column Totals: 91			(B)
1. Phragmites australis		90	Yes		FACW				
2. Ambrosia trifida		1	No		FACU	Prevalence Index			
3						Hydrophytic Vegetatio			
4						1 - Rapid Test for F ✓ 2 - Dominance Tes		vegetation	
5						✓ 2 - Dominance Tes			
6						4 - Morphological A		1 (Provide su	innorting
7						data in Remarks	or on a se	parate shee	et)
8 9						Problematic Hydrop	ohytic Vege	etation¹ (Exp	lain)
10									
			= Tota	al Cov	er	¹ Indicators of hydric soil be present, unless distu			y must
Woody Vine Stratum (Plot size:)					be present, unless distu	mbed of pro	DIEMANC.	
1						Hydrophytic			
2						Vegetation Present? Yes	s X	No	
Demanta, (Include abote acceptance from			= Tota	al Cov	er				
Remarks: (Include photo numbers here of	on a separate	e sneet.)							
This data point exhibited a dominance of hydro	phytic vegetatio	on.							

US Army Corps of Engineers

Midwest Region - Version 2.0

E-15

SOIL Sampling Point: A1

Depth Mat	4) 0/	Redo	07		1 -2	Taut	Dawsli-
(inches) Color (mois		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5 10YR3/2				- ——		sandy loam	
5-20 10YR3/2	95	7.5YR5/6	5	<u>D</u>	<u>M</u>	sandy loam	
Type: C=Concentration, D= lydric Soil Indicators:	Depletion, RM=	Reduced Matrix, M	S=Maske	d Sand G	rains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy	Gleyed Ma	atriv (SA)			Prairie Redox (A16)
Histic Epipedon (A2)		Sandy	-				urface (S7)
Black Histic (A3)			d Matrix (-			inganese Masses (F12)
Hydrogen Sulfide (A4)			Mucky Mi	,		_	nallow Dark Surface (TF12)
Stratified Layers (A5)			Gleyed M				Explain in Remarks)
2 cm Muck (A10)			ed Matrix (0.1101 (1	-xpiair iii remarko)
Depleted Below Dark St	ırface (A11)		Dark Surf				
Thick Dark Surface (A12	, ,	_	ed Dark Si	, ,	7)	3Indicators	of hydrophytic vegetation and
Sandy Mucky Mineral (S	,		Depression	-	,		hydrology must be present,
_ 5 cm Mucky Peat or Pea	,			- (/			disturbed or problematic.
Restrictive Layer (if observ	, ,						
Туре:							
						Hyaric Soil I	Present? Yes No
	soil conditions.	_					
Remarks: his data point exhibited hydric	soil conditions.						
Remarks: his data point exhibited hydric							
Remarks: his data point exhibited hydric YDROLOGY Vetland Hydrology Indicat	ors:	red; check all that a	pply)			Secondar	y Indicators (minimum of two requir
Remarks: his data point exhibited hydric YDROLOGY Vetland Hydrology Indicat	ors:	red; check all that a		ves (B9)			ry Indicators (minimum of two requir nce Soil Cracks (B6)
Remarks: his data point exhibited hydric YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum	ors:		ained Leav	, ,		Surfa	•
Remarks: his data point exhibited hydric YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2)	ors:	Water-Sta	ained Leav auna (B13	3)		Surfa _∕ Drain	ice Soil Cracks (B6)
Remarks: his data point exhibited hydric YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2)	ors:	Water-Sta Aquatic Fa True Aqua	ained Leav auna (B13 atic Plants	3) s (B14)		Surfa <u>√</u> Drair Dry-S	ace Soil Cracks (B6) age Patterns (B10)
Primary Indicators (Minimum Surface Water (A1) High Water Table (A2) Saturation (A3)	ors:	Water-Sta Aquatic Fa True Aqua Hydrogen	ained Leav auna (B13 atic Plants Sulfide O	3) s (B14) odor (C1)	ving Roots	Surfa Drain Dry-\$ Cray	ace Soil Cracks (B6) hage Patterns (B10) Geason Water Table (C2)
YDROLOGY Vetland Hydrology Indicate Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	ors:	Water-Sta Aquatic Fi True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	3) s (B14) edor (C1) eres on Li	-	Surfa Surfa Drain Crayl Crayl	ice Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
YDROLOGY Vetland Hydrology Indicate Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Unift Deposits (B3)	ors:	Water-Sta Aquatic Factor True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	3) s (B14) dor (C1) eres on Li ed Iron (C	(4)	Surfa Surfa Drair Dry-S Cray (C3) Satur	ice Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indicate Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	ors:	Water-Sta Aquatic Fi True Aqua Hydrogen Oxidized I Presence Recent Iro	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	B) 6 (B14) 9 dor (C1) eres on Li ed Iron (C ion in Tille	-	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) led or Stressed Plants (D1) morphic Position (D2)
Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Indicators (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	ors: of one is requir	Water-Sta Aquatic Factor True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface	B) s (B14) cdor (C1) eres on Li ed Iron (C ion in Tille (C7)	(4)	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
Process YDROLOGY Vetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) ✓ Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae	ors: of one is requir	Water-Sta Aquatic Factor Aquatic Factor True Aqua Hydrogen Oxidized Factor Presence Recent Ind Thin Mucl Gauge or	ained Leava auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data	B) s (B14) dor (C1) eres on Li ed Iron (C ion in Tille (C7) a (D9)	(4)	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) led or Stressed Plants (D1) morphic Position (D2)
Print Deposits (B2) Valend Mark (B1) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Cor	ors: of one is requir	Water-Sta Aquatic Factor Aquatic Factor True Aqua Hydrogen Oxidized Factor Presence Recent Ind Thin Mucl Gauge or	ained Leava auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data	B) s (B14) dor (C1) eres on Li ed Iron (C ion in Tille (C7) a (D9)	(4)	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) led or Stressed Plants (D1) morphic Position (D2)
Print Deposits (B4) Water Marks (B1) Sediment Deposits (B2) Valual Mater Crust (B4) Iron Deposits (B5) Inundation Visible on Active Sparsely Vegetated Coricidal Applications:	ors: of one is requir erial Imagery (Br acave Surface (B	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Ia Presence Recent Iro Thin Mucl Gauge or State Other (Ext	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	B) s (B14) dor (C1) eres on Li ed Iron (C ion in Tille (C7) a (D9) emarks)	ed Soils (C6	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) led or Stressed Plants (D1) morphic Position (D2)
Property Services (Property Serv	ors: of one is required in the second in the		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Ro	B) is (B14) is (B14) idor (C1) ieres on Lir ed Iron (C ion in Tille (C7) in (D9) iemarks)	ed Soils (C6	Surfa Drain Dry-S Crayl Satun Stunt S) Geor	ice Soil Cracks (B6) lage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) led or Stressed Plants (D1) morphic Position (D2)
Property National Property Nat	ors: of one is required in the second in the	Water-Sta	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	(B14) (Idor (C1) (Idor	44) ed Soils (C6	Surfa Drafa Dry-5 Crayi (C3) Satui Stunt S) Geor FAC-	ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) hed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Inundation Visible on Ae	ors: of one is required in the second in the		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	(B14) (Idor (C1) (Idor	44) ed Soils (C6	Surfa Drafa Dry-5 Crayi (C3) Satui Stunt S) Geor FAC-	ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) hed or Stressed Plants (D1) horphic Position (D2)
Property National Property Nat	ors: of one is required in the image of the		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	(C7) a (D9) emarks)	44) ed Soils (C6	Surfa Drain Dry-5 Crayi Satur Stunt FAC-	ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) hed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Property Netland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Active Sparsely Vegetated Confided Observations: Surface Water Present? Vater Table Present? Saturation Present? Saturation Present? Saturation Present? Saturation Present? Second Data (street	ors: of one is required in the image of the		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	(C7) a (D9) emarks)	44) ed Soils (C6	Surfa Drain Dry-5 Crayi Satur Stunt FAC-	ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) hed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Property Seturation Present? Wetland Hydrology Indicate Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Ae Sparsely Vegetated Corfield Observations: Surface Water Present? Water Table Present? Saturation Present? Saturation Present?	ors: of one is required and one is required limagery (Brancave Surface (Brancave Sur		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	(C7) a (D9) emarks)	44) ed Soils (C6	Surfa Drain Dry-5 Crayi Satur Stunt FAC-	ace Soil Cracks (B6) hage Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) hed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)

US Army Corps of Engineers

Midwest Region – Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: US36 in Avon		City/Cour	ity: Avon/ Hei	ndricks & Marion County Sampling Date: 5/25/18
Applicant/Owner: INDOT				State: IN Sampling Point: A2
Investigator(s): Joseph Dabkowski	{	Section,	Township, Ra	nge: <u>5/8 15N 2E</u>
Landform (hillslope, terrace, etc.): Depression			Local relief	(concave, convex, none): concave
Slope (%): 2 Lat: 39.76394	ι	_ong: <u>-</u> 86	3.33823	Datum: NAD 83
Soil Map Unit Name: Miami silt loam; Shoals silt				NWI classification: N/A
Are climatic / hydrologic conditions on the site typical for this				
Are Vegetation, Soil, or Hydrologys	ignificantly o	disturbed	? Are "	'Normal Circumstances" present? YesX No
Are Vegetation, Soil, or Hydrology r	aturally prob	olematic?	(If ne	eeded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ing point l	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes N	ox			
Hydric Soil Present? Yes N			the Sampled	
Wetland Hydrology Present? Yes N	ox	Wi	thin a Wetlar	nd? Yes NoX
Remarks: This data point did not meet all three criterion to be considered w	rithin a wetlan	d.		
VEGETATION – Use scientific names of plants.				
	Absolute		nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1	% Cover	Species	Status	Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4 5				Percent of Dominant Species
J	:	= Total C	over	That Are OBL, FACW, or FAC: 0 (A/B)
Sapling/Shrub Stratum (Plot size:)				Prevalence Index worksheet:
1				
2				OBL species0
3				FAC species
4 5				FACU species x 4 = 400
5.ft			Cover	UPL species0 x 5 =0
Herb Stratum (Plot size:)				Column Totals:(A)(B)
1. Cirsium arvense	65	Yes	- UPL	Brown larger larden - B/A - 4
2. Festuca arundinacea	35	Yes	_ FACU	Prevalence Index = B/A =4 Hydrophytic Vegetation Indicators:
3				1 - Rapid Test for Hydrophytic Vegetation
4				2 - Dominance Test is >50%
5				3 - Prevalence Index is ≤3.0¹
7				4 - Morphological Adaptations ¹ (Provide supporting
8.				data in Remarks or on a separate sheet)
9				Problematic Hydrophytic Vegetation ¹ (Explain)
10				¹ Indicators of hydric soil and wetland hydrology must
Woody Vine Stratum (Plot size:)	100	= Total C	over	be present, unless disturbed or problematic.
1				Hydrophytic
2				Vegetation
		= Total C	over	Present? Yes NoX
Remarks: (Include photo numbers here or on a separate	sheet.)			
This data point did not hydrophytic vegetation.				

US Army Corps of Engineers Midwest Region – Version 2.0

Des. Number 1601072 Appendix E: Water Resources E-17

SOIL Sampling Point: A2

Profile Descr	ription: (Descri	be to the dept	h needed to doc	ument the inc	dicator or	confirm	the absence o	f indicators.)
Depth	Matrix			dox Features	_ 1			_
(inches)	Color (moist)	%	Color (moist)	%	Type ¹ l	Loc ²	Texture	Remarks
0-20	10YR3/3	100					sandy loam	
¹ Type: C=Co	ncentration, D=D	epletion, RM=	Reduced Matrix, I	MS=Masked S	Sand Grains	s.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators:						Indicators fo	or Problematic Hydric Soils³:
Histosol ((A1)		Sandy	Gleyed Matri	ix (S4)		Coast P	rairie Redox (A16)
Histic Epi	pedon (A2)		Sandy	Redox (S5)			Dark Su	rface (S7)
Black His	tic (A3)		Stripp	ed Matrix (S6))		Iron-Mar	nganese Masses (F12)
Hydrogen	Sulfide (A4)		Loam	y Mucky Mine	ral (F1)		Very Sh	allow Dark Surface (TF12)
Stratified	Layers (A5)		Loam	y Gleyed Matr	rix (F2)		Other (E	xplain in Remarks)
2 cm Mud	ck (A10)		Deple	ted Matrix (F3	3)			
Depleted	Below Dark Sur	face (A11)	Redox	c Dark Surface	e (F6)			
Thick Dar	rk Surface (A12)		Deple	ted Dark Surfa	ace (F7)		³ Indicators of	of hydrophytic vegetation and
ı —	ucky Mineral (S1	,	Redox	Depressions	(F8)		wetland	hydrology must be present,
	cky Peat or Peat	` '					unless d	isturbed or problematic.
Restrictive L	ayer (if observe	d):						
Туре:								
Depth (incl	hes):						Hydric Soil P	resent? Yes No×
Remarks:	, -							
HYDROLOG								
	rology Indicato							
Primary Indica	ators (minimum o	of one is require	ed; check all that	apply)			Secondar	/ Indicators (minimum of two required)
Surface V	Vater (A1)		Water-S	tained Leaves	(B9)		Surfa	ce Soil Cracks (B6)
High Wat	er Table (A2)		Aquatic	Fauna (B13)			Draina	age Patterns (B10)
Saturation	n (A3)		True Aq	uatic Plants (E	314)		Dry-S	eason Water Table (C2)
Water Ma	arks (B1)		Hydroge	n Sulfide Odo	or (C1)		Crayfi	sh Burrows (C8)
Sediment	Deposits (B2)		Oxidized	Rhizosphere	s on Living	Roots ((C3) Satura	ation Visible on Aerial Imagery (C9)
Drift Depo	osits (B3)		Presenc	e of Reduced	Iron (C4)		Stunte	ed or Stressed Plants (D1)
Algal Mat	or Crust (B4)		Recent I	ron Reduction	n in Tilled S	oils (C6	Geom	norphic Position (D2)
Iron Depo			_	ck Surface (C			<i>_</i>	Neutral Test (D5)
I —	n Visible on Aeri	al Imagery (B7	_	r Well Data ([,			
I —			88) Other (E					
Field Observ		ave ourrace (E		xpiaiii iii iteiii	idi Koj	_		
		Voo.	loX Depth (inches):				
Surface Wate								
Water Table F			lo X Depth (
Saturation Pre		Yes N	lo <u> </u>	inches):		Wetla	and Hydrology	Present? Yes NoX
(includes capi		am dalide me	nitoring well paris	I nhotoe pro-	ioue inches	rtions)	if available:	
Describe Rec	orded Data (Stre	am gauge, moi	nitoring well, aeria	ii priotos, prev	nous inspec	Juons),	ıı avallable:	
Remarks:								
This data point	did not exhibit wet	land hydrology.						
I								

Project/Site: US36 in Avon	City/County: Avon/Hendricks & Marion County Sampling Date: 5/25/18				
Applicant/Owner: INDOT	State: IN Sampling Point: B1				
Investigator(s): Joseph Dabkowski	Section, Township, Range: 5/8 15N 2E				
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): concave				
Slope (%): 2 Lat: 39.76397	Long: -86.33928 Datum: NAD 83				
Soil Map Unit Name: Miami silt loam; Shoals silt	NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical for this time					
Are Vegetation, Soil, or Hydrology signifi	antly disturbed? Are "Normal Circumstances" present? Yes X No				
Are Vegetation, Soil, or Hydrology natura	ly problematic? (If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS - Attach site map sho	ving sampling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yesx No					
Hydric Soil Present? Yes X No					
Wetland Hydrology Present? Yes X No	within a Wetland? YesX No				
Remarks: This data point met all three criterion to be considered within a wetland					
VEGETATION – Use scientific names of plants.					
	Dolute Dominant Indicator over Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)				
2	Total Number of Dominant Species Across All Strata: 1 (B)				
4.	That Are OBL, FACW, or FAC: 100 (A/B)				
Sapling/Shrub Stratum (Plot size:) 1	OBL species 0 x1 = 0 FACW species 65 x2 = 130 FACU species 0 x3 = 0 FACU species 0 x4 = 0 UPL species 0 x5 = 0 Column Totals: 65 (A) 130 (B) Prevalence Index = B/A = 2 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0¹ A - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation 1				
_	= Total Cover Present? Yes No				
Remarks: (Include photo numbers here or on a separate sheet This data point exhibited hydrophytic vegetation.					

SOIL Sampling Point: B1

Profile Description: (Describe to t	he depth nee	eded to docum	nent the i	ndicator	or confi	rm the abse	ence of	indicators.)	
Depth	Matrix			x Feature:	s				_	
(inches) Color			olor (moist)	%	_Type ¹ _	_Loc ²	Textur		Rem	narks
0-5 10Y	R3/2	100					sandy lo	am _		
5-20 10Y	R4/1	90	7.5YR5/6	10	D	M	sandy lo	am		
¹ Type: C=Concentration	n D=Denletic	n PM-Pedu	ced Matrix MS	S=Masked	Sand Gr	aine	2l oc	eation: E	PL=Pore Lining, I	M=Matrix
Hydric Soil Indicators		ni, Kivi-Kedu	ceu manx, mc	o-iviasked	i Saliu Gi	all is.			r Problematic H	
Histosol (A1)			Sandy (Sleyed Ma	triv (S4)				airie Redox (A16	•
Histic Epipedon (A	2)			Redox (S5			_		face (S7)	,
Black Histic (A3)	-/			Matrix (S	-				ganese Masses	(F12)
Hydrogen Sulfide (A4)			Mucky Mir	,		_		llow Dark Surfac	, ,
Stratified Layers (A	5)		Loamy (Gleyed Ma	atrix (F2)		_ 0	ther (Ex	plain in Remarks	s)
2 cm Muck (A10)				d Matrix (I	-					
Depleted Below Da		.11)	_	Dark Surfa	, ,		2			
Thick Dark Surface	. ,				ırface (F7))			hydrophytic veg	
Sandy Mucky Mine	. ,		Redox L	Depression	ns (F8)				ydrology must be	
5 cm Mucky Peat of Restrictive Layer (if o							ur	niess ais	sturbed or proble	ematic.
1	oserveu).									
Type:							Hydric	Soil Pr	esent? Yes_	x No
Depth (inches):										
HYDROLOGY										
Wetland Hydrology In				-1-3			0		Ladia da la Cariala	
Primary Indicators (min		s requirea; cr	•	• //	(50)		<u>Sec</u>			num of two required)
Surface Water (A1		-	Water-Stai		, ,		_		e Soil Cracks (Be	,
High Water Table (A2)	-	Aquatic Fa	,	,		_		ge Patterns (B10	,
✓ Saturation (A3)		-	True Aqua		` '		_	•	ason Water Tab	le (C2)
Water Marks (B1)	(DO)	-	Hydrogen		` '	·		,	sh Burrows (C8)	
Sediment Deposits	(B2)	-				-				erial Imagery (C9)
✓ Drift Deposits (B3)	(P4)	-	Presence			,	_		d or Stressed Pla	
Algal Mat or Crust	(D4)	_	Recent Iro Thin Muck			u Solis (C	. —		orphic Position (E	02)
Iron Deposits (B5) Inundation Visible	on Aerial Imag		Gauge or \				_	FAC-N	eutral Test (D5)	
Sparsely Vegetate	•				. ,					
Field Observations:	a Jonicave 30		Other (EXP	an an Re	iiiai kaj					
Surface Water Present) Voc	No	X Depth (inc	choc):						
Water Table Present?			Z Depth (inc			-				
1						- I 🔐	.41 1 1 1 1			Χ μ-
Saturation Present? (includes capillary fring Describe Recorded Date	e)		Depth (ind						resent? Yes _	No
Remarks:										
This data point exhibited v	vetland hydrolo	gy.								

Applicant/Owner: INDOT	
Landform (hillslope, terrace, etc.): Depression	
Slope (%): 2 Lat: 39.76395 Long: -86.3391 Datum: NAD 83 Soil Map Unit Name: Miami silt loam; Shoals silt NWI classification: N/A Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes No X Is the Sampled Area within a Wetland Hydrology Present? Yes No X Wetland Hydrology Present? Yes No X Within a Wetland? Yes No X No _	
Soil Map Unit Name: Miami silt loam; Shoals silt	
Soil Map Unit Name: Miami silt loam; Shoals silt	
Are climatic / hydrologic conditions on the site typical for this time of year? Yesx No (If no, explain in Remarks.) Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yesx No Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes Nox Is the Sampled Area within a Wetland Area within a Wetland? Yes Nox Ves Nox Ves Nox Ves Nox Noxx Nox	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes Nox Is the Sampled Area	
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present? Yes Nox Is the Sampled Area	
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, Hydrophytic Vegetation Present?	, etc.
Hydric Soil Present? Wetland Hydrology Present? Yes Nox Is the Sampled Area within a Wetland? Yes Nox Within a Wetland? Yes Nox Ves Nox No	
Wetland Hydrology Present? Yes Nox within a Wetland? Remarks: This data point did not meet all three criterion to be considered a wetland. VEGETATION – Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet:	
Remarks: This data point did not meet all three criterion to be considered a wetland. VEGETATION – Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet:	
This data point did not meet all three criterion to be considered a wetland. VEGETATION – Use scientific names of plants. Absolute Dominant Indicator Dominance Test worksheet:	
Absolute Dominant Indicator Dominance Test worksheet:	
Tree Stratum (Plot size:) % Cover Species? Status Number of Descined	
1 Number of Dominant Species That Are OBL, FACW, or FAC: 0 ((A)
2.	(B)
4 Percent of Dominant Species 5 That Are OBL, FACW, or FAC: 0 ((A /D)
= Total Cover	,700)
Sapling/Shrub Stratum (Plot size:) Prevalence Index worksheet:	
1	
4 FAC species	
5ft = Total Cover UPL species x 5 = 0	
<u>Herb Stratum</u> (Plot size:)	(B)
1. Festuca arundinacea 100 Yes FACU	
2 Prevalence Index = B/A = 4	
3 Hydrophytic Vegetation Indicators: 4 1 - Rapid Test for Hydrophytic Vegetation	
	ortina
7 4 - Morphological Adaptations' (Provide suppodata in Remarks or on a separate sheet) 8 4 - Morphological Adaptations' (Provide suppodata in Remarks or on a separate sheet) Broklemetic Hydrophytic Mograption (Provide suppodata in Remarks or on a separate sheet)	
9 Problematic Hydrophytic Vegetation¹ (Explain))
10	
Woody Vine Stratum (Plot size:) 100 = Total Cover be present, unless disturbed or problematic.	ıst
1 Hydrophytic	
2. Vegetation	
= Total Cover	
Remarks: (Include photo numbers here or on a separate sheet.) This data point did not exhibit hydrophytic vegetation.	

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: B2

Depth Matrix (inches) Color (moist) 0-20 10YR3/3		Redox Features Color (moist) % Type ¹	Loc² Texture Remarks
0-20 10YR3/3		Color (moist)	
			sandy clay
1r. 0.0			
17. 0.0			
17. 0.0			
17. 0.0			
17 00			
1			
**	epletion, RM=Red	uced Matrix, MS=Masked Sand Grain	
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Redox (S5)	Dark Surface (S7)
Black Histic (A3) Hydrogen Sulfide (A4)		Stripped Matrix (S6) Loamy Mucky Mineral (F1)	Iron-Manganese Masses (F12) Very Shallow Dark Surface (TF12)
Stratified Layers (A5)		Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
2 cm Muck (A10)		Depleted Matrix (F3)	Outer (Explain ill Nethaliks)
Depleted Below Dark Sur	face (A11)	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	, ,	Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1		Redox Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat	,	, ,	unless disturbed or problematic.
Restrictive Layer (if observe	d):		
Type:			
Depth (inches):			Hydric Soil Present? Yes Nox
Remarks:			
LIVEROLOGY			
HYDROLOGY			
Wetland Hydrology Indicato			
Primary Indicators (minimum o	of one is required: a	shock all that apply)	Secondary Indicators (minimum of two required)
			Curfage Sail Cracks (D6)
Surface Water (A1)		Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)		Water-Stained Leaves (B9) Aquatic Fauna (B13)	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)	Drainage Patterns (B10)Dry-Season Water Table (C2)
High Water Table (A2) Saturation (A3) Water Marks (B1)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)Dry-Season Water Table (C2)Crayfish Burrows (C8)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	al Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	al Imagery (B7)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	al Imagery (B7) ave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri	al Imagery (B7) ave Surface (B8) Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conc	al Imagery (B7) ave Surface (B8) Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conc Field Observations: Surface Water Present? Water Table Present? Saturation Present?	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conc Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conc Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (streen	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _ am gauge, monitor	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _ am gauge, monitor	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aeri Sparsely Vegetated Conce Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (streen	al Imagery (B7) ave Surface (B8) Yes No _ Yes No _ Yes No _ am gauge, monitor	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) X Depth (inches): X Depth (inches):	Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) g Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Soils (C6) Geomorphic Position (D2) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X

Project/Site: US36 in Avon			City/Co	ounty: Avon/ Her	ndricks & Marion County	Sampling Date	5/25/18
Applicant/Owner: INDOT					State: IN	Sampling Point	C1
Investigator(s): Joseph Dabkowski			Section	n, Township, Rai	nge: 5/8 15N 2E		
Landform (hillslope, terrace, etc.): Depre					(concave, convex, none):	concave	
Slope (%): 2 Lat: 39.76430							3
Soil Map Unit Name: Miami silt loam; Sh					NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the	e site typical for t	this time of ye					
Are Vegetation, Soil, or H	lydrology	_ significantly	disturb	ed? Are "	'Normal Circumstances" p	present? Yes _	x No
Are Vegetation, Soil, or H	lydrology	_ naturally pro	blemat	tic? (If ne	eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - At	tach site ma	p showing	sam	pling point le	ocations, transects	, important f	eatures, etc.
Hydrophytic Vegetation Present?	Yesx	No					
Hydric Soil Present?	Yesx	No		Is the Sampled		,	
Wetland Hydrology Present?	Yesx	No		within a Wetlar	nd? Yes^	No	_
Remarks: This data point met all three criterion to be co	oncidored within a	wotland					
This data point met all tillee chterion to be of	Jisidered Willilli a	welland.					
VEGETATION – Use scientific na	amos of plant	to					
VEGETATION – Ose scientific in	arries or plant	Absolute	Domi	inant Indicator	Dominance Test work	reheat:	
Tree Stratum (Plot size:)			ies? Status	Number of Dominant S		
1					That Are OBL, FACW,	or FAC: 2	(A)
2					Total Number of Domin	nant	
3					Species Across All Stra	ata: 2	(B)
4					Percent of Dominant Sp	pecies	
5					That Are OBL, FACW,		(A/B)
Sapling/Shrub Stratum (Plot size:)		= Tota	al Cover	Prevalence Index wor	ksheet:	
1					Total % Cover of:	Multi	ply by:
2.					OBL species	5 x 1 =	75
3.					FACW species0	x 2 =	0
4					FAC species0	x 3 =	0
5					FACU species0		
5ft			= Tota	al Cover	UPL species0		
Herb Stratum (Plot size: 1. Carex triangularis)	45	Yes	OBL	Column Totals:75	5 (A)	75 (B)
Echinochloa muricata		25	Yes	OBL	Prevalence Index	c = B/A =	1
Typha angustifolia			No	OBL	Hydrophytic Vegetation		
4					1 - Rapid Test for H		etation
5					 ✓ 2 - Dominance Tes	st is >50%	
6					✓ 3 - Prevalence Inde	ex is ≤3.0 ¹	
7					4 - Morphological A	Adaptations¹ (Pro	ovide supporting
8						s or on a separat	
9.					Problematic Hydro	phytic Vegetation	nˈ (Explain)
10							
		75	= Tota	al Cover	¹ Indicators of hydric soi be present, unless distu		
Woody Vine Stratum (Plot size:							
1					Hydrophytic		
2				al Cover	Vegetation Present? Yes	esX No_	
Remarks: (Include photo numbers here	or on a separat	e sheet.)	- 1018	00461	l		
		,					
This data point exhibited a dominance of hydronical	drophytic vegetation	on.					

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: C1

Depth (inches)	Matrix Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR3/2	90	7.5YR4/6	10			silty clay loam	Remarks
					. <u>D</u>	_ <u>M</u>		
6-20	10YR3/2	90	7.5YR4/6		. <u>D</u>	<u>M</u>	silty clay loam	some mixed gravel
Type: C=Cor	ncentration, D=D	epletion, RM=	Reduced Matrix, M	S=Masked	d Sand G	rains.		: PL=Pore Lining, M=Matrix.
Hydric Soil In	ndicators:							for Problematic Hydric Soils ³ :
Histosol (/				Gleyed Ma			_	Prairie Redox (A16)
	pedon (A2)			Redox (S5	-			Surface (S7)
Black Hist	, ,			d Matrix (S	,		_	anganese Masses (F12)
	Sulfide (A4) Layers (A5)			Mucky Min Gleyed M)		Shallow Dark Surface (TF12) (Explain in Remarks)
3tratilled i				ed Matrix (. ,		Other	(Explain in Remarks)
	Below Dark Surf	ace (A11)		Dark Surfa				
	k Surface (A12)	acc (ATT)	_	ed Dark Su	, ,)	3Indicators	s of hydrophytic vegetation and
	ucky Mineral (S1)		Depressio	•	,		d hydrology must be present,
	ky Peat or Peat	•	_		,			disturbed or problematic.
Restrictive La	ayer (if observe	d):						-
Type:							Unadaia Cali	Dunanto Van Y Na
турс							Hydric Soil	Present? Yes x No
Depth (inch	hes):exhibited hydric sc						1	
Depth (inch Remarks: This data point e	exhibited hydric sc							
Depth (inches Remarks: This data point of a Public	exhibited hydric sc	il conditions.						
Depth (inche Remarks: This data point of the Police of the	exhibited hydric so	oil conditions.	red; check all that a	pply)				ary Indicators (minimum of two require
Depth (inche Remarks: This data point of the Police of the	exhibited hydric so Y rology Indicator ators (minimum c	oil conditions.	red; check all that a		res (B9)		Seconda	ary Indicators (minimum of two require
Depth (inche Remarks: This data point of the Primary Indica Surface W	exhibited hydric so Y rology Indicator ators (minimum c	oil conditions.		ined Leav	. ,		Seconda Surl	•
Depth (inche Remarks: This data point of the dat	exhibited hydric so Y rology Indicator ators (minimum o Vater (A1) er Table (A2)	oil conditions.	Water-Sta	nined Leav auna (B13	3)		Seconda Surl/ Dra	face Soil Cracks (B6)
Depth (inche Remarks: This data point of the dat	exhibited hydric so FY rology Indicator ators (minimum of Vater (A1) er Table (A2) n (A3)	oil conditions.	Water-Sta Aquatic F	ained Leav auna (B13 atic Plants	3) (B14)		Seconda Surl Dra Dry-	face Soil Cracks (B6) inage Patterns (B10)
Depth (inch Remarks: This data point of YDROLOG Wetland Hydr Primary Indica Surface W High Wate Saturation Water Ma	exhibited hydric so FY rology Indicator ators (minimum of Vater (A1) er Table (A2) n (A3)	oil conditions.	Water-Sta Aquatic F True Aqua Hydrogen	nined Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)	ving Roots	Seconda Surl _/ Dra Dry Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
Depth (inch Remarks: This data point of YDROLOG Wetland Hydr Primary Indica Surface W High Wate V Saturation Water Ma	exhibited hydric so Prology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2)	oil conditions.	Water-Sta Aquatic F True Aqua Hydrogen	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Li		Seconda Surl Dra Cra (C3)Sati	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Primary Indica Surface W High Wate Vater Ma Sediment Drift Depo	exhibited hydric so Prology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2)	oil conditions.	Water-Sta Aquatic F True Aqua Hydrogen Oxidized	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) dor (C1) eres on Li ed Iron (C	4)	<u>Seconda</u> Surl Dra Dry Cra: Cra: (C3) Satu Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Primary Indica Surface W High Wate Vater Ma Sediment Drift Depo	exhibited hydric so exhibited hydric so rology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) in (A3) in (A3) in (B1) is Deposits (B2) posits (B3) or Crust (B4)	oil conditions.	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Li ed Iron (C ion in Tille	4)	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Depth (inche Remarks: This data point of the dat	exhibited hydric so exhibited hydric so rology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) in (A3) in (A3) in (B1) is Deposits (B2) posits (B3) or Crust (B4)	rs: If one is requir	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Li ed Iron (C ion in Tilla (C7)	4)	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Depth (inch Remarks: This data point of YDROLOG Wetland Hydr Primary Indica Surface W High Water Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	exhibited hydric so rology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aeric	oil conditions. TS: If one is require al Imagery (B7	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Iro Thin Mucl	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface (Well Data	(B14) dor (C1) eres on Li ed Iron (C ion in Tille (C7)	4)	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Depth (inch Remarks: This data point of YDROLOG Wetland Hydre Primary Indica Surface W High Wate ✓ Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatior Sparsely V	exhibited hydric so rology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce	oil conditions. Frs: of one is require al Imagery (Brave Surface (Brave Surfac	Water-Sta Aquatic F True Aqua Hydrogen Oxidized Presence Recent Ira Thin Mucl T) Gauge or B8) Other (Ex	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reduction Surface (Well Data plain in Re	(B14) (dor (C1) eres on Li ed Iron (C ion in Tille (C7) (D9) emarks)	4) ed Soils (C6	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Depth (inche Remarks: This data point of this data	exhibited hydric so rology Indicator ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) is Deposits (B2) posits (B3) ior Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce ations:	rs: of one is required at Imagery (B7 ave Surface (B		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reducti on Reducti of Surface (Well Data plain in Re	(B14) (B14) (dor (C1) eres on Li ed Iron (C ion in Tille (C7) (C9) emarks)	4) ed Soils (C6	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Depth (inche Remarks: This data point of this data	exhibited hydric so exhibited hydric so exhibited hydric so alors (minimum of Vater (A1) er Table (A2) er (A3) er (A3) er (B4) er Sits (B3) er Crust (B4) esits (B5) en Visible on Aeric Vegetated Conce ations: r Present?	al Imagery (B) ave Surface (B) Yes I		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti c Surface (Well Data plain in Re	(B14) dor (C1) eres on Li ed Iron (C ion in Tille (C7) (D9) emarks)	4) ed Soils (C6	<u>Seconda</u> Surl Dra Dry Cra (C3) Satu Sturl Sturl	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Depth (inche Remarks: This data point of this data	exhibited hydric so exhibited hydric so exhibited hydric so ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) ior Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce ations: r Present? Present? esent? ellary fringe)	al Imagery (B) ave Surface (B) Yes Yes		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti c Surface (Well Data plain in Re aches): aches): aches):	(B14) (B14) (dor (C1) (eres on Li (ed Iron (Ci (ion in Tille (C7) (D9) (emarks)	4) ed Soils (C6	Seconda Surl Dra Dry Cra (C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Depth (inche Remarks: This data point of this data	exhibited hydric so exhibited hydric so exhibited hydric so ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) ior Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce ations: r Present? Present? esent? ellary fringe)	al Imagery (B) ave Surface (B) Yes Yes		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti c Surface (Well Data plain in Re aches): aches): aches):	(B14) (B14) (dor (C1) (eres on Li (ed Iron (Ci (ion in Tille (C7) (D9) (emarks)	4) ed Soils (C6	Seconda Surl Dra Dry Cra (C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Depth (inche Remarks: This data point of this data	exhibited hydric so exhibited hydric so exhibited hydric so ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) ior Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce ations: r Present? Present? esent? ellary fringe)	al Imagery (B) ave Surface (B) Yes Yes		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti c Surface (Well Data plain in Re aches): aches): aches):	(B14) (B14) (dor (C1) (eres on Li (ed Iron (Ci (ion in Tille (C7) (D9) (emarks)	4) ed Soils (C6	Seconda Surl Dra Dry Cra (C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Depth (inche Remarks: This data point of this data point of the point	exhibited hydric so exhibited hydric so exhibited hydric so ators (minimum of vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) ior Crust (B4) posits (B5) in Visible on Aeric Vegetated Conce ations: r Present? Present? esent? ellary fringe)	al Imagery (Brave Surface (Brave Sur		ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti c Surface (Well Data plain in Re aches): aches): aches):	(B14) (B14) (dor (C1) (eres on Li (ed Iron (Ci (ion in Tille (C7) (D9) (emarks)	4) ed Soils (C6	Seconda Surl Dra Dry Cra (C3) Satu Stur FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

Project/Site: US36 in Avon	City	//County: Avon/ He	ndricks & Marion County	Sampling Date: 5/25/18		
Applicant/Owner: INDOT			State: IN	Sampling Point: C2		
Investigator(s): Joseph Dabkowski	Sec	ction, Township, Ra	nge: <u>5/8 15N 2E</u>			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave, convex, none):			
	Lor	ng:86.33656		Datum: NAD 83		
Soil Map Unit Name: Miami silt loam; Shoals silt		NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical						
Are Vegetation, Soilx_, or Hydrology				present? YesX No		
Are Vegetation, Soil, or Hydrology			eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site r				,		
Hydrophytic Vegetation Present? Yes	Nox					
	Nox	Is the Sampled		Y		
	Nox	within a Wetla	nd? Yes	NoX		
Remarks: This data point did not meet all three criterion to be conside	ered a wetland.					
VEGETATION – Use scientific names of pl	ants.					
Tree Stratum (Plot size:)		ominant Indicator pecies? Status	Dominance Test work			
1		pecies: Otatus	Number of Dominant Sp That Are OBL, FACW, of	0		
3.			Total Number of Domin Species Across All Stra	4		
4 5.			Percent of Dominant Sp			
· ·	= T	otal Cover	That Are OBL, FACW, o	or FAC: <u>0</u> (A/B)		
Sapling/Shrub Stratum (Plot size:	_)		Prevalence Index wor			
1			Total % Cover of:			
2			OBL species0			
3			FACW species0 FAC species0			
4			FACU species			
5			UPL species0			
Herb Stratum (Plot size:)			Column Totals: 100			
1. Festuca arundinacea	100 Y	es FACU				
2				= B/A =4		
3			Hydrophytic Vegetatio			
4			1 - Rapid Test for F	Hydrophytic Vegetation		
5			3 - Prevalence Inde			
6				Adaptations ¹ (Provide supporting		
7 8			data in Remarks	s or on a separate sheet)		
9			Problematic Hydrop	phytic Vegetation ¹ (Explain)		
10						
Woody Vine Stratum (Plot size:	= T		¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology must urbed or problematic.		
1	•		Hydrophytic			
2			Vegetation	Y		
	= T	otal Cover	Present? Yes	s Nox		
Remarks: (Include photo numbers here or on a sepa	arate sheet.)					
This data point did not exhibit hydrophytic vegetation.						

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: C2

Profile Description: (De	scribe to the dept			or confirm	the absence of indic	ators.)
	Matrix		x Features	. 2		
<u>(inches)</u> <u>Color (m</u>		Color (moist)	%Type ¹ _	_Loc ² _	Texture	Remarks
0-20 10YR3	3/2 100				silty clay	
1					21	
Type: C=Concentration Hydric Soil Indicators:	D=Depletion, RM=	Reduced Matrix, M	S=Masked Sand G	rains.		ore Lining, M=Matrix. blematic Hydric Soils³:
,		Condu	Olavia d Matrix (CA)			-
— Histosol (A1)			Gleyed Matrix (S4)		Coast Prairie F	
Histic Epipedon (A2) Black Histic (A3)			Redox (S5) d Matrix (S6)		Dark Surface (se Masses (F12)
Hydrogen Sulfide (A	4)		Mucky Mineral (F1)		_	Dark Surface (TF12)
Stratified Layers (A5	•		Gleyed Matrix (F2)		Other (Explain	
2 cm Muck (A10)	,		ed Matrix (F3)		Onler (Explain	Romanoj
Depleted Below Dark	(Surface (A11)		Dark Surface (F6)			
Thick Dark Surface (_	ed Dark Surface (F7)	³ Indicators of hydro	ophytic vegetation and
Sandy Mucky Minera	,		Depressions (F8)	,		ogy must be present,
5 cm Mucky Peat or	Peat (S3)	_			unless disturbe	ed or problematic.
Restrictive Layer (if obs	erved):					
Туре:						
Depth (inches):					Hydric Soil Presen	t? Yes No ^x
Remarks:						
LIVEROLOGY						
HYDROLOGY						
Wetland Hydrology Indi					0	-t (!-!f.t ! I)
Primary Indicators (minin	ium of one is requir	-				ators (minimum of two required)
Surface Water (A1)			ined Leaves (B9)			Cracks (B6)
High Water Table (A	2)		auna (B13)		Drainage Pa	,
Saturation (A3)			atic Plants (B14)			Water Table (C2)
Water Marks (B1)		— , ,	Sulfide Odor (C1)		Crayfish Bui	, ,
Sediment Deposits (B2)					isible on Aerial Imagery (C9)
Drift Deposits (B3)			of Reduced Iron (C			Stressed Plants (D1)
Algal Mat or Crust (E	4)	_	on Reduction in Tille	ed Soils (C6	<i>-</i>	, ,
Iron Deposits (B5)		Thin Muck			FAC-Neutra	l Test (D5)
Inundation Visible or		. —	Well Data (D9)			
Sparsely Vegetated	Concave Surface (E	38) Other (Exp	plain in Remarks)			
Field Observations:		v				
Surface Water Present?		No X Depth (in				
Water Table Present?		Nox Depth (in				
Saturation Present?		Nox Depth (in	ches):	Wetla	and Hydrology Prese	nt? Yes NoX
(includes capillary fringe) Describe Recorded Data		nitoring well periol	nhotos previous in	enections)	if available:	
Describe Recorded Data	(Stream gauge, mo	milloring well, aerial	priotos, previous iri	spections),	ii avallable.	
Remarks:						
This data point did not exhib	it wetland hydrologv.					
·	, 0,					

Project/Site: US36 in Avon		City/Co	ounty: Avon/ He	ndricks & Marion County Sampling Date: 5/25/18		
Applicant/Owner: INDOT				State: IN Sampling Point: D1		
Investigator(s): Joseph Dabkowski		Section	n, Township, Ra	nge: <u>5/8 15N 2E</u>		
Landform (hillslope, terrace, etc.): Depression			Local relief	(concave, convex, none): concave		
Slope (%): 2 Lat: 39.76340		Long: _	-86.33713	Datum: NAD 83		
Soil Map Unit Name: Miami silt loam; Shoals silt		NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical for t						
Are Vegetation, Soil, or Hydrology	significantly	disturb	ed? Are	"Normal Circumstances" present? YesX No		
Are Vegetation, Soil, or Hydrology	_ naturally pro	blemat	tic? (If ne	eeded, explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site maj	p showing	samı	pling point l	ocations, transects, important features, o	etc.	
Hydrophytic Vegetation Present? Yesx	No					
Hydric Soil Present? Yesx			Is the Sampled			
Wetland Hydrology Present? Yesx	No		within a Wetla	nd? Yes No		
Remarks: This data point met all three criterion to be considered within a	wetland.					
VEGETATION – Use scientific names of plant		D'	la ant la dianta	Deminera Test weeks to the		
Tree Stratum (Plot size:)	Absolute % Cover		inant Indicator ies? Status	Dominance Test worksheet: Number of Dominant Species		
1				That Are OBL, FACW, or FAC: 2 (A	.)	
2				Total Number of Dominant		
3 4				Species Across All Strata: 3 (B	•)	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A	√B)	
Sapling/Shrub Stratum (Plot size:)		= Tota	l Cover	Prevalence Index worksheet:		
1				Total % Cover of: Multiply by:		
2.				OBL species x 1 =		
3.				FACW species 40 x 2 = 80		
4				FAC species0 x 3 =0		
5				FACU species0 x 4 =0		
5ft Herb Stratum (Plot size:)		= Tota	l Cover	UPL species0 x 5 =0		
1 Phragmites australis	40	Yes	FACW	Column Totals:110 (A)150 (B)	
2. Typha angustifolia	40	Yes	OBL	Prevalence Index = B/A =1.36		
3. Eleocharis obtusa	30	Yes	OBL	Hydrophytic Vegetation Indicators:		
4.				1 - Rapid Test for Hydrophytic Vegetation		
5				✓ 2 - Dominance Test is >50%		
6				✓ 3 - Prevalence Index is ≤3.0 ¹		
7				4 - Morphological Adaptations ¹ (Provide support data in Remarks or on a separate sheet)	ting	
8				Problematic Hydrophytic Vegetation (Explain)		
9						
10		= Tota	l Cover	¹ Indicators of hydric soil and wetland hydrology mus be present, unless disturbed or problematic.	t	
Woody Vine Stratum (Plot size:)				be present, unless distances of presidentation		
1				Hydrophytic Vegetation		
2			ll Cover	Present? Yes _ X No		
Remarks: (Include photo numbers here or on a separate	e sheet.)			-		
This data point exhibited a dominance of hydrophytic vegetation	on.					
1						

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: D1

1 Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. High provided in the control of the co	Depth (inches)	Matrix Color (moist)	%	Color (moist)	lox Feature %	_Type ¹	Loc²	Texture	Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Pydric Soil Indicators:									Remarks
Hydric Soil Indicators: Histosol (A1)		101110/2				. D			
Hydric Soil Indicators: Histosol (A1)									
Hydric Soil Indicators: Histosol (A1) Histosol (A1) Black Histic (A3) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Thick Dark Surface (A12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) See Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sea Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sea Sandy Mucky Mineral (S1) Sea Sandy Mucky Mineral (S1) See Sandy Mucky Mineral (S1) See Sandy Mucky Mineral (S1) See Hydrogen Sulfide (A42) Pepth (inches): Pepth (inches): Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Planta (B43) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Indicators for Problematic Hydric Sci Coast Parinire Redox (A15) Dark Surface (F1) Hydric Soil Present? Yesx Wetland Hydrology must be presen unless disturbed or problematic. **Primary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of the surface (B9) Surface Water (A1) Water-Stained Leaves (B9) Surface Water (A1) Pryseason Water Table (A2) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Sunted or Stressed Plants (D1) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) **Certain Present?** Yes No Depth (inches):									
Hydric Soil Indicators: Histosol (A1)									
Hydric Soil Indicators: Histosol (A1) Histosol (A1) Black Histic (A3) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Thick Dark Surface (A12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) See Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sea Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sea Sandy Mucky Mineral (S1) Sea Sandy Mucky Mineral (S1) See Sandy Mucky Mineral (S1) See Sandy Mucky Mineral (S1) See Hydrogen Sulfide (A42) Pepth (inches): Pepth (inches): Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Planta (B43) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Indicators for Problematic Hydric Sci Coast Parinire Redox (A15) Dark Surface (F1) Hydric Soil Present? Yesx Wetland Hydrology must be presen unless disturbed or problematic. **Primary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of the surface (B9) Surface Water (A1) Water-Stained Leaves (B9) Surface Water (A1) Pryseason Water Table (A2) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced Iron (C4) Sunted or Stressed Plants (D1) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) **Certain Present?** Yes No Depth (inches):									
Hydric Soil Indicators: Histosol (A1)									
Hydric Soil Indicators: Histosol (A1)									
Histosol (A1)	Type: C=Co	oncentration, D=D	epletion, RM=	=Reduced Matrix, N	 //S=Masked	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Histic Epipedon (A2) Sandy Redox (S5) Iron-Manganese Masses (F12) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Masses (F12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) 2 cm Muck (A10) / Depleted Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) wetland hydrology must be present unless disturbed or problematic. Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present unless disturbed or problematic. Thick Dark Surface (A12) Redox Depressions (F8) Wetland Hydrology must be present unless disturbed or problematic. Frimark: Type: Depth (inches): Primary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of the Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Flants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Primary Indicators (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Filedid Observations: Surface Water Present? Yes No Depth (inches): Surface Water Present? Yes No Depth (inches): Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Hydric Soil I	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Black Histic (A3)					-				
Hydrogen Sulfide (A4)		, , ,			,	-			
Strattfied Layers (A5)	_	, ,				,		_	. ,
2 cm Muck (A10)					-				
Depleted Below Dark Surface (A11)					-			Other (Explain in Remarks)
Thick Dark Surface (A12) Depleted Dark Surface (F7) andicators of hydrophytic vegetation a wetland hydrology must be present of sorm Mucky Memoral (S1) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Remarks: This data point exhibited hydric soil conditions. Primary Indicators (minimum of one is required: check all that apply) Secondary Indicators (minimum of the surface Soil Cracks (B6) Praint (A1) Dry-Season Water (A1) Aquatic Fauna (B13) Drift Deposits (B2) Drainage Patterns (B10) Dry-Season Water Table (C2) Drainage Patterns (B10) Drift Deposits (B3) Presence of Reduced Iron (C4) Statutation Present? Present (B4) Recent Iron Reduction in Tilled Soils (C6) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Generally Present? Present? Yes No Depth (i			ace (A11)						
			acc (ATT)	_		. ,)	3Indicators	of hydrophytic vegetation and
Restrictive Layer (if observed): Type: Depth (inches): Remarks: Primary Indicators (minimum of one is required: check all that apply)		, ,)			•	,		
Type:	5 cm Mu	icky Peat or Peat	(S3)	_	·			unless	disturbed or problematic.
Popth (inches):	Restrictive I	ayer (if observe	d):						
PyDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of the stream graph of the stream graph) Secondary Indicators (minimum of the stream graph) Secondary Indicators (B1) Secondary Indicators (B1) Secondar	Type:							Undaia Cail	Dracout? Voc X No
PyDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one is required, check all that apply) Surface Water (A1) High Water Table (A2) Water-Stalined Leaves (B9) High Water Table (A2) Water Marks (B1) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Ves No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Secondary Indicators (minimum of the surface (B8) Surface Water Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches	Depth (inc	ches):						nyaric Soil	Present? Yesx No
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Surface Water (A1)			il conditions.						
High Water Table (A2)	YDROLO	GY							
✓ Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Ima Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)	YDROLO	GY drology Indicator	rs:	red; check all that a	apply)			Seconda	ry Indicators (minimum of two require
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Sediment Deposits (B2)	YDROLO Wetland Hyd Primary Indic Surface	GY drology Indicator cators (minimum o Water (A1)	rs:	Water-St	ained Leav	. ,		Surfa	ace Soil Cracks (B6)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	YDROLO Wetland Hyd Primary Indic Surface High Wa	GY drology Indicator cators (minimum o Water (A1) ater Table (A2)	rs:	Water-St	ained Leav auna (B13)		Surfa _∕ Draii	ace Soil Cracks (B6) nage Patterns (B10)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Surface Water Present?	YDROLO Wetland Hyd Primary Indid Surface High Wa	GY drology Indicator cators (minimum o Water (A1) tter Table (A2) on (A3)	rs:	Water-St Aquatic I True Aqu	ained Leav Fauna (B13 uatic Plants) (B14)		Surfa Drain	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes X No Depth (inches): Wetland Hydrology Present? Yes X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	YDROLO Wetland Hyd Primary Indid Surface High Wa ✓ Saturatid Water M	GY drology Indicator cators (minimum o Water (A1) ter Table (A2) on (A3) arks (B1)	rs:	Water-Si Aquatic I True Aqu Hydroge	ained Leav Fauna (B13 latic Plants n Sulfide O	(B14) dor (C1)	ving Roots (Surfa Drain Dry-	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes X No Depth (inches): Wetland Hydrology Present? Yes X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	YDROLO Wetland Hyd Primary Indic Surface High Wa ✓ Saturatic Water M Sedimer	GY drology Indicator cators (minimum o Water (A1) ster Table (A2) on (A3) arks (B1) at Deposits (B2)	rs:	Water-Si Aquatic I True Aqu Hydroge Oxidized	ained Leav Fauna (B13 latic Plants n Sulfide O Rhizosphe	(B14) dor (C1) eres on Liv		Surfa Drain Dry- Cray C3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present?	YDROLO Wetland Hyd Primary Indic Surface High Wa ✓ Saturatic Water M Sedimer Drift Dep	GY drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3)	rs:	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence	ained Leav Fauna (B13 latic Plants n Sulfide Oo Rhizosphe e of Reduce	(B14) (B14) dor (C1) eres on Lived Iron (C	4)	Surfa Drain Cray Cray C3) Satu Stun	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
Field Observations: Surface Water Present? Yes NoX Depth (inches): Water Table Present? Yes NoX Depth (inches): Saturation Present? YesX No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Wetland Hyden Surface High Wader M Water M Sedimer Drift Deg Algal Ma	GY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4)	rs:	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I	ained Leav Fauna (B13 uatic Plants In Sulfide On Rhizosphe Te of Reduce Fon Reducti	(B14) (B14) dor (C1) eres on Lived Iron (C on in Tille	4)	Surfa Drain Cray Cray Satu Stun) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
Surface Water Present? Yes NoX Depth (inches): Water Table Present? Yes NoX Depth (inches): Saturation Present? YesX No Depth (inches):6 Wetland Hydrology Present? YesX (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	YDROLO Wetland Hyd Primary Indic Surface High Wa ✓ Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic	drology Indicator cators (minimum of Water (A1) Ater Table (A2) On (A3) Arks (B1) At Deposits (B2) Oosits (B3) At or Crust (B4) Oosits (B5) On Visible on Aeria	rs: If one is requin	Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc Gauge o	ained Leav Fauna (B13 uatic Plants n Sulfide O Rhizosphe e of Reduce ron Reducti ck Surface (r Well Data	(B14) dor (C1) eres on Lived Iron (C don in Tille (C7) (D9)	4)	Surfa Drain Cray Cray Satu Stun) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
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	Wetland Hyden Primary Indice Surface High Water Mater Mater Mater Table Saturation Sparsely Field Observing Surface Water Table Saturation Procession	GY drology Indicator cators (minimum of Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B2) Inter Table (B3) Inter Table (B4) Inter Table (B2) Inter	rs: If one is required in the second in the	Water-Si Aquatic I True Aqi Oxidized Presence Recent I Thin Muc Other (E No Depth (i	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce for Reducti ck Surface (ir Well Data explain in Refunches):	(B14) (B14) dor (C1) erres on Livided Iron (C oon in Tille (C7) (D9) emarks)	4) ad Soils (C6	Surfa Drain Cray C3) Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
	Wetland Hyden Primary Indice Surface High Water Mater Mater Mater Table Saturation Sparsely Field Observing Surface Water Table Saturation Procession	GY drology Indicator cators (minimum of Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B2) Inter Table (B3) Inter Table (B4) Inter Table (B2) Inter	rs: If one is required in the second in the	Water-Si Aquatic I True Aqi Oxidized Presence Recent I Thin Muc Other (E No Depth (i No No	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce for Reducti ck Surface (ir Well Data explain in Refunches):	(B14) (B14) dor (C1) erres on Livided Iron (C oon in Tille (C7) (D9) emarks)	4) ad Soils (C6	Surfa Drain Cray C3) Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
	Wetland Hyden Primary Indices Surface High Water M Sedimer Drift Dep Inundation Sparsely Field Obsert Surface Water Table Saturation Processoribe Red	GY drology Indicator cators (minimum of Water (A1) Inter Table (A2) Inter Table (A2) Inter Table (B2) Inter Table (B2) Inter Table (B3) Inter Table (B4) Inter Table (B2) Inter	rs: If one is required in the second in the	Water-Si Aquatic I True Aqi Oxidized Presence Recent I Thin Muc Other (E No Depth (i No No	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce for Reducti ck Surface (ir Well Data explain in Refunches):	(B14) (B14) dor (C1) erres on Livided Iron (C oon in Tille (C7) (D9) emarks)	4) ad Soils (C6	Surfa Drain Cray C3) Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
	Wetland Hyden Primary Indices Surface High Way Saturation Drift Dep Inundation Sparsely Field Obsert Surface Water Table Saturation Project Concludes cap Describe Recent Primary Remarks:	drology Indicator cators (minimum of water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aeria of Vegetated Concavations: er Present? Present? present? present? corded Data (streat	al Imagery (Brave Surface (I	Water-Si Aquatic I True Aqi Oxidized Presence Recent I Thin Muc Other (E No Depth (i No No	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce for Reducti ck Surface (ir Well Data explain in Refunches):	(B14) (B14) dor (C1) erres on Livided Iron (C oon in Tille (C7) (D9) emarks)	4) ad Soils (C6	Surfa Drain Cray C3) Satu Stun Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

Project/Site: US36 in Avon		City/Co	ounty:	Avon/ Hei	ndricks & Marion County Sampling Date: 5/25/18	
Applicant/Owner: INDOT					State: N Sampling Point: D2	
Investigator(s): Joseph Dabkowski		Sectio	n, Tov	vnship, Ra	inge: <u>5/8 15N 2E</u>	
Landform (hillslope, terrace, etc.): Depression			L	ocal relief	(concave, convex, none): concave	
Slope (%): 2 Lat: 39.76339		Long:	-86.33	3719	Datum: NAD 83	
Soil Map Unit Name: Miami silt loam; Shoals silt		NWI classification: N/A				
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrologys					"Normal Circumstances" present? Yes X No	
Are Vegetation, Soil, or Hydrology I					eeded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map				,		tc.
Hydrophytic Vegetation Present? Yes N	lox					
Hydric Soil Present? Yes N				Sampled		
Wetland Hydrology Present? Yes N	lox		withi	n a Wetlar	nd? Yes NoX	
Remarks: This data point did not meet all three criterion to be considered a						
VEGETATION – Use scientific names of plants						
Tree Stratum (Plot size:)	Absolute % Cover			Indicator Status	Dominance Test worksheet:	
1					Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	
2					Total Number of Dominant	
3					Species Across All Strata: 2 (B)	
4					Percent of Dominant Species	
5		= Tota	al Cov		That Are OBL, FACW, or FAC: 0 (A/E	3)
Sapling/Shrub Stratum (Plot size: 15ft)		- 1018	ai Cove	51	Prevalence Index worksheet:	
1. Dipsacus fullonum	35	Yes		FACU	Total % Cover of: Multiply by:	
2. Festuca arundinacea	80	Yes		FACU	OBL species0 x 1 =0	
3					FACW species 0 x 2 = 0	
4					FAC species0	
5	115				UPL species x 5 = 0	
Herb Stratum (Plot size:)	115	= 10ta	al Cove	er	Column Totals: 115 (A) 460 (B	8)
1						,
2					Prevalence Index = B/A =4	
3					Hydrophytic Vegetation Indicators:	
4					1 - Rapid Test for Hydrophytic Vegetation	
5					2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹	
6					3 - Prevalence Index is \$5.0 4 - Morphological Adaptations ¹ (Provide supporting	na
7					data in Remarks or on a separate sheet)	ıy
8					Problematic Hydrophytic Vegetation ¹ (Explain)	
9 10						
Woody Vine Stratum (Plot size:)					¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1					Hydranbytia	_
2					Hydrophytic Vegetation	
		= Tota	al Cove	er er	Present? Yes NoX	
Remarks: (Include photo numbers here or on a separate	sheet.)					_
This data union did not continue at the continue of the contin	-4:					
This data point did not exhibit a dominance of hydrophytic veget	adon					

US Army Corps of Engineers Midwest Region – Version 2.0

Compline		D2
Camplina	Daint.	<i>D</i> 2

SOIL	Sampling Point: D2

Profile Description: (Describe to the o	depth needed to document the indicator or	confirm the absence of indicators.)
Depth Matrix	Redox Features	Loc ² Texture Remarks
(inches) Color (moist) % 0-20 10YR3/2 90		2 4 50 5
0-20 10YR3/2 90	7.5 YR4/6 10	silty clay
 		
5 5 5		
} 		
	RM=Reduced Matrix, MS=Masked Sand Grain	
Hydric Soil Indicators:	On the Observat Markin (OA)	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2) Black Histic (A3)	<pre> Sandy Redox (S5) Stripped Matrix (S6)</pre>	Dark Surface (S7) Iron-Manganese Masses (F12)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Very Shallow Dark Surface (TF12)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Other (Explain in Remarks)
2 cm Muck (A10)	Depleted Matrix (F3)	
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:		Hydric Soil Present? Yes NoX
Depth (inches):		
Remarks:	P.C.	
This data point did not exhibit hydric soil cond	illions.	
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one is re	guired; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fauna (B13)	Drainage Patterns (B10)
Saturation (A3)	True Aquatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)	— Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on Living	Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S	—
Iron Deposits (B5)	Thin Muck Surface (C7)	FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery	• • • • • • • • • • • • • • • • • • • •	
Sparsely Vegetated Concave Surface	ee (B8) Other (Explain in Remarks)	
Field Observations:	. X	
	NoX Depth (inches):	
	NoX Depth (inches):	
Saturation Present? Yes (includes capillary fringe)	NoX Depth (inches):	Wetland Hydrology Present? Yes NoX
	monitoring well, aerial photos, previous inspe	ctions), if available:
	- Committee of the comm	,
Remarks:		
This data point did not exhibit wetland hydrolo	ogy.	
,		

Project/Site: US 36 in Avon	(City/Co	ounty: Avon/ He	endricks & Marion County	Sampling	Date: 5/25/18	<u> </u>
plicant/Owner: INDOT State:					Sampling	Point: E1	
Investigator(s): Joseph Dabkowski	ange: <u>5/8 15N 2E</u>						
Landform (hillslope, terrace, etc.): Depression			Local relief	f (concave, convex, none):	concave		
		Long:				IAD 83	
Soil Map Unit Name: Miami silt loam; Shoals silt				NWI classific			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrology si	•			"Normal Circumstances" p	,	ves X N	0
Are Vegetation, Soil, or Hydrology n				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site map				•			s, etc.
Hydrophytic Vegetation Present? Yes X No	0						
Hydric Soil Present? Yes x No	0		Is the Sample				
Wetland Hydrology Present? Yesx No	0		within a Wetla	nd? Yesx	No_		
Remarks:							
This data point met all three criterion to be considered within a we	etiand.						
VEGETATION – Use scientific names of plants.							
Tree Stratum (Plot size:)	Absolute % Cover		nant Indicator ies? Status	Dominance Test work			
1				Number of Dominant Sp That Are OBL, FACW, of	pecies or FAC:	1	(A)
2				Total Number of Domin	ant		
3				Species Across All Stra	ıta: .	1	(B)
4				Percent of Dominant Sp			
5				That Are OBL, FACW, o	or FAC:	100	(A/B)
Sapling/Shrub Stratum (Plot size: 15ft)		= rota	l Cover	Prevalence Index wor	ksheet:		
1. Phalaris arundinacea	70	Yes	FACW	Total % Cover of:		Multiply by:	_
2. Echinochloa muricata	20	No	OBL	OBL species35	^ '		_
3. Carex bebbii	10	No	OBL		x 2		_
4. Scirpus atrovirens	5	No	OBL_	FAC species0			_
5					× 4		_
Herb Stratum (Plot size:)	105	= Tota	l Cover		x 5		- (5)
1				Column Totals:105	<u> </u>		_ (B)
2.				Prevalence Index	= B/A = _	1.66	_
3.				Hydrophytic Vegetation			
4.				1 - Rapid Test for H	Hydrophytic	c Vegetation	
5				✓ 2 - Dominance Tes			
6				✓ 3 - Prevalence Inde			
7				4 - Morphological A	Adaptations	s1 (Provide sup	porting
8				Problematic Hydro		. ,	
9					priyac vega	ctation (Expla	,
10				¹ Indicators of hydric soi	l and wetla	and hydrology r	nust
Woody Vine Stratum (Plot size:)		= Tota	l Cover	be present, unless distu			
1				Hydrophytic			
2				Vegetation	_ X	No	
		= Tota	l Cover	Present? Yes	<u> </u>	NO	
Remarks: (Include photo numbers here or on a separate s	sheet.)						
This data point exhibited a dominance of hydrophytic vegetation.							
add point oximbred a dominance or hydrophydic vegetation.							

SOIL Sampling Point: E1

Profile Description:	•	the depth i				or confir	in the absence of it	idicators.)
Depth	Matrix			Feature		1 2	T	Damada
	r (moist)		Color (moist)	%	Type ¹	_Loc ² _	Texture	Remarks
0-20 10	YR4/1	85	7.5YR4/6	15	<u>D</u>	_ <u>M</u>	silty clay	
							·	
¹ Type: C=Concentrat	ion D=Denleti	on RM=Re	duced Matrix MS	=Masker	d Sand Gr	aine	² Location: PL	.=Pore Lining, M=Matrix.
Hydric Soil Indicator	<u>_</u>	on, ravi–rae	duced Matrix, MC	-Wasket	u Gariu Gi	airis.		Problematic Hydric Soils ³ :
Histosol (A1)			Sandy G	leved M:	atrix (S4)			rie Redox (A16)
Histic Epipedon (A2)		Sandy R				Dark Surfa	, ,
Black Histic (A3)			Stripped	,	-			anese Masses (F12)
Hydrogen Sulfide	(A4)				neral (F1)			ow Dark Surface (TF12)
Stratified Layers	(A5)		Loamy G	Sleyed M	atrix (F2)		Other (Exp	lain in Remarks)
2 cm Muck (A10)			Depleted					
Depleted Below [Dark Surface (A	A11)	Redox D	ark Surfa	ace (F6)			
Thick Dark Surface	. ,				urface (F7)		ydrophytic vegetation and
Sandy Mucky Mir	, ,		Redox D	epressio	ns (F8)		,	drology must be present,
5 cm Mucky Peat							unless dist	urbed or problematic.
Restrictive Layer (if	observed):							
Туре:			_				Hydric Soil Pres	sent? Yes X No
Depth (inches):			_				Tiyunc 30m Fre.	Sent: 165 NO
HYDROLOGY								
Wetland Hydrology I	ndicators:							
Primary Indicators (mi		is required:	check all that an	olv)			Secondary Ir	ndicators (minimum of two required)
✓ Surface Water (A			Water-Stair		res (R9)			Soil Cracks (B6)
✓ High Water Table	•		Aquatic Fa		` ,			e Patterns (B10)
✓ Saturation (A3)	((()		True Aquat	,	,			son Water Table (C2)
Water Marks (B1))		Hydrogen S		. ,		_ ′	Burrows (C8)
Sediment Deposi			_ , ,		` '	ina Roots	_ ′	on Visible on Aerial Imagery (C9)
Drift Deposits (B3			Presence of			-		or Stressed Plants (D1)
Algal Mat or Crus			Recent Iron				_	phic Position (D2)
Iron Deposits (B5			Thin Muck				· —	utral Test (D5)
Inundation Visible		gery (B7)	Gauge or V				_	,
Sparsely Vegetat								
Field Observations:		, ,			,			
Surface Water Preser	nt? Yes	X No	Depth (inc	hes):	0.5			
- unidoo fratol l 1000l			Depth (inc			_		
			Depth (inc			— Wet	land Hydrology Pro	esent? YesX_ No
Water Table Present?	Yes	^ NO				—		
Water Table Present? Saturation Present? (includes capillary frin	ge)							
Water Table Present? Saturation Present?	ge)			hotos, pi	revious in	spections)	, if available:	
Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D	ge)			hotos, pi	revious ins	spections)	, if available:	
Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D Remarks:	ge) ata (stream ga	uge, monito		hotos, pi	revious ins	spections)	, if available:	
Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D	ge) ata (stream ga	uge, monito		hotos, pi	revious ins	spections)	, if available:	
Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D Remarks:	ge) ata (stream ga	uge, monito		hotos, pi	revious ins	spections)	, if available:	
Water Table Present? Saturation Present? (includes capillary frin Describe Recorded D Remarks:	ge) ata (stream ga	uge, monito		hotos, pr	revious ins	spections)	, if available:	

Project/Site: US36 in Avon	c	ity/County: Avon/Hen	dricks & Marion County	Sampling Date: 5/25/18
			State: IN	Sampling Point: E2
Investigator(s): Joseph Dabkowski	nge: <u>5/8 15N 2E</u>			
Landform (hillslope, terrace, etc.): Depression		Local relief	(concave, convex, none):	concave
	L			
Soil Map Unit Name: Miami silt loam; Shoals silt			NWI classific	
Are climatic / hydrologic conditions on the site typical for t				
Are Vegetation, Soil, or Hydrology				resent? Yes X No
Are Vegetation, Soil, or Hydrology			eded, explain any answer	
SUMMARY OF FINDINGS – Attach site ma				•
Hydrophytic Vegetation Present? Yes	Nox			
Hydric Soil Present? Yes		Is the Sampled		Y
Wetland Hydrology Present? Yes	Nox	within a Wetlan	nd? Yes	Nox
Remarks: This data point did not meet all three criterion to be considered	l within a wetland	d.		
VEGETATION – Use scientific names of plant	ts.			
Tree Stratum (Plot size:)		Dominant Indicator Species? Status	Dominance Test works	
1		— — — —	Number of Dominant Sp That Are OBL, FACW, o	0
3.			Total Number of Domina Species Across All Strat	1
4 5.			Percent of Dominant Sp	
		Total Cover	That Are OBL, FACW, o	or FAC: <u>0</u> (A/B)
Sapling/Shrub Stratum (Plot size:)			Prevalence Index work	
1			Total % Cover of:	
2			OBL species 0	
3			FACW species 0 FAC species 0	
4			FACU species100	
5		Total Cover	UPL species0	
Herb Stratum (Plot size:)			Column Totals: 100	
1. Festuca arundinacea		Yes FACU		
2				= B/A =4
3			Hydrophytic Vegetatio	
4			1 - Rapid Test for H	lydrophytic Vegetation
5			3 - Prevalence Inde	
6				daptations ¹ (Provide supporting
7			data in Remarks	or on a separate sheet)
8 9			Problematic Hydrop	phytic Vegetation¹ (Explain)
10				
Woody Vine Stratum (Plot size:		Total Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must rbed or problematic.
1			Hydrophytic	
2			Vegetation	Y
	=	Total Cover	Present? Yes	S NoX
Remarks: (Include photo numbers here or on a separat	e sheet.)			
This data point did not exhibit hydrophytic vegetation.				

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: E2

DepthN (inches) Color (m	Matrix oist) %	Color (moist)	lox Features % Type	Loc ²	Texture	Remarks
				LOC	i exture	Remarks
0-20 10YR3	95	7.5YR4/6	5			
Гуре: C=Concentration,	D=Depletion, RM	1=Reduced Matrix, N	MS=Masked Sand C	Grains.	² Location:	PL=Pore Lining, M=Matrix.
ydric Soil Indicators:					Indicators fo	r Problematic Hydric Soils³:
_ Histosol (A1)		Sandy	Gleyed Matrix (S4)	Coast Pr	airie Redox (A16)
_ Histic Epipedon (A2)			Redox (S5)		Dark Sur	, ,
Black Histic (A3)			ed Matrix (S6)		_	ganese Masses (F12)
Hydrogen Sulfide (A			Mucky Mineral (F			Illow Dark Surface (TF12)
_ Stratified Layers (A5))		/ Gleyed Matrix (F2	()	Other (E	xplain in Remarks)
2 cm Muck (A10)Depleted Below Dark	Surface (A11)		ted Matrix (F3) cDark Surface (F6)			
Depleted Below Dark Thick Dark Surface (, ,	_	ted Dark Surface (F6)	7)	3Indicators of	f hydrophytic vegetation and
Sandy Mucky Minera	,		Depressions (F8)	',		nydrology must be present,
5 cm Mucky Peat or	` ,		,			sturbed or problematic.
Restrictive Layer (if obs	erved):					·
Туре:						
					Hydric Soil P	resent? Yes No×
	Iric soil conditions.					
emarks: nis data point exhibited hyd	Iric soil conditions.					
emarks: nis data point exhibited hyd /DROLOGY						
Remarks: his data point exhibited hyd YDROLOGY Vetland Hydrology Indi	cators:	uired; check all that a	apply)		Secondary	Indicators (minimum of two require
Remarks: his data point exhibited hyd YDROLOGY Vetland Hydrology Indi Primary Indicators (minim	cators:					Indicators (minimum of two require
Remarks: his data point exhibited hyd YDROLOGY Vetland Hydrology Indi Primary Indicators (minim Surface Water (A1)	cators: um of one is requ	Water-St	ained Leaves (B9)		Surfac	e Soil Cracks (B6)
Remarks: his data point exhibited hyd YDROLOGY Vetland Hydrology Indi Primary Indicators (minim Surface Water (A1) High Water Table (A	cators: um of one is requ	Water-St Aquatic F	ained Leaves (B9) Fauna (B13)		Surfac	e Soil Cracks (B6) ge Patterns (B10)
Processing Semarks: A point exhibited hydrology A point exhibited hydrol	cators: um of one is requ	Water-St Aquatic F True Aqu	tained Leaves (B9) Fauna (B13) Juatic Plants (B14)		Surface Draina Dry-Se	e Soil Cracks (B6) ge Patterns (B10) eason Water Table (C2)
YDROLOGY Vetland Hydrology Indi Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1)	cators: uum of one is requ 2)	Water-St Aquatic F True Aqu Hydroge	tained Leaves (B9) Fauna (B13) Juatic Plants (B14) In Sulfide Odor (C1)		Surfac Draina Dry-Se Crayfis	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8)
YDROLOGY Vetland Hydrology Indi Commany Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (cators: uum of one is requ 2)	Water-St Aquatic F True Aqu Hydrogel Oxidized	ained Leaves (B9) Fauna (B13) uatic Plants (B14) n Sulfide Odor (C1) Rhizospheres on L	iving Roots (Surface Draina Dry-Se Crayfis Satura	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9)
YDROLOGY Vetland Hydrology Indi Commany Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3)	cators: uum of one is requ 2) 32)	<pre>Water-St Aquatic F True Aqu Hydroge Oxidized Presence</pre>	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le	∟iving Roots (C4)	Surface Draina Dry-Se Crayfic C3) Satura	ee Soil Cracks (B6) ge Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indi Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (I Drift Deposits (B3) Algal Mat or Crust (B	cators: uum of one is requ 2) 32)	Water-St Aquatic F True Aqu Hydroge Oxidized Presence Recent I	rained Leaves (B9) Fauna (B13) uatic Plants (B14) n Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (con Reduction in Til	∟iving Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
YDROLOGY Vetland Hydrology Individual Primary Indicators (minimum Surface Water (A1) High Water Table (A. Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B. Iron Deposits (B5)	cators: um of one is requ 2) 32)	Water-St Aquatic F True Aqu Hydroger Oxidized Presencer Recent In	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le	∟iving Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ee Soil Cracks (B6) ge Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1)
YDROLOGY Vetland Hydrology Indi Surface Water (A1) High Water Table (A Saturation (A3) Water Marks (B1) Sediment Deposits (I Drift Deposits (B3) Algal Mat or Crust (B	cators: um of one is requ 2) 32) 4) Aerial Imagery (E	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presencer Recent In Thin Muc	rained Leaves (B9) Fauna (B13) Patic Plants (B14) Patic Plants (B14) Patic Plants (B16) P	∟iving Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Proposits (B3) Algal Mat or Crust (B2) Inundation Visible or Institute of the control of the con	cators: um of one is requ 2) 32) 4) Aerial Imagery (E	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presencer Recent In Thin Muc	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Fron Reduction in Till ck Surface (C7) Ir Well Data (D9)	∟iving Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
Principle of the control of the cont	cators: um of one is requ 2) 32) 4) Aerial Imagery (E	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presencer Recent II Thin Muc Thin Muc Gauge o (B8) Other (E:	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Fron Reduction in Tillick Surface (C7) In Well Data (D9) Explain in Remarks)	Living Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
YDROLOGY Vetland Hydrology India Primary Indicators (minim Surface Water (A1) High Water Table (A. Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on Sparsely Vegetated (B1) Surface Water Present?	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Thin Muc G7) Gauge o (B8) Other (E:	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Fron Reduction in Till Ck Surface (C7) In Well Data (D9) Explain in Remarks) Inches):	Living Roots (C4)	Surface Draina Dry-Seconds Crayfis Satura Stunte) Geom	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
YDROLOGY Vetland Hydrology India Trimary Indicators (minim Surface Water (A1) High Water Table (A) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B) Iron Deposits (B5) Inundation Visible on Sparsely Vegetated (Field Observations: Surface Water Present?	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes Yes	Water-St	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Tilck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches):	Living Roots (C4)	Surface Draina Dry-Se Crayfis Sturte Geom FAC-N	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) leutral Test (D5)
YDROLOGY Vetland Hydrology India Primary Indicators (minim Surface Water (A1) High Water Table (A. Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on Sparsely Vegetated (B1) Surface Water Present?	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes Yes	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Thin Muc G7) Gauge o (B8) Other (E:	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Tilck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches):	Living Roots (C4)	Surface Draina Dry-Se Crayfis Sturte Geom FAC-N	ue Soil Cracks (B6) uge Patterns (B10) eason Water Table (C2) sh Burrows (C8) ution Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2)
YDROLOGY Vetland Hydrology India Primary Indicators (minim Surface Water (A1) High Water Table (A: Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B: Iron Deposits (B5) Inundation Visible on Sparsely Vegetated (Billion) Surface Water Present? Vater Table Present?	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes Yes Yes	Water-St	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Till Ck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches): Inches):	Living Roots (C4) C4) Illed Soils (C6) Wetla	Surface Draina Dry-Se Crayfis Stunte Stunte FAC-N	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) leutral Test (D5)
YDROLOGY Vetland Hydrology Indi Primary Indicators (minim Surface Water (A1) High Water Table (A. Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on Sparsely Vegetated of Gield Observations: Surface Water Present? Vater Table Present? Saturation Present? Includes capillary fringe)	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes Yes Yes	Water-St	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Till Ck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches): Inches):	Living Roots (C4) C4) Illed Soils (C6) Wetla	Surface Draina Dry-Se Crayfis Stunte Stunte FAC-N	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) leutral Test (D5)
YDROLOGY Vetland Hydrology Indi Primary Indicators (minim Surface Water (A1) High Water Table (A. Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B Iron Deposits (B5) Inundation Visible on Sparsely Vegetated of Gield Observations: Surface Water Present? Vater Table Present? Saturation Present? Includes capillary fringe)	cators: um of one is requ 2) 32) 4) Aerial Imagery (E Concave Surface Yes Yes Yes	Water-St	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Till Ck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches): Inches):	Living Roots (C4) C4) Illed Soils (C6) Wetla	Surface Draina Dry-Se Crayfis Stunte Stunte FAC-N	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) leutral Test (D5)
YDROLOGY Vetland Hydrology Individual Primary Indicators (minimumary	cators: um of one is requested. 2) 32) 4) Aerial Imagery (Econcave Surface Yes Yes Yes (stream gauge, m	Water-St Aquatic F True Aqu Hydroger Oxidized Presencer Recent In Thin Muc 37) Gauge o (B8) Other (E: No X Depth (in No X Depth (in	rained Leaves (B9) Fauna (B13) Latic Plants (B14) In Sulfide Odor (C1) Rhizospheres on Le of Reduced Iron (Iron Reduction in Till Ck Surface (C7) Ir Well Data (D9) Explain in Remarks) Inches): Inches):	Living Roots (C4) C4) Illed Soils (C6) Wetla	Surface Draina Dry-Se Crayfis Stunte Stunte FAC-N	e Soil Cracks (B6) ige Patterns (B10) eason Water Table (C2) sh Burrows (C8) tion Visible on Aerial Imagery (C9) d or Stressed Plants (D1) orphic Position (D2) leutral Test (D5)

Project/Site: US36 in Avon	City/C	ounty: Avon/ Hen	dricks & Marion County	Sampling Date: 5/25/18	3
Applicant/Owner: INDOT			State: IN	Sampling Point: F1	
Investigator(s): Joseph Dabkowski	on, Township, Ran	ge: <u>5/8 15N 2E</u>			
Landform (hillslope, terrace, etc.): Depression		Local relief (concave, convex, none):	concave	
Slope (%): 2 Lat: 39.76297	Long:				
Soil Map Unit Name: Miami silt loam; Shoals silt			NWI classifica		
Are climatic / hydrologic conditions on the site typical for this ti					
Are Vegetation, Soil, or Hydrology sign	nificantly distur	bed? Are "N	Normal Circumstances" p	resent? YesX N	lo
Are Vegetation, Soil, or Hydrology nat			eded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sh	nowing sam	pling point lo	cations, transects,	, important feature	s, etc.
Hydrophytic Vegetation Present? Yesx No					
Hydric Soil Present? Yes X No _		Is the Sampled			
Wetland Hydrology Present? Yes x No		within a Wetlan	d? Yes^	No	
Remarks: This data point met all three criterion to be considered within a wetle	and.				
VEGETATION – Use scientific names of plants.					
		ninant Indicator cies? Status	Number of Dominant Sp. That Are OBL, FACW, of	pecies	(A)
2			Total Number of Domina Species Across All Strat	0	(B)
4. 5.			Percent of Dominant Sp That Are OBL, FACW, o		(A/B)
Sapling/Shrub Stratum (Plot size:)	= Tot	al Cover	Prevalence Index work		
1		—— —— I	Total % Cover of: OBL species 40		_
2		———I	FACW species 60		_
3				x 3 =0	_
5.				x 4 =0	_
	= Tot	al Cover		x 5 =0	_
Herb Stratum (Plot size:)		FACW	Column Totals:100	(A)160	(B)
1. <u>g</u>	60 Yes 40 Yes		Prevalence Index	= B/A =1.6	
2. <u>Typika kalibika</u>	40 res	— Ö	Hydrophytic Vegetatio		
3				lydrophytic Vegetation	
5			✓ 2 - Dominance Test		
6			✓ 3 - Prevalence Inde	ex is ≤3.0 ¹	
7			4 - Morphological A	daptations ¹ (Provide supsor on a separate sheet)	porting
8				phytic Vegetation ¹ (Expla	
9			_ ,	, , , , ,	,
10		al Cover	¹ Indicators of hydric soil be present, unless distu	and wetland hydrology rbed or problematic.	must
1			Hydrophytic		
2.			Vegetation	s No	
Demonstra (Inches de minote auror de la companya de		al Cover			
Remarks: (Include photo numbers here or on a separate share) This data point exhibited a dominance of hydrophytic vegetation.	eel.)				

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: F1

Depth (inches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-20	10YR4/1	85	7.5YR4/6	15	D	M	silty clay loam	
Type: C=Conc	entration, D=De	epletion, RM=R	educed Matrix, M	S=Maske	d Sand G	rains.	² Location	: PL=Pore Lining, M=Matrix.
lydric Soil Ind	icators:						Indicators	for Problematic Hydric Soils ³ :
Histosol (A1	-			Gleyed M				Prairie Redox (A16)
Histic Epipe	, ,			Redox (S	-			urface (S7)
Black Histic	. ,			d Matrix (,		_	anganese Masses (F12)
Hydrogen S Stratified La	, ,			Mucky Mi				hallow Dark Surface (TF12)
Stratified La 2 cm Muck				Gleyed M ed Matrix (Other (Explain in Remarks)
_	elow Dark Surfa	ce (A11)		Dark Surf	. ,			
	Surface (A12)	(,,,,,	_	ed Dark S	, ,	")	3Indicators	of hydrophytic vegetation and
_	ky Mineral (S1)			Depression	-	,		d hydrology must be present,
5 cm Mucky	y Peat or Peat (S3)					unless	disturbed or problematic.
Restrictive Lay	er (if observed	l):						
Type:			_				Hydric Soil	Present? Yes x No No
, <u> </u>							Hydric 30ii	rieseitti ies No
Depth (inche	s):	conditions.	_					
Depth (inche Remarks: ihis data point exi	thibited hydric soi	conditions.	_					
Depth (inche Remarks: 'his data point exi	hibited hydric soi		_					
Depth (inche Remarks: This data point extended the	hibited hydric soi	3:	I; check all that a	pply)			Seconda	ry Indicators (minimum of two require
Depth (inche Remarks: This data point extended the	thibited hydric soi	3:	l; check all that a		ves (B9)			ary Indicators (minimum of two require ace Soil Cracks (B6)
Depth (inche Remarks: ihis data point exi	rhibited hydric soi	3:		ained Leav	. ,		Surf	
Depth (inche Remarks: 'his data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water	rhibited hydric soi logy Indicators ors (minimum of ater (A1) Table (A2)	3:	Water-Sta	ained Leav auna (B13	3)		Surf	ace Soil Cracks (B6)
Depth (inche Remarks: his data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water	rhibited hydric soi logy Indicators ors (minimum of ater (A1) Table (A2) (A3)	3:	Water-Sta Aquatic Fa True Aqua	ained Leav auna (B13 atic Plants Sulfide C	B) s (B14) edor (C1)		Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10)
Depth (inche Remarks: This data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water ✓ Saturation (Water Mark	rhibited hydric soi logy Indicators ors (minimum of ater (A1) Table (A2) (A3)	3:	Water-Sta Aquatic Fa True Aqua	ained Leav auna (B13 atic Plants Sulfide C	B) s (B14) edor (C1)	ving Roots	Surfa Drain Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Depth (inche Remarks: This data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water ✓ Saturation (Water Mark	chibited hydric soi clogy Indicators ors (minimum of ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3)	3:	Water-Sta Aquatic Fa True Aqua	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	3) s (B14) edor (C1) eres on Li		Surfa Drail Cray Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8)
Depth (inche Remarks: This data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water ✓ Saturation (Water Mark Sediment D	rology Indicators on (minimum of ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	3:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduc	3) s (B14) dor (C1) eres on Li ed Iron (C	4)	Surfi Drail Dry- Cray (C3) Satu Sturi	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Depth (inche Remarks: This data point exi YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water ✓ Saturation (Water Mark Sediment D Drift Deposi	r Crust (B4)	3:	Water-Sta Aquatic Factorial True Aquatic Hydrogen Oxidized	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct	B) 6 (B14) 9 dor (C1) eres on Li ed Iron (C ion in Tille	4)	Surfa Drai Cray Cray Satu Stun 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) uted or Stressed Plants (D1)
Depth (inche Remarks: This data point ext YDROLOGY Wetland Hydro Primary Indicato Surface Wa High Water ✓ Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi	r Crust (B4)	s: one is required	Water-Sta Aquatic Fi True Aqua Hydrogen Oxidized Presence Recent Iro	ained Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface	B) G (B14) D (C1) Deres on Li Deres on Li Deres on Ci Deres on Tille	4)	Surfa Drai Cray Cray Satu Stun 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Depth (inche Remarks: This data point ext Proposition of the second of	chibited hydric soi cology Indicators cors (minimum of ater (A1) Table (A2) (A3) as (B1) Deposits (B2) its (B3) r Crust (B4) its (B5)	s: i one is required	Water-Sta Aquatic Factor Area Aquatic Factor Fa	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data	B) G (B14) Hodor (C1) Heres on Lived Iron (C) Hodon in Tille Hodon	4)	Surfa Drai Cray Cray Satu Stun 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Depth (inche Remarks: This data point exi Prints data point exi Sufface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation (Sparsely Ve	r Crust (B4) its (B5) Visible on Aeria egetated Conca innis:	s: i one is required I Imagery (B7) ve Surface (B8	Water-Sta Aquatic F. Aquatic F. True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Mucl Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide C Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	B) G(B14) Gdor (C1) Geres on Li Ged Iron (C Gion in Tille (C7) G(D9) GEMARKS)	4) ed Soils (Co	Surfa Drai Cray Cray Satu Stun 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Depth (inche Remarks: This data point exi Prints data point exi Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation (Sparsely Ve Field Observati	chibited hydric soi chilogy Indicators ors (minimum of ater (A1) Table (A2) (A3) (s (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aeria egetated Conca ions:	s: Tone is required I Imagery (B7) ve Surface (B8) Yes No	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Mucl Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Ro	(B14) (Idor (C1) (Idor	4) ed Soils (Co	Surfa Drai Cray Cray Satu Stun 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Depth (inche Remarks: This data point exi Prints data point exi Pr	r Crust (B4) its (B5) Visible on Aeria egetated Conca ions:	I Imagery (B7) ve Surface (B8) Yes No	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Much Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reduct k Surface Well Data plain in Re	(C7) a (D9) emarks)	4) ed Soils (Co	Surf Drai Dry Cray Satu Stun. 6) Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) r-Neutral Test (D5)
Depth (inche Remarks: This data point exi Prints data point exi Pr	r Crust (B4) its (B5) Visible on Aeria egetated Conca ions: Present? ent? enty fringe)	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Mucl Gauge or Other (Ex	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on	(C7) a (D9) emarks)	4) ed Soils (Co	Surf Drai Dry Cray Satu Stun. 6) Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) tted or Stressed Plants (D1) morphic Position (D2)
Depth (inche Remarks: This data point existing data point existence data point existing data point existence data point exis	r Crust (B4) its (B5) Visible on Aeria egetated Conca ions: Present? ent? enty fringe)	I Imagery (B7) ve Surface (B8 Yes No Yes No	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Mucl Gauge or Other (Ex X Depth (in Depth (in	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on	(C7) a (D9) emarks)	4) ed Soils (Co	Surf Drai Dry Cray Satu Stun. 6) Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) r-Neutral Test (D5)
Depth (inche Remarks: This data point existing data point existence data point existing data point existence data point exis	r Crust (B4) visible on Aeria egetated Conca ions: Present? ent? ent? ent? ent? ent? ent? ent?	I Imagery (B7) ve Surface (B8 Yes No Yes No Yes No m gauge, monit	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Mucl Gauge or Other (Ex X Depth (in Depth (in	ained Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on	(C7) a (D9) emarks)	4) ed Soils (Co	Surf Drai Dry Cray Satu Stun. 6) Geo FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) rration Visible on Aerial Imagery (C9) rted or Stressed Plants (D1) morphic Position (D2) r-Neutral Test (D5)

Project/Site: US36 in Avon	(City/Co	unty:	Avon/ Her	ndricks & Marion County	Sampling	Date: 5/25	/18
Applicant/Owner: INDOT					State: IN	Sampling	Point: F2	
Investigator(s): Joseph Dabkowski	Section, Township, Range: 5/8 15N 2E							
Landform (hillslope, terrace, etc.): Depression					(concave, convex, none):	concave		
Slope (%): 2 Lat: 39.76315		Long: _	-86.33	3648		Datum: N	IAD 83	
Soil Map Unit Name: Miami silt loam; Shoals silt					NWI classific	ation: N/A		
Are climatic / hydrologic conditions on the site typical for this								
Are Vegetation, Soil, or Hydrology si	gnificantly	disturbe	ed?	Are "	Normal Circumstances" p	resent?	resx	No
Are Vegetation, Soil, or Hydrology na	aturally pro	blemati	ic?	(If ne	eded, explain any answe	rs in Rema	ırks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	samp	oling	point lo	ocations, transects	, import	ant featu	res, etc.
Hydrophytic Vegetation Present? Yes No	x							
Hydric Soil Present? Yes No				Sampled			Y	
Wetland Hydrology Present? Yesx No	·		withir	n a Wetlan	id? Yes	No_		
Remarks: This data point does not exhibit the three criterion to be considere	d within a w	etland.						
· ·								
VEGETATION – Use scientific names of plants.								
	Absolute	Domir	nant	Indicator	Dominance Test work	sheet:		
	% Cover	Speci	es?	Status	Number of Dominant Sp		0	
1			—		That Are OBL, FACW, o	or FAC: _	0	(A)
2			—		Total Number of Domin Species Across All Stra		1	(D)
4			_		Species Across All Stra	ıa	·	(b)
5.					Percent of Dominant Sp That Are OBL, FACW, of		0	(A/B)
		= Total	Cove	er				
Sapling/Shrub Stratum (Plot size:)					Prevalence Index work Total % Cover of:		Multiply by	
1					OBL species 0			<u> </u>
3						x 2		
4					FAC species 0			
5						x 4		
5ft					UPL species0	x 5	=0	
Herb Stratum (Plot size:)	80	Yes		FACU	Column Totals:85	(A)	340	(B)
Festuca arundinacea Trifolium repens	5	No		FACU	Prevalence Index	= R/A =	4	
2. Infolium repens 3.	-	110	—	17100	Hydrophytic Vegetation			
4			—		1 - Rapid Test for H			า
5			_		2 - Dominance Tes			
6					3 - Prevalence Inde			
7.					4 - Morphological A	daptations	1 (Provide s	supporting
8					data in Remarks		-	-
9					Problematic Hydrop	onytic Vege	etation (Ex	plain)
10			_		¹ Indicators of hydric soi	l and wetla	and hydrolog	av must
Woody Vine Stratum (Plot size:)	85	= Total	Cove	er	be present, unless distu			yy must
1					Hydrophytic			
2.					Vegetation			
					Present? Yes	s	Nox	-
Remarks: (Include photo numbers here or on a separate s	heet.)							
This data point did not exhibit hydrophytic vegetation.								
This data point and not exhibit frydrophytic vegetation.								

US Army Corps of Engineers Midwest Region – Version 2.0

SOIL Sampling Point: F2

Profile Descr	ription: (Describ	e to the depth	needed to docu	ment the indicato	or confirm	n the absence o	of indicators.)
Depth	Matrix			ox Features			
(inches)	Color (moist)	%	Color (moist)		Loc ²	Texture	Remarks
0-3	10YR3/2	100				silty clay	
3-20	10YR4/1	80	7.5YR5/8	20		silty clay loam	
l ——— .							
1						2	
		epletion, RM=Re	educed Matrix, M	S=Masked Sand (Grains.		PL=Pore Lining, M=Matrix.
Hydric Soil Ir							for Problematic Hydric Soils ³ :
Histosol (, ,			Gleyed Matrix (S4)		Prairie Redox (A16)
	ipedon (A2)			Redox (S5)			urface (S7)
Black His	, ,			d Matrix (S6)	4.\	_	anganese Masses (F12)
1	Sulfide (A4)			Mucky Mineral (F: Gleyed Matrix (F2			nallow Dark Surface (TF12)
Stratilled 2 cm Mud	Layers (A5)			ed Matrix (F3)	.)	Other (i	Explain in Remarks)
ı —	Below Dark Surf	ace (A11)		Dark Surface (F6)			
	rk Surface (A12)	ace (ATT)	_	ed Dark Surface (F		3Indicators	of hydrophytic vegetation and
ı —	ucky Mineral (S1)			Depressions (F8)	.,		hydrology must be present,
ı —	cky Peat or Peat		_	,			disturbed or problematic.
Restrictive L	ayer (if observe	d):					·
Type:							
Depth (incl			_			Hydric Soil I	Present? Yes NoX
Remarks:			_				
HYDROLOG							
Wetland Hyd	rology Indicator	s:					
Primary Indica	ators (minimum o	f one is required	l; check all that ap	oply)		Secondar	ry Indicators (minimum of two required)
Surface V	Water (A1)			ined Leaves (B9)		Surfa	ace Soil Cracks (B6)
High Wat	er Table (A2)		Aquatic Fa	auna (B13)		Drair	nage Patterns (B10)
✓ Saturation	n (A3)		True Aqua	atic Plants (B14)		Dry-9	Season Water Table (C2)
Water Ma	arks (B1)		Hydrogen	Sulfide Odor (C1))	Cray	fish Burrows (C8)
Sediment	t Deposits (B2)		Oxidized I	Rhizospheres on L	iving Roots	(C3) Satu	ration Visible on Aerial Imagery (C9)
Drift Depo	osits (B3)		Presence	of Reduced Iron (C4)	Stuni	ted or Stressed Plants (D1)
Algal Mat	t or Crust (B4)		Recent Iro	on Reduction in Til	led Soils (C6	6) Geor	morphic Position (D2)
Iron Depo	osits (B5)		Thin Muck	c Surface (C7)		FAC-	-Neutral Test (D5)
Inundatio	n Visible on Aeria	al Imagery (B7)	Gauge or	Well Data (D9)			
Sparsely	Vegetated Conca	ve Surface (B8)	Other (Exp	plain in Remarks)			
Field Observ	ations:						
Surface Wate	r Present?	Yes No	X Depth (in	iches):			
Water Table F	Present?	Yes No	x Depth (in	iches):			
Saturation Pre	esent?		Depth (in	_		and Hydrology	Present? Yes X No
(includes capi	illary fringe)						
Describe Rec	orded Data (strea	ım gauge, monit	toring well, aerial	photos, previous i	nspections),	if available:	
Remarks:	Linkship Co. 11	o odnota					
i his data point	exhibited wetland h	iyarology.					

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

- A. REPORT COMPLETION DATE FOR PJD: April 30, 2018
- **B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** Ben DeMaria, RQAW Corporation, 8770 North St., Ste. 110, Fishers, IN 46038
- C. DISTRICT OFFICE, FILE NAME, AND NUMBER:
- D. PROJECT LOCATION(S) AND BACKGROUNDINFORMATION: The proposed project (Des. No. 1601072) would involve adding travel lanes along US 36 from Shiloh Park Drive to approximately 1500 feet east of Raceway Road in Hendricks and Marion County, Indiana. The existing roadway consists of two 10-foot wide travel lanes with 2-foot wide gravel shoulders. The proposed project involves an added travel lanes project beginning at Shiloh Park Drive and continuing east to approximately 1500 feet east of Raceway Road. The proposed improvements will involve milling, resurfacing and widening of the existing roadway to provide three through travel lanes in both the eastbound and westbound directions on US 36. The typical cross section of each direction will consist of two 11-foot wide travel lanes and a 12-foot wide right travel lane bordered by curb and gutter with a 2- foot offset. A single turn lane will be provided in both the eastbound and westbound directions at each signalized intersection.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: Indiana County/parish/borough: Hendricks and Marion County City: Avon

Center coordinates of site (lat/long in degree decimal format):

Lat.: 39.76374° N Long.: -86.33677° W

Universal Transverse Mercator: Quadrant 16 557043 4401750

Name of nearest waterbody: Avon Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK A	LL THAT APPLY)
--	----------------

Office (Desk) Determination. Date:				
Field Determination. Date(s):				

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non- wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Avon Creek	39.76414° N	-86.34013° W	100 linear feet 0.015 acre	Non-wetland	Non-Section 10/ Section 404
UNT 1 to Avon Creek	39.76639° N	-86.33706° W	170 linear feet 0.014 acre	Non-wetland	Non-Section 10/ Section 404
UNT 2 to Avon Creek	39. 76352° N	-86.33917° W	480 linear feet 0.023 acre	Non-wetland	Non-Section 10/ Section 404

UNT to Shiloh Creek	39.76405° N	-86.32098° W	55 linear feet 0.003 acre	Non-wetland	Non-Section 10/ Section 404
Wetland A	39.76395°N	-86.33804° W	0.03 acre	Wetland	Section 404
Wetland B	39.76397° N	-86.33928°W	0.02 acre	Wetland	Section 404
Wetland C	39.76430° N	-86.33658° W	0.01 acre	Wetland	Section 404
Wetland D	39.76340° N	-86.33713°W	0.05 acre	Wetland	Section 404
Wetland E	39.76353° N	-86.33839° W	0.12 acre	Wetland	Section 404
Wetland F	39.67297° N	-86.33646° W	0.02 acre	Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "preconstruction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) 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) 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) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (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 PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives 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 AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, 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. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there "may be" waters of the U.S. and/or that there "may be" navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items: Maps, plans, plots or plat submitted by or on behalf of the PJD requestor: Maps: General Location, Topographic, Soils, Photo Locations, NWI Data sheets prepared/submitted by or on behalf of the PJD requestor. Office concurs with data sheets/delineation report. Office does not concur with data sheets/delineation report. Rationale: 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). Cite scale & quad name: Clermont/ 1:24,000 Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Hendricks and Marion County National wetlands inventory map(s). Cite name: USFWS NWI data: Hendricks and Marion County. State/local wetland inventory map(s):____ FEMA/FIRM maps:_____ 100-year Floodplain Elevation is:_______(National Geodetic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Hendricks and Marion County/ 2016 Other (Name & Date): Photos taken on 05/25/2018, 08/30/2018 and 04/03/2019 Previous determination(s). File no. and date of response letter: Other information ______. (please specify): 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. Signature and date of Signature and date of Regulatory staff member person requesting PJD

¹ Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

completing PJD

Des. Number 1601072 Appendix E: Water Resources E-42

(REQUIRED, unless obtaining the signature is impracticable)¹

From: Mcgill, Justus
To: Benjamin DeMaria

Cc: Todd, Kristi (INDOT); Gilyeat, Richard

Subject: Approved Revised Waters Report 1601072 US 36 Added Travel Lanes

Date: Wednesday, May 1, 2019 10:04:17 AM

Attachments: image001.png

image002.png image003.png image004.png image005.png

Hello All,

Thank you for submitting the revised waters report for **US 36 Added Travel Lanes DES 1601072**. The approved report be found on Projectwise through this link: <u>Wetland - Waters</u>. It is the responsibility of the Project Manager to forward a copy of this report to the Project Designer.

The information in this report should be used by the Project Designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur *before* mitigation will be considered. If mitigation is required, the Project Manager or Project Designer must coordinate with the Ecology and Waterway Permitting Office to discuss how adequate compensatory mitigation will be provided.

The Project Manager should notify the Ecology and Waterway Permitting Office if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. *This report is only valid for a period of five years from the date of earliest fieldwork*. If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required.

It will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

Thanks,

Justus McGill INDOT Environmental Services Ecology and Waterway Permitting Specialist 100 N Senate Ave N642 Indianapolis, IN 46204-2216

Phone: 317-234-7017

Email: <u>imcgill@indot.in.gov</u>

From: Benjamin DeMaria [mailto:bdemaria@rqaw.com]

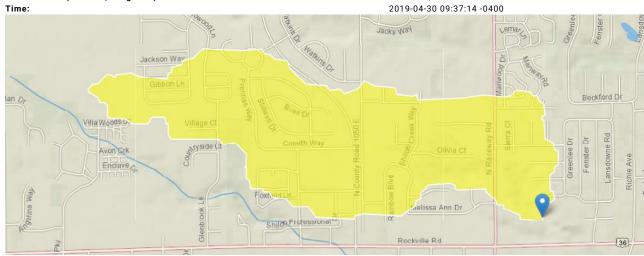
Sent: Tuesday, April 30, 2019 4:15 PM **To:** Mcgill, Justus <JMcgill@indot.IN.gov>

StreamStats Report

Region ID: Workspace ID:

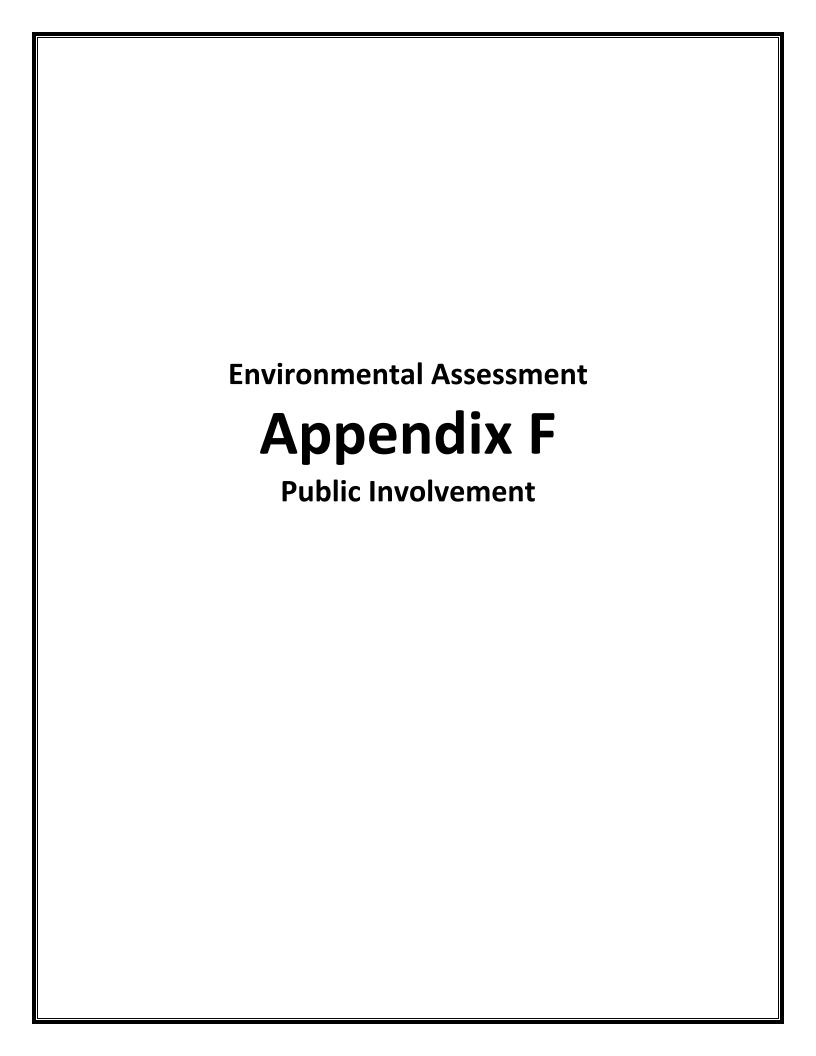
Clicked Point (Latitude, Longitude):

IN IN20190430133648649000 39.76525, -86.32347 2019-04-30 09:37:14 -0400



Parameter	Description Description	V-1	11-14
Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.655	square miles
T2INDNR	Average transmissivity (ft2/d) for the full depth of unconsolidated deposits from InDNR well database.	933	square feet per day
LOWREG	Low Flow Region Number	1729	dimensionless
K2INDNR	Average hydraulic conductivity (ft/d) for the full depth of unconsolidated deposits from InDNR well database.	20	ft per day
QSSPERMTHK	Index of the permeability of surficial Quaternary sediments computed as in SIR 2014-5177	110.46	dimensionless
LC01FOREST	Percentage of forest from NLCD 2001 classes 41-43	2	percent

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.655	square miles	2.99	828
K2INDNR	Avg_Hydraulic_Conductivity_Full_Depth	20	ft per day	6.36	45.9
QSSPERMTHK	Permeability_Index	110.46	dimensionless	43.8	5400
LOWREG	Low Flow Region Number	1729	dimensionless		
General Flow Statistics I	Disclaimers [Harmonic Mean Central Region 2016 5102]				
	arameters is outside the suggested range. Estimates were extr	apolated with unknov	wn errors		
One or more of the pa	· · · · · · · · · · · · · · · · · · ·	apolated with unknow	wn errors		
One or more of the pa	arameters is outside the suggested range. Estimates were extr	apolated with unknov	wn errors Value	Unit	





INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue Room N642 Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Eric J. Holcomb, Governor Joe McGuinness, Commissioner

September 20, 2018

«First_Name» «Last_Name»

«F3»

«Street»

«City», «State» «Zip»

Example Notice of Entry for Survey or Investigation Letter

Re: Notice of Entry for Survey or Investigation

DES Number: 1601072

US 36 Added Travel Lanes Project from 4.26 miles to 3 miles west of West Leg of I-465 in Hendricks

County, Indiana

Dear Property Owner,

Our information indicates that you own property near the above referenced transportation project. RQAW Corporation has been selected by the Indiana Department of Transportation (INDOT) Crawfordsville District to complete the environmental document for this proposed project. RQAW will be performing a survey of environmental resources within the project area in the near future. It may be necessary for representatives from RQAW or sub-consultants for RQAW to enter your property to complete this work. This is permitted by law per Indiana Code (IC) 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself, if you are available, before they enter your property. If you no longer own this property, or if it is currently occupied by someone else, please let us know the name of the new owner or occupant so we can contact them about the survey.

Please read the attached notice to inform you what the "Notice of Entry for Survey or Investigation" means. The survey work may include the identification and mapping of wetlands and historic resources, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites) and various other environmental studies. The information we obtain from these studies is necessary for the proper planning and design of the transportation project.

At this stage, we generally do not know what effect, if any, the project may eventually have on your property. If we later determine your property is involved, you will be contacted with additional information.

RQAW and its sub-consultants will be conducting the field surveys for this project. If any problems occur, please contact Joe Dabkowski at RQAW at 317.588.1759 or at idabkowski@rqaw.com. You may also contact the INDOT Project Manager, Richard Gilyeat, at 765.361.5684 or at rgilyeat@indot.in.gov. For archaeological concerns, you may contact Shaun Miller at INDOT at 317.233.6795 or at smiller@indot.ing.gov.

Please be aware that IC 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from entry for the purposes mentioned above in IC 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative

Des. Number 1601072 Appendix F: Public Involvement F-1

present an account of the damages to the above named INDOT staff. They will check the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation. In addition, you may contact Bert Herron, the INDOT Crawfordsville District Real Estate Manager (DREM) at 765.361.5243 or at bherron@indot.IN.gov. The DREM can provide you with a form to request compensation for damages. After filling out the form, you can return it to the DREM for consideration, and the DREM may be contacted if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed to you, IC 8-23-7-8 provides the following:

The amount of damages shall be accessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages will be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

Please note that you have the right to claim ownership of any cultural artifacts found on your property. If artifacts are encountered on your property, they will be collected and analyzed for potential historical significance. Artifacts will be curated at a state approved curation facility unless you choose to have them returned to you. If you choose to have artifacts returned to you, please contact Shaun Miller at the number or e-mail address above.

It is our sincere desire to cause you as little inconvenience as possible during our work and we thank you in advance for your cooperation.

Sincerely,

Joe Dabkowski

Director of Environmental Services

RQAW Corporation

Joseph Dal kowski

Attachment: INDOT's Notice of Entry for Survey or Investigation

INDIANA DEPARTMENT OF TRANSPORTATION



Driving Indiana's Economic Growth

100 North Senate Avenue Room N642 Indianapolis, Indiana 46204

Eric J. Holcomb, Governor Joe McGuinness, Commissioner

F-3

Indiana Department of Transportation Notice of Entry for Survey or Investigation Indiana Department of Transportation

If you have received a "Notice of Entry for Survey or Investigation" from INDOT or an INDOT representative, you may be wondering what it means. In the early stages of a project's development, INDOT must collect as much information as possible to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, INDOT is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department's authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey or Investigation does not necessarily mean that INDOT will be buying property from you. It doesn't even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey or Investigation is sent out in the very early stages and since we want to collect data within AND surrounding the project's limits more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limits but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey or Investigation, very few specifics have been worked out and actual construction of the project may be several years in the future.

Before INDOT begins a project that requires them to purchase property from landowners, they must first offer the opportunity for a public hearing. If you were on the list of people who received a Notice of Entry for Survey or Investigation, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, INDOT will publicize the date, location, and time. INDOT will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a "Notice of Entry for Survey or Investigation", remember:

- 1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
- 2. The project is still in its very early planning stages.
- 3. You will be notified of your opportunity to comment on the project at a later date.

www.in.gov/dot/ **An Equal Opportunity Employer**

Des. Number 1601072 Appendix F: Public Involvement

First Name	Last Name		Street	City	State	Zip
Roger L	Mears	Current Property Owner	9973 E US Highway 36	Avon	IN	46123
Aviana Company Ltd		Current Property Owner	27500 Detroit Road Ste 300	Westlake	ОН	44145
C/O Marvin F Poer & Company	Aviana Company Ltd	Current Property Owner	PO Box 802206	Dallas	Texas	75380
Hendricks County Board of Commissioners		Current Property Owner	355 S Washington St #204	Danville	IN	46122
C/O Wendy's Property Tax Dept	Cole WY Portfolio IN LLC	Current Property Owner	One Dave Thomas Blvd	Dublin	ОН	43017
Fifth Third Bank Indiana (Central)	MD 10 Ata 1 Corp. Fac.	Current Property Owner	38 Fountain Square Plaza	Cincinatti	ОН	45263
c/o Ryan LLC	IndyGo LLC	Current Property Owner	PO Box 460169	Houstin	TX	77056
Culp Ventures LLC		Current Property Owner	901 Wabash Ave Ste 120	Terre Haut	ŧΝ	47807
C/o Cobris Properties LLC	Avon IN LLC	Current Property Owner	102 Browning Lane Bldg B	Cherry Hill	NJ	8003
White Castle Indiana Llc		Current Property Owner	PO Box 1498	Columbus	ОН	43216
Golden Arch Limited Partnership		Current Property Owner	7022 W 10th St Ste A	Indianapol	i: IN	46214
Menard Inc	% Corporate Accounting	Current Property Owner	4777 Menard Dr	Eau Claire	WI	54703
C/O Property Tax Manager	Meijer Stores Limited Partner	Current Property Owner	2929 Walker Avenue Nw	Grand Rap	i⊦MI	49544
Chick-FIL-A Inc		Current Property Owner	5200 Buffington Rd	Atlanta	GA	30349
Avon Creek LLC		Current Property Owner	5750 E 91st St Suite C	Indianapol	i: IN	46250
Shoppes at Raceway LLC		Current Property Owner	PO Box 29319	Indianapol	i: IN	46229
C/O National Tax Service	Raceway Crossing LP	Current Property Owner	130 Jefferson St Ste 300	Chicago	IL	60661
Speedway Super America LLC		Current Property Owner	539 S Main St	Findlay	ОН	45840
Williams Jonathen W		Current Property Owner	10896 E US Highway 36	Avon	IN	46123
Crown Property Management II LLC		Current Property Owner	5346 W Pike Plaza Rd	Indianapol	i: IN	46254
Kanach Rebecca R Living Trust		Current Property Owner	10828 E US Highway 36	Avon	IN	46123
Shiloh Holdings LLC		Current Property Owner	10654 E US Highway 36	Avon	IN	46123
10720 E HWY 36 LLC		Current Property Owner	901 Wabash AVE ste 300	Terre Haut	ŧΝ	47807
Avon Financial Investments Inc		Current Property Owner	10706 E US Highway 36	Avon	IN	46123
J R Lazaro Builder Co Inc		Current Property Owner	10654 E US Highway 36	Avon	IN	46123
Celia Lazaro LLC		Current Property Owner	242 Melissa Ann Ct	Indianapol	i: IN	46234
Andrew J	Vinson	Current Property Owner	PO Box 30173	Indianapol	i: IN	46230
Nazia A LLC		Current Property Owner	10584 E US Highway 36	Avon	IN	46123
Nicholas J	Perrino	Current Property Owner	5106 Fairview Ct	Avon	IN	46123
C/O Richard Morris	Citizens Bank	Current Property Owner	33 N Indiana st	Mooresvill	ŧΝ	46158
Citizens Bank		Current Property Owner	PO Box 789	Plainfield	IN	46168
Pwm Fla Properties LLC 23% Int & Madden Prest	con W & Amita H/w As Jt Ten 77	Current Property Owner	PO Box 12128	Lexington	KY	40580
Shiloh Crossing Comm Owners		Current Property Owner	635 W 7th St Ste 310	Cincinatti	ОН	45203
Donatos Pizza Realty		Current Property Owner	935 Taylor Station Rd	Columbus	ОН	43230

Solid Ground		Current Property Owner	13099 Parkside Dr	Fishers	IN	46038
C/O Herb Salvas	Shiloh Corssing Investors LLC	Current Property Owner	2300 Chalet Trl	Kerrville	TX	78028
Brendew Development LLC		Current Property Owner	PO Box 194	Carmel	IN	46082
His Way Inc		Current Property Owner	10100 E US Highway 36	Avon	IN	46123
B H & J Properties LLC		Current Property Owner	540 Randshell Rd	Lebanon	IN	46052
Avon Realty LLC		Current Property Owner	121 Fairfield Way Ste 106b	Bloomingd	ίL	60108
John H & John C	Anderson	Current Property Owner	5229 McKellips Ct	Plainfield	IN	46168
Dana A & Deborah F	Abshier	Current Property Owner	9961 Brookeside Ct	Avon	IN	46123
C/O CEC Entertainment	Aghadjanian Armen	Current Property Owner	1707 Marketplace Blvd Ste 20	Irving	TX	75063
Big Boy Toy Storage LLC		Current Property Owner	6738 Woodridge Dr	Avon	IL	46123
Mike No 17 LLC		Current Property Owner	10251 Hague Rd	Indianapol	i: IN	46256
Avon Middle School South			7199 E US Hwy 36	Avon	IN	46123
Avon Middle School North			1251 Dan Jones Rd	Avon	IN	46123
Avon High School			7575 E County Rd 150 S	Avon	IN	46123
Avon Intermediate School West			176 Avon Ave	Avon	IN	46123
Avon Intermediate School East			174 S Avon Ave	Avon	IN	46123
Avon Community School Corporation			7203 E US Hwy 36	Avon	IN	46123
Avon Chamber of Commerce			8244 E US Hwy 36 #140	Avon	IN	46123
C/o Carnegie Mgmt Dev & Corp	Aviana Company 3 LLC	Current Property Owner	27500 Detroit Road Ste 300	Westlake	ОН	44145
Cole WY Portfolio IN I LLC	C/O Qfrm Holdings LLC	Current Property Owner	1025 Plain St Ste 2	Marshfield	MA	2050
INDYGO Ilc	c/o Ryan LLC	Current Property Owner	PO Box 460169	Houston	TX	77056
Culp Ventures LLC		Current Property Owner	901 Wabash Ave Ste 120	Terre Haut	€IN	47807
Meijers Stores Limited Partnership	C/O Property Tax Manager	Current Property Owner	2929 Walker Avenue NW	Grand Rap	i⊦MI	49544
Raceway Crossing LP		Current Property Owner	117 E Washington St Ste 300	Indianapol	i: IN	46204
Harrolds Avon LLC		Current Property Owner	2232 Wabash Ave	Terre Haut	ŧΝ	47807
Mikes No 17llc		Current Property Owner	10251 Hague Rd	Indianapol	i:In	46256
john R & Celia lazaro LLC		Current Property Owner	10654 E US Highway 36	Avon	In	46123
indiana members credit union		Current Property Owner	5103 madison ave	Indianapol	i:in	46227
Bendrew Development LLc		Current Property Owner	PO Box 194	Carmel	In	46082
Donalds G jones & associates inc		Current Property Owner	PO Box 254	Zionsville	in	46077
washington township trustee			311 Production dr	avon	in	46123
Instaliation Head			125 W South St	Indianapol	i:in	46206
Post Master General for Hendricks County	Attn: Valerie T. Rhodes		1965 E Main St.	Danville	in	46122
Postmaster General for Marion County	Attn: Christina M. Johnson-Ke	ennedy	125 W South St	Indianapol	i∶in	46206
Avon Town Hall	Tom Klein		6570 E US Highway 36	Avon	IN	46123



Fishers, IN - Corporate 8770 North St., Ste 110 Fishers, IN 46038 317.588.1798

F-6

September 11, 2018

Example Notice of Public Information Meeting Invite Letter

RE: Notice of Public Information Meeting

Des. Number 1601072

US 36 Added Travel Lanes Project

Avon, Hendricks and Marion County, Indiana

To whom it may concern,

The Indiana Department of Transportation (INDOT) and Town of Avon would like to invite you to a public information meeting regarding the proposed US 36 Added Travel Lanes Project in Avon, Indiana. The meeting will inform the community of the project scope and schedule, describe preliminary design plans and solicit input and comments from the community. An open house with a question and answer (Q&A) session will be offered before and after the presentation. The meeting will also establish the Community Advisory Committee (CAC) for the project which will identify willing participants to represent their effected community through the project development process.

The proposed recommended alternative involves an added travel lane project beginning at Shiloh Park Drive and continuing east to approximately 1500 feet east of Raceway Road. The proposed improvements will involve milling, resurfacing, and widening of the existing roadway to provide three through lanes in both the east and west bound directions on US 36. The typical cross section in each direction will consist of two 11-foot wide travel lanes, and a 12-foot wide right travel lane bordered by curb and gutter with a 2-foot off set. A left turn lane will be provided in both the eastbound and westbound directions at each signalized intersection. The length of the left turn lane will be provided as per the traffic operations analysis. Right turn lanes will be perpetuated and provided as per the traffic operations and analysis.

The existing horizontal alignment of US 36 will remain unchanged. The profile grade will match the existing profile grade. Drainage through the corridor will be addressed to minimize impacts and costs. Curb turnouts with ditches and drive culverts are proposed to handle drainage between Shiloh Park Drive and Raceway Road. Between Raceway Road and the end of the project, an enclosed drainage system will be proposed to match the existing drainage system.

The existing traffic signals will need to be addressed under this project. It will be determined during the design phase of the project whether signals will need to be modified or replaced. In addition, traffic signal timings and offsets will need to be optimized during the design development of the traffic plans.

The proposed maintenance of traffic for the construction of the project utilizes phased construction. A work zone speed limit of 35 miles per hour (mph) will be utilized through the construction zone for the duration of the project. The lane configuration during construction will consist of a 12-foot outside lane, an 11-foot inside lane, and an 11-foot left turn lane at each intersection for all phases.

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Des. Number 1601072 Appendix F: Public Involvement



The need of the project is due to the existing level of service motorists experience when travelling through the corridor. The intersections of US 36 and Ronald Reagan Parkway and US 36 and Raceway Road operate at below acceptable levels of service. The primary purpose of this project is to reduce delays on US 36, with a focus on the heavily congested portion between Ronald Reagan Parkway and Raceway Road. A secondary purpose, or other desirable outcome of the project, is to reduce the crash rate through the corridor.

Please Join Us on Tuesday, October 2nd, 2018 at the Avon Town Hall Council Chambers located at 6570 E US Hwy 36, Avon, IN 46123 Doors will open at 5:30 p.m. and the presentation will begin at 6:00 p.m.

The INDOT is sponsoring the project; RQAW Corporation is designing the project. RQAW is also completing the environmental document. The meeting will feature a brief formal presentation and a Q&A session. During the meeting, the INDOT representatives will be available to address questions, comments and concerns. Project maps, displays and informational handouts will be available.

Sincerely,

Joe Dabkowski

Director of Environmental Services

Joseph Dolpowski

RQAW Corporation

Sign-in Sheet for the Public

Des. No. 1601072, US 36 Added Travel Lanes Project

Town of Avon, Hendricks and Marion Counties

October 2, 2018

No.	Name (Please print)	Address, City, State	Zip Code
1	Joice Vorger VORGER	3554 W Michigan St Indy	46222
2	Ton Kleis	Town of Avan	46123
3	Mike Eubonh	Tudot Crawfordsville DISTRICT	47933
4	Day West	10828 Thather Care Ispla	1673/
5	Lyre Sparnblek	10705 US 36 Avon In (whitecastle)	46123
6	A ngela Paton	(1	46123
7	STAN ALBAUGH)	2123 WOODEREEK DR ANON IN	46123
8	Rich Sorrell	10299 45 424 360	46/23
9	BOB MISHIMAN	SUBL BRADGIED RD	46123
10	JANINEFIDLER	6894 MERRIH Ridge Way From	46123
11	LONNIE DORDAN	MEISUR AUDI	46123
12	Anam FISCHER	901 Webset # Joo Terre Haute	47807
13	JOHN LAZARD	10954 E US 36 AVON IN	46123
14	Anne Engelhardt	6571 Kings & Avai	46/23
15	Mark Zeis	1648 DOISER Dr AVOL	46123
16			
17			

Page 1

RQAW Project No. 17S-500-003-1

Sign-in Sheet for the Public

Des. No. 1601072, US 36 Added Travel Lanes Project

Town of Avon, Hendricks and Marion Counties

October 2, 2018

No.	Name (Please print)	Address, City, State	Zip Code
1	Kelly Shen movers	6816 Buhistone Avan IN	46123
2	Kelly + Shery myers	6588 LAKE FOREST DR	46173
3	JUSTEN FURE		46256
4	Lora Steele	8970 Sunningdale Blud Indy 46234	116234
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Page 1

RQAW Project No. 17S-500-003-1

Sign-in Sheet for the Public

Des. No. 1601072, US 36 Added Travel Lanes Project

Town of Avon, Hendricks and Marion Counties

October 2, 2018

No.	Name (Please print)	Address, City, State	Zip Code
1	HAROLD & CAROUR HIS	R 1422 REDSTONE DR	46123
2	GERALD GEONGE	326 RAINBON BWM	46239
3	Steve Blacketer	1683 Locust Lane, Avon	46123
4	Ben De localis	8951 LAW	4(1)3
5	Robert Page	7663 Monterey Cr Avon	46123
6	Keith Aibich	8120 Creekway aven	46123
7	GREG ZUSA	386 LONDON LANE - AVON	46123
8	.]		
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Page 1 RQAW Project No. 17S-500-003-1





Tuesday, October 2, 2018

Dear Local Resident, Concerned Citizen, and Elected Public Official:

Welcome to the US 36 Public Information Meeting for the proposed added travel lanes project on US 36 in the Town of Avon, Hendricks and Marion Counties, Indiana. The project is approximately 1.16 miles long and will begin on US 36 at Shiloh Park Drive in Avon and continue east to approximately 0.28-mile (1,500 feet) east of Raceway Road. The proposed added travel lane project will involve milling, resurfacing, and widening of the existing roadway to provide three through lanes in both the east and west bound directions on US 36. The typical cross section in each direction will consist of two 11-foot wide travel lanes, and a 12-foot wide right travel lane bordered by curb and gutter with a 2-foot off set. A left turn lane will be provided in both the eastbound and westbound directions at each signalized intersection. The length of the left turn lane will be provided as per the traffic operations analysis. Right turn lanes will be perpetuated and provided as per the traffic operations and analysis. The existing horizontal alignment of US 36 will remain unchanged.

The purpose of this public information meeting is to offer all interested persons an opportunity to meet with project officials, review the project proposal including environmental document process and preliminary design plans.

There are several ways your comments may be presented this evening. You may submit comments in the following manner:

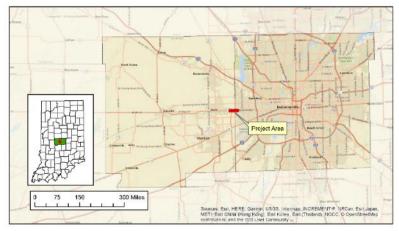


Figure 1: Overall Project Area Map showing the project area within Hendricks and Marion Counties, Indiana.

- Complete one of the comment forms and return it to any of the US 36 project officials attending the public information meeting. Comment forms are attached to this page and additional forms are available at the sign-in table.
- 2. Mail your comments to RQAW Corporation Attn: Joe Dabkowski, 8770 North Street, Suite 110, Fishers, IN 46038; Phone (317).588.1765 (8:00 a.m. to 5:00 p.m.)
- 3. Comments may be emailed to RQAW Corporation at: idabkowski@RQAW.com

All public comments submitted will be reviewed, evaluated and given full consideration by US 36 project officials during the decision-making process. The US 36 project officials sincerely appreciates your attendance this evening.

Thank you for attending this public information meeting for the proposed US 36 project. Please submit comments by using the space provided below.





TODAY'S DATE: Tuesday, October 2, 2018				
COMMENT:				
			 	
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SIGNATURE:				
PRINTED NAME:				
ADDRESS:				
CITY, STATE, ZIP:				



Welcome



- Introductions
- Meeting format Formal Presentation, Open House
- · Purpose of meeting
- Informal Q & A in project display area with project engineers and project officials
- Information packet



Introductions



- Indiana Department of Transportation (INDOT) Crawfordsville District Project Manager and Representatives
- · Town of Avon Officials
- · Elected Public Officials
- Design Team



Purpose of Meeting



- Introduce the project to the community
- Discuss the Purpose and Need for the project
- Present the conceptual design
- Discuss the project schedule
- Discuss the Environmental Process
- Discuss the public involvement for the project
- Address questions and concerns



Purpose and Need



- The need for this project is due to the existing level of service motorists experience when travelling through the corridor.
- The primary purpose of this project is to reduce delays of US 36 with a focus on the heavily congested portion between Ronald Reagan Parkway and Raceway Road. A secondary purpose, or other desirable outcome, of the project is to reduce the crash rate though the corridor.

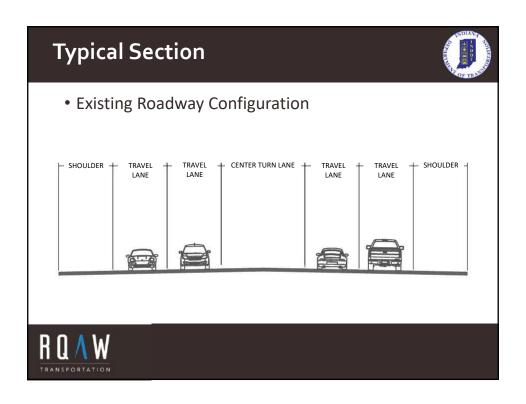


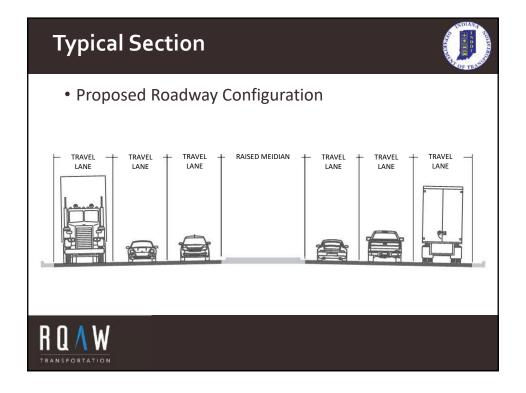
Project Location

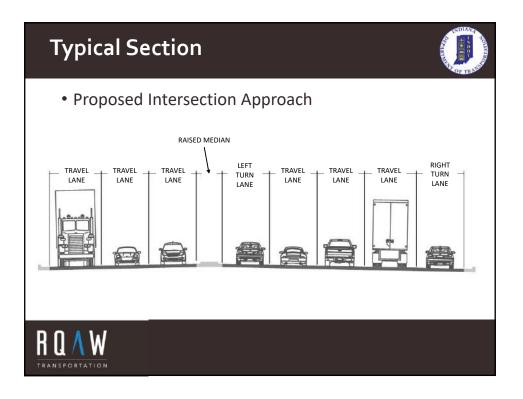












Conceptual Maintenance of Traffic



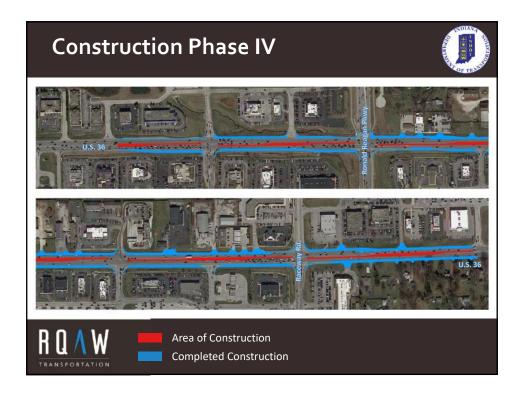
- All existing access points will be maintained.
- Existing access points at unsignalized intersections will be restricted to right in, right out movements.
- Specialized signing will be incorporated into the project to direct motorists to businesses
- Two lanes of traffic will be maintained in each direction
- Five construction phases are anticipated



F-17







Project Schedule



- Preliminary Field Check February 2019
- Public Hearing June 2019
- Final Environmental Document Approval October 2019
- FONSI Signed November 2019
- Begin Right-of-Way Process December 2019
- Letting January 2021
- Begin Construction March/April 2021



Environmental Document



- Environmental Document is being completed as a requirement to the National Environmental Policy Act (NEPA)
- Environmental Assessment (EA) under development
 - NEPA requires evaluation of potential impacts to surrounding natural, cultural and social environments
 - Impacts are described in the environmental document
 - Requires opportunity for public involvement and comment in the decision-making process of said impacts
 - Requires FHWA review/approval and FONSI



Elements of Environmental Documentation



- Public involvement
- Right-of-way
- Streams & wetlands
- Karst
- Threatened & endangered species
- Floodplains
- Farmland

- Historic & Archaeological
- Section 4(f) & 6(f)
- Air quality
- Noise
- Community impacts
- Environmental Justice
- Relocations
- Hazardous materials



F-20

Environmental Studies



- Section 106—procedural law that requires federal agencies to consider the effects of projects they carry out, approve or fund have on historic properties
- Anticipating a No Adverse Effect Section 106 finding
- Community Impacts
 - Maintenance of Traffic
 - Business/Residential access



Next Steps



- Complete the Section 106 Process
- Draft EA for INDOT and FHWA reviews
- Public Hearing anticipated in June 2019
 - Public statements <u>recorded</u> at the public hearing
- Establish the Community Advisory Committee (CAC)



Next Steps



- Community Advisory Committee (CAC)
 - Small group of volunteers representing the affected community
 - Role is to provide information about the project to the groups they represent
- If interested please sign up



Thank You



Thank you for attending.

Informal question and answer session will continue in project display area.







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COMMENT:
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PRINTED NAME:
ADDRESS:
CITY STATE 7IP:
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	COMMENT:
1	Please, Please, Please! Frontage Roads Placed on either
	on either side of 3650 we don't have to go in/out etc)
	on either side of 3650 we don't have to go injouters
	011 101 + 36. 1 Names 111
2	Please! Limit or Do (place) Do Not U-Turn Signs
	on US Hwy 36 - Too busy of a street, lights only
	Jast so long, Dangerous on such a high traffic
	Ibaa. Iraans
3	Clean accident traffic areas of all debris - I don't like driving over broken glass + metal. Thanks
	don't like driving over broken glass + metal. Thanks
4	make all businesses/etc. do landscaping - not all
Y)	do Thanks
	OKan - I Junged the sun these would be later to an of Avong but I would Still bik these &
	Indiscaping Town of Avong but I would Still to Rethese
	SIGNATURE:
	PRINTED NAME: 6894 MERRITH Ridge Way
	ADDRESS: Avon Indiana
	CITY, STATE, ZIP: 4123
	7 - 70 -





COMN	

I'm disappointed in the plan as it's currently proposed.
Understandably, this will take care of several issues
currently faced on US 36. However, the town would
benefit from some forward trunking solutions. The
community lacks personality along the 36 corridor &
this would be a great opportunity to create both
functionality & Innovation.
I realize it is) not INDOT's responsibility to own issues
We community personality & auture. But, I write you to
use these tunds to help the town grow responsibly &
put turnard a persona of innovative & long term
thinking that will directly impact growth. As Indianapolis
Expands it would be unfortunate for this to be the next 38th S. Thank you for doing the les work to secure the funding
Thank you for doing the leg work to secure the tunding for this project. Look forward to seeing how the
plan develops
plan august.
SIGNATURE: Josa Steele
PRINTED NAME: LOVA Steele
ADDRESS: 8970 Sunningdale Blvd
CITY, STATE, ZIP:
THAT THE STATE OF





COMMENT:
you are a purch of 101815
36 + AR RECAL AV (OVERPAGS)
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SIGNATURE:
PRINTED NAME: Ben Dev Verchio
ADDRESS: FG() / day ()
CITY, STATE, ZIP:

Commenter	Comment	Response
		The signals will be timed appropriately to maximize efficient traffic flow
		throughout the project corridor. A significant traffic study has been
		completed that will help determine the signal timing. The signal timing
	To enhance delay reduction, can lights be sequenced from Avon Avenue through I-465. Intelligent-crowd	can also be adjusted during the project development to maximize traffic
B. Miskimon (comment form)	survey data can enhance sequencing planning.	flow.
		U-turns will not be allowed at Ronald Reagan Parkway, on westbound US
	As I expressed to the gentleman monitoring the drawingsI have absolutely no problem with adding a	36 at Shiloh Crossing Drive, and on westbound US 36 at Meijer Drive.
	median along that stretch of road but if you do I urge you to consider authorizing "Michigan Lefts" (U-turns)	These intersections will be signed accordingly. U-turns will be permitted at
C. Hiser (comment form)	at the intersections. This would allow for access the businesses on both sides of the road.	the remaining intersections within the project limits.
		Impacts to the community, businesses, and the environment will be
		minimized on this project. The addition of frontage roads will negatively
	Please, please, please! Frontage Roads Placed on either side of 36 so people can go all the way to shops	impact surrounding businesses and increase project costs, therefore
J. Fidler (comment form)	(restaurants, etc. on either side of 36 so we don't have to go in/out on/off 36. Thanks!!!	frontage roads will not be incorporated into this project.
		U-turns will not be allowed at Ronald Reagan Parkway, on westbound US
	Please! Limit or Do (place) Do Not U-Turn Signs on US Hwy 36Too busy of a street, lights only last so long,	36 at Shiloh Crossing Drive, and on westbound US 36 at Meijer Drive.
J. Fidler (comment form)	Dangerous on such a high traffic road. Thanks!	These intersections will be signed accordingly.
		Thank you for your comment. It is the responsibility of the emergency
		services to clean up accident debris. The design team can not dictate the
		clean up methods of emergency services but we will pass along this
J. Fidler (comment form)	Clean accident traffic areas of all debris-I don't like driving over broken glass + metal. Thanks.	request to the City of Avon.
	Make all businesses/etc. do landscaping-not all do. Thanks. Okay, I jumped the gun-these would be later +	
J. Fidler (comment form)	landscaping Town of Avon but I would still like these.	Thank you for your comment.
	I'm disappointed in the plan as it's currently proposed. Understandably, this will take care of several issues	
	currently faced on US 36. However, the town would benefit from some forward thinking solutions. The	
	community lacks personality along the 36 corridor & this would be a great opportunity to create both	
L. Steele (comment form)	functionality & innovation.	Thank you for your comment.
	I realize it is not INDOT's responsibility to own issues like community, personality & culture. But, I urge you	
	to use these funds to help the town grow responsibly & put forward a persona of innovative & long term	
	thinking that will directly impact growth. As Indianapolis expands, it would be unfortunate for this to be the	
	next 38th St. Thank you for doing the leg work to secure the funding for this project. I look forward to seeing	
L. Steele (comment form)	how the plan develops.	Thank you for your comment.
B. (last name illegible)		
(comment form)	You are a bunch of idiots 36 + RR needs an overpass.	No response necessary.
B. (last name illegible)		
(comment form)	*And 900 + 100 N is the (rest of comment illegible).	No response necessary.
B. (last name illegible)		
(comment form)	I shop out of state rather than take US 36.	Thank you for your comment.

US 36 Added Travel Lanes Project CAC Meeting:

October 2, 2018 at the Avon Town Hall Council Building; Loacted at 6570 E US Hwy 36, Avon, IN 46123 from 5:00 pm to 7:30 pm

lame	Address	Phone Number	Email Address
O Dectar	TOWH OF AVON 6570 & US 36 AVON 46/23 10705 US 360 Ason FN 46/23	311-272-0948	Intposto white castle con
Eyan Cannon PW Director byce Sparnsker L white Castic)	10705 116 21. Noon The 410173	317-271-7637	Inco037@ White Castle Con of
byce Sparnsker Carrie (astic)	4440	3/7-752-4955	HE HISAR & mall carn
Anne Engelhardt	6571 Kings Ct. Aver	317.529.422	a engella Cof Troy. Tr-Com
ADAM FISCHER - FMail Only	65 - KINGS	812-208-5961	AFISEHER @ THOMPSON THRIFT, COT
ADAM FISCHER - FMail Only GERALD GEORGE Pire cheef Hist.	311 RODNETEN DRIVE, AND 46123	317-667-6681	ggeorge & Avontal , one
JANINE FIDLER -	6894 MERRITTRIAGE WAY AVON 46123	317-667-6681	AFISCHER & THOMPSON THRIFT. COM green & worth ore prpL, Lizor D. 559 Symbil. CO
	1		
	+		
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Jaime Byerly

From: Joseph Dabkowski

Sent: Monday, April 22, 2019 12:35 PM

To: Jaime Byerly

Subject: FW: US 36 Added Travel Lanes Community Advisory Committee (CAC)

Example CAC Meeting Invite e-mail.

Joe Dabkowski, PWS | Director of Environmental Services

O: 317.588.1798 C: 317.473.0900 www.rqaw.com

From: Joseph Dabkowski

Sent: Thursday, December 6, 2018 12:09 PM

To: 'rcannon@avongov.org' <rcannon@avongov.org>; 'He.Hiser@gmail.com' <He.Hiser@gmail.com>;

'aengelhardt@indy.rr.com' <aengelhardt@indy.rr.com>; 'Afischer@Thompsonthrift.com'

<Afischer@Thompsonthrift.com>; 'ggeorge@avonfd.org' <ggeorge@avonfd.org>; 'prpl.L.izarD.559@gmail.com'

<prpl.L.izarD.559@gmail.com>; 'Indp037@whitecastle.com' <Indp037@whitecastle.com>

Cc: Lisa Casler (lcasler@RQAW.com) < lcasler@RQAW.com>; 'Gilyeat, Richard' < RGilyeat@indot.IN.gov>;

'Dimas.Prasetya@dot.gov' <Dimas.Prasetya@dot.gov>

Subject: US 36 Added Travel Lanes Community Advisory Committee (CAC)

Fellow CAC Members,

I got confirmation that we have the Avon Council Chambers reserved for our CAC meeting on Friday December 14th from 6pm to 7:30pm as the original proposed date of December 12th was not available at the council chambers. Please place this meeting on your calendars if you can attend. In this meeting we will go over what being a member of the CAC means through a short presentation as well as give a short presentation of the current project developments. Afterwards we will look over our draft set of plans and have an open discussion on what your represented community likes or has concerns about with the design and collaborate on potential options to alleviate these concerns.

Also, if you cannot attend and would like to have a meeting to discuss these things please let me know and I will be happy to set one up with you. This is the first CAC meeting and there will be others as the design progresses.

I look forward to seeing you all there!



Joe Dabkowski, PWS | Director of Environmental Services

8770 North St., Ste. 110 Fishers, IN 46038 O: 317.588.1759 C: 317.473.0900 www.rqaw.com



F-30

US 36 Added Travel Lanes Project CAC Meeting Friday, December 14, 2018

Name	Address 1894 MERRIT RIDGE WAY AVON 1694 MERRIT RIDGE WAY AVON (6093 Lacebart Way Hoon IN 41C/6 6571 Kings at Avon 46123 FHWA	Phone Number	Email Address
Jap Dablowski PAVID FOLEN JANINE FIDLER Ryan Cannon Anne Engelhardt Dimas Prasetya	HRAW.		
PAVID FIDER	LEGYMERRIT RIDGE WAY MON	717 139 - 1050 317 441 - 7946 23 317 272 - 0948 317.529.1622	Compl. L. izar D. 559 2 grail can Company of a grail can a engelhordt. etnay ir com
TANINE FIDIER	1694 MERRIT RICLE Way AVON	317 441-7946	Corpl. L. izar D. 5592 gnzi cin
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Ande Fraelhardt	6571 Kings OF Avon 46123	317.529.1622	a engellacide etadu vi scom
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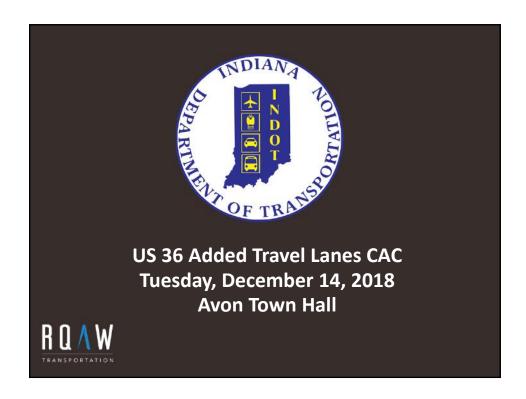


Role of a CAC Member

The CAC is comprised of a small group of volunteers representing a broad segment of the population within the affected community. The CAC provides opportunities for citizens and other interested groups to participate in current transportation planning efforts such as the preliminary design, environmental studies, maintenance of traffic, etc. The role of a CAC member is to provide information about the project to the groups that they represent. In this role, CAC members can also bring information from the general public to the project team. A CAC member should be a representative of their community and should not put forth their personal agenda.

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Des. Number 1601072 Appendix F: Public Involvement F-32



Welcome



- Introductions
- · Purpose of meeting
- Meeting format Formal Presentation, Plan Review



Introductions



- Indiana Department of Transportation (INDOT) Crawfordsville District Project Manager and Representatives
- · Design Team



Purpose of Meeting



- Discuss the Purpose and Need for the project
- Present the preliminary design
- Discuss concerns of your represented community
- Address questions and concerns



What is a CAC?



- The CAC is comprised of a small group of volunteers representing a broad segment of the population within the affected community.
- The CAC provides opportunities for citizens and other interested groups to participate in current transportation planning efforts such as the preliminary design, environmental studies, maintenance of traffic, etc.
- The role of a CAC member is to provide information about the project to the groups that they represent.



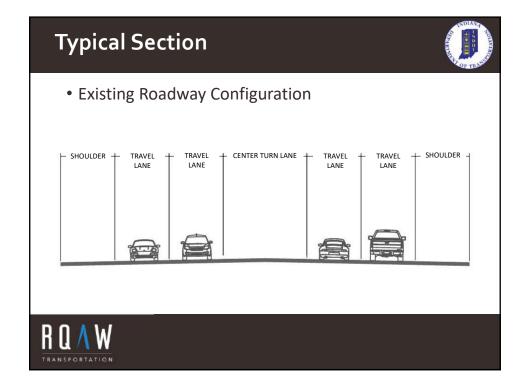
Purpose and Need

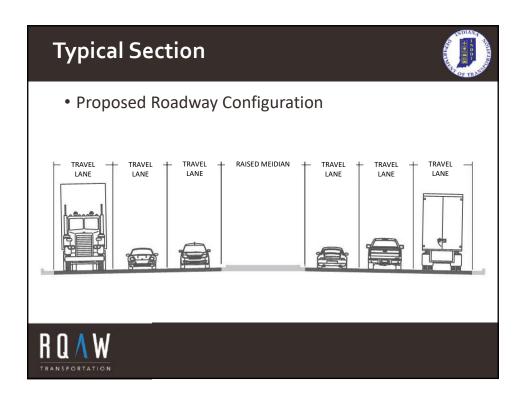


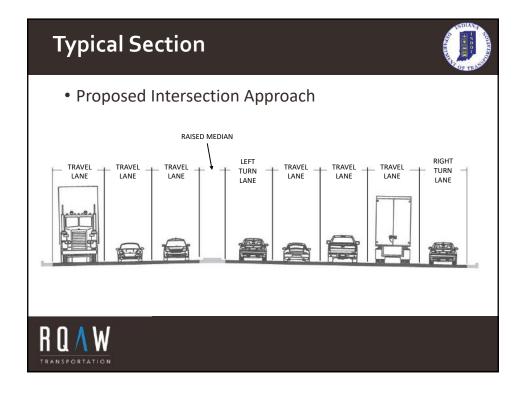
- The need for this project is due to the existing level of service motorists experience when travelling through the corridor.
- The primary purpose of this project is to reduce delays of US 36 with a focus on the heavily congested portion between Ronald Reagan Parkway and Raceway Road. A secondary purpose, or other desirable outcome, of the project is to reduce the crash rate though the corridor.











Conceptual Maintenance of Traffic



- All existing access points will be maintained.
- Existing access points at unsignalized intersections will be restricted to right in, right out movements.
- Specialized signing will be incorporated into the project to direct motorists to businesses
- Two lanes of traffic will be maintained in each direction
- Five construction phases are anticipated



Construction Phase II U.S. 36 U.S. 36 Area of Construction Completed Construction





Project Schedule



- Preliminary Field Check February 2019
- Public Hearing June 2019
- Final Environmental Document Approval October 2019
- FONSI Signed November 2019
- Begin Right-of-Way Process December 2019
- Letting January 2021
- Begin Construction March/April 2021



Thank You Thank you.

December 14, 2018

Community Advisory Committee (CAC) Meeting Notes

- Ms. Lisa Casler (RQAW Director of Roadway Services) and Mr. Joe Dabkowski (RQAW Director of Environmental Services) conducted the meeting and presented the materials.
- The CAC committee was concerned about other roadway closures while US 36 is under construction. Mr. Ryan Cannon (Town of Avon Public Works Director) stated construction on other local projects will be complete prior to the start of construction this project.
- The use of rolled curbs along the proposed median was discussed due to emergency vehicle access. This would be similar to the current configuration on Avon Avenue.
- The continued need for emergency pre-emption was also discussed.
- School bus schedule was discussed. Buses are generally on the road by 6:00 am and 6:30 am each school day.
- Mr. Richard Gilyeat (INDOT Project Manager) stated that construction would take place at night. Construction could start at 8:00 pm and end at 6:00 am. Construction on westbound US 36 could extend into the morning rush hour as traffic is light in the am for westbound US 36 traffic.
- The committee discussed the need to disseminate information to the public about construction and traffic pattern changes via social media as well as more traditional methods.

February 27, 2019

Assistant Chief Gerald George Meeting Notes

- Ms. Lisa Casler (RQAW Director of Roadway Services) and Mr. Aaron Lawson (RQAW Environmental Manager) met with Assistant Fire Chief George (Town of Avon) to discuss concerns about emergency response vehicles maneuvering around traffic during construction of this project.
- The Assistant Fire Chief expressed concerns about traveling long distances in the wrong direction on US 36 to maneuver around stopped traffic in the event of an emergency run. This concern is due to the closure of the two-way-left-turn-lane and its replacement with a curbed median.
- Everyone agreed that educating the public on what to do when an emergency vehicle approaches is necessary.
- Mr. Ryan Cannon (Town of Avon Public Works Director) mentioned that the Avon Avenue median is constructed with a mountable curb and that emergency response vehicles can drive over the mountable curb.
- It was agreed upon that specifying mountable curbs at strategic locations (i.e. not directly across from right in, right out access points) to allow emergency response vehicles to cross over to the "right" side of the road is the solution.
 - The locations would need to be delineated to allow drivers of the emergency response vehicles to easily identify the locations. RQAW is currently looking into identifying these delineated locations.
- The Town of Avon stated they will research upgrading their pre-emption system within the project limits. The pre-emption system will need to be removed prior to construction of this project because it is currently mounted to the existing signal poles. RQAW will provide the Town of Avon with the preliminary signal plans after stage 2 design plans are submitted and reviewed.

Joseph Dabkowski

From: Joseph Dabkowski

Sent: Tuesday, April 30, 2019 3:58 PM

To: Gilyeat, Richard

Cc: rcannon@avongov.org; He.Hiser@gmail.com; aengelhardt@indy.rr.com;

Afischer@Thompsonthrift.com; Gerald George; J. J.; Indp037@whitecastle.com; Lisa Casler; Prasetya,

Dimas (FHWA); Bales, Ronald

Subject: RE: US 36 Added Travel Lanes (1601072) Community Advisory Committee (CAC) Meeting Request

Good evening fellow CAC members.

I have reserved the Town of Avon Counsel Chambers for Tuesday, **May 21**st at **3pm** to hold the second US 36 Added Travel Lanes project CAC meeting. We will have the updated set of Stage 2 plans available at the meeting for discussion as well as a project update. Please let me know if you need anything or assistance prior to the meeting.

The address is: Avon Town Hall 6570 E US Highway 36 Avon, IN 46123

Thanks and we look forward to seeing you there.

Joe Dabkowski, PWS | Director of Environmental Services

O: 317.588.1798 C: 317.473.0900 www.rqaw.com

From: Gilyeat, Richard <RGilyeat@indot.IN.gov>

Sent: Monday, April 22, 2019 12:57 PM

To: Joseph Dabkowski < jdabkowski@RQAW.com>

Cc: rcannon@avongov.org; He.Hiser@gmail.com; aengelhardt@indy.rr.com; Afischer@Thompsonthrift.com; Gerald George <ggeorge@avonfd.org>; J. J. <prpl.l.izard.559@gmail.com>; Indp037@whitecastle.com; Lisa Casler <lcasler@rqaw.com>; Prasetya, Dimas (FHWA) <Dimas.Prasetya@dot.gov>; Bales, Ronald <rbales@indot.IN.gov> **Subject:** Re: US 36 Added Travel Lanes (1601072) Community Advisory Committee (CAC) Meeting Request

Joe

I am currently available any of the dates listed below.

What time are you proposing for the meeting?

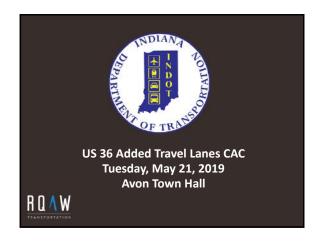
thanks

Richard Gilyeat Project Manager INDOT (765) 361-5684

Sent from cell phone

US 36 Added Travel Lanes Project CAC Meeting Tuesday, May 21, 2019

Name	Address	Phone Number	Email Address
1 11.	RRAU		
GERNO GEORIGE GEORIG	1422 Redstone Aven 311 propriet Druve	317-752-4955	hehiser @ gmail.com
CERSIO GEOVILOS	311 product Druve	317-272-2155	CC ENGLASE AVENCO WED
Onni Gusillar olt	GS 71 Kinss Lt INDER 6894 MERRITH Ridge Way Avon, IN 46123 INDER TOWN OF AVON	317.524. 1622	brander 10 indet.in.gov pre LoLiszar Do 559 D gmail.com rgi year a indet.in.gov rcanno a avongov org
Brandon Willer	TUDAT	317 234 5108	brownler 10 indet in any
TANIAL FIDIER	6894 Merritt Ridge Way Avon. TN 46123	317 441-7946 765-361-5684	heal Lizzy D. 559 Danail con
RICHARD GILYBAT	TYLVIT CRAUBALS VITLE	765-361-5684	Sailyest a undet. IN, Gal
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Introductions Purpose of meeting Meeting format – Formal Presentation, Plan Review PROMOTE AND THE PROPERTY OF T

Introductions Indiana Department of Transportation (INDOT) – Crawfordsville District Project Manager and Representatives Design Team

Purpose of Meeting



- Discuss the current status of project and changes since Stage 1 design
- Present the Stage 2 design
- Status of the Environmental Assessment (EA)
- Discuss concerns of your represented community
- Address questions and concerns



Purpose and Need



- The need for this project is due to the existing level of service motorists experience when travelling through the corridor.
- The primary purpose of this project is to reduce delays of US 36 with a focus on the heavily congested portion between Ronald Reagan Parkway and Raceway Road. A secondary purpose, or other desirable outcome, of the project is to reduce the crash rate though the corridor.

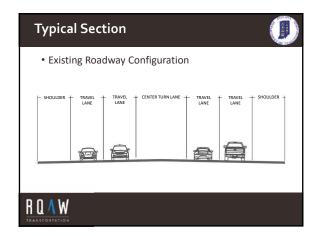


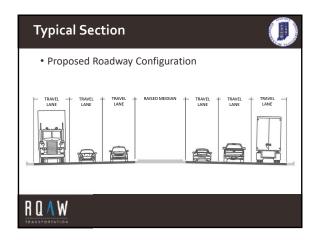
Project Location

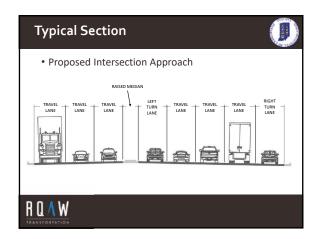




RQAW







Conceptual Maintenance of Traffic

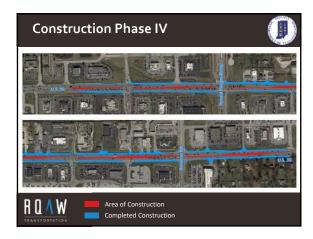


- All existing access points will be maintained.
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- Specialized signing will be incorporated into the project to direct motorists to businesses
- Two lanes of traffic will be maintained in each direction
- Five construction phases are anticipated



Construction Phase II Area of Construction Completed Construction





Project Schedule



- Draft EA submitted to INDOT on 5/9/2019
- Public Hearing Anticipated June/July 2019
- Final Environmental Document Approval October 2019
- FONSI Signed November 2019
- Begin Right-of-Way Process December 2019
- Letting January 2021
- Begin Construction March/April 2021



Thank You



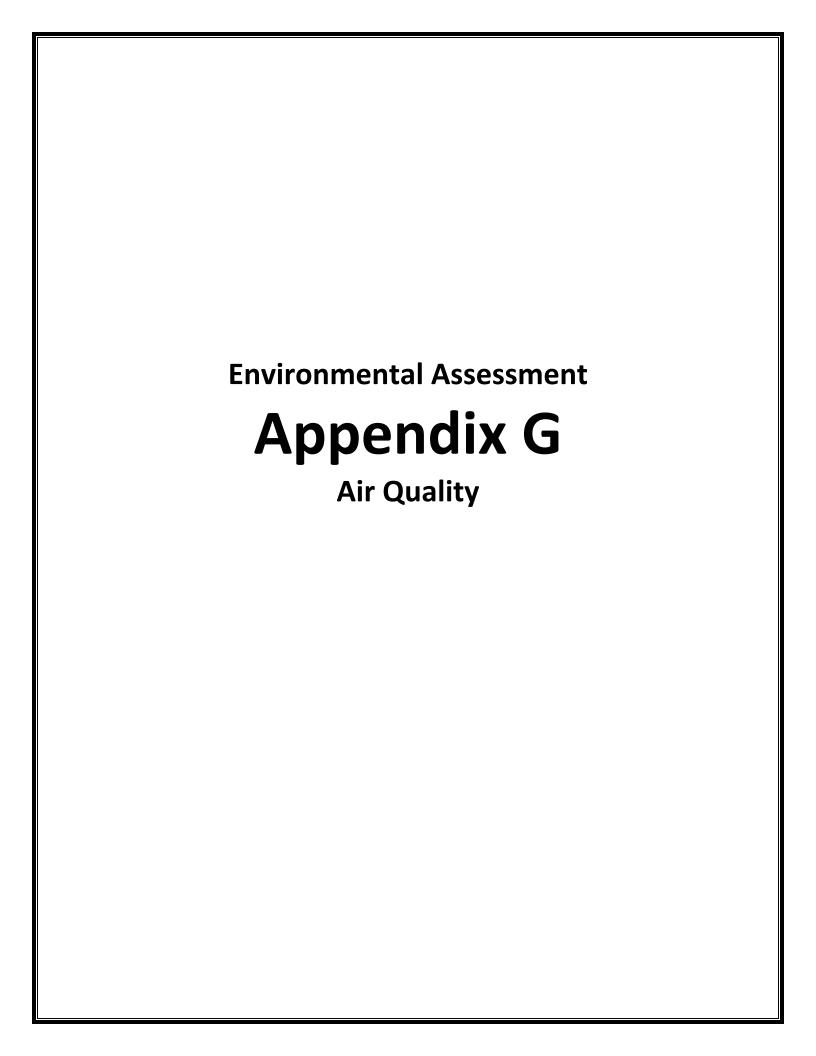
Thank you.



May 21, 2019

Community Advisory Committee (CAC) Meeting Notes

- Ms. Lisa Casler (RQAW Director of Roadway Services) and Mr. Joe Dabkowski (RQAW Director of Environmental Services) conducted the meeting and presented the materials.
- The presentation discussed the updated design plans. The CAC was informed that construction will occur at night to alleviate traffic issues as much as possible and expedite construction.
- Two lanes of traffic will be maintained in both directions throughout construction. Traffic will be
 open prior to rush hour and school hours to reduce traffic congestion for the motoring public and
 school buses.
- The Town of Avon (CAC member) asked if the access barrier along Ronald Reagan Parkway could be removed to allow left turns into the Meijer shopping area or if this could be evaluated after this project was completed. Ms. Casler and INDOT replied that it would be better to evaluate this after this project is completed since it is not currently part of the project design. The Town of Avon agreed.
- The CAC agreed that the Opticom reinstalls will be coordinated with the Fire Department for appropriate timing of the lights for emergency services within the corridor.
- The Town of Avon asked if there were any aesthetics planned within the median of the project area. The design team indicated that it is currently proposed to be concrete.
- The Town of Avon asked if stamped concrete could be used along the curbs and medians. INDOT replied that that could be an option and that they will discuss this further.
- The rolled curb option for emergency services was discussed further due to concerns expressed during the first CAC meeting. The CAC discussed several delineator post options that would identify the locations of the rolled curb where emergency vehicles could mount the curb to drive in the opposite direction of traffic when traffic is backed up. The Fire Chief and Town of Avon suggested that we use colored concrete instead of delineator posts. The project team and CAC members agreed to further discuss this option later in the design when these details are needed.



Indiana Department of Transportation (INDOT) State Preservation and Local Initiated Projects FY 2018 - 2021 SPONSOR CONTR STIP ROUTE WORK TYPE LOCATION DISTRICT MILES FEDERAL PROGRAM PHASE FEDERAL МАТСН Estimated 2018 2019 2020 2021 ACT#/ NAME CATEGORY Cost left to LEAD Complete DES Project* Avon rawfordsville ndianapolis MPO CN \$625,100.00 \$0.00 39597 / Bike/Pedestrian rail on Ronald Reagan \$625,100.00 1601121 Facilities Parkway from US 36 to CR 100 \$17,920,764.00 Mobility ROW ndiana Department 39814/ US 36 Added Travel Lanes 4.26 mi to 3.00 mi W of W leg of Crawfordsville .97 STPBG RW \$20,000,00 \$5,000.00 \$25,000.00 f Transportation 1601072 Comments:ROW phase \$25,000 FY19; IMPO 18-IMPO-020 10/24/2018 \$1,180,000.00 Crawfordsville \$4,720,000.00 ndiana Department 39814 / Init. US 36 Added Travel Lanes 4.26 mi to 3.00 mi W of W leg of Mobility \$5,900,000.00 f Transportation 1601072 \$2,400,000.00 \$600,000.00 Safety \$3,000,000,00 Construction \$9,140,000,00 39814/ Added Travel Lanes 4.26 mi to 3.00 mi W of W leg of Crawfordsville Road Consulting \$192,000.00 \$48,000.00 \$240,000.00 ndiana Department 601072 f Transportation Comments:IMPO; Add FY18 PE \$240,000 Crawfordsville \$1,873,600.00 \$468,400.00 39814/ ndiana Department Init. US 36 Bridge Replacement, Bridge over White Lick Creek, 0 Bridge CN \$2,342,000.00 of Transportation 1601093 Other Construction .96 mi W of SR 267 Construction Bridge Consulting PE \$40,000.00 \$10,000.00 \$50.000.00 Bridge ROW RW \$24,000.00 \$6,000.00 \$5,000.00 \$25,000.00 \$182,000.00 Bridge Crawfordsville \$124,800.00 \$31,200.00 CN Indiana Department 39968 / A 02 IR 1039 Environmental Himsel Stream Mitigation Site on \$156,000.00 of Transportation 1601928 Mitigation CR 350N, 1.3 mi W of SR 236 in onstruction Hendricks County Bridge Consulting \$20,800.00 \$5,200.00 \$26,000,00 Comments:No MPO; Add \$20,800.00 PE & \$56,000.00 CN FY18 Funds Himsel Stream Mitigation Site on rawfordsville \$214,000.00 Bridge ROW \$25,600.00 \$6,400.00 \$32,000.00 ndiana Department Environmental 1601928 of Transportation Mitigation CR 350N, 1.3 mi W of SR 236 in Hendricks County Comments:No MPO; Add FY18 ROW \$32,000 Indiana Department 39968 / M 08 Environmental Himsel Stream Mitigation Site on Crawfordsville \$247,403.00 Bridge Consulting \$8,000.00 \$2,000.00 \$10,000.00 1601928 CR 350N, 1.3 mi W of SR 236 in of Transportation Mitigation

Page 254 of 837 Report Created:3/25/2019 2:27:58PM

Comments:New Safety project within the INDY MPO, Resolution 18-00

Comments:No MPO; Add FY18 PE \$29,700

Comments: Move CN to FY 2020 from 2021

40043 /

40043/

700271

40043/

700272

Comments:New Project within the INDY MPO, resolution 18-00

1700271

Indiana Department

Indiana Department

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Traffic Signal Visibility

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\$50,753.00

^{*}Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)

SPONSOR	CONTR ACT #/ LEAD DES	STIP NAME	ROUTE	work type	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Hendricks County	1801354	Init.	SR 267	Dida Maintana	**File-in-time+* 1.70 FD/M/D	Crawfordsville	1 0	STPBG		Indian	CN	\$125,700.00	\$31,425.00	0457 405 00		i	-	
ndiana Department of Transportation	1601334	IIII.	SR 207	Bridge Maintenance And Repair	**Eliminating** over I-70 EB/WB, 02.98 mi S of US 40	Ciawiordsville		31786		Bridge Construction	CN	\$125,700.00	\$31,425.00	\$157,125.00				
Plainfield	1801462	Init.	MS TRST	Transit - Rider Amenities (Bus Shelters, Benches etc	Bus Shelters	Crawfordsville	0	Transit		Local Funds	PE	\$0.00	\$12,059.00				\$12,059.00	
				Sileiters, Delicites etc	<u> </u>	<u> </u>				Indianapolis MPO	PE	\$48,236.00	\$0.00				\$48,236.00	
Hendricks County	lanan i	Init.	VA VARI	Bridge Inspections	In	Crawfordsville	1 0	Multiple		Local Funds	PE	\$0.00	\$26,886.00					
neriditicks County	38263 / 1500241	11111.	VA VARI	bridge inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Crawiordsville		iwutipie		Local Fullus	"-	\$0.00	\$20,000.00	\$24,625.61	\$2,260.39			
										Local Bridge Program	PE	\$107,544.02	\$0.00	\$98,502.45	\$9,041.57			
ndiana Department of Transportation	38768 / 1500122	Init.	US 40	Small Structure Replacement with Bridge	3.00 mi E of SR 75	Crawfordsville	0	STPBG		Bridge Construction	CN	\$1,543,751.20	\$385,937.80	\$1,929,689.00				
ndiana Department of Transportation	38773 / 1592433	Init.	1 70	Road Rehabilitation (3 R/4R Standards)	From 0.8 mi W of SR 39 to 0.5 mi E of Ronald Reagan Pkwy, 2 .40 mi E of SR 267	Crawfordsville	2.79	NHPP		Bridge Construction	CN	\$4,492,910.70	\$499,212.30	\$4,992,123.00				
				'	•	'		•	,	Mobility Construction	CN	\$60,056,769.60	\$6,672,974.40	\$66,729,744.00				
										Road Construction	CN	\$3,106,127.70	\$345,125.30	\$3,451,253.00				
ndiana Department	39327 /	Init.	US 40	HMA Overlay,	From 0.66 mi W of SR 267 N	Crawfordsville	4.75	NHPP		Bridge	CN	\$357,632.00	\$89,408.00	\$447,040.00				
of Transportation	1592844			Preventive Maintenance	jnctn to .24 miles west of the Marion County Line					Construction								
										Road Construction	CN	\$3,286,225.60	\$821,556.40	\$4,107,782.00				
Brownsburg	39584 / 1601045	Init.	ST 1038	Safety Revisions	S Odell St from Tilden to Sycamore, Bulldog Dr. from US 136 Airport Rd	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$61,080.00	\$61,080.00				
				'						Indianapolis MPO	CN	\$549,720.00	\$0.00	\$549,720.00				
Brownsburg	39587 / 1601056	Init.	ST 1034	Intersection Improvement, Roundabout	Intersection of Hornaday Rd and Airport Road	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$529,000.00		\$529,000.00			
		<u> </u>	<u> </u>	roundabout	<u> </u>	<u> </u>		I		Indianapolis MPO	CN	\$2,116,000.00	\$0.00		\$2,116,000.00			
Brownsburg	39588 / 1601061	Init.	ST 1004	Bike/Pedestrian Facilities	E of the intersection of E Northfield Dr and CR 300 N	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$184,000.00	\$184,000.00				
			<u> </u>	<u> </u>				<u> </u>		Indianapolis MPO	CN	\$736,000.00	\$0.00	\$736,000.00				
			110.00	Added Travel Lanes	4.26 mi to 3.00 mi W of W leg of	Crawfordsville	07	NHPP		Deidao	CN	\$4,999,497.60	\$1,249,874.40		60 040 070 00			
ndiana Danatara	20044	Init			14 ZD MI TO 3 UU MI W OT W IEG OF	Crawfordsville	.97	TALLE .	1	Bridge	CIV	φ4,559,491.00	91,243,074.40		\$6,249,372.00			
ndiana Department of Transportation	39814 / 1601072	Init.	US 36		I-465					Construction								

Page 76 of 240

Report Created:6/25/2019 2:09:57PM

^{*}Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)

				cts FY 2020 - 2024														
SPONSOR	CONTR ACT #/ LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Indiana Department of Transportation	39814 / 1601072	Init.	US 36	Added Travel Lanes	4.26 mi to 3.00 mi W of W leg of I-465	Crawfordsville	.97	NHPP		Mobility Construction	CN	\$4,919,200.00	\$1,229,800.00		\$6,149,000.00			
	•							•	•	Safety Construction	CN	\$2,400,000.00	\$600,000.00		\$3,000,000.00			
Indiana Department of Transportation	40043 / 1700271	Init.	1 70	Traffic Signal Visibility Improvements	EB Ramp at Six Points Rd./Ame riplex/Ronald Regan	Greenfield	0	NHPP		Safety Construction	CN	\$912,466.80	\$101,385.20	\$1,013,852.00				
Indiana Department of Transportation	40102 / 1602067	Init.	174	Bridge Thin Deck Overlay	Ronald Reagan Parkway over I -74 EB/WB, 2.38 mi E of SR 267	Crawfordsville	0	NHPP		Bridge Construction	CN	\$803,568.60	\$89,285.40	\$892,854.00				
Brownsburg	40401 / 1701586	Init.	ST 1028	Intersection Improvement, Roundabout	South Green St and Co Rd 400 N in Brownsburg	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$452,250.00			\$452,250.00		
					•	'			•	Indianapolis MPO	CN	\$1,809,000.00	\$0.00			\$1,809,000.00		
Brownsburg	40402 / 1701590	Init.	IR 1040	Road Reconstruction (3R/4R Standards)	CR 700 N between Arbor Springs Dr & CR 900 E	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$973,575.00				\$973,575.00	
				'	1	'				Indianapolis MPO	CN	\$3,894,300.00	\$0.00				\$3,894,300.00	
Avon	40530 / 1702133	Init.	ST 1041	Signing Installation / Repair	Multiple locations in Avon	Crawfordsville	0	STPBG		Local Funds	CN	\$0.00	\$14,853.00		\$14,853.00			
										Indianapolis MPO	CN	\$133,680.00	\$0.00		\$133,680.00			
Indiana Department of Transportation	40534 / 1701565	Init.	1 70	Replace Superstructure	Old SR 267 over I70	Crawfordsville	0	NHPP		Bridge Construction	CN	\$2,124,317.70	\$236,035.30		\$2,360,353.00			
Indiana Department of Transportation	40568 / 1701588	Init.	US 40	Bridge Replacement, Other Construction	Over Mill Creek	Crawfordsville	0	STPBG		Bridge Construction	CN	\$4,572,748.00	\$1,143,187.00			\$5,715,935.00		
Indiana Department of Transportation	40574 / 1600869	Init.	SR 39	Small Structure Replacement	3.08 mi S of US 136	Crawfordsville	0	STPBG		Bridge Construction	CN	\$1,049,236.00	\$262,309.00	\$25,000.00		\$1,286,545.00		
Indiana Department of Transportation	40581 / 1700116	Init.	SR 39	HMA Overlay Minor Structural	From US 36 N jct to 0.17 mi S of I-74 (Lizton)	Crawfordsville	8.823	STPBG		Road Construction	CN	\$3,614,828.80	\$903,707.20			\$4,518,536.00		
Indiana Department of Transportation	40690 / 1700100	Init.	US 136	Intersect. Improv. W/ New Signals	at CR 900E in Brownsburg	Crawfordsville	0	STPBG		Safety Construction	CN	\$784,173.60	\$196,043.40	\$100,000.00		\$880,217.00		
Indiana Department of Transportation	40954 / 1800568	Init.	SR 267	Concrete Pavement Preservation (CPP)	From 0.56 mi S of I-70 to US 40 S Jct	Crawfordsville	3.34	STPBG		Road Construction	CN	\$3,234,796.80	\$808,699.20		\$4,043,496.00			
Indiana Department of Transportation	41007 / 1800560	Init.	SR 39	HMA Overlay, Preventive Maintenance	From 0.62 mi N of SR 42 N Jct to 0.33 mi S of US 40	Crawfordsville	5.88	STPBG		Road Construction	CN	\$2,281,742.40	\$570,435.60		\$2,852,178.00			
Indiana Department of Transportation	41363 / 1800434	Init.	US 40	Bridge Thin Deck Overlay	@ Clarks Creek; 0.07 mi E of SR 267	Crawfordsville	0	NHPP		Bridge Construction	CN	\$515,449.60	\$128,862.40	\$8,000.00	\$636,312.00			
Avon	41374 / 1801463	Init.	ST 1003	Added Travel Lanes	Dan Jones Rd from Main to CR 100 S	Crawfordsville	0	STPBG		Local Funds	RW	\$0.00	\$762,000.00	\$762,000.00				

Page 77 of 240 Report Created:6/25/2019 2:09:57PM

^{*}Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.



Project Overview | Funding History | Amendment History

<<Go Back

US 36 Added Travel Lanes Project (1601072)

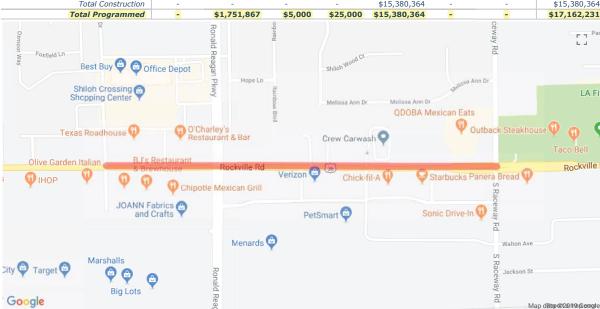
Des Number	1601072	Amendment	18-07 INDOT	Exempt Category	Non-Exempt	Est Total Project Cost	\$17,165,000
Lead Agency	INDOT	Contact (ERC)	Richard Gilyeat 7653615684	INDOT District	Crawfordsville	County	Hendricks Hendricks Co.
Project Type	Added Travel Lanes	Letting Date	01/01/2021	Functional Classification	Minor Arterial	Bike/Ped Component(s)	No

Title US 36 Added Travel Lanes Project

Limits From Shiloh Crossing Dr. to Raceway Rd. of Distance (mile) .75 Milepost begins at 64.33 ends at 65.3

US 36 is important transportation route handling the growing regional area of West Central Marion County & Eastern Hendricks County. The current roadway is a 4 Lane undivided Highway with a middle left turn lane. This section of Roadway has traffic volumes over 39,800 which dropped the Level of Services(LOS) to a level "D" in this important regional shopping district. US 36 also services a major RR facility & new industrial park being built just south of the RR that parallels the shopping district along along US 36 in this area. The proposal is to turn the existing roadway shoulder into an travel lane with curv & gutter drainage. The roadway will be changed to a divide 6 lane Class 1 roadway that will be able to handle up to 58,400 vehicles a day at LOS level "C" in this section of Avon Indiana. Description

Phase	Fund Source	Prior SFY	SFY2018	SFY2019	SFY2020	SFY2021	SFY2022	Future SFY	Total
PE	FEDERAL - NHS	-	\$963,527	-	-	-	-	-	\$963,527
PE	STATE - Other	-	\$788,340	-	-	-	-	-	\$788,340
	Total Preliminary Engineering	-	\$1,751,867	-	-	-	-	-	\$1,751,867
RW	FEDERAL - State STP	-	-	\$4,000	\$20,000	-	-	-	\$24,000
RW	STATE - Other	-	-	\$1,000	\$5,000	-	-	-	\$6,000
	Total Right of Way	-	-	\$5,000	\$25,000	-	-	-	\$30,000
CN	FEDERAL - State STP	-	-	-	-	\$12,304,291	-	-	\$12,304,291
CN	STATE - Other	-	-	-	-	\$3,076,073	-	-	\$3,076,073
	Total Construction	-	-	-	-	\$15,380,364	-	-	\$15,380,364
	Total Programmed	-	\$1,751,867	\$5,000	\$25,000	\$15,380,364	-	-	\$17,162,231
	U			ō				Q	





 Project Overview
 Funding History
 Amendment History

<<Go Back

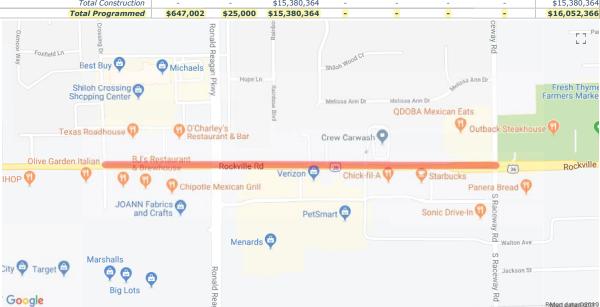
Des Number 1601	1072	Amendment	20-00 IRTIP	Exempt Category	Non-Exempt	Est Total Project Cost	\$17,165,000
Lead Agency INDC	ОТ	Contact (ERC)	Richard Gilyeat 7653615684	INDOT District	Crawfordsville	County	Hendricks Hendricks Co.
Project Type Adde	ed Travel	Letting Date	JAN/2021	Functional Classification	Minor Arterial	Bike/Ped Component(s)	No

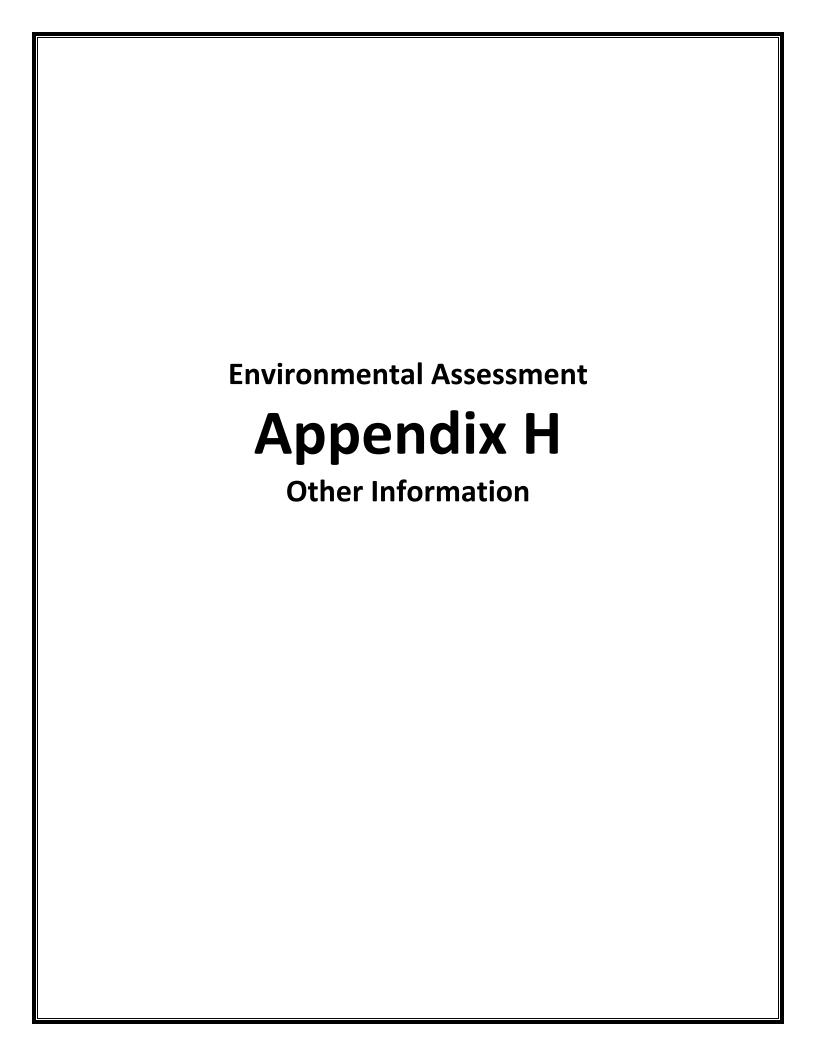
Title US 36 Added Travel Lanes Project

Limits From Shiloh Crossing Dr. to Raceway Rd. of Distance (mile) .75 Milepost begins at 64.33 ends at 65.3

US 36 is important transportation route handling the growing regional area of West Central Marion County & Eastern Hendricks County. The current roadway is a 4 Lane undivided Highway with a middle left turn lane. This section of Roadway has traffic volumes over 39,800 which dropped the Level of Services(LOS) to a level "D" in this important regional shopping district. US 36 also services a major RR facility & new industrial park being built just south of the RR that parallels the shopping district along along US 36 in this area. The proposal is to turn the existing roadway shoulder into an travel lane with curv & gutter drainage. The roadway will be changed to a divide 6 lane Class 1 roadway that will be able to handle up to 58,400 vehicles a day at LOS level "C" in this section of Avon Indiana. Description

Phase	Fund Source	Prior SFY	SFY2020	SFY2021	SFY2022	SFY2023	SFY2024	Future SFY	Total
PE	FEDERAL - NHPP	\$513,602	-	-	-	-	-	-	\$513,602
PE	STATE - Other	\$128,400	-	-	-	-	-	-	\$128,400
	Total Preliminary Engineering	\$642,002	-	-	-	-	-	-	\$642,002
RW	FEDERAL - State STP	\$4,000	\$20,000	-	-	-	-	-	\$24,000
RW	STATE - Other	\$1,000	\$5,000	-	-	-	-	-	\$6,000
	Total Right of Way	\$5,000	\$25,000	-	-	-	-	-	\$30,000
CN	FEDERAL - State STP	-	-	\$12,304,291	-	-	-	-	\$12,304,291
CN	STATE - Other	-	-	\$3,076,073	-	-	-	-	\$3,076,073
	Total Construction	-	-	\$15,380,364	-	-	-	-	\$15,380,364
	Total Programmed	\$647,002	\$25,000	\$15,380,364	-	-	-	_	\$16,052,366





State	Grant Number	Grant Type	Element Name	Sponsor Name	Grant County	Obligation Amount	Approval Year
IN	48	А	EAGLE CREEK PARK	INDIANAPOLIS PARK BOARD	MARION	100,000.00	1968
IN	72	D	MARTIN LUTHER KING JR. MEMORIAL PARK	INDIANAPOLIS PARK BOARD	MARION	290,000.00	1970
IN	88	D	EAGLE CREEK DEV.	INDIANAPOLIS PARK BOARD	MARION	361,624.96	1971
IN	114	С	EAGLE CREEK GOLF COURSES	INDIANAPOLIS PARK BOARD	MARION	1,163,235.19	1966
IN	167	D	EAGLE CREEK PARK- PHASE III	INDIANAPOLIS PARK BOARD	MARION	70,613.59	1974
IN	185	D	30TH AND GERMAN CHURCH RD PARK	INDIANAPOLIS PARK BOARD	MARION	59,174.13	1974
IN	222	А	SOUTHWESTWAY PARK	INDIANAPOLIS PARK BOARD	MARION	176,151.12	1972
IN	245	D	LAWRENCE COMM PK	LAWRENCE PARK BOARD	MARION	101,495.50	1976
IN	247	D	FALL CREEK PARK	DEPART. OF NATURAL RESOURCES	MARION	23,485.00	1976
IN	307	D	R-70 WASHINGTON PARK	INDIANAPOLIS PARK BOARD	MARION	300,000.00	1978
IN	330	R	RIVERSIDE PARK RENOVATION	INDIANAPOLIS PARK BOARD	MARION	200,000.00	1978
IN	369	R	FALL CREEK PARK - PHASE II	DEPART. OF NATURAL RESOURCES	MARION	60,095.01	1980
IN	384	D	SARA BOLTON PARK	BEECH GROVE PARK BOARD	MARION	19,048.78	1981
IN	401	D	EAGLE CREEK FIRING RANGE/GRP PICNIC	INDIANAPOLIS PARK BOARD	MARION	50,000.00	1981
IN	404	D	LAKE SULLIVAN SPORTS COMPLEX	INDIANAPOLIS PARK BOARD	MARION	475,000.00	1981
IN	459	D	FALL CREEK CORRIDOR	INDIANAPOLIS PARK BOARD	MARION	200,000.00	1987
IN	467	С	HARTMAN FIELD	BEECH GROVE PARK BOARD	MARION	90,184.00	1989
IN	478	С	D/VETERANS MEMORIAL PARK	LAWRENCE PARK BOARD	MARION	100,000.00	1991
IN	505	С	FALL CREEK GREENWAY IMPLEMENTATION	INDIANAPOLIS PARK BOARD	MARION	79,097.50	1994
IN	541	С	SOUTHWESTWAY PARK PHASE II	INDIANAPOLIS PARK BOARD	MARION	200,000.00	2003
IN	600	R	SOUTHPORT PARK	SOUTHPORT PARK AND RECREATION BOARD	MARION	141,250	2017
IN	463	С	AVON COMMUNITY PARK	WASHINGTON TOWNSHIP PARK BOARD	HENDRICKS	100,000.00	1988
IN	521	С	McCLOUD NATURE PARK	HENDRICKS COUNTY PARK BOARD	HENDRICKS	200,000.00	2002
IN	540	D	WILLIAMS PARK	BROWNSBURG PARK BOARD	HENDRICKS	75,900.00	2003

Jaime Byerly

From: Bales, Ronald <rbales@indot.IN.gov>
Sent: Thursday, January 17, 2019 12:31 PM

To: Jaime Byerly

Cc: Aaron Lawson; Joseph Dabkowski; Miller, Brandon

Subject: RE: US 36 Added Travel Lane Project; Des. Number 1601072--Section 4(f) Coordination

Attachments: Section 4f Coordination_US36ATL.PDF; US36ATLAvon_Des1601072_OverallMap_2018-09-25.pdf

With the information provided, I would concur that this would not be a Section 4(f) use. Coordination with the parks department is recommended to ensure they are aware of the connection. If the scope of work changes, please reassess whether 4(f) temporary occupancy may need to be evaluated.

Ron Bales INDOT-ESD

From: Jaime Byerly

Sent: Thursday, January 10, 2019 2:23 PM

To: Bales, Ronald <<u>rbales@indot.IN.gov</u>>; Miller, Brandon <<u>BraMiller1@indot.IN.gov</u>>
Cc: Aaron Lawson <<u>alawson@rqaw.com</u>>; Joseph Dabkowski <<u>jdabkowski@RQAW.com</u>>
Subject: US 36 Added Travel Lane Project; Des. Number 1601072--Section 4(f) Coordination

Ron and/or Brandon,

We are working on the above referenced project. The project is in Avon and is sponsored by INDOT and FHWA. Please see attached maps showing project area and limits.

- The project begins at Shiloh Park Drive, continues east for approximately 1.1 miles and ends approximately 1,500 feet east of Raceway Road. The project will involve milling, resurfacing and widening of the existing roadway. Where needed, existing driveway/approach pipe culverts drainage will be replaced. Approximately 0.25 acre of permanent and 0.75 acre of temporary right-of-way is anticipated.
- An at-grade pedestrian crossing and median pedestrian refuge will be installed to connect the existing trail located north of US 36, along the west side of Ronald Reagan Parkway, to a proposed trail located south of US 36, along the west side of Ronald Reagan Parkway (Des. Number 1601121). Des. Number 1601121 will be constructed prior to this added travel lanes project. Des. Number 1601121 will terminate just south of this added travel lanes project; the added travel lanes project will fill in this gap to provide connectivity of the trail along both sides of US 36. Work will be needed to the curb ramp in the northeast quadrant of the US 36/Ronald Reagan Parkway Intersection to accommodate the existing trail located north of US 36, along the east side of Ronald Reagan Parkway. This trail currently terminates at US 36.
- There would not be any temporary occupancy or use of the existing trails located north of US 36 or the proposed trail located south of US 36 during construction. The existing or proposed trails would not need to be moved or require a detour during construction because:
 - Both existing trails north of US 36 currently terminate at US 36. The proposed trail south of US 36 will terminate several feet south of US 36 and this "gap" will be filled in as part of the added travel lanes project; as such, that proposed trail will also terminate south of US 36.

Per this e-mail, if INDOT agrees, could you please provide concurrence the project will not result in a use of Section 4(f) resources and coordination with the OWJ is not required? Thank you in advance and let us know if you need additional information.

NOISE ANALYSIS

U.S. 36 ADDED TRAVEL LANES PROJECT WASHINGTON TOWNSHIP, HENDRICKS COUNTY & WAYNE TOWNSHIP, MARION COUNTY, INDIANA DES. NO. 1601072

PREPARED FOR:

INDIANA DEPARTMENT OF TRANSPORTATION

APRIL 22, 2019

Prepared by:



Complex Environment. Creative Solutions.

6971 Hillsdale Court Indianapolis, IN 46250 Telephone: 317.400.1633 www.metriceny.com

17-0149; Task 1

Des. Number 1601072 Appendix H: Other Information H-3

6.0 CONCLUSION

Metric conducted the Noise Analysis for the proposed U.S. 36 Added Travel Lanes Project. The results of this noise analysis show that predicted noise levels did not have a substantial increase of at least 15 dBA at any of the receptors. However, five (5) receptors were found to be impacted in the Future Build condition based on approaching, meeting, or exceeding the NAC dB limits. Impacted receptors include one (1) residential receptor (receptor 11), all three (3) receptors associated with Ronald Reagan Parkway Trail (receptors 67, 68, and 69), and one (1) medical facility receptor (receptor 13). Noise abatement measures for the impacted receptors were investigated based on feasibility and reasonableness.

Engineering feasibility restrictions such as length restrictions from drives off U.S. 36, roadside ditches along the north side of U.S. 36, and safety and line of sight considerations prevent the ability to install abatement measures that can effectively provide noise abatement to the impacted receptors. Additionally, abatement measures along Ronald Reagan Parkway to reduce noise impacts to Ronald Reagan Parkway Trail receptors are not feasible due to the U.S. 36 Added Travel Lanes Project being a state-funded project along a state highway and Ronald Reagan Parkway being a local roadway that is not within the project limits or managed by a project sponsor. Therefore, abatement measures for the impacted receptors within the project area have found to be not feasible.

Based on the studies thus far accomplished, the State of Indiana has not identified any locations where noise abatement is likely. Noise abatement measures that were studied at these locations were based upon preliminary design costs and design criteria. Noise abatement has not been found to be feasible based on length restrictions from drives off U.S. 36, roadside ditches along the north side of U.S. 36, and safety and line of sight considerations. A re-evaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is not feasible and reasonable, the abatement measures might not be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement processes.

The viewpoints of the benefited residents and property owners are a major consideration in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects. These viewpoints have been determined and addressed during the environmental phase of project development. The will and desires of the public are an important factor in dealing with the overall problems of highway traffic noise. INDOT will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program, and will reexamine the residents' and property owners' views on the desirability and acceptability of abatement during project development.

INDOT Des No: 1601072

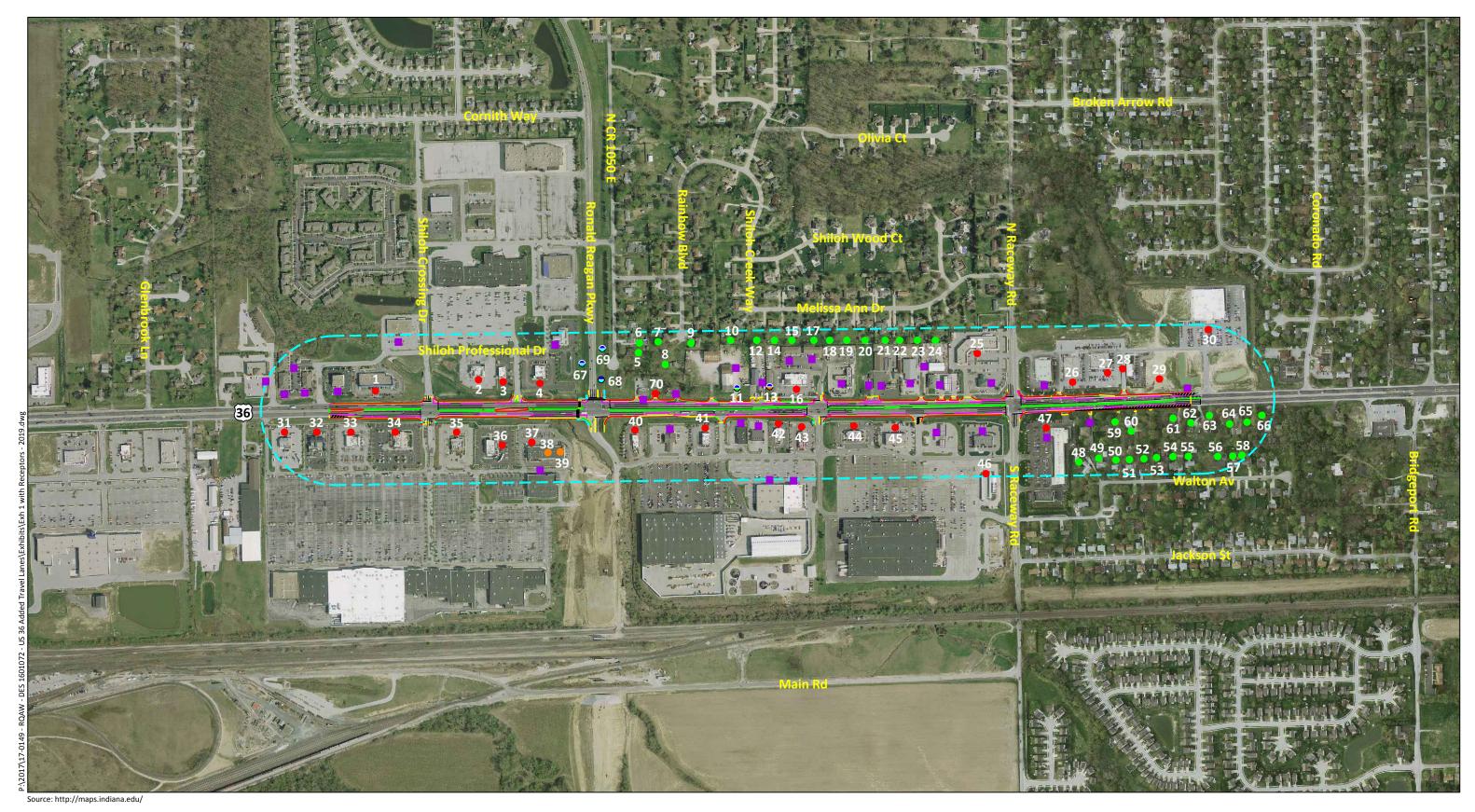


Exhibit 1 - Receptors and Sampling Locations

Noise Analysis US 36 Added Travel Lanes Indianapolis, Hendricks County, Indiana

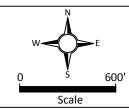
Des. No. 1601072

Metric Project: 17-0149-1

Note: All locations are approximate

Alignment 500 foot buffer area

- Category B Receptors
- Category C Receptors
- Category D Receptors
- Category E Receptors
- Category F Receptors (No noise analysis)
- Two colors indicate Impacted Receptors





Des. Number 1601072 Appendix H: Other Information H-5

Jaime Byerly

From: Joseph Dabkowski

Sent: Tuesday, April 23, 2019 2:35 PM **To:** Lisa Casler; Jaime Byerly; Aaron Lawson

Subject: FW: Des. No. 1601072 - U.S. 36 Added Travel Lanes Project - Noise Analysis

FYI

Joe Dabkowski, PWS | Director of Environmental Services

O: 317.588.1798 C: 317.473.0900 www.rgaw.com

From: Bales, Ronald <rbales@indot.IN.gov> Sent: Tuesday, April 23, 2019 2:28 PM

To: Samir Raman <samirr@metricenv.com>; Miller, Brandon <BraMiller1@indot.IN.gov>; Joseph Dabkowski

<jdabkowski@RQAW.com>; Patricia Likins <patricial@metricenv.com>

Cc: Gilyeat, Richard <RGilyeat@indot.IN.gov>

Subject: RE: Des. No. 1601072 - U.S. 36 Added Travel Lanes Project - Noise Analysis

A traffic noise analysis report was completed by Metric in April 2019 to evaluate potential traffic noise impacts for the proposed U.S. 36 Added Travel Lanes Project in Washington Township, Hendricks County & Wayne Township, Marion County, Indiana. Traffic noise was evaluated at all receptors within 500 feet of edge of pavement within the study area. Traffic noise levels were evaluated for the existing (2018) and projected (2041) traffic volumes for the build alternative.

This report evaluated potential noise impacts for the proposed improvements for the US 36 project in compliance with the Federal Highway Administration's (FHWA) Procedures for Abatement of Highway Traffic Noise and Construction Noise as presented in the Code of Federal Regulations, Title 23 Part 772 (23 CFR 772) and the Indiana Department of Transportation (INDOT) *Traffic Noise Analysis Procedure* (2017).

Existing modeled (2018) peak hour noise levels ranged from 55.9 to 71.8 dB(A). Predicted design year (2041) noise levels would approach or exceed the Noise Abatement Criteria (NAC) at 5 (five) receptors, resulting in the need to evaluate noise abatement. Noise abatement was analyzed and no noise barriers met the feasible and reasonable criterion established by the INDOT *Traffic Noise Analysis Procedure* (2017).

This email will serve as INDOT's approval of the traffic noise analysis report for the US 36 project (Des No 1601072).

Ron Bales

Environmental Policy Manager 100 North Senate Ave., Room 642 Indianapolis, IN 46204

Office: (317) 234-4916 Email: rbales@indot.in.gov



General Condition Ratings (36A) Bridge Railings: Ν (36C) Approach Guardrail: (36B) Transitions: (36D) Approach Guardrail Ends: **Culvert:** (62) Culvert - Rating: 7 (62) Culvert Rating There is moderate to severe rusting on the bottom throughout the structure and a large rust hole Comments: at the south end. Deck: (58) Deck: (58a) Deck Comments: Superstructure: (59) Superstructure: Ν (59.01) Superstructure Comments: Substructure: (60) Substructure: Ν (60.01) Substructure There is moderate to severe rusting on the bottom throughout the structure and a large rust hole Comments: at the south end. Channel: 7 (61) Channel and Channel Protection: There is light riprap that has drifted throughout the structure. The channel flows from the north to (61.01) Channel and Channel the south. **Protection Comments:** Bank Erosion Rating: 7 **Drift/Sediment Rating Channel Alignment Rating** ☐ Check this box if culvert has OBSTRUCTED flow Describe Obstruction: Overtopping Frequency:

Overtopping Frequency

Comments:





EJ Analysis

Legend:

Your Selections

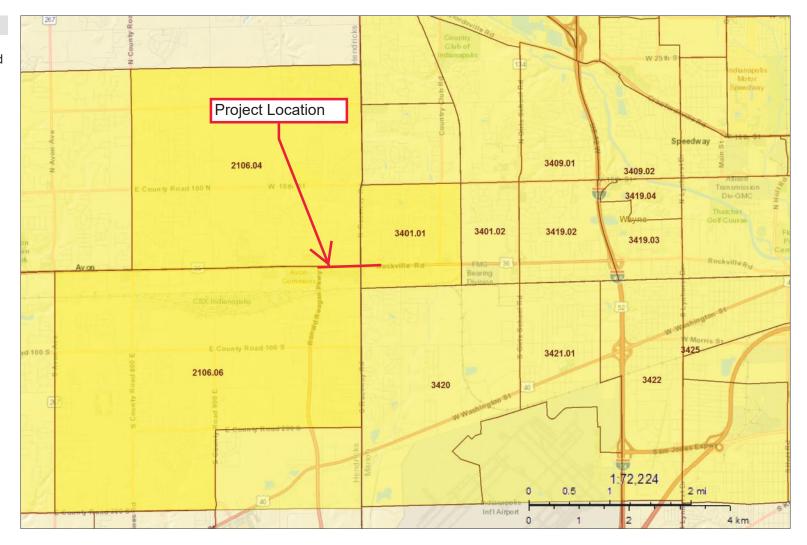
2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

2017 Boundaries

- County
- County Subdivision
- ☐ Census Tract



Environmental Justice

Analysis of Three Census Tracts in Hendricks and Marion Counties, Indiana

		сос	AC1	AC2	AC3
		Washington Township, Hendricks County, Indiana + Wayne Township, Marion County Indiana	Census Tract 2106.04, Hendricks County, Indiana	Census Tract 2106.06, Hendricks County, Indiana	Census Tract 3401.01, Marion County, Indiana
	LOW-INCOME				
B17001001	Population for whom poverty status is determined: Total	188,594	15,011	12,673	3,823
B17001002	Population for whom poverty status is determined: Income in past 12 months below poverty level	38,753	432	1,128	380
	Percent Low-income	20.5%	2.9%	8.9%	9.9%
	125 Percent of COC	25.7%	AC < 125% COC	AC < 125% COC	AC < 125% COC
	Potential Low-income EJ Impact?		No	No	No
	MINORITY				
B03002001	Total population: Total	191467	15129	12774	3857
B03002002	Total population: Not Hispanic or Latino	158725	14094	11334	3621
B03002003	Total population: Not Hispanic or Latino; White alone	103607	11373	8908	3160
B03002004	Total population: Not Hispanic or Latino; Black or African American alone	44770	1894	1332	308
B03002005	Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	351	64	0	0
B03002006	Total population: Not Hispanic or Latino; Asian alone	4036	304	918	145
B03002007	Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	23	0	0	0
B03002008	Total population: Not Hispanic or Latino; Some other race alone	762	0	66	0
B03002009	Total population: Not Hispanic or Latino; Two or more races	5176	459	110	8
B03002010	Total population: Hispanic or Latino	32742	1035	1440	236
B03002011	Total population: Hispanic or Latino; White alone	15795	919	824	0
B03002012	Total population: Hispanic or Latino; Black or African American alone	821	19	378	0
B03002013	Total population: Hispanic or Latino; American Indian and Alaska Native alone	338	39	0	0
B03002014	Total population: Hispanic or Latino; Asian alone	69	0	52	0
B03002015	Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	147	0	0	0
B03002016	Total population: Hispanic or Latino; Some other race alone	14411	58	132	236
B03002017	Total population: Hispanic or Latino; Two or more races	1161	0	54	0
	Number Non-white/minority (B03002001-B03002003)	87,860	3,756	3,866	697
	Percent Non-white/Minority	45.9%	24.8%	30.3%	18.1%
	125 Percent of COC	57.4%	AC < 125% COC	AC < 125% COC	AC < 125% COC
	Potential Minority EJ Impact?		No	No	No



B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

2013-2017 American Community Survey 5-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

		Washington township, Hendricks County, Indiana		Marion County, na	Census Tract 2106.04, Hendricks County, Indiana		
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	
Total:	49,205	+/-23	142,262	+/-40	15,129	+/-600	
Not Hispanic or Latino:	45,955	+/-513	112,770	+/-2,132	14,094	+/-565	
White alone	39,025	+/-816	64,582	+/-1,910	11,373	+/-567	
Black or African American alone	3,870	+/-527	40,900	+/-1,859	1,894	+/-414	
American Indian and Alaska Native alone	124	+/-66	227	+/-164	64	+/-53	
Asian alone	1,540	+/-312	2,496	+/-558	304	+/-142	
Native Hawaiian and Other Pacific Islander alone	0	+/-24	23	+/-38	0	+/-18	
Some other race alone	185	+/-141	577	+/-319	0	+/-18	
Two or more races:	1,211	+/-450	3,965	+/-703	459	+/-258	
Hispanic or Latino:	3,250	+/-510	29,492	+/-2,134	1,035	+/-273	
White alone	2,510	+/-562	13,285	+/-1,768	919	+/-253	
Black or African American alone	397	+/-340	424	+/-207	19	+/-34	
American Indian and Alaska Native alone	39	+/-63	299	+/-336	39	+/-63	
Asian alone	52	+/-84	17	+/-34	0	+/-18	
Native Hawaiian and Other Pacific Islander alone	0	+/-24	147	+/-211	0	+/-18	
Some other race alone	198	+/-176	14,213	+/-1,636	58	+/-72	
Two or more races:	54	+/-84	1,107	+/-369	0	+/-18	

	Census Tract 210 County, I	,	Census Tract 3401.01, Marion County, Indiana		
	Estimate	Margin of Error	Estimate	Margin of Error	
Total:	12,774	+/-671	3,857	+/-252	
Not Hispanic or Latino:	11,334	+/-594	3,621	+/-294	
White alone	8,908	+/-538	3,160	+/-377	
Black or African American alone	1,332	+/-303	308	+/-234	
American Indian and Alaska Native alone	0	+/-18	0	+/-11	
Asian alone	918	+/-266	145	+/-125	
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11	
Some other race alone	66	+/-96	0	+/-11	
Two or more races:	110	+/-119	8	+/-15	
Hispanic or Latino:	1,440	+/-477	236	+/-204	
White alone	824	+/-441	0	+/-11	
Black or African American alone	378	+/-343	0	+/-11	
American Indian and Alaska Native alone	0	+/-18	0	+/-11	
Asian alone	52	+/-84	0	+/-11	
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11	
Some other race alone	132	+/-146	236	+/-204	
Two or more races:	54	+/-84	0	+/-11	

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

- 1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- 2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
- 3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
- 4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
- 5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
- 6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- 7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
- 8. An '(X)' means that the estimate is not applicable or not available.



B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined 2013-2017 American Community Survey 5-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	Washington township, Hendricks County, Indiana		Wayne township, India	• • • • • • • • • • • • • • • • • • • •	Census Tract 2106.04, Hendricks County, Indiana		
	Estimate Margin of Error		Estimate	Margin of Error	Estimate	Margin of Error	
Total:	48,635	+/-188	139,959	+/-280	15,011	+/-595	
Income in the past 12 months below poverty level:	2,224	+/-678	36,529	+/-2,359	432	+/-317	
Income in the past 12 months at or above poverty level:	46,411	+/-715	103,430	+/-2,368	14,579	+/-681	

	Census Tract 210 County, I	,	Census Tract 3401.01, Marion County, Indiana		
	Estimate	Margin of Error	Estimate	Margin of Error	
Total:	12,673	+/-686	3,823	+/-247	
Income in the past 12 months below poverty level:	1,128	+/-581	380	+/-175	
Income in the past 12 months at or above poverty level:	11,545	+/-759	3,443	+/-275	

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

- 1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
- 2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
- 3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
- 4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
- 5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
- 6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
- 7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
- 8. An '(X)' means that the estimate is not applicable or not available.