APPENDIX E

Hazardous Materials Investigation

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 Holcomb, Governor
Joe McGuinness, Commissioner

Date: June 19, 2018

To: Site Assessment and Management Unit
Environmental Services
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Kennita Jones
Metric Environmental
6971 Hillsdale Court
Indianapolis, Indiana 46250
kennitaj@metricenv.com

Re: RED FLAG INVESTIGATION
DES #1700108, State Project
Small Town Pavement Replacement Project
S.R. 252 from U.S.31 to 0.18 mile west of I-65
Edinburgh, Johnson & Shelby County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Indiana Department of Transportation (INDOT) proposes to proceed with a project involving a small town pavement replacement project, Des. No. 1700108. The proposed project is located near the town of Edinburgh, in Edinburgh, Blue River, and Jackson townships, Johnson & Shelby counties, Indiana. The proposed project limits extend along State Road (S.R.) 252 from United States Highway (U.S.) 31 to 0.18 mile west of interstate I-65. Specifically, the project is situated within Section(s) 11, 26, 27, 28, 33, 34, 35, Township 11 North, Range 5 East as in the 7.5' Edinburgh, Indiana United States Geological Survey (USGS) Topographic map.

The proposed project will consist of 4 inch (in.) functional inlay with 2 feet (ft.) widening in each direction from U.S. 31 to Pleasant Street. The pavement along S.R. 252 from Pleasant Street to Lincoln Street will be reconstructed with a 4 in. functional inlay with 2 ft. widening in each direction from Lincoln Street to the pavement break west of I-65. A hydraulic investigation will be conducted to determine the condition and functionality of the existing stormwater facilities. The existing stormwater facilities will be upgraded and repaired based on the findings of the hydraulic investigation. Castings that are substandard and/or functionally obsolete will be replaced. New curbs and gutters will be installed. The existing sidewalks and ramps will be upgraded in compliance with American with Disabilities Act (ADA). The existing raised pavement markers (RPMs) will be replaced. The overhead flasher with sign mounted flashers at the intersection of S.R. 252 and Grant Street will be replaced. It is anticipated that less than 10 acres of right-of-way will be required.

Bridge and/or Culvert Project: Yes ☐ No ☒ Structure # _____
If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐

(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 _____ Permanent ☒ # Acres 10

Type of excavation: ADA Curb Replacements approximately 1 to 3 feet below ground surface

Maintenance of traffic: A Maintenance of Traffic (MOT) plan will be developed as the design progresses.

Work in waterway: Yes ☐ No ☒ Above ordinary high water mark: Yes ☐ No ☐

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: Project description subject to additional changes. Maintenance of traffic not provided.

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	**6**	Recreational Facilities	**5**
Airports[1]	**1**	Pipelines	**4**
Cemeteries	**1**	Railroads	**1**
Hospitals	**1**	Trails	**3**
Schools	**3**	Managed Lands	**3**

[C1]In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Religious Facilities: According to Google Maps, six (6) religious facilities are located within the 0.5-mile search radius. The closest facility, Grace Tabernacle, adjoins the project area to the north at 512 West Center Cross Street. An MOT has not been developed. No impact is expected; however, coordination with Grace Tabernacle will occur.

Airports: Although not located within the 0.5-mile search radius, one (1) public airport, Atterbury Airfield, is located within the 3.8 miles (20,000 feet) of the project area. The airport is located approximately 2.7 miles southwest of the project area; therefore, early coordination with INDOT Aviation will occur.

Cemeteries: One cemetery is located within the 0.5-mile search radius. The cemetery, Edinburgh Hill, is located approximately 0.10 mile south of the project area. No impact is expected.

Hospitals: One hospital is located within the 0.5-mile search radius. The hospital, James D. Kozarek, is a clinic located at 201 West Main Cross Street approximately 0.09 mile south of the project area. No impact is expected.

Schools: Three schools are located within the 0.5-mile search radius. The nearest facility, East Side Elementary School, is located at 801 East Main Cross Street approximately 0.31 mile southeast of the project area. No impact is expected.

Recreational Facilities: Five recreational facilities are located within the 0.5-mile search radius. The nearest facility, Irwin Park, is located approximately 0.17 mile north of the project area. No impact is expected.

Pipelines: Four pipeline segments are located within the 0.5-mile search radius. The nearest pipeline segment, Indiana Gas Co. Inc., is a natural gas pipeline located adjacent to the project area. Coordination with INDOT Utilities and Railroads should occur.

Railroads: One railroad segment is located within the 0.5-mile search radius. The railroad segment, Louisville & Indiana Railroad intersects the project area. Coordination with INDOT Utilities and Railroads should occur.

Trails: Three trail segments area located within the 0.5-mile search radius. All three trail segments are potential park/forest trails that are located along the project area. Coordination with the Johnson County Plan Commission will occur.

Managed Lands: Three managed lands are located within the 0.5-mile search radius. The closest feature, Driftwood Public Fishing Area, is located approximately 0.36 mile south of the project area. No impact is expected.

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	**43**
Canal Structures – Historic	**N/A**	Lakes	**10**
NPS NRI Listed	**1**	Floodplain - DFIRM	**27**
NWI-Lines	**18**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**4**	Sinkhole Areas	**N/A**
Rivers and Streams	**7**	Sinking-Stream Basins	**N/A**

NPS NRI Listed: One NPS NRI Listed segment is located within the 0.5-mile search radius. The segment, Big Blue River, intersects the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI Lines: Eighteen NWI line segments are located within the 0.5-mile search radius. Four NWI line segments intersect or are located adjoining the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes (Impaired): Four impaired stream segments are located within the 0.5-mile search radius. Two impaired stream segments associated with the Big Blue River intersect or adjoin the project area and are listed as impaired with *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 personal exposure.

Rivers and Streams: Seven river/stream segments are located within the 0.5-mile search radius. The Big Blue River intersects the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI Wetlands: Forty-three NWI wetlands are located within the 0.5-mile search radius. Three wetlands are located adjacent to the project area. A Waters of the U.S. Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes: Ten lakes are located within the 0.5-mile search radius. The nearest feature, Dailey Lake, is located approximately 0.08 mile north of the project area. No impact is expected.

Floodplain-DFIRM: Twenty-seven floodplain polygons are located within the 0.5-mile search radius. The project area is located within three of the floodplain polygons. Coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

Explanation: The project lies within the Edinburgh 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 Edinburgh MS4 Coordinator at 107 South Holland Street, P.O. Box 65, Edinburgh, Indiana 46124.

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	**N/A**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

No Mining/Mineral Exploration resources were identified within the 0.5-mile search radius.

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	**3**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**N/A**	Waste Transfer Stations	**1**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**6**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**1**
Construction Demolition Waste	**N/A**	Institutional Controls	**5**
Solid Waste Landfill	**N/A**	NPDES Facilities	**3**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**5**
Leaking Underground Storage (LUST) Sites	**6**	Notice of Contamination Sites	**N/A**

RCRA Generator /TSD: Three RCRA generator/TSD sites are located within the 0.5-mile search radius.

- Amos Hill Association (AI ID#: 32581, Regulatory ID#: IND070707443) 112 Shelby avenue adjoins the project area near the Shelby Avenue & S.R. 252 (East Center Cross Street) intersection. According to the IDEM VFC, the site was registered as a Small Quantity Generator (SQG) of ignitable and toxic waste in 1988. In 2002, the generator status was changed to Conditionally Exempt Small Quantity Generator (CESQG). An inspection of the facility conducted on December 9, 2002 found no violations associated with site operations.. No impact is expected.
- Labrec Contracting Company Incorporated (AI ID#: 36384, Regulatory ID#: IND006810469) route 3 Eisenhower Drive, adjoins the project area. According to the IDEM VFC, the facility was registered as a SQG of ignitable waste in 1988. In an e-mail dated January 10, 2002, it was determined the facility had been out of business since 1993. Additional information indicating any spills, leaks, or violations associated with the facility were not encountered during this investigation. No impact is expected.

Underground Storage Tank (UST) Sites: Six UST sites are located within the 0.5-mile search radius.

- Edinburgh Interstate Shell (AI ID#: 34278, Regulatory ID#: 18808) 8722 West S.R. 252 adjoins the project area west of the S.R. 252 & St. Andrews Avenue intersection. According to the IDEM VFC, petroleum product was released at the facility due to overfilling. A release was reported to IDEM and the facility was assigned incident numbers 201207509 and 201207500. The spill was localized and limited to the asphalt surface. IDEM deactivated the LUST status of the facility in a letter dated September 11, 2012. The facility is currently in operation as a filling station. No impact is expected.

- RMD (AI ID#: 52170, Regulatory ID#: 24384) 8733 West S.R. 252 adjoins the project area west of the S.R. 252 & St. Andrews Avenue intersection. According to the IDEM VFC, three (3) USTs were registered as temporarily out of use in 2004. The tanks were put back in use sometime before 2011. Between 2011 and October 2016, several violation letters were issued to the site for documentation failures.. A follow up inspection conducted October 14, 2016 found all previously reported violations were resolved and the facility was in compliance with Indiana's UST Rule 329 IAC 9. No impact is expected.
- Tobacco Road (AI ID#: 34025, Regulatory ID#: 22582) 210 West Center Cross Street adjoins the project area at the North Pleasant Street & S.R. 252 (West Center Cross Street) intersection. According to the IDEM VFC, in January 2013, soil samples collected during UST system upgrade activities contained concentrations of benzene and toluene below applicable IDEM RCG residential soil migration to groundwater (MTG) screening levels. Groundwater was not encountered. A release was reported to IDEM, incident number 201301503. IDEM issued a No Further Action finding February 7, 2013. The facility is currently in operation as a filling station. The most recent Underground Storage Tank Inspection Report dated August 21, found the facility in compliance with Indiana's UST Rule 329 IAC 9. No impact is expected.

Leaking Underground Storage (LUST) Sites: Six LUST sites are located within the 0.5-mile search radius.

- Buford Burton (AI ID#: 31818, Regulatory ID#: 11692) 501 North Grant Street adjoins the project area north of the Bachelor Street & S.R. 252 (North Grant Street) intersection. According to the IDEM VFC, a release was reported to IDEM, assigned incident number 199201566. A subsurface investigation was conducted in 1996 following the removal of USTs. Soil samples were non-detect for concentrations of total petroleum hydrocarbons (TPH). IDEM issued a NFA for the facility September 11, 2009. No impact is expected.
- Browns Garage (AI ID#: 35823, Regulatory ID#: 22653) 208 south Main Street is depicted adjoining the project area east of the Blue River Driver & S.R. 252 intersection. A review of the IDEM VFC revealed the facility is physically located approximately 0.18 mile south of the project area. No impact is expected.
- Johnson Oil Bigfoot #066 (AI ID#: 31244, Regulatory ID#: 10) 200 West Main Cross Street appears to adjoin the project area; however, the facility is physically located approximately 0.06 mile south of the project area and it appears as though residual chemicals of concern (COCs) remain on or near the site. No impact is expected.

Waste Transfer Station: One waste transfer station is located within the 0.5-mile search radius. The facility, Edinburgh Transfer Station (AI ID#: 36370, Regulatory ID#: 41-03) is located approximately 0.21 mile southwest of the project area. No impact is expected.

Brownfields: One brownfield site is located within the 0.5-mile search radius. The site, Auction House 4030015 (AI ID#: 35134, Regulatory ID#: 4030015) 410 South Eisenhower Drive is located approximately 0.26 mile south of the project area. Groundwater impacted with carbon tetrachloride at concentrations exceeding IDEM RCG residential and commercial/industrial groundwater vapor exposure limits has been delineated within the site. No impact is expected.

Institutional Controls: Five institutional control facilities are located within the 0.5-mile search radius. The nearest facility, Johnson Oil Bigfoot #066 (AI ID#: 31244, Regulatory ID#: 10) 200 West Main Cross Street is located approximately 0.06 mile south of the project area. Onsite impacts were confined to the site or immediate surrounding area and showed no evidence of impacting the project area. No impact is expected.

NPDES Facilities: Three NPDES facility are located within the 0.5-mile search radius. The nearest facility, Amos Hill Associates Inc., 112 Shelby Avenue adjoins the project west of the Kyle Street & S.R. 252 intersection. No impact is expected.

NPDES Pipe Locations: Five NPDES pipe locations are located within the 0.5-mile search radius. The nearest pipe location, Edinburgh Waste Water Treatment Plant (Unique ID#: IN00201840011A, NPDES ID#: IN0020184) is an external outfall located approximately 0.13 mile southwest of the project area. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Johnson and Shelby County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A review of the USFWS database indicated the presence of endangered bat species in or within 0.5 mile of the project area. Additional coordination with INDOT ES will be necessary, and 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" dated October 25, 2017.

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

RECOMMENDATIONS SECTION

Include recommendations from each section. If there are no recommendations, please indicate N/A:

INFRASTRUCTURE:

Religious Facilities: Grace Tabernacle, adjoins the project area to the north at 512 West Center Cross Street. A MOT has not been provided. No impact is expected; however, coordination with Grace Tabernacle will occur.

Airports: Although not located within the 0.5-mile search radius, one (1) public airport, Atterbury Airfield, is located within the 3.8 miles (20,000 feet) of the project area. Coordination with INDOT Aviation will occur.

Pipelines: One pipeline, Indiana Gas Co. Inc., is a natural gas pipeline located adjacent to the project area. Coordination with INDOT Utilities and Railroads will occur.

Railroads: The Louisville & Indiana Railroad intersects the project area. Coordination with INDOT Utilities and Railroads will occur.

Trails: Three trail segments area located within the 0.5-mile search radius. All three trail segments are potential park/forest trails that are located along the project area. Coordination with the Johnson County Plan Commission will occur.

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ES Ecology and Waterway Permitting:

- One NPRS NRI Listed segment intersects the project area.
- Four NWI line segments intersect or adjoin the project area.
- One river/stream segment intersects the project area.
- Three NWI wetlands are located adjacent to the project area.
- The project is located within a floodplain.

URBANIZED AREA BOUNDARY: The project lies within the Edinburgh 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 Edinburgh MS4 Coordinator at 107 South Holland Street, P.O. Box 65, Edinburgh, Indiana 46124.

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. 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".

INDOT Environmental Services concurrence: Nicole Fohey-Breting (Signature)

June 19, 2018

Prepared by:
Kennita Jones
Environmental Geologist
Metric Environmental

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES

INFRASTRUCTURE: YES

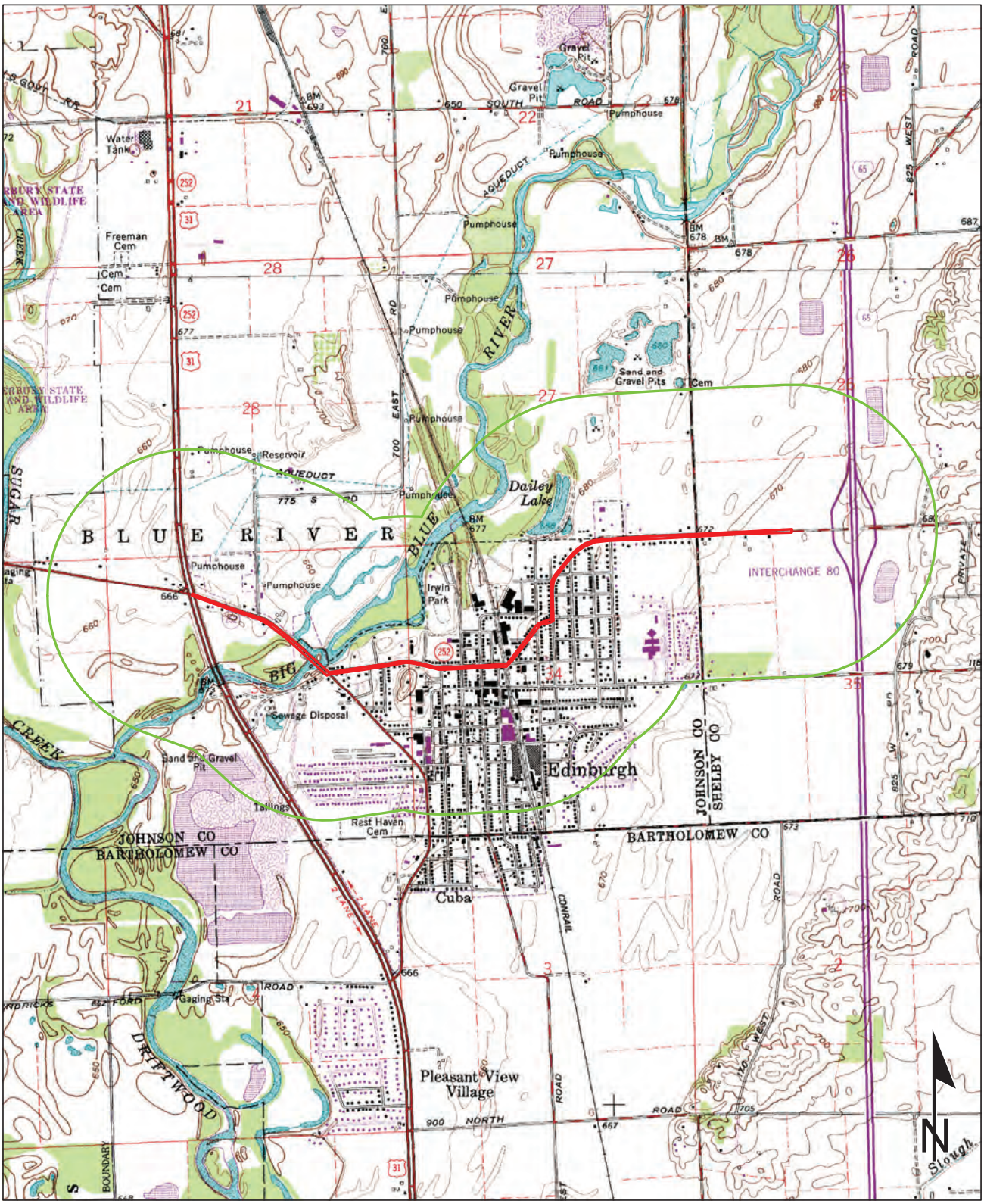
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation - Hazardous Material Concerns Map
S.R. 252 from U.S. 31 to 0.18 mile west of I-65
Des. No. 1700108 Small Town Pavement Replacement Project
Edinburgh, Blue River & Jackson Townships, Johnson & Shelby County, Indiana



0.4 0.2 0 0.4 Miles

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.

EDINBURGH QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructures Map
S.R. 252 from U.S. 31 to 0.18 mile west of I-65
Des. No. 1700108 Small Town Pavement Replacement Project
Edinburgh, Blue River & Jackson Townships, Johnson & Shelby County, Indiana

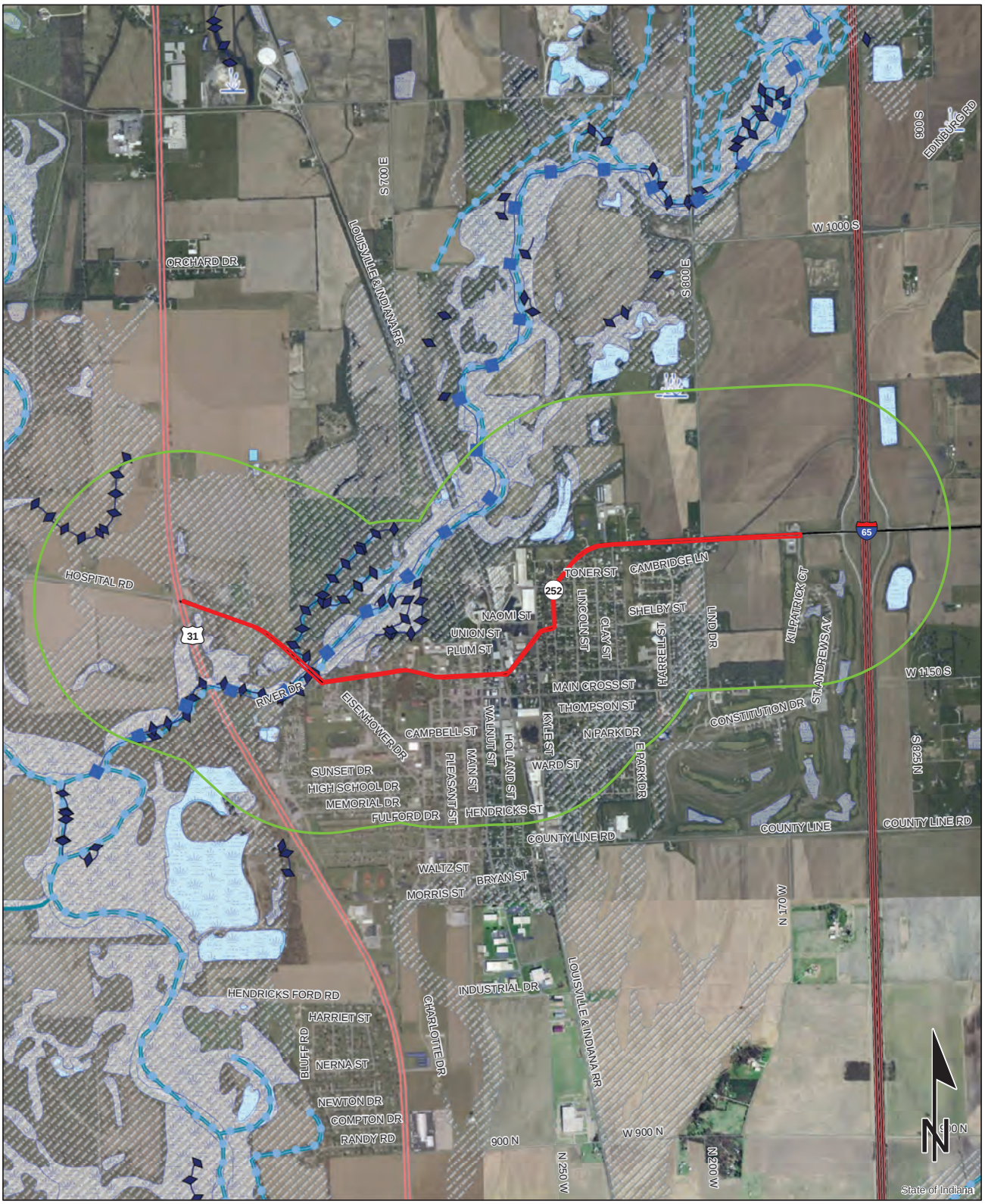
0.4 0.2 0 0.4 Miles

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.

- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources Map
S.R. 252 from U.S. 31 to 0.18 mile west of I-65
Des. No. 1700108 Small Town Pavement Replacement Project
Edinburgh, Blue River & Jackson Townships, Johnson & Shelby County, Indiana



0.4 0.2 0 0.4 Miles

Sources:

Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library

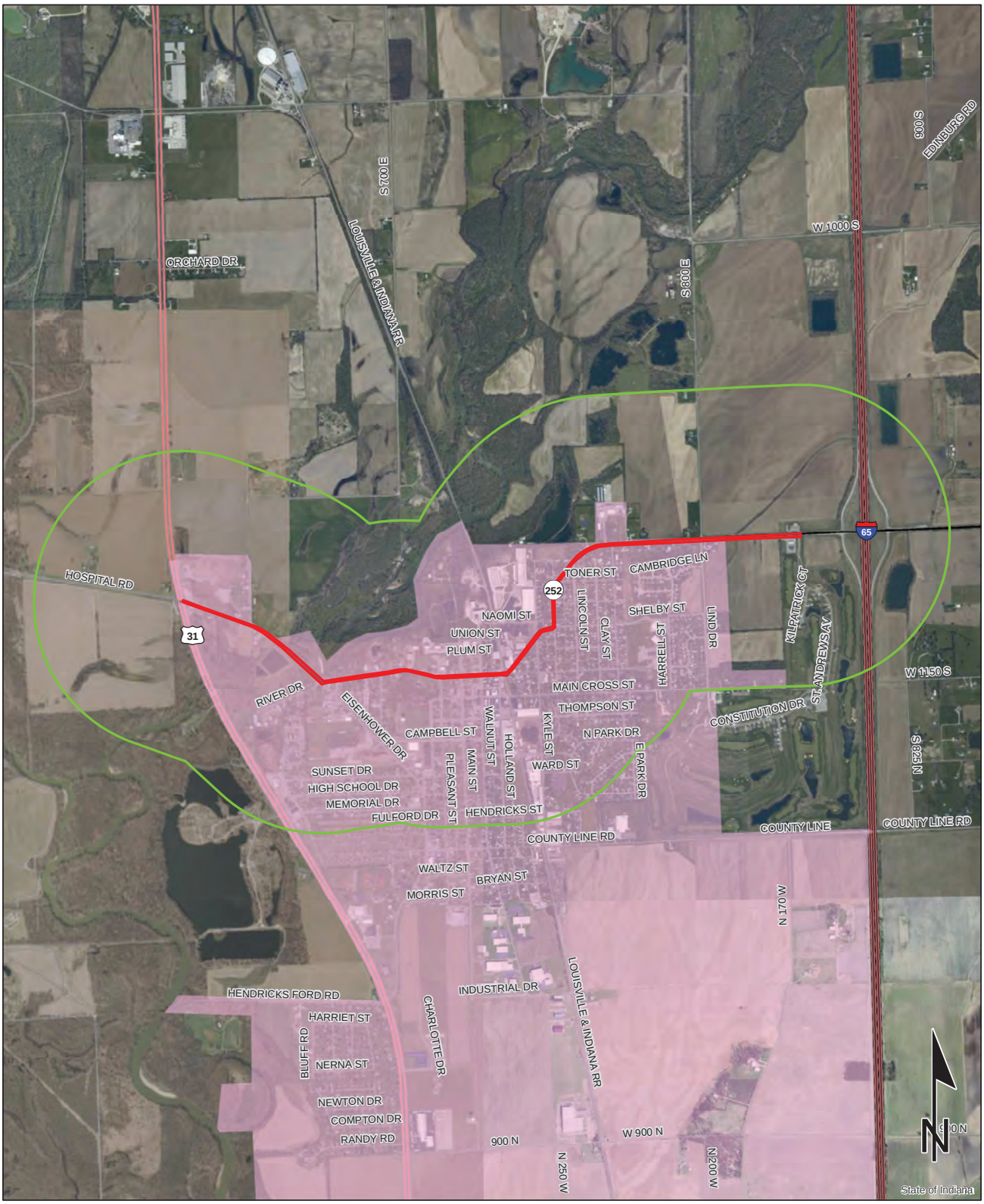
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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.

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Urbanized Area Boundary Map
S.R. 252 from U.S. 31 to 0.18 mile west of I-65
Des. No. 1700108 Small Town Pavement Replacement Project
Edinburgh, Blue River & Jackson Townships, Johnson & Shelby County, Indiana



0.4 0.2 0 0.4 Miles

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.

UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Hazardous Material Concerns Map
S.R. 252 from U.S. 31 to 0.18 mile west of I-65
Des. No. 1700108 Small Town Pavement Replacement Project
Edinburgh, Blue River & Jackson Townships, Johnson & Shelby County, Indiana

0.35 0.175 0 0.35 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

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

- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Indiana County Endangered, Threatened and Rare Species List

County: Johnson

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda	Round Hickorynut		SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel		SSC	G3	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Odonata (Dragonflies)					
Cordulegaster bilineata	Brown Spiketail		SE	G5	S1
Sympetrum semicinctum	Band-winged Meadowhawk		SR	G5	S2S3
Insect: Odonata (Damselflies)					
Enallagma divagans	Turquoise Bluet		SR	G5	S3
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Circus cyaneus	Northern Harrier		SE	G5	S2
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Rallus elegans	King Rail		SE	G4	S1B
Rallus limicola	Virginia Rail		SE	G5	S3B
Tyto alba	Barn Owl		SE	G5	S2
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G5	S4
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis lucifugus	Little Brown Bat		SSC	G3	S2
Myotis septentrionalis	Northern Myotis		SSC	G1G3	S2S3

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

Indiana County Endangered, Threatened and Rare Species List

County: Johnson

Species Name	Common Name	FED	STATE	GRANK	SRANK
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Perimyotis subflavus	Eastern Pipistrelle		SSC	G3	S2S3
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Azolla caroliniana	Carolina Mosquito-fern		ST	G5	S2
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Juglans cinerea	Butternut		WL	G4	S3
Zannichellia palustris	Horned Pondweed		SR	G5	S2
High Quality Natural Community					
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland dry-mesic	Dry-mesic Upland Forest		SG	G4	S4
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1

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

Indiana County Endangered, Threatened and Rare Species List

County: Shelby

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel		SSC	G3	S2
Toxolasma lividus	Purple Lilliput		SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Odonata (Damselflies)					
Enallagma divagans	Turquoise Bluet		SR	G5	S3
Bird					
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Mammal					
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Taxidea taxus	American Badger		SSC	G5	S2
High Quality Natural Community					
Forest - flatwoods central till plain	Central Till Plain Flatwoods		SG	G3	S2
Other Significant Element					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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

Colin Keith

From: Foheybreting, Nicole K <NFoheyBreting@indot.IN.gov>
Sent: Monday, March 15, 2021 8:38 AM
To: Colin Keith
Subject: RE: RFI Addendum Question - Des 1700108 - SR 252 from US 31 to 0.18 Mile West of I-65 - Johnson and Shelby Counties

Good morning Colin –

Thank you for the concise evaluation. I concur with your determination below – an addendum does not appear warranted.

Thank you!
Nicole

Nicole Fohey-Breting
Site Assessment & Management (SAM) Specialist
100 North Senate Avenue N758-ES
Indianapolis, Indiana 46204
Office: (317) 416-7084
Email: NFoheyBreting@indot.in.gov
Office Hours: 8 to 4 PM

The Site Assessment and Management (SAM) Manual can be found at https://www.in.gov/indot/4170.htm

Be sure to refer to the updated information in the SAM Manual for document preparation and submission.

From: Colin Keith <colink@metricenv.com>
Sent: Friday, March 12, 2021 12:07 PM
To: INDOT esd.sam <esd.sam@indot.IN.gov>
Subject: RFI Addendum Question - Des 1700108 - SR 252 from US 31 to 0.18 Mile West of I-65 - Johnson and Shelby Counties

**** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ****

Marlene and Nicole – The original RFI for this project was signed by Nicole on June 19, 2018; as it is more than a year old, we conducted a review of the findings to evaluate any changes. I made new RFI graphics and compared the features to the 2018 RFI, as outlined below. Both the 2018 RFI and the new maps are attached for your reference. The project area has not changed significantly since the 2018 RFI.

- Infrastructure: no new features or change to feature counts within the 0.5 mile radius.

- Water Resources: minor change to wetland feature counts within the 0.5 mile radius, but no change within or near the project area.
- Mining and Mineral Resources: no change – still no features within the 0.5 mile radius.
- Hazardous material Concerns: minor change to feature counts within the 0.5 mile radius (LUST sites (7 instead of 6), NPDES facilities (10 instead of 3), and NDPES pipes (9 instead of 5)). No impact or additional coordination would be expected (most of the new listings are not near the project area, and the one new NPDES facility that is near the project area is a terminated permit).

Based on the reviewed information, we do not believe an addendum to the 2018 RFI would be necessary for the AI. Would you concur?

Colin Keith
Project Scientist

METRIC ENVIRONMENTAL

Phone: 317.981.3057 Email: colink@metricenv.com
6971 Hillsdale Court, Indianapolis, IN 46250

www.metricenv.com
Complex Environment. Creative Solutions.
Certified DBE/MBE/SBE INDIANAPOLIS | GARY | CINCINNATI

please consider the environment before printing this e-mail
"Notice: If you are not the intended recipient of this E-mail, be aware that any disclosure, copying, distribution, or use of this e-mail and/or any attachments is prohibited. If you have received this e-mail in error, please notify the sender immediately and delete this copy and any attachments hereto from your system. Thank you for your anticipated cooperation."

The maps were intentionally removed.

APPENDIX F

Water Resources

APPROVED: Stephen C. Sperry 9:03 am, 02/07/2020
Environmental Waterway Permitting Office
Indiana Department of Transportation

WATERS DETERMINATION REPORT

S.R. 252 EDINBURGH
SMALL TOWN PAVEMENT REPLACEMENT
BLUE RIVER AND JACKSON TOWNSHIPS, SHELBY AND JOHNSON COUNTIES, INDIANA
DES. NO. 1700108

Prepared for:
USI Consultants, Inc.

October 18, 2019

Prepared by:

Metric Environmental, LLC

Complex Environment. Creative Solutions.
6971 Hillsdale Court
Indianapolis, IN 46256
Telephone: 317.207.4286
www.metricenv.com

Contents

Date of Waters Field Investigation 1
Location 1
National Wetlands Inventory (NWI) Information 1
Karst Information 1
National Hydrography Dataset (NHD) Information 1
FEMA Insurance Rate Map (FIRM) 2
Soils 2
Attached Documents 3
Project Description 3
Field Reconnaissance 4
Wetlands 5
Additional Sampling Points 7
Streams 9
Roadside Ditches 10
Culverts 10
Drainage Features 10
Conclusion 11
Acknowledgements 11

WATERS OF THE U.S. DETERMINATION REPORT
S.R. 252 Edinburgh
Small Town Pavement Replacement
Des. No. 1700108
Metric Project No. 18-0002
Blue River and Jackson Townships, Shelby and Johnson Counties, Indiana
Prepared By: Cory Shumate and Alex Gray, Metric Environmental, LLC
October 18, 2019

Date of Waters Field Investigation: April 10, 2019, May 14,2019, and August 9, 2019

Location:
Sections 11, 26, 27, 28, 33, 34 & 35; Township 11 North; Range 5 East
Edinburgh, IN 7.5-minute U.S.G.S. Topographic Quadrangles (**Exhibit 2**)
Blue River and Jackson Townships, Shelby and Johnson Counties, Indiana
12-Digit HUC Watershed: 051202040807 and 051202040903
Latitude: 39.35845 Longitude: -85.96646

National Wetlands Inventory (NWI) Information:
Two mapped NWI wetlands were located within the project study limits (PSL), listed in the table below. The NWI map is provided as **Exhibit 3**.

Symbol	Wetland Type	Location	Corresponding Feature
R2UBH*	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded	Western PSL	Big Blue River
PFO1A*	Palustrine, Forested, Broad-leaved Deciduous, Temporarily flooded	Western PSL	None

Karst Feature Information:
No mapped karst features are located within 0.5-mile of the project study area.

National Hydrography Dataset (NHD) Information:
Nine mapped NHD flowlines, including those corresponding to Big Blue River and unnamed tributary (UNT) to Big Blue River, are located within the PSL, listed by occurrence from west to east within the PSL in the table below. It should be noted that on **Exhibit 3** Page 5 of 25, the NHD line corresponding with UNT to Big Blue River that confluences with the NHD line corresponding with Big Blue River is misrepresented in the NHD data. Northeast of the PSL where Big Blue River crosses through it, lies an in-stream island that divides Big Blue River. Further northeast of the PSL, upstream from the dam, is another in-stream island. It appears that these are features to

the stream, but not part of UNT to Big Blue River. For this reason, additional linear feet of stream were not included for UNT to Big Blue River. The NHD map is provided as **Exhibit 3**.

Corresponding Feature	Type	Photo Nos	USGS Blue line
None	Unclassified	10, 13	No
UNT to Big Blue River	Stream/River	29-32, 50	Yes
Big Blue River	Artificial Path	49-62, 65	Yes
None	Sewer	98, 99	No
None	Sewer	100, 101	No
None	Pipeline	126, 127, 130	No
None	Unclassified	134, 137	No
Agricultural Tile Drain	Unclassified	151, 153	No
Agricultural Tile Drain	Unclassified	159, 160	No

FEMA Insurance Rate Map (FIRM):
Three floodplains were identified within the PSL and were all identified as Zone AE, areas subject to inundation by the 1-percent annual chance of flood. These 100-year floodplains were associated with Big Blue River, Driftwood River, and their associated unnamed tributaries. The FIRM map for this area is provided as **Exhibit 3**.

Soils:
According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Johnson and Shelby Counties, Indiana, the PSL contained thirteen mapped soil units. The NRCS soil map is provided as **Exhibit 3**.

Johnson County, Indiana (IN081)		
Map Unit Symbol	**Map Unit Name**	**Hydric Rating (%)**
Ee	Eel silt loam, 0 to 2 percent slopes, frequently flooded	Hydric (5)
FoA	Fox loam, 0 to 2 percent slopes	Hydric (4)
FoB2	Fox loam, 2 to 6 percent slopes, eroded	Hydric (6)
FxC2	Fox complex, 6 to 12 percent slopes, eroded	Not Hydric (0)
Ge	Genesee loam	Not Hydric (0)
NnA	Nineveh loam, 0 to 2 percent slopes	Not Hydric (0)
ObaA	Ockley loam, 0 to 2 percent slopes	Not Hydric (0)
W	Water	Not Hydric (0)
Shelby County, Indiana (IN145)		
Map Unit Symbol	**Map Unit Name**	**Hydric Rating (%)**
FoC2	Fox loam, 6 to 12 percent slopes, eroded	Not Hydric (0)
FxB3	Fox clay loam, 2 to 6 percent slopes, severely eroded	Not Hydric (0)
NnA	Nineveh loam, 0 to 2 percent slopes	Not Hydric (0)
NnB	Nineveh loam, 2 to 6 percent slopes	Not Hydric (0)
Wc	Westland clay loam, 0 to 1 percent slopes	Hydric (95)

Attached Documents:
Maps of the project area (**Exhibits 1-4**)
Photo Location Map (**Exhibit 4**)
Site Photographs
Wetland Determination Data Form(s)
Preliminary Jurisdictional Determination Form

Project Description:
The proposed project (Des. No. 1700108) includes replacement of the pavement on S.R. 252, from U.S. 31 to 0.18 mile west of I-65, in Edinburgh, IN. Specifically, the project is located in Sections 11, 26, 27, 28, 33, 34, and 35, Township 11 North, Range 5 East, Blue River and Jackson Townships, Shelby and Johnson Counties as shown on the attached 7.5-minute Edinburgh, Indiana USGS Topographic map (**Exhibit 2)**. The proposed project will consist of 4-inch functional inlay with 2 feet widening in each direction from U.S. 31 to Pleasant Street. The pavement along S.R. 252 from Pleasant Street to Lincoln Street will be reconstructed with a 4-inch functional inlay with 2 feet widening in each direction from Lincoln Street to the pavement break west of I-65. Five-foot sidewalks will be installed from Eisenhower to Pleasant on north and south sides of SR 252 and from Lincoln Street to Lind Street on the south side of SR 252. A hydraulic investigation

will be conducted to determine the condition and functionality of the existing stormwater facilities. The existing stormwater facilities will be upgraded and repaired based on the findings of the hydraulic investigation. Castings that are substandard and/or functionally obsolete will be replaced. New curbs and gutters will be installed. The existing sidewalks and ramps will be upgraded in compliance with American with Disabilities Act (ADA). The existing raised pavement markers (RPMs) will be replaced. The overhead flasher with sign mounted flashers at the intersection of S.R. 252 and Grant Street will be replaced. It is anticipated that less than 10 acres of right-of-way will be required.

Field Reconnaissance:
The wetland determination field visit was conducted on April 10, 2019, May 14, 2019, and August 9, 2019 by Amy Smith, Alex Gray, and Cory Shumate of Metric Environmental, LLC. The PSL consist of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *August 2010 Midwest Regional Supplement (version 2.0) Manual*.

A Location Map showing the project location is provided as **Exhibit 1**. The proposed project is located in Johnson and Shelby Counties, Indiana, on S.R. 252 approximately 0.18 mile west of I-65. The PSL extended approximately 3.15 linear miles along S.R. 252 and extend approximately 35 linear feet from S.R. 252 centerline. An aerial map of sampling points and the location of Big Blue River are provided as **Exhibit 4**. **Exhibit 4** also serves as the photo location map, and site photographs are attached.

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point (SP) location was chosen in possible wetland areas within the PSL. The sampling point, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 5**, provided the following information:

Sampling Plot Data Summary Table
S.R. 252 Edinburgh
Small-Town Pavement Replacement
Blue River and Jackson Townships, Shelby and Johnson Counties, Indiana
Des. No. 1700108

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
SP-A1	186-189	39.35595/ -85.97576	Yes	Yes	Yes	Yes, Wetland A

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
SP-A2	190-194	39.35593/ -85.97572	No	Yes	Yes	No, Wetland A Upland
SP-1	69-71	39.35536 -85.977039	Yes	No	Yes	No
SP-2	139-141	39.362003 -85.952916	No	No	No	No
SP-3	46-48	39.355881 -85.977758	Yes	No	No	No
SP-4	42-45	39.355984 -85.977808	No	No	Yes	No
SP-5	7-9	39.358808 -85.983507	Yes	No	No	No

Wetlands:
One wetland was observed within the PSL. A description of the wetland and corresponding sampling points is provided below.

Wetland Summary Table
S.R. 252 Edinburgh
Small-Town Pavement Replacement
Blue River and Jackson Townships, Shelby and Johnson Counties, Indiana
Des. No. 1700108

Wetland Name	Photo #s	Lat/Long	Cowardin Class	Total Area	Quality	Likely Water of the U.S.
				acres		
Wetland A	186-189, 191, 192	39.35595 -85.97571	PFO1A	0.010	Average	Yes

<u>Wetland A (0.010 acre) – PFO1A</u>
Wetland A was classified as Palustrine, Forested, Broad-Leaved Deciduous, Temporarily Flooded (PFO1A) wetland. This wetland was located north of S.R. 252, along the eastern streambank of Big Blue River. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Wetland A was located on the streambank of Big Blue River and likely receives flood waters on a consistent basis during rain events. Based off of topography, it can be deduced that run-off from adjacent residential property flows northwest through Wetland A and into Big Blue River. Big Blue River flows southwest into the Driftwood River which flows southeast into East Fork White River, a Section 10 Traditional Navigable Water (TNW). Therefore, Wetland A should be considered a jurisdictional Water of the U.S. The wetland was associated with an

R2UBH mapped NWI polygon and was within the Ge mapped soil unit, which is listed as not hydric. Wetland A was adjacent to upland forest and residential property and likely receives run-off from these sources. The wetland also exhibited average plant species diversity and was forested. These factors contribute to the conclusion that the wetland can support an average amount of wildlife or aquatic habitat, and therefore be considered to be of average quality.

Sampling Point A1 (SP-A1) – Wetland A

SP-A1 was located on the eastern streambank of Big Blue River, north of S.R. 252. The dominant vegetation at this sampling point was white ash (*Fraxinus americana*, FACU), honey locust (*Gleditsia triacanthos*, FACU), river birch (*Betula nigra*, FACW) in the tree stratum; silver maple (*Acer saccharinum*, FACW) and gray dogwood (*Cornus racemosa*, FAC) in the sapling/shrub stratum; late goldenrod (*Solidago gigantea*, FACW), swamp smartweed (*Persicaria hydropiperoides*, OBL), and small-spike false nettle (*Boehmeria cylindrica*, OBL) in the herb stratum; and Eastern poison ivy (*Toxicodendron radicans*, FAC) in the woody vine stratum. This met the hydrophytic vegetation indicators of dominance test (78 percent) and prevalence index (2.47). From 0 to 5 inches and 6 to 20 inches, the soils in the test pit were a silt loam. From 5 to 6 inches, the soil in the test pit was a sand loam. From 0 to 5 inches, the soil exhibited a matrix color of 10YR 3/2 (95 percent) with 10YR 5/8 (5 percent) prominent redox concentrations in the matrix. From 5 to 6 inches, the soil exhibited a matrix color of 10YR 4/2 (90 percent) with 10YR 5/8 (10 percent) prominent redox concentrations. From 6 to 9 inches, the soil exhibited a matrix color of 10YR 3/2 (85 percent) with 5YR 3/4 (15 percent) prominent redox concentrations along pore linings and in the matrix. From 9 to 20 inches, the soil exhibited a matrix color of 10YR 3/2 (85 percent) with 10YR 4/3 (10 percent) distinct redox concentrations and 5YR 3/4 (5 percent) prominent redox concentrations in the matrix. This met the hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included sediment deposits (B2), oxidized rhizospheres along living roots (C3), geomorphic position (D2) due to SP-A1's location on a streambank within the 100-year floodplain of Big Blue River, and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point A2 (SP-A2) – Wetland A Upland

SP-A2 was located on a terrace southeast of Wetland A and north of S.R. 252. The dominant vegetation at this sampling point was white ash (*Fraxinus americana*, FACU), honey locust (*Gleditsia triacanthos*, FACU), river birch (*Betula nigra*, FACW) in the tree stratum; gray dogwood (*Cornus racemosa*, FAC) in the sapling/shrub stratum; red fescue (*Festuca rubra*, FACU) in the herb stratum; and Eastern poison ivy (*Toxicodendron radicans*, FAC) in the woody vine stratum. This did not meet any of the indicators for hydrophytic vegetation. To a depth of 20 inches, the soils in the test pit were a silt loam. From 0 to 10 inches, the soil exhibited a matrix color of 10YR 3/2 (80 percent) with 10YR 4/2 (18 percent) faint redox concentrations in the matrix and 5YR 3/4 (2 percent) prominent redox concentrations in the matrix. From 11 to 20 inches, the soil exhibited a matrix color of 10YR 3/2 (70 percent) with 10YR 4/2 (15 percent) faint redox concentrations in the matrix and 5YR 3/4 (15 percent) prominent redox concentrations in the matrix. This met the

hydric soil indicator of redox dark surface (F6). Indicators of wetland hydrology observed included sediment deposits (B2), crayfish burrows (C8), and geomorphic position (D2) due to SP-A2's location on a terrace within the 100-year floodplain of Big Blue River. Since only two of the three required wetland criteria were met, this area did not qualify as a wetland.

Additional Sampling Points:
Sampling points were taken in areas where wetlands were suspected but did not meet the three required wetland criteria. Descriptions of these sampling points are included below.

Sampling Point 1 (SP-1)
SP-1 was located on the south side of S.R. 252, on a terrace adjacent to Big Blue River. The dominant vegetation at this sampling point included silver maple (*Acer saccharinum*, FACW), American elm (*Ulmus americana*, FACW), and common hackberry (*Celtis occidentalis*, FAC) in the tree stratum; green ash (*Acer negundo*, FAC), American elm (*Ulmus americana*, FACW), and Amur honeysuckle (*Lonicera maacki*, UPL) in the sapling stratum; and horsebrier (*Smilax rotundifolia*, FAC) in the woody vine stratum. This met the hydrophytic vegetation indicator of dominance test (86 percent) and prevalence index (2.80). To a depth of 6 inches, the soils in the soil pit were a sandy loam. From 6 to 16 inches, the soils in the soil pit were a sand with some gravel present. From 16 to 20 inches, the soils in the soil pit were a sandy loam. From 0 to 6 inches, the soil exhibited a matrix color of 10YR 3/2 (100 percent). From 6 to 16 inches, the soil exhibited a matrix color of 10YR 5/3 (100 percent). From 16 to 20 inches, the soil exhibited a matrix color of 10YR 3/2 (100 percent). This did not meet any of the hydric soil indicators. One primary indicator of hydrology, drift deposits (B3), and one secondary indicator of hydrology, FAC-Neutral Test (D5), were observed during the field reconnaissance. Since only two of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 2 (SP-2)
SP-2 was located on the north side of S.R. 252 along road embankment. The dominant vegetation at this sampling point was red fescue (*Festuca rubra*, FACU). This did not meet any of the indicators for hydrophytic vegetation. To a depth of 15 inches, the soil in the test pit was a silt loam. A gravel layer was present at a 15-inch depth which prevented further excavation. From 0 to 15 inches, the soil exhibited a matrix color of 10YR 2/2 (100 percent). This did not meet any of the indicators for hydric soil. No indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 3 (SP-3)
SP-3 was located on a terrace west of Big Blue River and south of S.R. 252. The dominant vegetation at this sampling point included silver maple (*Acer saccharinum*, FACW) and common hackberry (*Celtis occidentalis*, FAC) in the tree stratum; ash-leaf maple (*Acer negundo*, FAC) in the sapling/shrub stratum; Kentucky blue grass (*Poa pratensis*, FAC) in the herb stratum; and Japanese honeysuckle (*Lonicera japonica*, FACU), fox grape (*Vitis labrusca*, FACU), and eastern

poison ivy (*Toxicodendron radicans*, FAC) in the woody vine stratum. This met the hydrophytic vegetation indicators of dominance test (75 percent) and prevalence index (2.87). To a depth of 20 inches, the soils in the test pit were a sandy loam. From 0 to 16 inches, the soil exhibited a matrix color of 10YR 3/2 (60 percent) with 10YR 4/3 (40 percent) faint mottles in the matrix. From 16 to 20 inches, the soil exhibited a mixed matrix color of 10YR 3/2 (50 percent) and 10YR 4/3 (50 percent). This did not meet any hydric soil indicators. No indicators of wetland hydrology were observed. Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 4 (SP-4)

SP-4 was located on a terrace west of Big Blue River, south of S.R. 252, and north of SP-3. The dominant vegetation was white ash (*Fraxinus americana*, FACU) and white mulberry (*Morus alba*, FAC) in the sapling/shrub stratum; reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum; and Japanese honeysuckle (*Lonicera japonica*, FACU). This met the hydrophytic vegetation indicators of prevalence index (2.55). Since indicators of hydric soil and wetland hydrology must be present to prevalence index to pass for hydrophytic vegetation, this indicator did not pass. To a depth of 20 inches, the soils in the test pit were a sandy loam. From 0 to 15 inches, the soil exhibited a matrix color of 10YR 3/1 (70 percent) with 10YR 4/2 (30 percent) faint redox concentrations in the matrix. From 15 to 20 inches, the soil exhibited a matrix color of 10YR 3/1 (65 percent) with 10YR 4/2 (30 percent) faint redox concentrations and 7.5YR 3/4 (5 percent) prominent redox concentrations in the matrix. This did not meet any of the indicators for hydric soil. Two primary indicators of wetland hydrology were observed; surface water (A1) and sediment deposits (B2). Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 5 (SP-5)

SP-5 was located on road embankment north of S.R. 252 near the western PSL. The dominant vegetation at this sampling point was American elm (*Ulmus Americana*, FACW) and eastern cottonwood (*Populus deltoides*, FAC) in the tree stratum; Kentucky blue grass (*Poa pratensis*, FAC) and red fescue (*Festuca rubra*, FACU) in the herb stratum; and Japanese honeysuckle (*Lonicera japonica*, FACU) in the woody vine stratum. This met the hydrophytic vegetation indicator of dominance test (60 percent). To a depth of 12 inches, the soils in the test pit were a silt loam. A gravel layer at a 12-inch depth prevent further excavation. From 0 to 6 inches, the soil exhibited a matrix color of 10YR 2/2 (100 percent). From 6 to 12 inches, the soil exhibited a matrix color of 10YR 3/4 (80 percent) with 10YR 2/2 (20 percent) distinct mottles in the matrix. This did not meet any of the indicators for hydric soil. No indicators of wetland hydrology were observed. Since only one of the three required wetland criteria were met, this area did not qualify as a wetland.

Streams:
Two streams, Big Blue River and UNT to Big Blue River, were observed within the PSL and are noted on **Exhibit 4**.

Stream Summary Table
S.R. 252 Edinburgh
Small-Town Pavement Replacement
Blue River and Jackson Townships, Shelby and Johnson Counties, Indiana
Des. No. 1700108

Stream Name	Photos	Lat/Long	OHWM Width	OHWM Depth	USGS Blue-line	Riffles Pools	Quality	Likely Water of the U.S.	Dominant Substrate	Potential Stream Impact
			ft.	ft.						ft.
Big Blue River	49-62, 65	39.355712 -85.977309	95.0	4.5	Yes (Perennial)	Riffles & Pools	Excellent	Yes	Boulder, Artificial, Cobble, Gravel, Sand	141.5
UNT to Big Blue River	29-32, 50	39.356776 -85.978545	30.0	1.0	Yes (Perennial)	No	Average	Yes	Muck & Silt	26.7

<u>Big Blue River (141.5 LFT)</u>
Big Blue River flowed from northeast to southwest through a western portion of the PSL for 141.5 LFT (0.309 ac.). The Big Blue River flows southwest into the Driftwood River which flows southeast into East Fork White River, a Section 10 TNW. Therefore, Big Blue River should be considered a jurisdictional Water of the U.S. Big Blue River is associated with a solid blue line on the USGS topographic map, indicating it is perennial. Big Blue River was classified by the NWI as R2UBH. The ordinary high-water mark (OHWM) was an average of 95 linear feet wide and 4.5 feet deep. An in-stream island was observed within the PSL, that was considered to be a feature to the stream and is not expected to be impacted by this project. The dominant stream substrate consisted of boulder, cobble, gravel, sand, and artificial substrate. Bedrock substrate was observable outside the PSL. Instream cover present included overhanging vegetation, shallows in slow water, rootwads, boulders, and logs and other woody debris. Riffles and pools were present in the stream and a dam was observed just approximately 230 feet upstream of the PSL. Low sinuosity, fast current velocity, and little erosion was observed during the field reconnaissance. Fish were observed during the field reconnaissance. The floodplain of Big Blue River consisted of immature forest. According to USGS *Indiana StreamStats*, the drainage area upstream of Big Blue River at the PSL is 582.753 square miles. Qualities of the stream listed above contribute to this stream being classified as excellent quality.

UNT to Big Blue River (26.7 LFT)

UNT to Big Blue River flowed from northwest to southeast through a western portion of the PSL, north of S.R. 252, for 26.7 LFT (0.018 ac). UNT to Big Blue River flows southeast into Big Blue River, a jurisdictional Water of the U.S. Therefore, UNT to Big Blue River should be considered a jurisdictional Water of the U.S. UNT to Big Blue River is associated with a solid blue line on the USGS topographic map, indicating it is perennial. UNT to Big Blue River was not classified by the NWI but could be classified as R2UBH based on field observations. It should be noted that on **Exhibit 3** Page 5 of 25, the NHD line corresponding with UNT to Big Blue River that confluences with the NHD line corresponding with Big Blue River is misrepresented in the NHD data. Northeast of the PSL where Big Blue River crosses through it, lies an in-stream island that divides Big Blue River. Further northeast of the PSL, upstream from the dam, is another in-stream island. It appears that these are features of the stream of Big Blue River, but not part of UNT to Big Blue River. Additionally, the OHWM width of Big Blue River included the area northwest of the in-stream island. For these reasons, additional linear feet of stream were not included for UNT to Big Blue River. The OHWM was an average of 30.0 linear feet wide and 1.0 feet deep. The dominant stream substrate consisted of muck and silt. Instream cover present included woody debris. Low sinuosity, slow current velocity, and little erosion were observed during the field reconnaissance. The floodplain of UNT to Big Blue River consisted of immature forest. According to USGS *Indiana StreamStats*, the drainage area upstream of UNT to Big Blue River at the PSL is 0.606 square miles. Qualities of the stream listed above contribute to this stream being classified as average quality.

Roadside Ditches:

Six roadside ditches were identified within the PSL during the field reconnaissance. The RSDs were vegetated swales dominated by upland vegetation and no OHWM was observed in any of these features, so they are likely non-jurisdictional.

Culverts:

Several culverts and drains were observed within the PSL. The culverts varied in material from concrete, CMP, and HDPE. The culverts and storm drains served to aid in roadside drainage and stormwater conveyance. Locations of these culverts are shown on **Exhibits 4**, and photographs are provided following the Exhibits.

Drainage Feature:

One drainage feature was observed within the PSL. The drainage feature is shown on **Exhibit 4** Page 22 of 24 and photos of this feature are **147-157**. Water flowed from northeast to southwest into a 12-foot wide concrete box culvert for approximately 59.6 linear feet within the PSL. The outlet of the concrete box culvert was not observed. Dominant substrate included silt and artificial substrate. No OHWM was observed so this feature is likely non-jurisdictional.

Agricultural crop fields north of the PSL were observed, so the source of this water is likely an agricultural tile drain.

Conclusion:

One PFO1A wetland was observed within the PSL at the time of the field reconnaissance and totaled 0.01 ac. Two streams, Big Blue River and UNT to Big Blue River, were identified and totaled 168.2 LFT (0.327 ac) were identified within the PSL. Every effort should be taken to avoid or minimize impacts to waterways. If impacts are necessary, mitigation may be required. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by USACE.

Acknowledgements:

This waters determination has been prepared based on the best available information, interpreted in 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.

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Amy Noel Smith	Natural Resources Project Manager II	Project Manager, Field Data Collection	Amy Noel Smith 10/18/19
Alex Gray	Natural Resources Project Manager I	QAQC, Field Data Collection	Alex M. Gray 10/18/19
Cory Shumate	Environmental Scientist II	Field Data Collection, Report Preparation	CShumate 10/18/19

Duplicate maps have been intentionally removed. Please refer to Appendix B in the CE document.

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 155 310 620
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 155 310 620
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 165 330 660
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 185 370 740
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

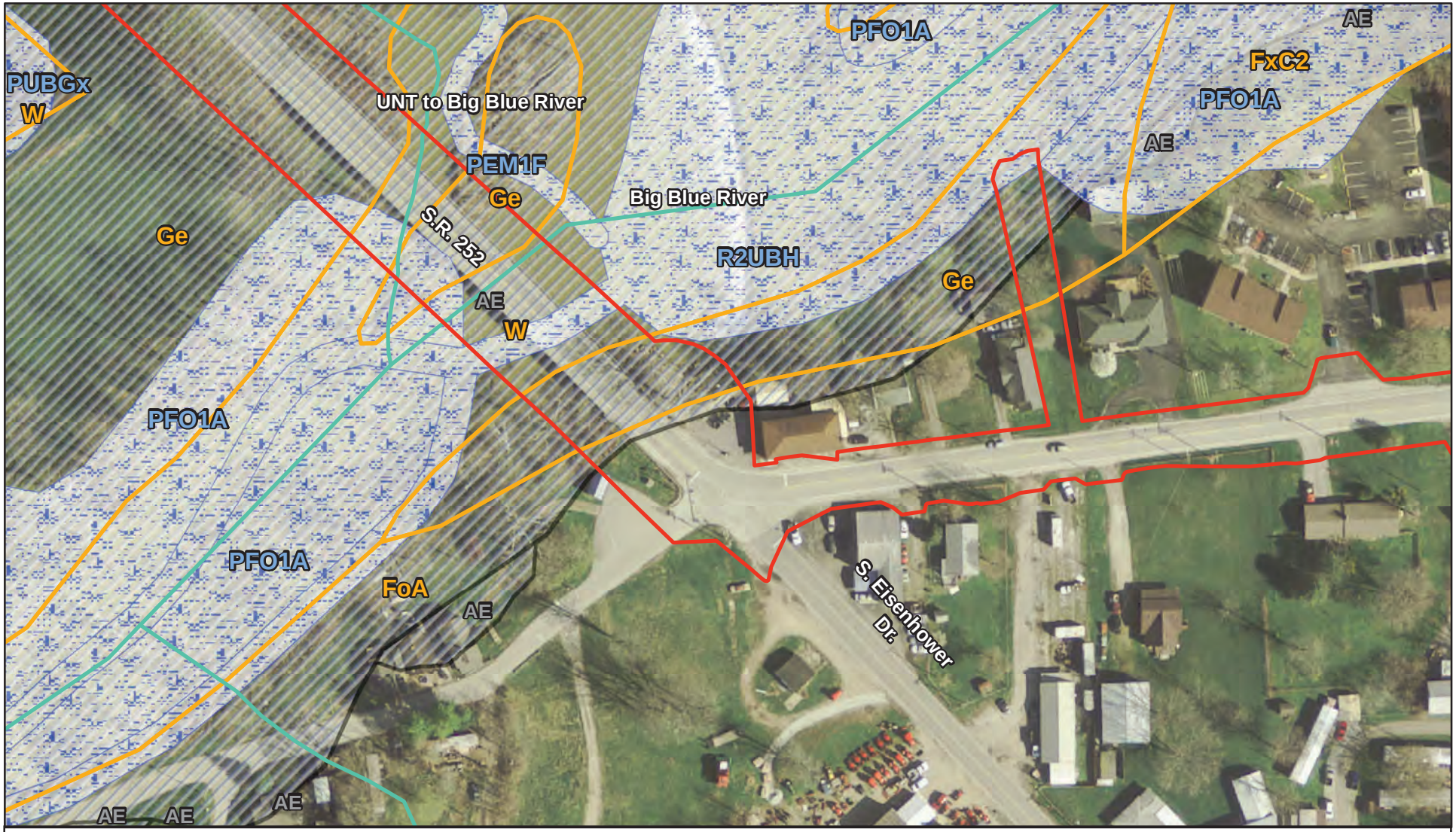
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 155 310 620
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 125 250 500
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

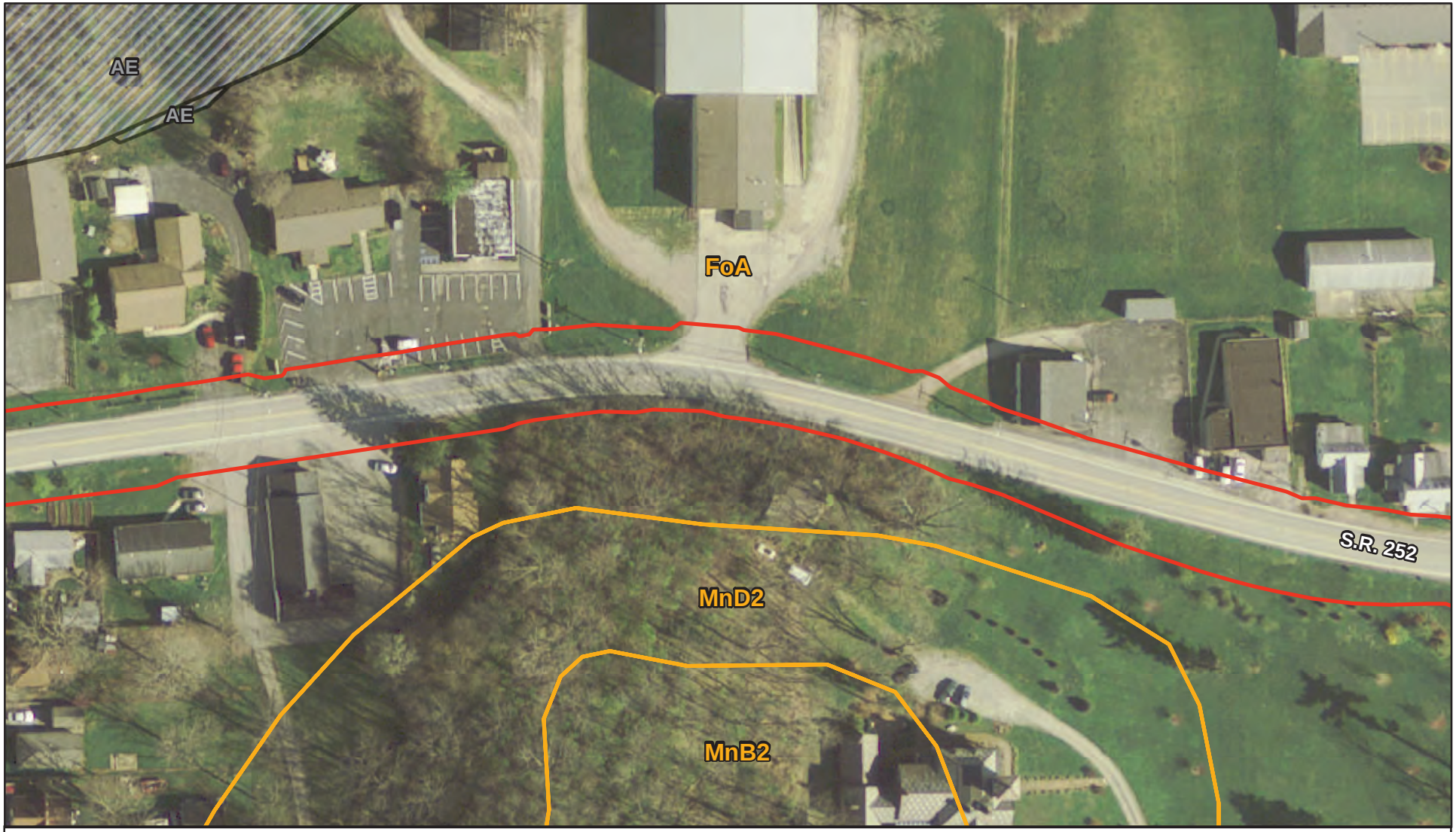
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 125 250 500
Feet

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

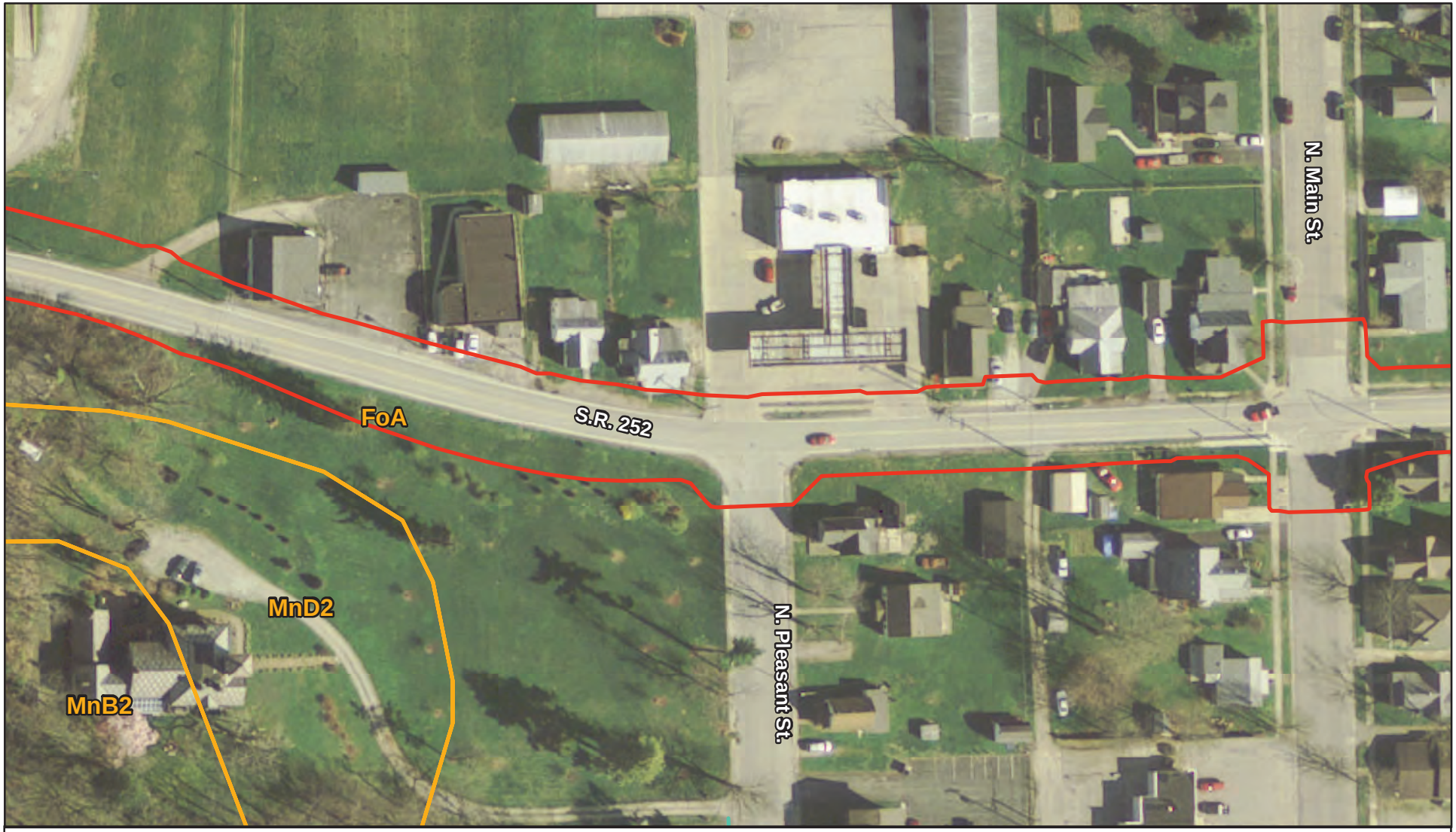
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 120 240 480

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 120 240 480

METRIC ENVIRONMENTAL

Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

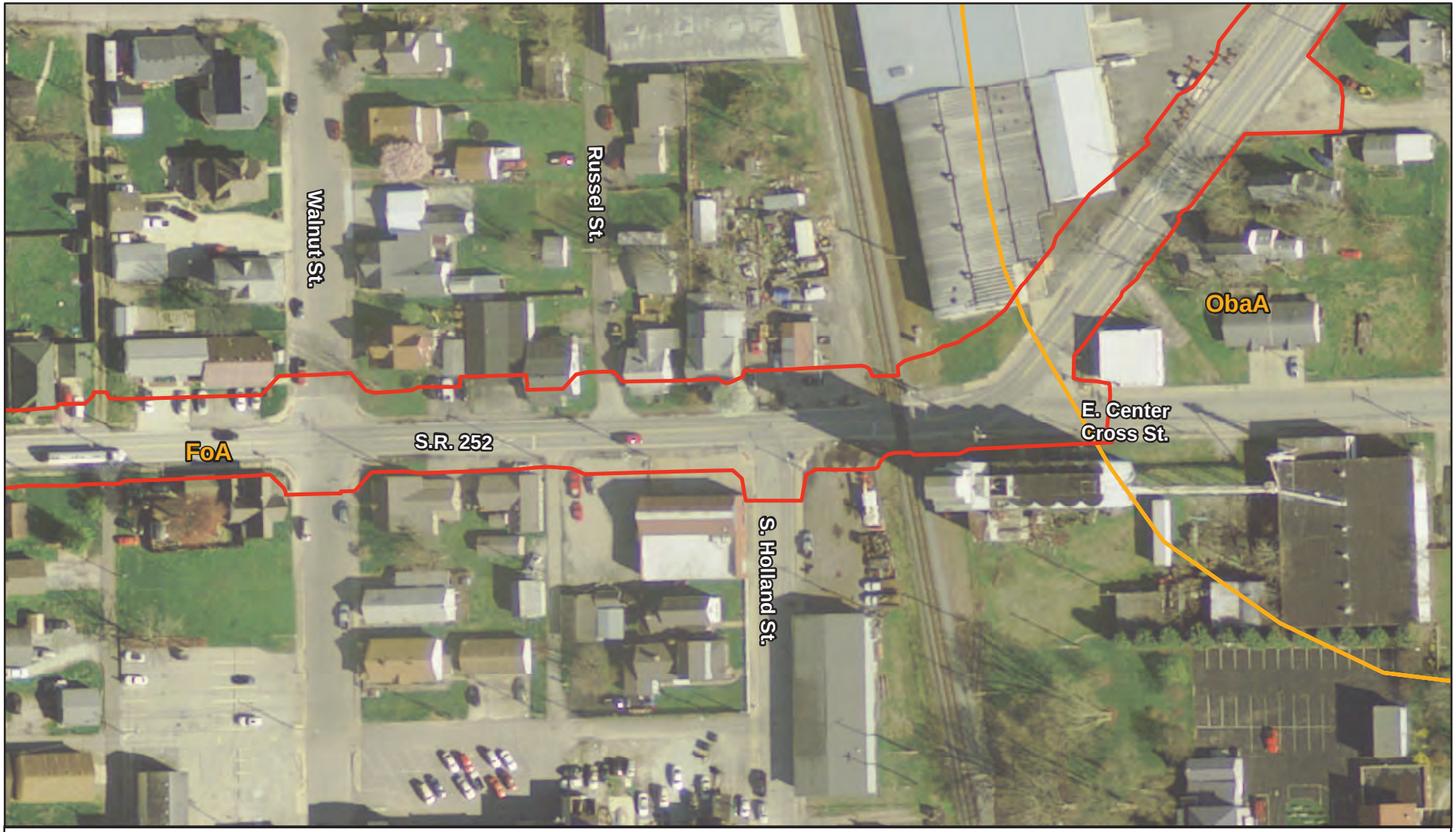
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL



Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 135 270 540

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 185 370 740
Feet

METRIC ENVIRONMENTAL

Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 165 330 660

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

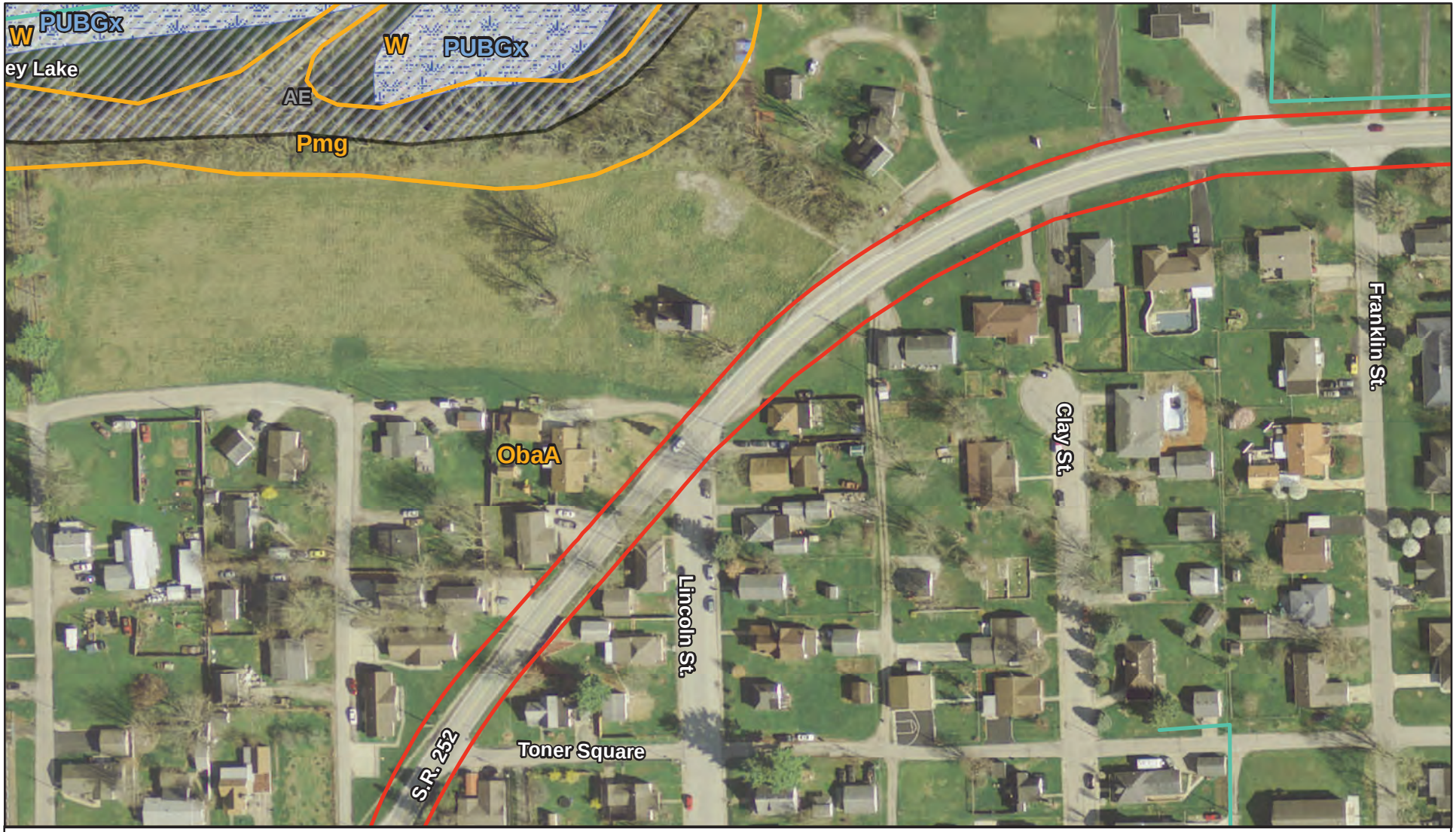
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

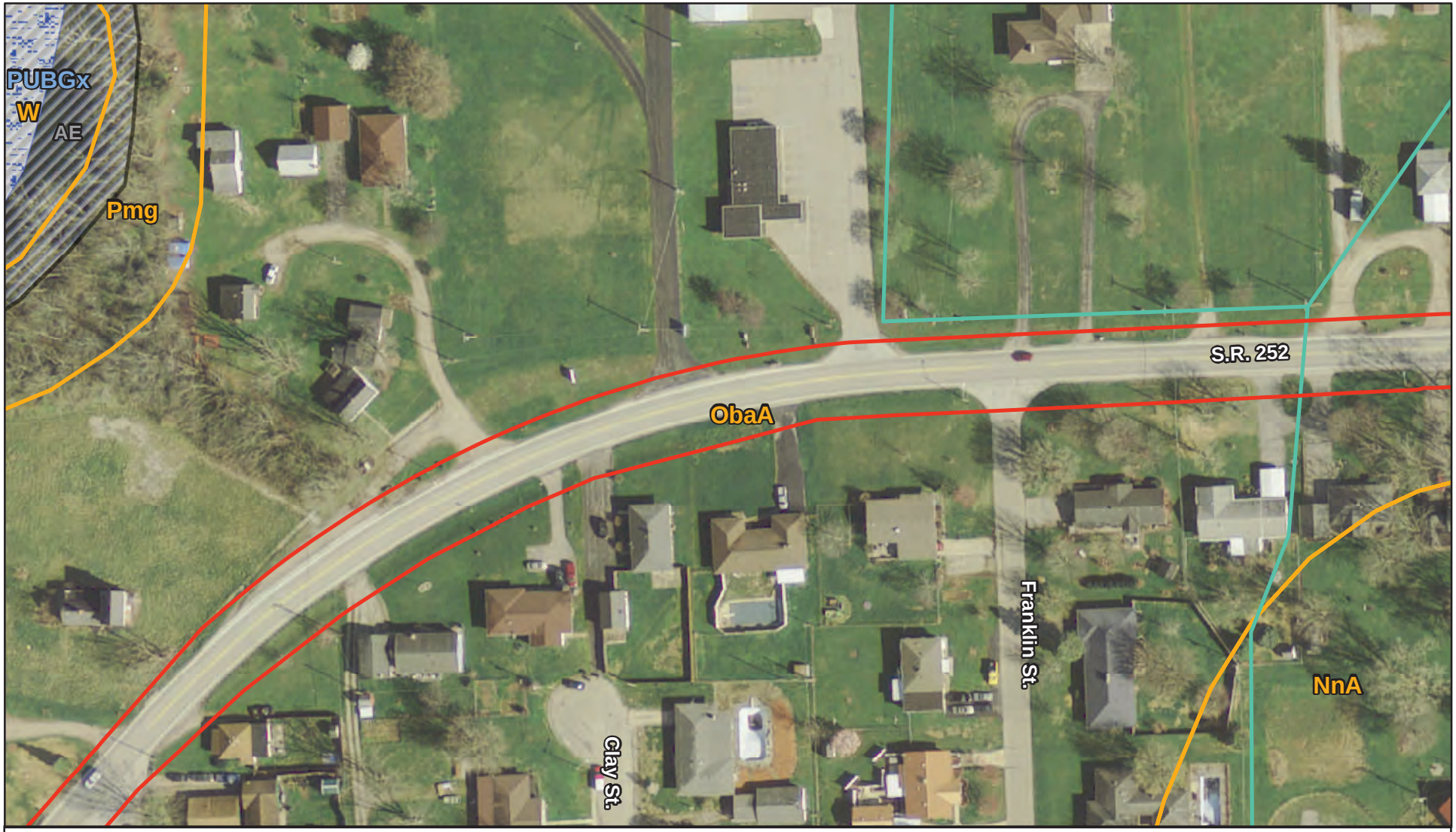
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 140 280 560
Feet

METRIC ENVIRONMENTAL

Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

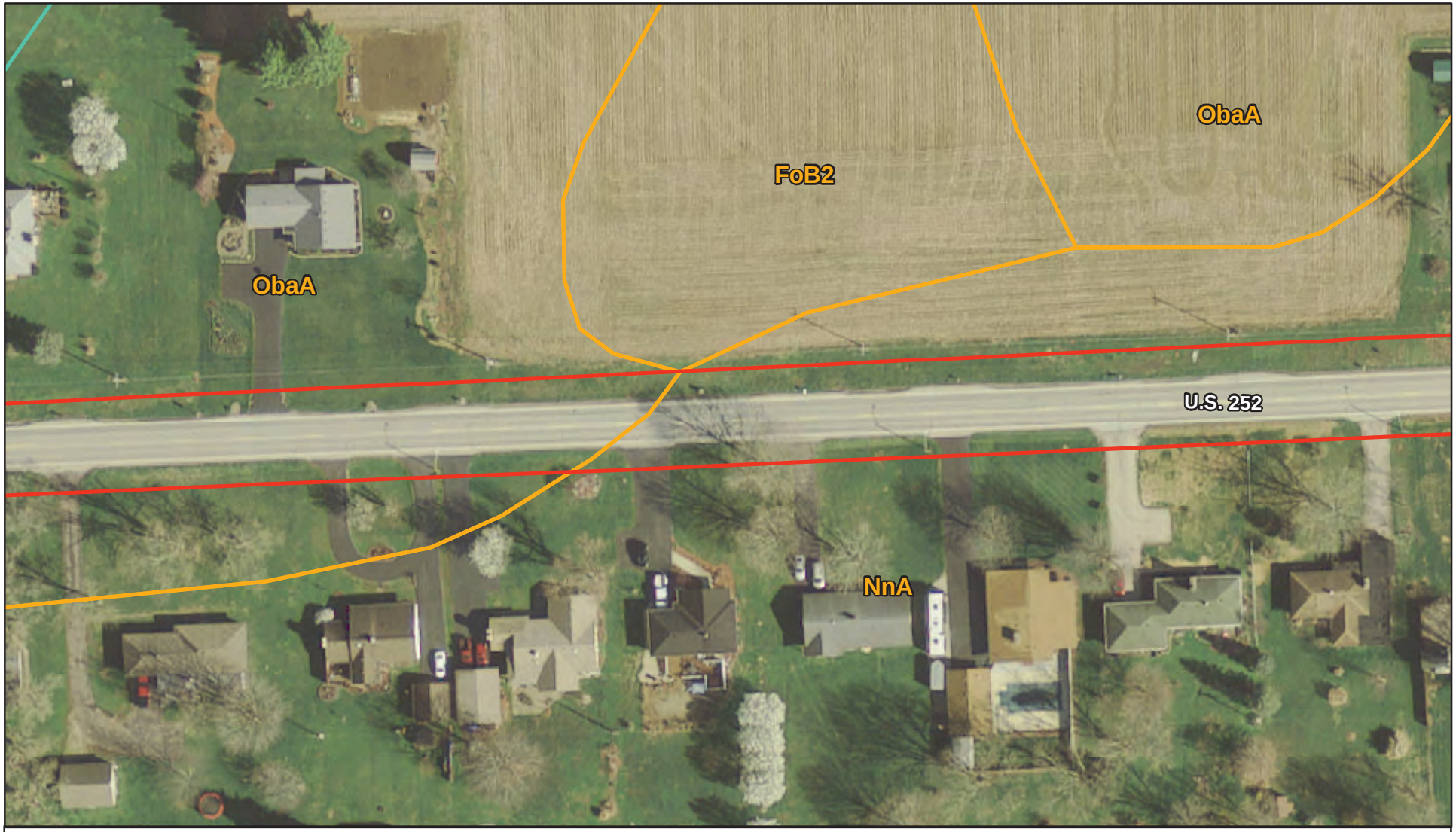
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL



Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

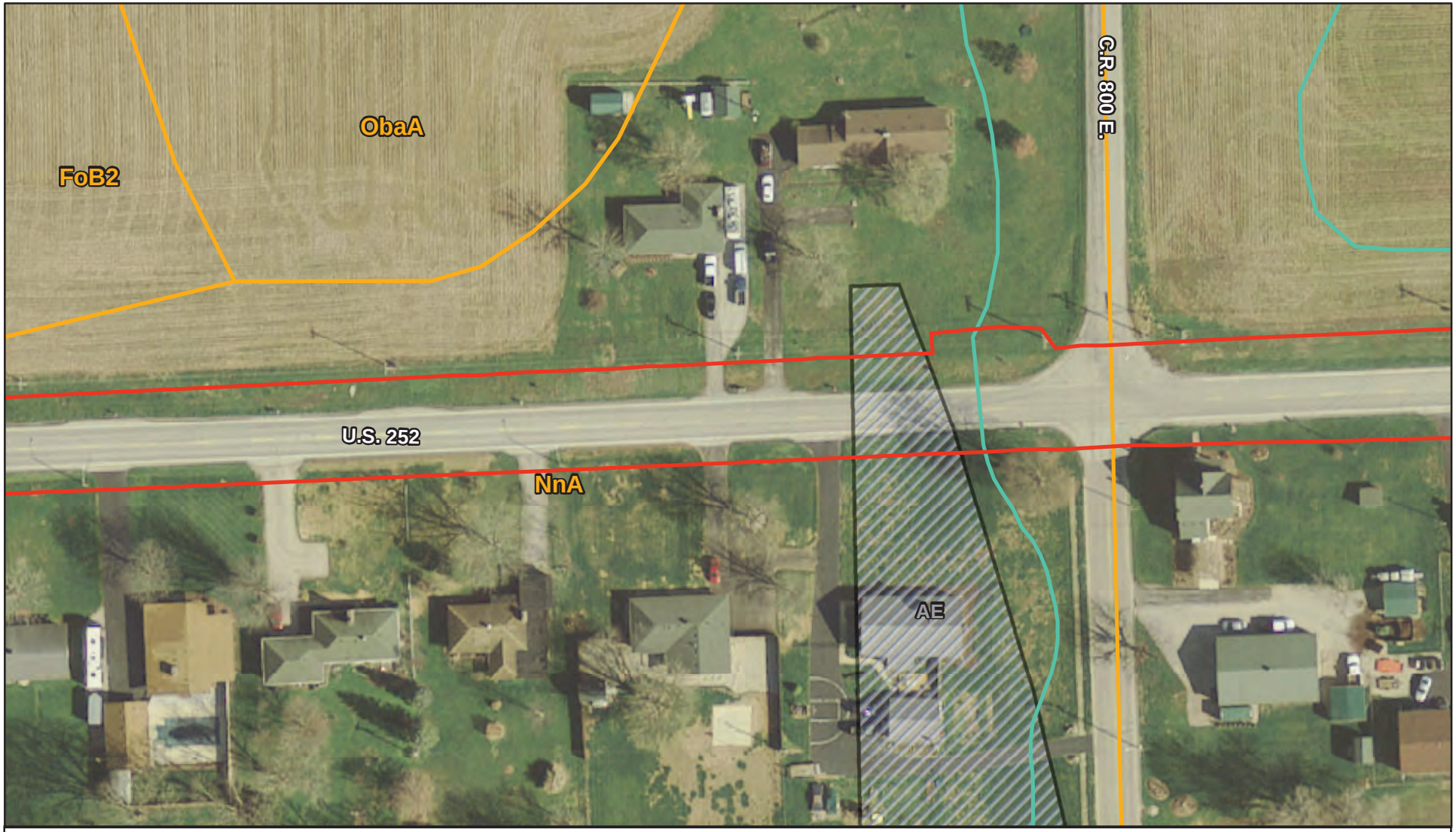
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Project Study Limits
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance
NHD Flowline
NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

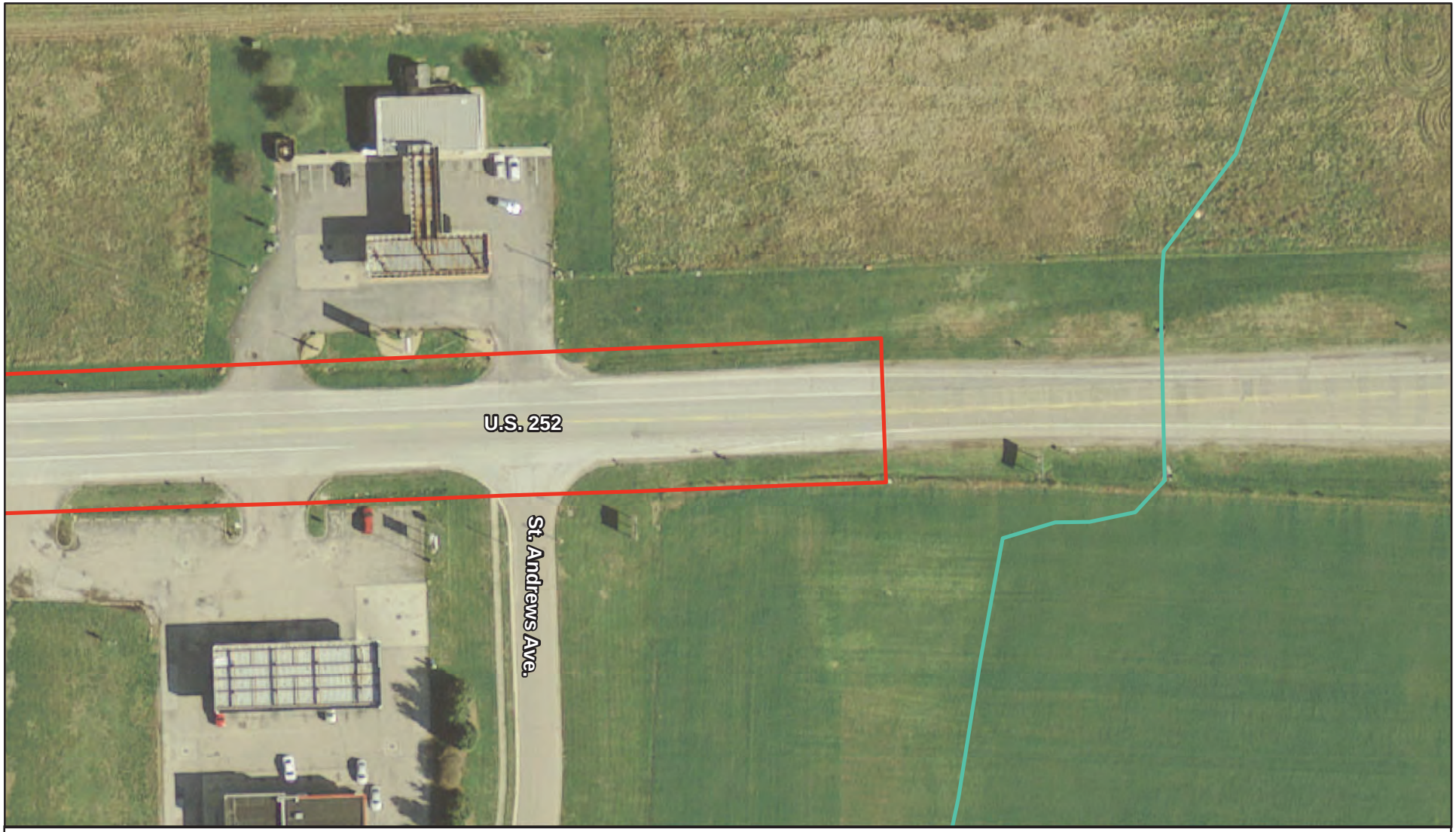
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL



Project Study Limits | NRCS Soil Survey | Floodplain - Zone AE - 1% Annual Chance

NHD Flowline | NWI Wetland

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Johnson County, Indiana (IN081)		
Map Unit Symbol	**Map Unit Name**	**Hydric Rating (%)**
Ee	Eel silt loam, 0 to 2 percent slopes, frequently flooded	Hydric (5)
FoA	Fox loam, 0 to 2 percent slopes	Hydric (4)
FoB2	Fox loam, 2 to 6 percent slopes, eroded	Hydric (6)
FxC2	Fox complex, 6 to 12 percent slopes, eroded	Not Hydric (0)
Ge	Genesee loam	Not Hydric (0)
NnA	Nineveh loam, 0 to 2 percent slopes	Not Hydric (0)
ObaA	Ockley loam, 0 to 2 percent slopes	Not Hydric (0)
W	Water	Not Hydric (0)

Shelby County, Indiana (IN145)		
Map Unit Symbol	**Map Unit Name**	**Rating**
FoC2	Fox loam, 6 to 12 percent slopes, eroded	Not Hydric (0)
FxB3	Fox clay loam, 2 to 6 percent slopes, severely eroded	Not Hydric (0)
NnA	Nineveh loam, 0 to 2 percent slopes	Not Hydric (0)
NnB	Nineveh loam, 2 to 6 percent slopes	Not Hydric (0)
Wc	Westland clay loam, 0 to 1 percent slopes	Hydric (95)

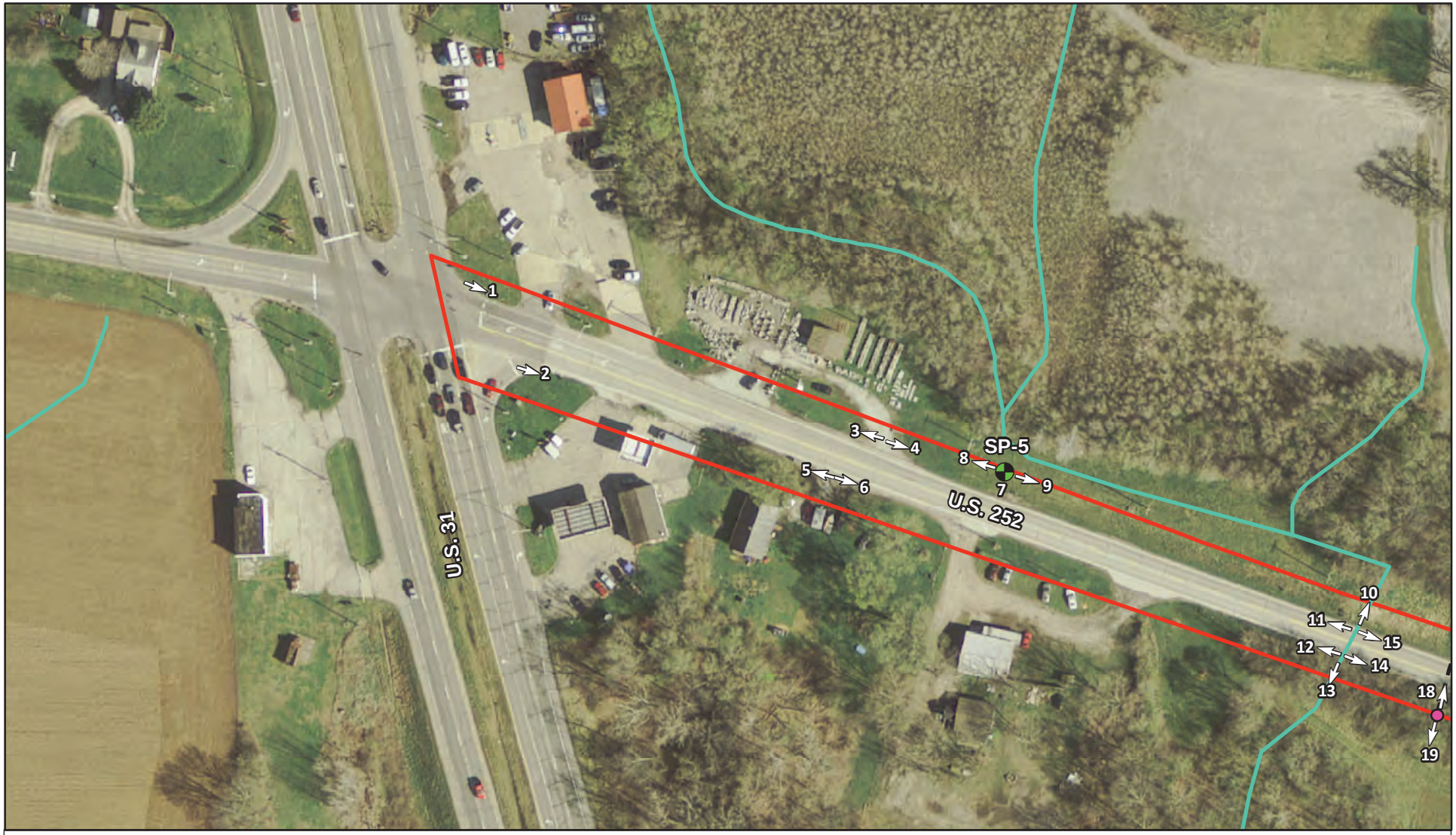
Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 5/13/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 155 310 620
Feet

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

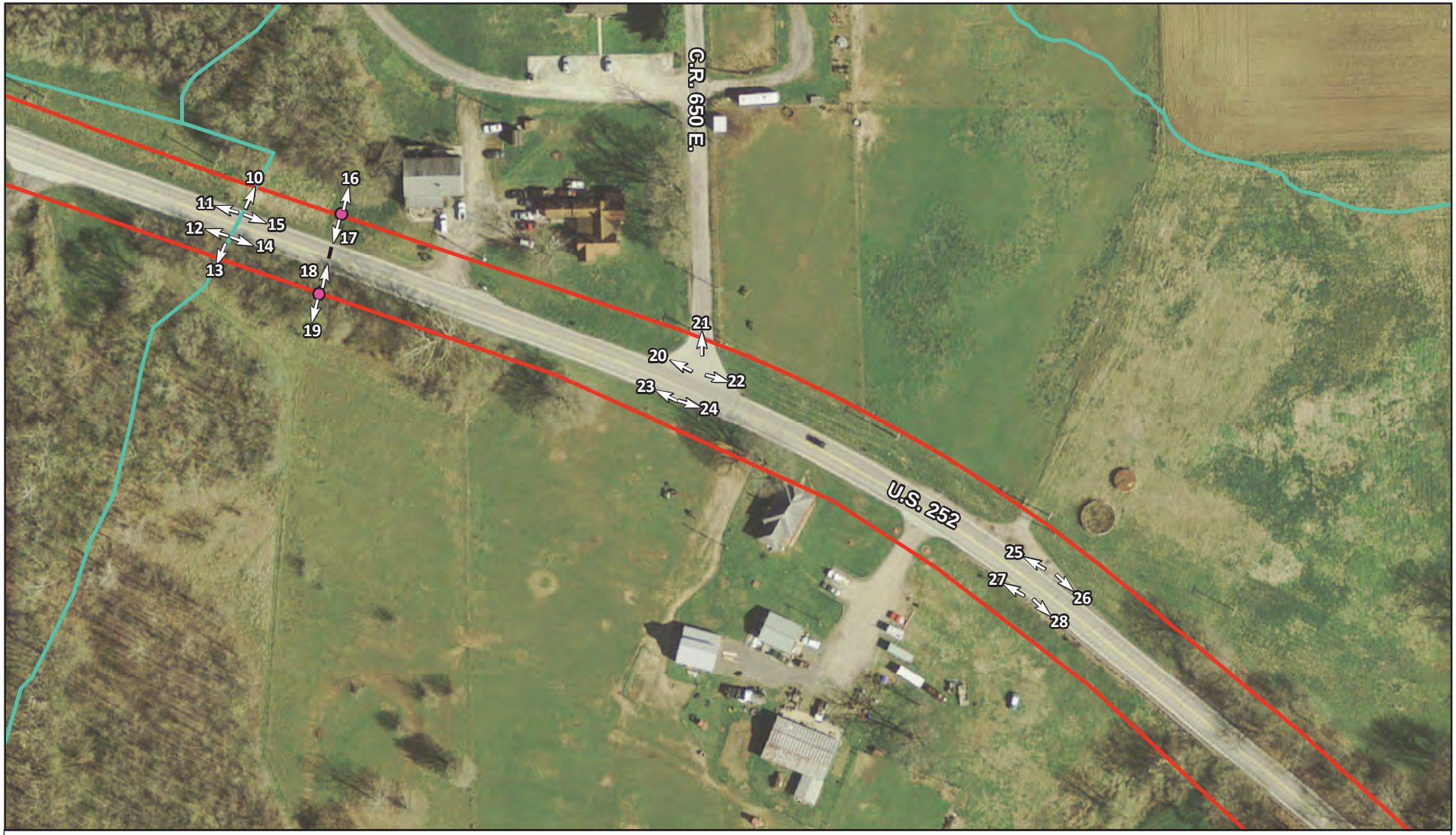
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 155 310 620
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 165 330 660
Feet

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

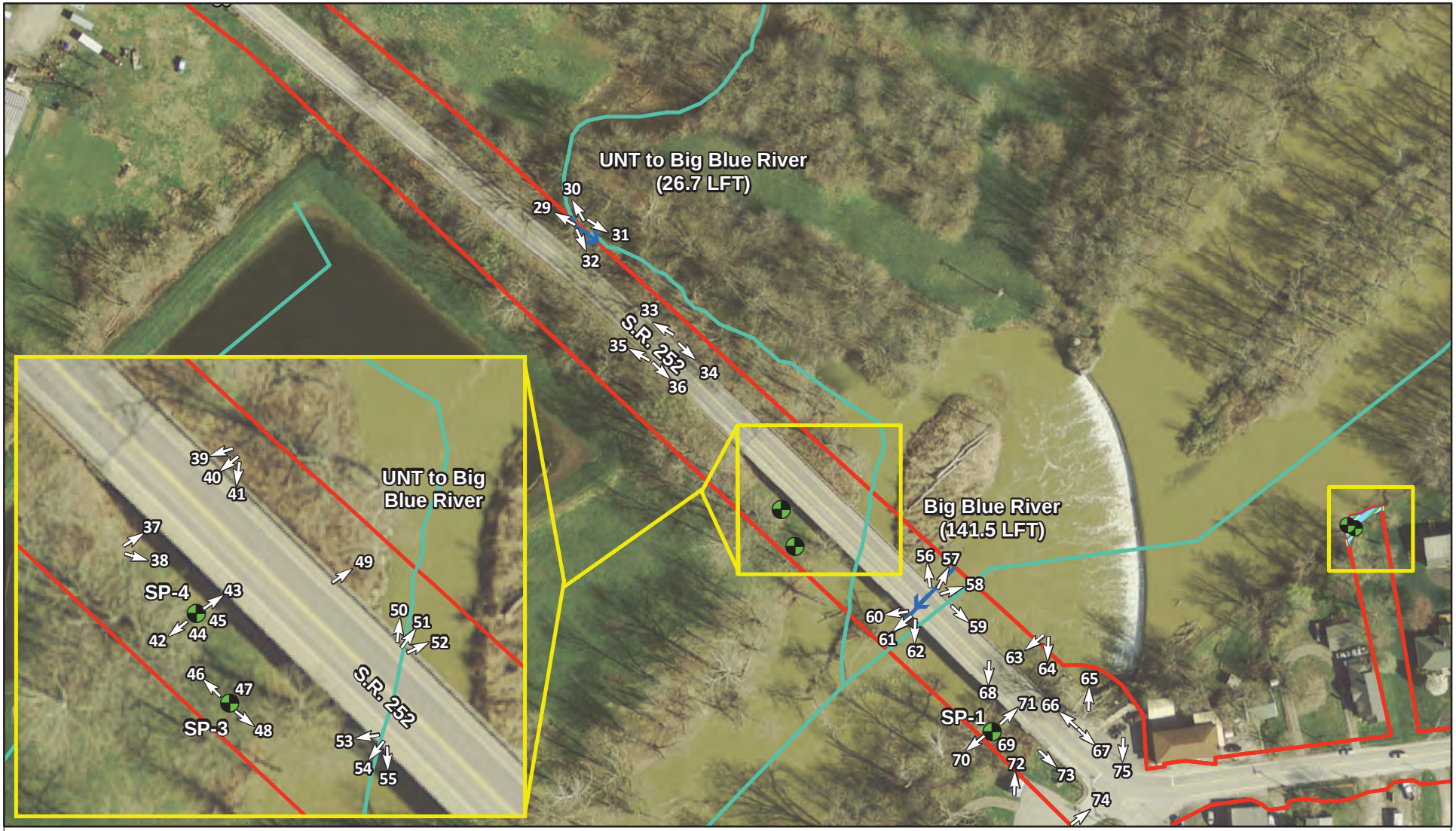
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 185 370 740
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

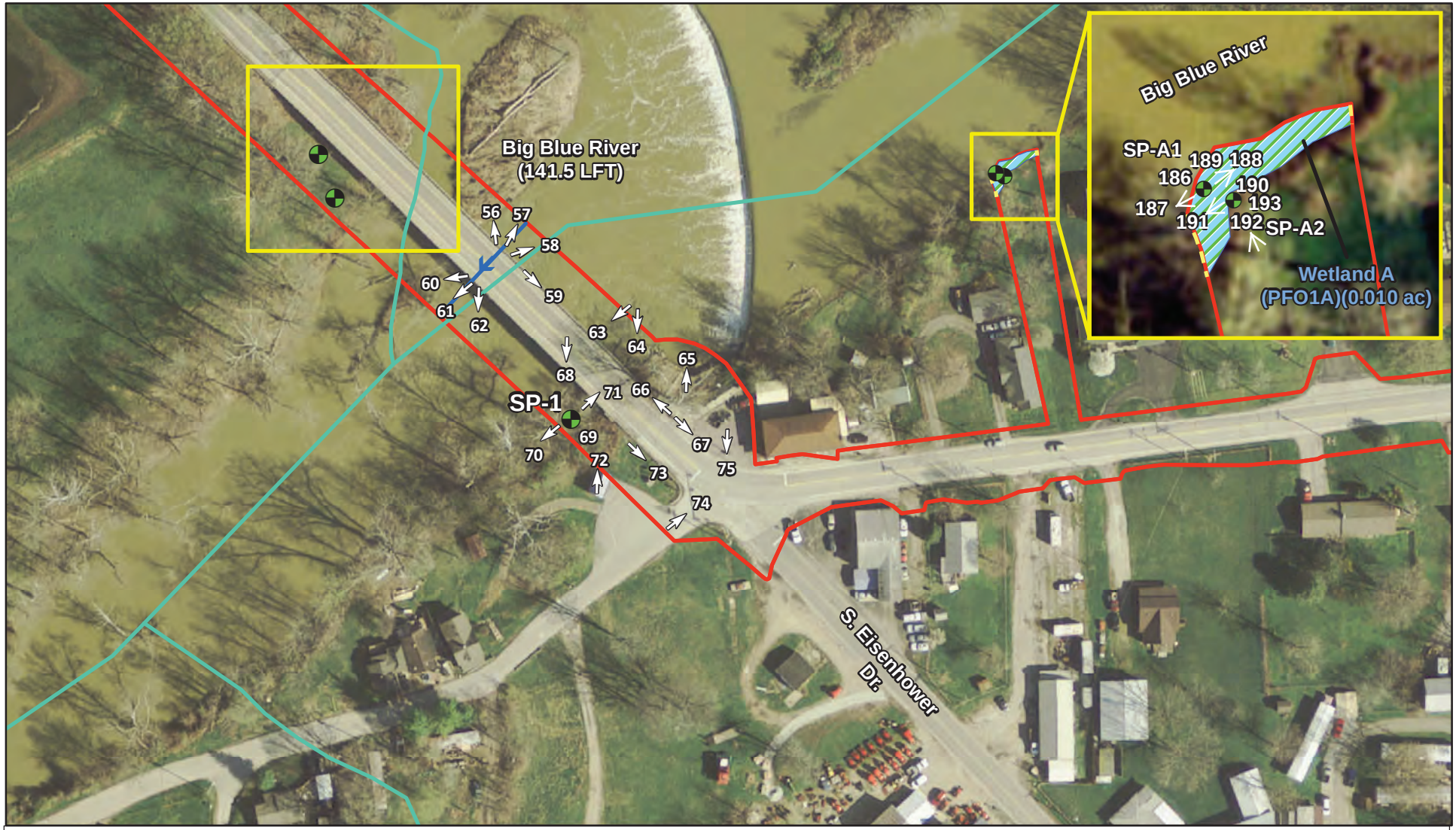
Exhibit 4 - Wetland Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 155 310 620

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

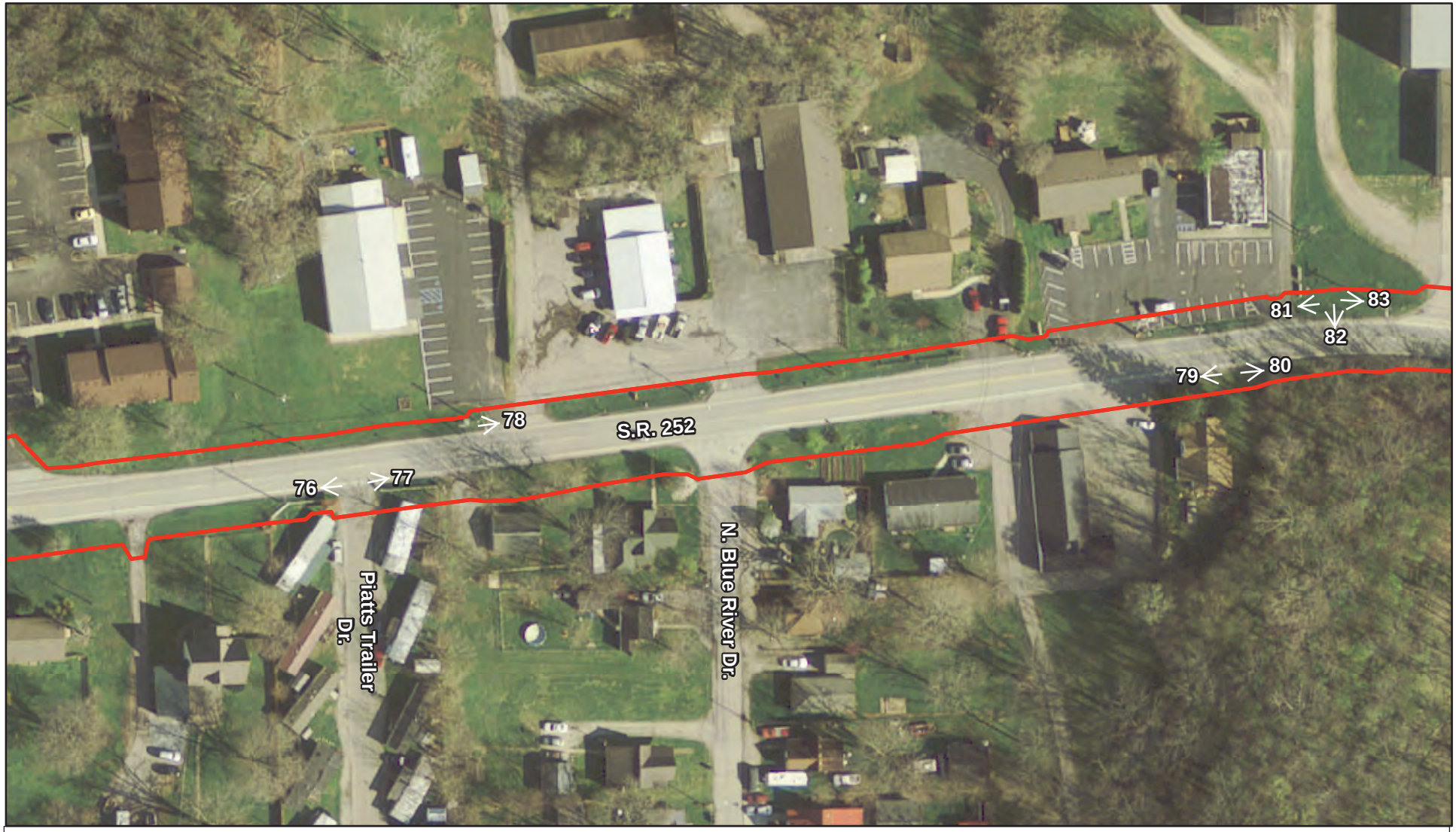
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 125 250 500

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

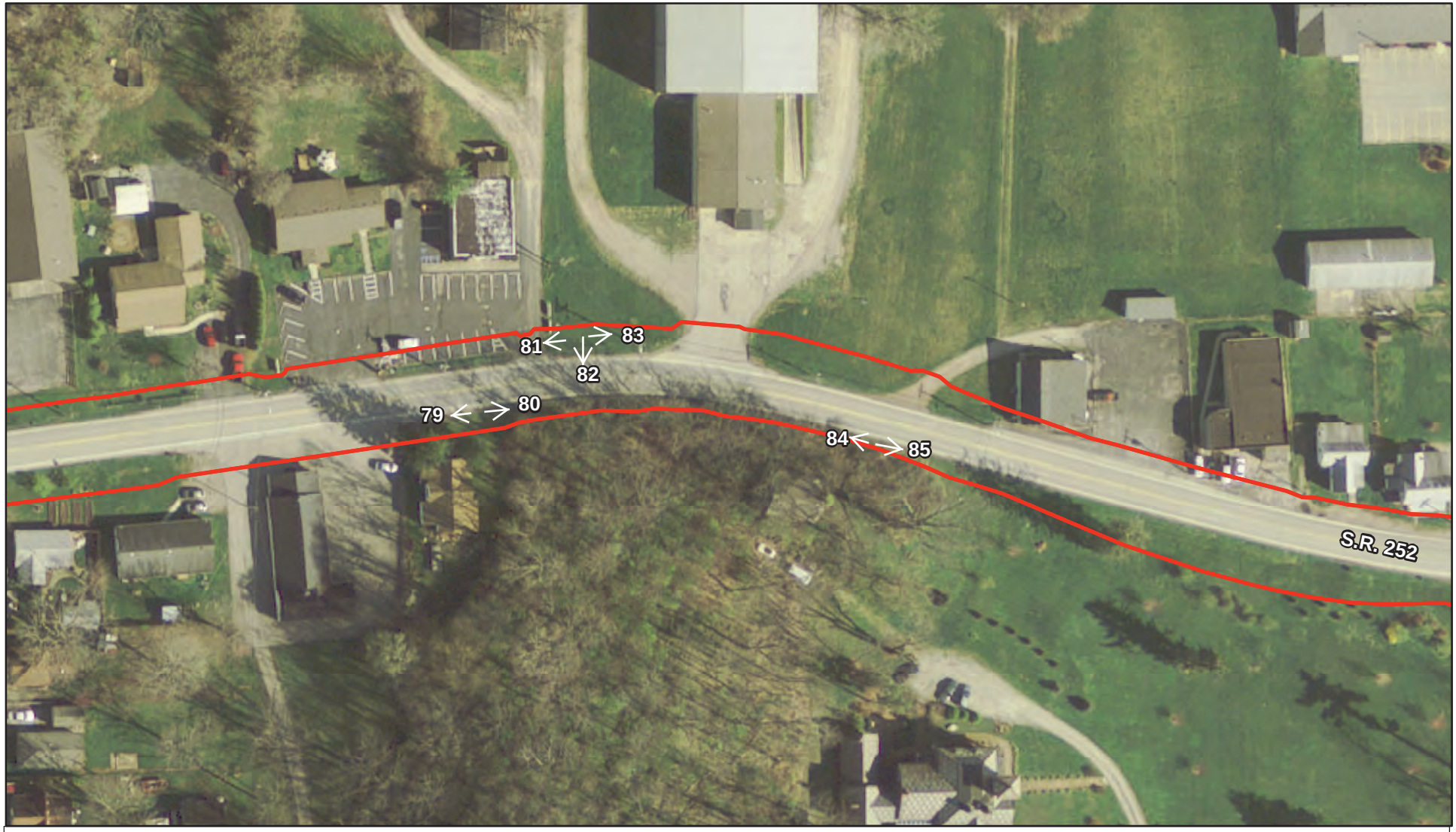
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 125 250 500
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

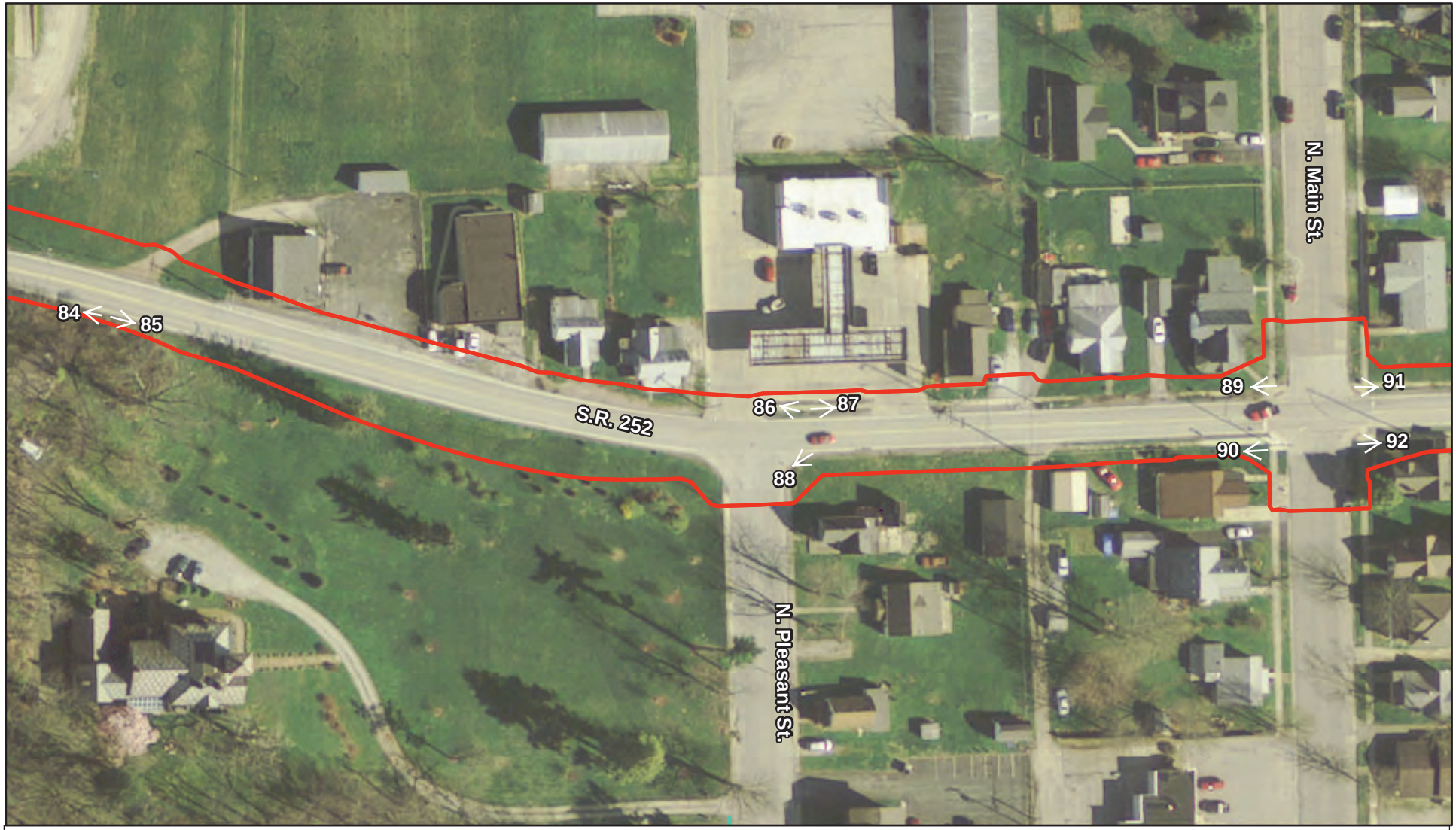
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 120 240 480

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 120 240 480

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 135 270 540

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 195 390 780
Feet

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

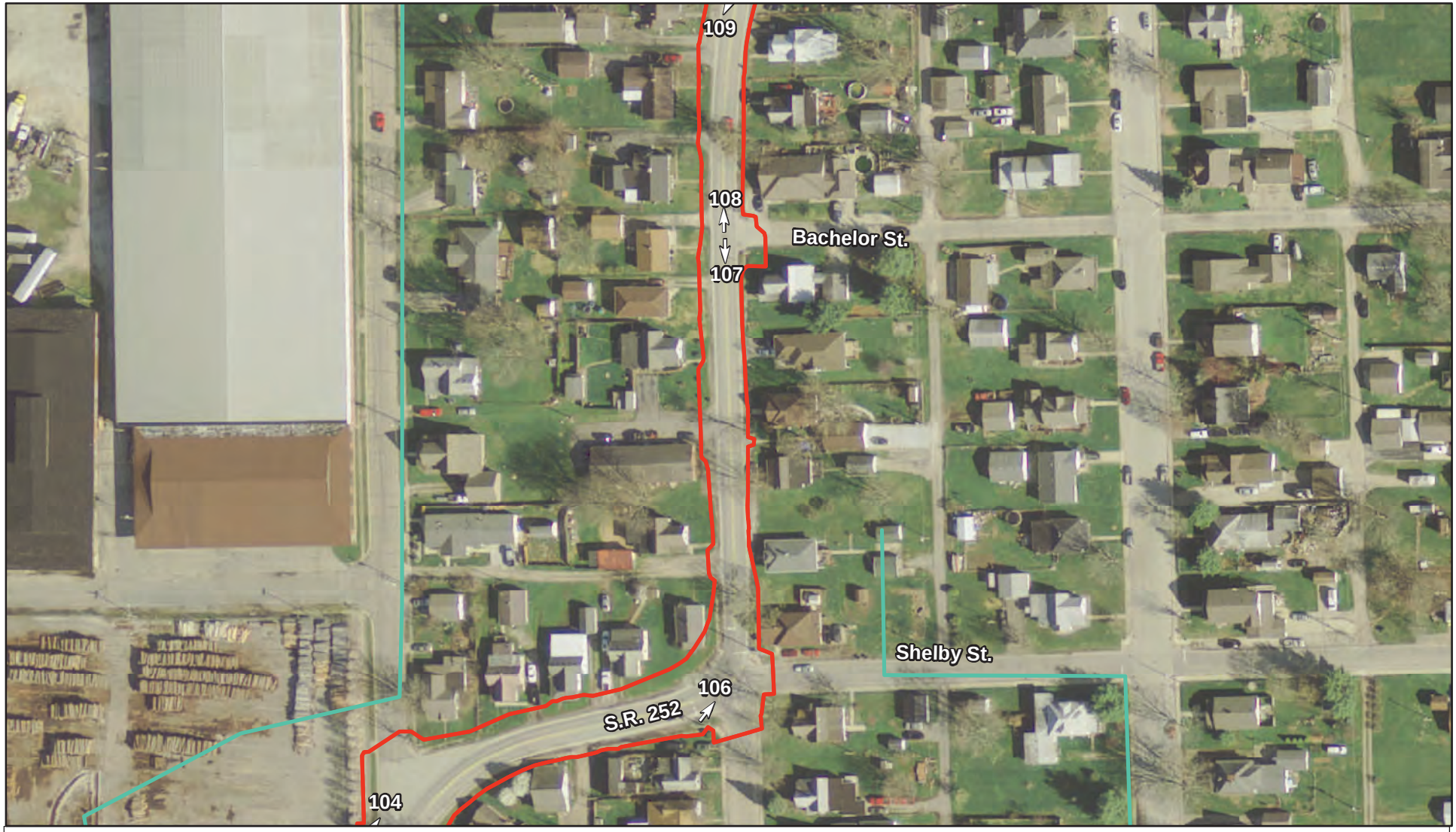
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 185 370 740

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 165 330 660

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | Culvert | Roadside Ditch (RSD)

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert Openings | NHD Flowline

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 190 380 760
Feet

METRIC ENVIRONMENTAL

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 190 380 760

METRIC ENVIRONMENTAL

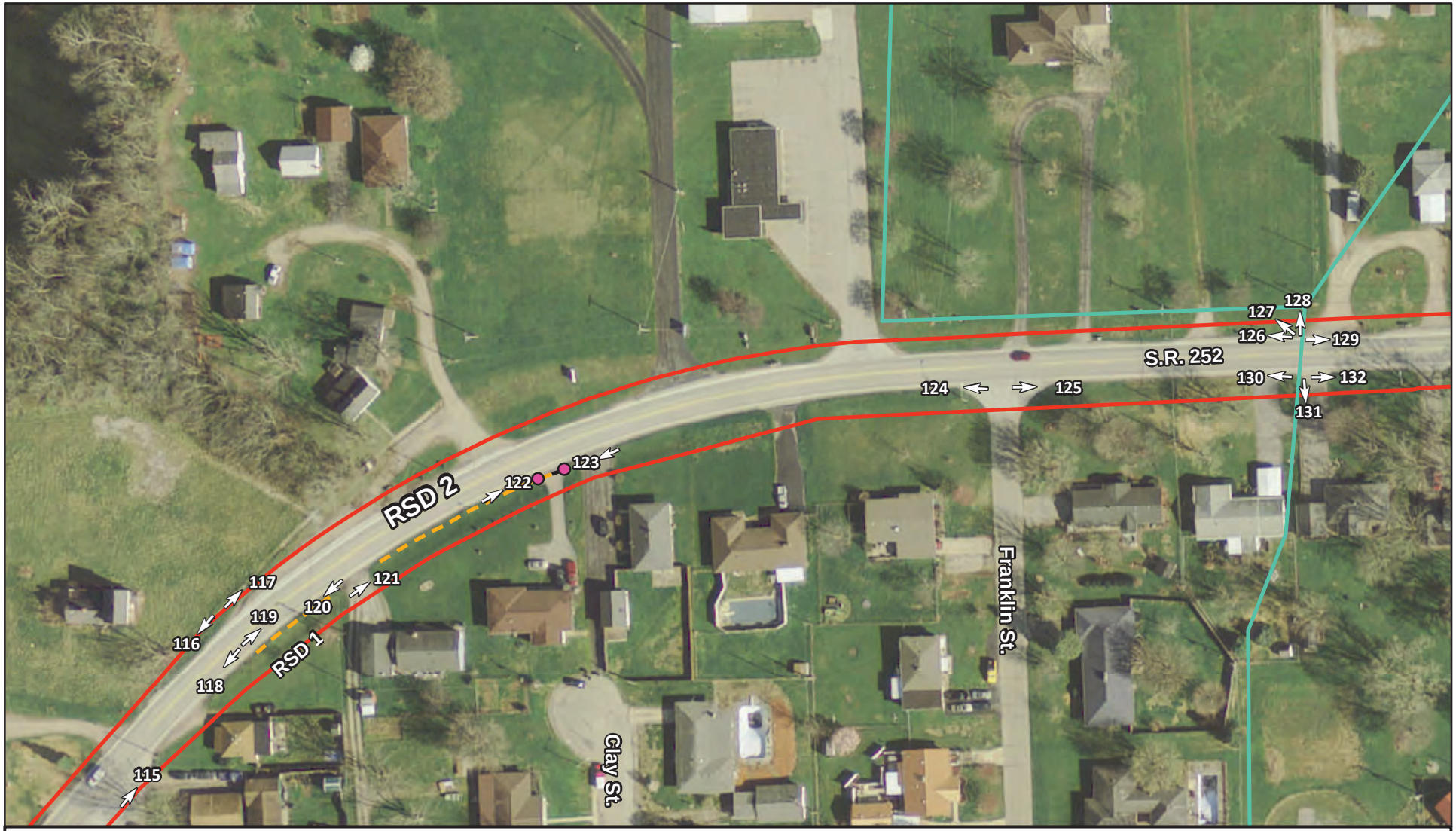


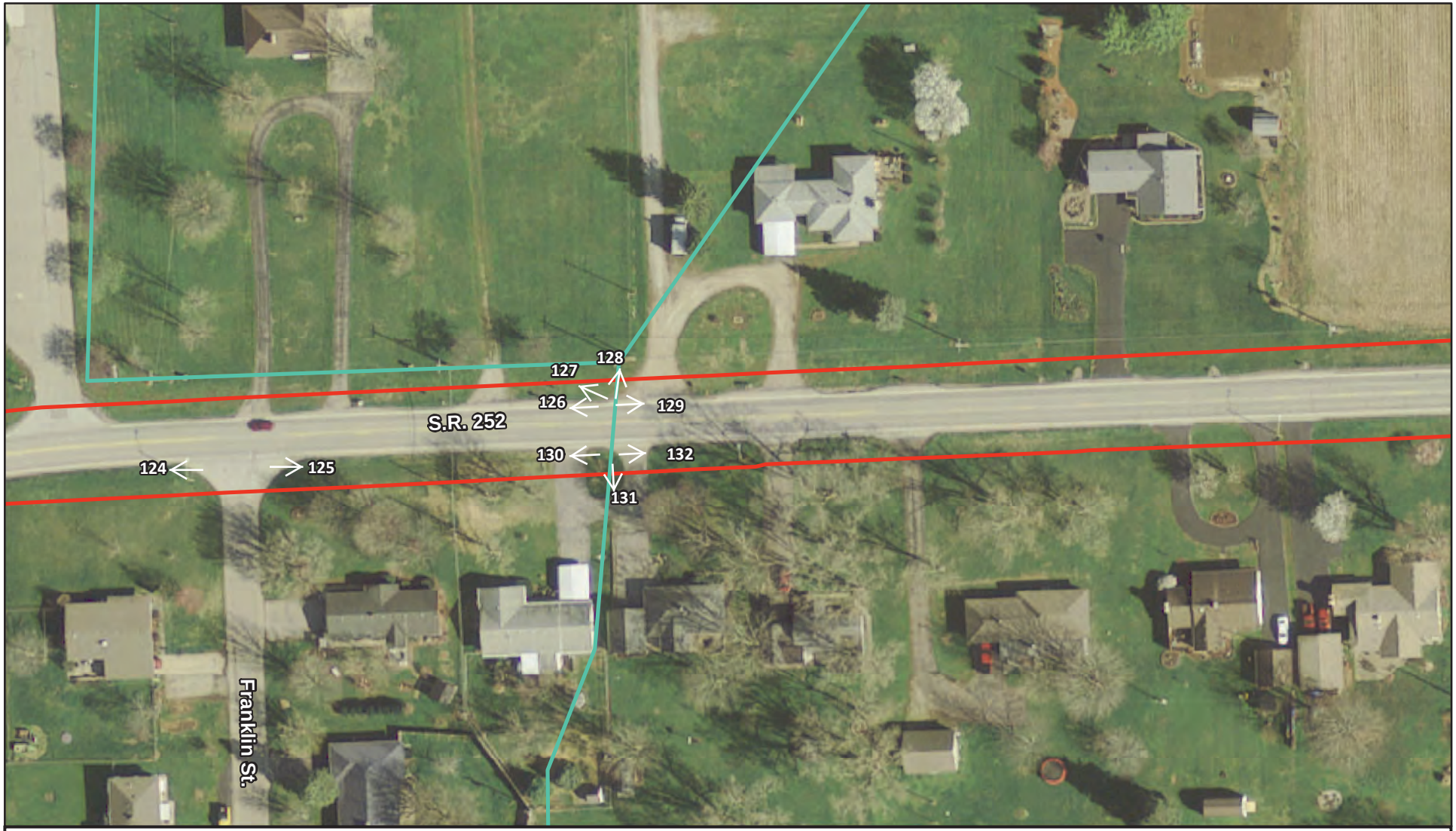
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 140 280 560
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL

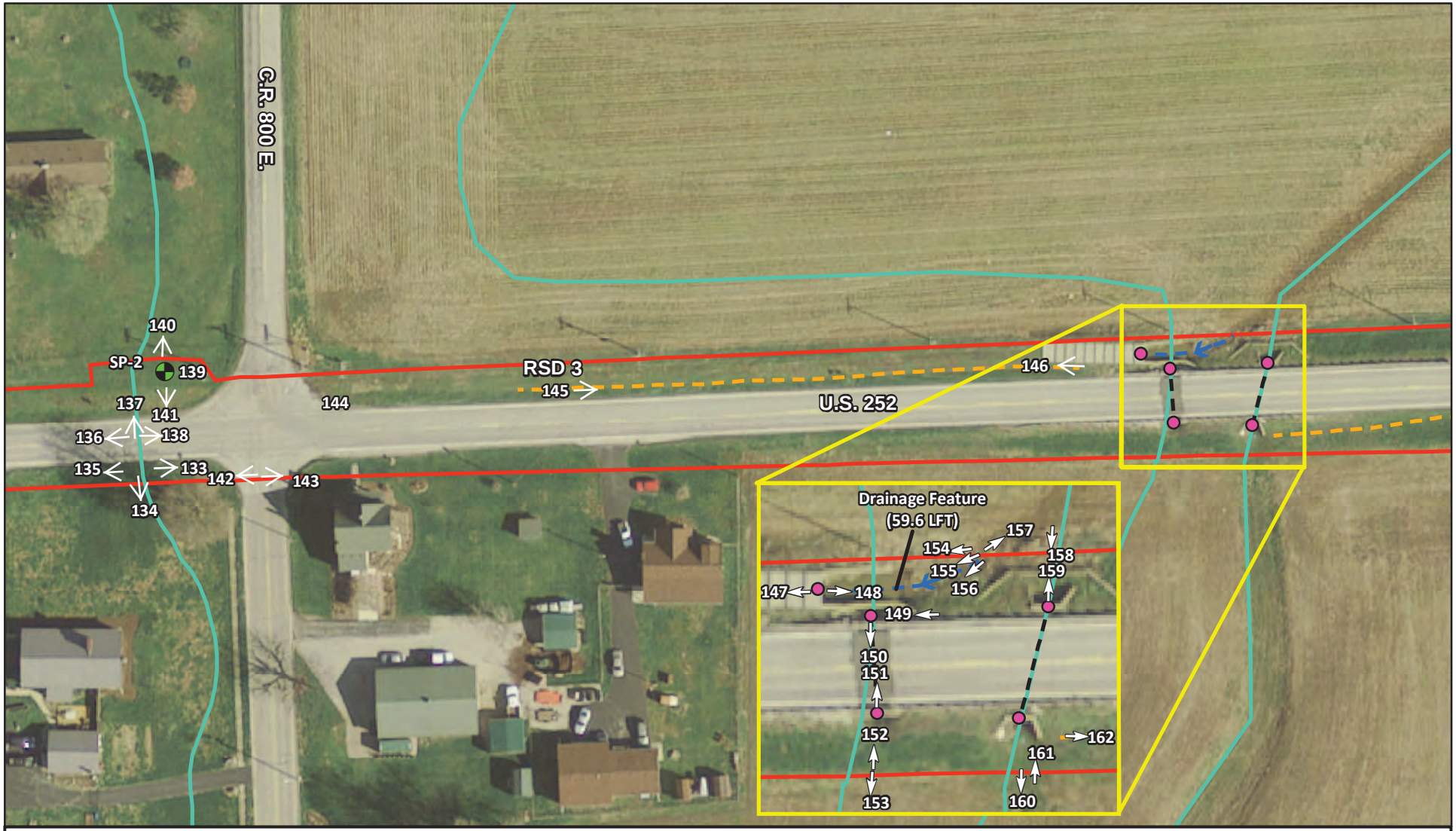


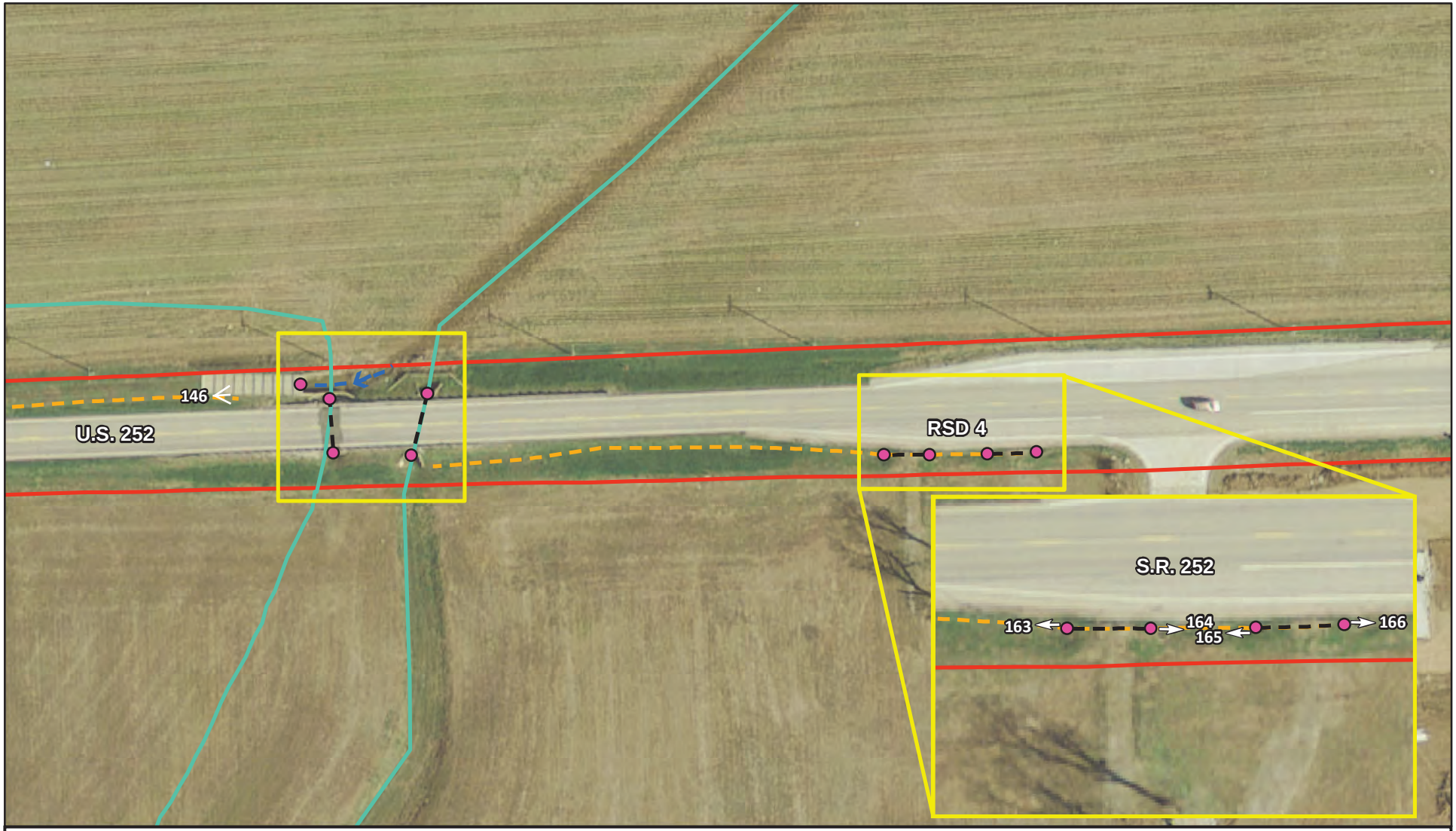
Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

0 112.5 225 450
Feet

METRIC ENVIRONMENTAL



Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 8/1/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL

Project Study Limits | Wetland | Stream | NHD Flowline | Culvert Openings

Sampling Point (SP) | Wetland Beyond PSL | Drainage Feature | Culvert | Roadside Ditch (RSD)

Exhibit 4 - Waters Delineation
and Photo Location Map
S.R. 252 Edinburgh
Small Town Pavement Replacement
Blue River & Jackson Townships
Johnson & Shelby Counties Indiana
Des. No. 1700108
Metric Project No. 18-0002
Map Date: 9/20/2019
Map Author: Cory Shumate

All locations approximate
Indiana Spatial Data Portal (2016)

N

Feet 0 112.5 225 450

METRIC ENVIRONMENTAL

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 9/9/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-A1

Investigator(s): Cory Shumate | Section, Township, Range: Section: 33, Township: 11 N, Range: 5 E

Landform (hillslope, terrace, etc.): Streambank | Local relief (concave, convex, none): Concave

Slope (%): 1% | Lat: 39.35595 | Long: -85.97576 | Datum: NAD83

Soil Map Unit Name: Genesee loam (Ge) - Not Hydric (0 percent) | NWI classification: R2UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**
Hydric Soil Present?	Yes X	No ____	**within a Wetland?** Yes x No ____
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
Wetland A (PFO1A) Sampling Point

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus americana*	30%	Yes	FACU
2. *Gleditsia triacanthos*	30%	Yes	FACU
3. *Betula nigra*	15%	Yes	FACW
4.			
5.			
	75%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer saccharinum*	10%	Yes	FACW
2. *Cornus racemosa*	10%	Yes	FAC
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Solidago gigantea*	30%	Yes	FACW
2. *Persicaria hydropiperoides*	30%	Yes	OBL
3. *Boehmeria cylindrica*	30%	Yes	OBL
4. *Toxicodendron radicans*	15%	No	FAC
5. *Cornus racemosa*	10%	No	FAC
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	115%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Toxicodendron radicans*	5%	Yes	FAC
2.			
	5%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 78% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60%	x1 =	0.6
FACW species	55%	x2 =	1.1
FAC species	40%	x3 =	1.2
FACU species	60%	x4 =	2.4
UPL species		x5 =	
Column Totals:	2.15 (A)		5.3 (B)

Prevalence Index = B/A = 2.47

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
X 2-Dominance Test is >50%
X 3-Prevalence Index is ≤3.0[1]
____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: SP-A1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	95	10YR 5/8	5	C	M	SiL	Prominent redox concentrations
5-6	10YR 4/2	90	10YR 5/8	10	C	M	SL	Prominent redox concentrations
6-9	10YR 3/2	85	5YR 3/4	15	C	M, PL	SiL	Prominent redox concentrations
9-20	10YR 3/2	85	10YR 4/3	10	C	M	SiL	Distinct redox concentrations
			5YR 3/4	5	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes X No ___	Depth (inches):	14
Saturation Present? (includes capillary fringe)	Yes X No ___	Depth (inches):	13

Wetland Hydrology Present? **Yes** x **No** _____

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

Remarks:

Sampling point was located on a streambank within a 100-year floodplain. Therefore, it meets the criteria for geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 9/9/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-A2

Investigator(s): Cory Shumate | Section, Township, Range: Section: 33, Township: 11 N, Range: 5 E

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): None

Slope (%): 0% | Lat: 39.35593 | Long: -85.97572 | Datum: NAD83

Soil Map Unit Name: Genesee loam (Ge) - Not Hydric (0 percent) | NWI classification: R2UBH

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes X	No ____	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
Wetland A Upland Sampling Point

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Fraxinus americana*	30%	Yes	FACU
2. *Gleditsia triacanthos*	30%	Yes	FACU
3. *Betula nigra*	15%	Yes	FACW
4.			
5.			
	75%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Cornus racemosa*	20%	Yes	FAC
2.			
3.			
4.			
5.			
	20%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Festuca rubra*	75%	Yes	FACU
2. *Solidago gigantea*	15%	No	FACW
3. *Toxicodendron radicans*	15%	No	FAC
4. *Boehmeria cylindrica*	10%	No	OBL
5. *Elymus virginicus*	5%	No	FACW
6. *Ambrosia trifida*	5%	No	FAC
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	125%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Toxicodendron radicans*	5%	Yes	FAC
2.			
	5%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

g

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10%	x1 =	0.1
FACW species	35%	x2 =	0.7
FAC species	45%	x3 =	1.35
FACU species	135%	x4 =	5.4
UPL species		x5 =	
Column Totals:	2.25 (A)		7.55 (B)

Prevalence Index = B/A = 3.36

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
____ 2-Dominance Test is >50%
____ 3-Prevalence Index is ≤3.0[1]
____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: SP-A2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	80	10YR 4/2	18	C	M	SiL	Faint redox concentrations
			5YR 3/4	2	C	M		Prominent redox concentrations
11-20	10YR 3/2	70	10YR 4/2	15	C	M	SiL	Faint redox concentrations
			5YR 3/4	15	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** x **No** _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- X Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- X Geomorphic Position (D2)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? Yes ___ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** x **No** _____

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

Remarks:

Sampling point was located on a terrace within a 100-year floodplain. Therefore, it meets the criteria for geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 4/10/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-1

Investigator(s): Amy Smith & Alex Gray | Section, Township, Range: Section: 33 Township: 11 N, Range: 5 E

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): None

Slope (%): 0% | Lat: 39.35536 | Long: -85.977039 | Datum: NAD83

Soil Map Unit Name: Genesee loam (Ge) - Not Hydric (0 percent) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
Upland sampling point 1.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	10%	Yes	FACW
2. *Ulmus americana*	10%	Yes	FACW
3. *Celtis occidentalis*	10%	Yes	FAC
4.			
5.			
	30%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer negundo*	30%	Yes	FAC
2. *Ulmus americana*	20%	Yes	FACW
3. *Lonicera maackii*	10%	Yes	UPL
4.			
5.			
	60%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	0%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *Smilax rotundifolia*	10%	Yes	FAC
2.			
	10%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 86% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	40%	x2 =	0.8
FAC species	50%	x3 =	1.5
FACU species		x4 =	
UPL species	10%	x5 =	0.5
Column Totals:	1.00 (A)		2.8 (B)

Prevalence Index = B/A = 2.80

Hydrophytic Vegetation Indicators:

- ____ 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- ____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: SP-1

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					SL	
6-16	10YR 5/3	100					S	Gravel present
16-20	10YR 3/2	100					SL	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- x Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ 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)
- X FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No x	Depth (inches):	
Water Table Present?	Yes ___ No x	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No x	Depth (inches):	

Wetland Hydrology Present? **Yes** x **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 5/14/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-2

Investigator(s): Cory Shumate | Section, Township, Range: Section 27, Township 11 N, Range 5 E

Landform (hillslope, terrace, etc.): Road embankment | Local relief (concave, convex, none): Convex

Slope (%): 1% | Lat: 39.362003 | Long: -85.952916 | Datum: NAD83

Soil Map Unit Name: Ninevah loam, 0 to 2 percent slopes, eroded (NnA) - Not Hydric | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes ____	No X		

Remarks:
Upland Sampling Point 2. The area had received an average of approximately 0.2 inches of rain during the previous two days.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *Festuca rubra*	95%	Yes	FACU
2. *Taraxacum officinale*	10%	No	FACU
3. *Trifolium re ens*	10%	No	FACU
4. *Glechoma hederacea*	10%	No	FACU
5. *Calendula arvensis*	5%	No	UPL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	130%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species		x3 =	
FACU species	125%	x4 =	5
UPL species	5%	x5 =	0.25
Column Totals:	1.30 (A)		5.25 (B)

Prevalence Index = B/A = 4.04

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
____ 2-Dominance Test is >50%
____ 3-Prevalence Index is ≤3.0[1]
____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes ____ No X

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

SOIL

Sampling Point: SP-2

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 2/2	100					SiL	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 15

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ 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 Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ 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)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 5/14/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-3

Investigator(s): Cory Shumate | Section, Township, Range: Section 33, Township 11 N, Range 5 E

Landform (hillslope, terrace, etc.): Terrace | Local relief (concave, convex, none): None

Slope (%): 0% | Lat: 39.355881 | Long: -85.977758 | Datum: NAD83

Soil Map Unit Name: Genesee loam (Ge) - Not Hydric | NWI classification: PFO1A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes ____	No X		

Remarks:
Upland Sampling Point 3. The area had received an average of approximately 0.2 inches of rain during the previous two days.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer saccharinum*	65%	Yes	FACW
2. *Celtis occidentalis*	40%	Yes	FAC
3. *latanus occidentalis*	10%	No	FACW
4.			
5.			
	115%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer negundo*	20%	Yes	FAC
2. *Sambucus nigra*	5%	Yes	FAC
3.			
4.			
5.			
	25%	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. *oa ratensis*	70%	Yes	FAC
2. *iola sororia*	25%	No	FAC
3. *Glechoma hederacea*	10%	No	FACU
4. *Erigeron annuus*	5%	No	FACU
5. *Carex blanda*	5%	No	FAC
6. *Erigeron hiladel hicus*	5%	No	FACW
7. *Allium vineale*	5%	No	FACU
8. *Toxicodendron radicans*	5%	No	FAC
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	130%	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1 *onicera a onica*	15%	Yes	FACU
2. *itis labrusca*	10%	Yes	FACU
3. *Toxicodendron radicans*	5%	Yes	FAC
	30%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	80%	x2 =	1.6
FAC species	150%	x3 =	4.5
FACU species	45%	x4 =	1.8
UPL species		x5 =	
Column Totals:	2.75 (A)		7.9 (B)

Prevalence Index = B/A = 2.87

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation
X 2-Dominance Test is >50%
X 3-Prevalence Index is ≤3.0[1]
____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: SP-3

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	60	10YR 4/3	40	C	M	SL	Faint mottles
16-20	10YR 3/2	50					SL	Mixed matrix
	10YR 4/3	50						Mixed Matrix

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Dark Surface (S7)
___ Very Shallow Dark Surface (TF12)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

___ 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 Aerial Imagery (B7)
___ Sparsely Vegetated Concave Surface (B8)
___ Water-Stained Leaves (B9)
___ Aquatic Fauna (B13)
___ True Aquatic Plants (B14)
___ Hydrogen Sulfide Odor (C1)
___ Oxidized Rhizospheres on Living Roots (C3)
___ Presence of Reduced Iron (C4)
___ Recent Iron Reduction in Tilled Soils (C6)
___ Thin Muck Surface (C7)
___ Gauge or Well Data (D9)
___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

___ Surface Soil Cracks (B6)
___ 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)
___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh City/County: Edinburgh / Johnson County Sampling Date: 4/14/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-4

Investigator(s): Cory Shumate Section, Township, Range: Section 27, Township 11 N, Range 5 E

Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.355984 Long: -85.977808 Datum: NAD83

Soil Map Unit Name: Genessee loam (Ge) - Not Hydric NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes ____ No X

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Upland sampling point 4. The area had received an average of approximately 0.2 inches of rain during the previous two days.

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Fraxinus americana*	20%	Yes	FACU
2. *orus alba*	15%	Yes	FAC
3. *lmus americana*	5%	No	FACW
4.			
5.			
	40% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *halaris arundinacea*	70%	Yes	FACW
2. *m atiens ca ensis*	20%	No	FACW
3. *Glechoma hederacea*	10%	No	FACU
4. *rtica dioica*	10%	No	FACW
5. *obelia cardinalis*	5%	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	115% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. *onicera a onica*	10%	Yes	FACU
2.			
	10% = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5%	x1 =	0.05
FACW species	105%	x2 =	2.1
FAC species	15%	x3 =	0.45
FACU species	40%	x4 =	1.6
UPL species		x5 =	
Column Totals:	1.65 (A)		4.2 (B)

Prevalence Index = B/A = 2.55

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

____ 2-Dominance Test is >50%

X 3-Prevalence Index is ≤3.0[1]

____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? **Yes** ____ **No** X

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

SOIL

Sampling Point: SP-4

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 3/1	70	10YR 4/2	30	C	M	SL	Faint mottles
15-20	10YR 3/1	65	10YR 4/2	30	C	M	SL	Faint mottles
			7.5 YR 3/4	5	C	M		Prominent mottles

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- X Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- X Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ 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)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 6

Water Table Present? Yes ___ No X Depth (inches): ___

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** x **No** ___

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des. No. 1700108 - S.R. 252 Edinburgh | City/County: Edinburgh / Johnson County | Sampling Date: 5/14/2019

Applicant/Owner: INDOT | State: IN | Sampling Point: SP-5

Investigator(s): Cory Shumate | Section, Township, Range: Section 33, Township 11 N, Range 5 E

Landform (hillslope, terrace, etc.): Road embankment | Local relief (concave, convex, none): Convex

Slope (%): 1% | Lat: 39.358808 | Long: -85.983507 | Datum: NAD83

Soil Map Unit Name: Fox complex, 6 to 12 percent slopes, eroded (FxC2) - Not hydric | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes ____ No X

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Upland sampling point 5. The area had received an average of approximately 0.2 inches of rain during the previous two days.

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Imus americana*	15%	Yes	FACW
2. *o ulus deltoides*	15%	Yes	FAC
3.			
4.			
5.			
	30%	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	

Herb Stratum (Plot size: 5' radius)			
1. *oa ratensis*	95%	Yes	FAC
2. *Festuca rubra*	25%	Yes	FACU
3. *Taraxacum officinale*	5%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	125%	= Total Cover	

Woody Vine Stratum (Plot size: 30' radius)			
1. *onicera a onica*	15%	Yes	FACU
2.			
	15%	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	15%	x2 =	0.3
FAC species	110%	x3 =	3.3
FACU species	45%	x4 =	1.8
UPL species		x5 =	
Column Totals:	1.70 (A)		5.4 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

____ 1-Rapid Test for Hydrophytic Vegetation

X 2-Dominance Test is >50%

____ 3-Prevalence Index is ≤3.0[1]

____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

____ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No ____

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

SOIL

Sampling Point: SP-5

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/2	100					SiL	
6-12	10YR 3/4	80	10YR 2/2	20	C	M	SiL	Distinct mottles

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Gravel

Depth (inches): 12

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required: check all that apply)

- ___ 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 Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ 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)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ___ No X	Depth (inches):	
Water Table Present?	Yes ___ No X	Depth (inches):	
Saturation Present? (includes capillary fringe)	Yes ___ No X	Depth (inches):	

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: October 18, 2019

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Cory Shumate
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, IN 46250
317-350-4896
corys@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. No. 1700108) includes replacement of the pavement on S.R. 252, from U.S. 31 to 0.18 mile west of I-65, in Edinburgh, IN. Specifically, the project is located in Sections 11, 26, 27, 28, 33, 34 & 35, Township 11 North, Range 5 East, Blue River and Jackson Townships, Shelby and Johnson Counties as shown on the attached 7.5-minute Edinburgh, Indiana USGS Topographic map. The proposed project will consist of 4-inch functional inlay with 2 feet widening in each direction from U.S. 31 to Pleasant Street. The pavement along S.R. 252 from Pleasant Street to Lincoln Street will be reconstructed with a 4-inch functional inlay with 2 feet widening in each direction from Lincoln Street to the pavement break west of I-65. A hydraulic investigation will be conducted to determine the condition and functionality of the existing stormwater facilities. The existing stormwater facilities will be upgraded and repaired based on the findings of the hydraulic investigation. Castings that are substandard and/or functionally obsolete will be replaced. New curbs and gutters will be installed. The existing sidewalks and ramps will be upgraded in compliance with American with Disabilities Act (ADA). The existing raised pavement markers (RPMs) will be replaced. The overhead flasher with sign mounted flashers at the intersection of S.R. 252 and Grant Street will be replaced. It is anticipated that less than 10 acres of right-of-way will be required.

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

State: IN County/parish/borough: Shelby & Johnson Counties City: Edinburgh
Center coordinates of site (lat/long in degree decimal format):
Lat.: 39.35845°
Long.: -85.96646 °
Universal Transverse Mercator: 16 N 4424546.02 E 588266.66
Name of nearest waterbody: Big Blue River

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL 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)
Wetland A	39.35595	-85.97571	0.010 acre	Wetland	Section 404
Big Blue River	39.355712	-85.977309	141.5 LFT	Non-wetland Waters	Section 404
UNT to Big Blue River	39.356776	-85.978545	26.7 LFT	Non-wetland Waters	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 "pre-construction 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:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
- [x] Map: Dated 1/4/19, 5/13/19, & 9/20/19

  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.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Edinburgh, IN 7.5 min, 1996
- [x] Natural Resources Conservation Service Soil Survey. Citation: SSURGO Shelby & Johnson Counties
- [x] National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/.
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: ; Effective _____
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Indiana Aerial Photograph, 2016.

  or [x] Other (Name & Date): Site Photographs, 4/10/19, 5/14/19, 9/9/19.
- [ ] 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.

	CShumate 10/18/2019
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[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.

APPENDIX G

Public Involvement

INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

Land & Aerial Survey Office
Division of Materials & Tests Building
120 South Shortridge Road
Indianapolis, Indiana 46219-6705

PHONE: (317) 610-7251
FAX: (317) 356-9351

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

December 26, 2017

Sample Notice of Entry Letter

NOTICE OF SURVEY

Dear Property Owner:

USI Consultants, under contract with The Indiana Department of Transportation (INDOT), will perform a survey for the proposed Road Reconstruction project on SR 252 Through the Town of Edinburgh, Des No. 1700108, in Johnson County, Indiana. A portion of this survey work may be performed on your property in order to provide design engineers information for project design. The survey work will include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. The survey is needed for the proper planning and design of this highway project.

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

Indiana Code 8-23-7-26 allows USI Consultants, as the authorized employees of INDOT, *Right of Entry* to the project site (including private property) upon proper notification. A copy of a Notice of Survey discussion sheet, as found on INDOT's website (http://www.in.gov/indot/2888.htm), is attached to this letter. Pursuant to Indiana Code 8-23-7-27, this letter serves as written notification that we will be performing the above noted survey in the vicinity of your property after December 28, 2017.

USI employees will show you their identification, if you are available, before coming onto your property.

If you own but are not the tenant of this property (i.e. rental, sharecrop), please inform us so that we may also contact the actual tenant of the property prior to commencement of our work. If you have any questions or concerns regarding our proposed survey work or schedule, please contact the USI Survey Manager. This contact information is as follows:

Mark Schepers, P.S.
USI Consultants, Inc.
8415 E 56th St.
Indianapolis, IN 46216
(317) 544-4996

INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

Land & Aerial Survey Office
Division of Materials & Tests Building
120 South Shortridge Road
Indianapolis, Indiana 46219-6705

PHONE: (317) 610-7251
FAX: (317) 356-9351

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

Under Indiana Code 8-23-7-28, you have a right to compensation for any damage that occurs to your land or water as a result of the entry or work performed during the entry. To obtain such compensation, you should contact the Seymour Office District Real Estate Manager; contact information is below. The District Real Estate Manager can provide you with a form to request compensation for damages. Once you fill out this form, you can return it to the District Real Estate Manager for consideration. If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-28 provides the following:

> The amount of damages shall be assessed 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 shall 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.

If you have questions regarding the rights and procedures outlined in this letter, please contact the Seymour Real Estate Manager. This contact information is as follows:

Nicole Curry
185 Agrico Lane
Seymour, IN 47274
(812) 524-3970

Thank you in advance for your cooperation in this matter.

Sincerely,

Greg Wendling. P.E.
Project Manager
USI Consultants, Inc.
8415 E 56th St.
Indianapolis, IN 46216
(317) 544-4996

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 233-6795

Eric J. Holcomb, Governor
Joe McGuinness, Commissioner

August 23, 2021

Sample Notice of Entry Letter

Re: NOTICE OF SURVEY at 308 W. Center Cross St., Edinburgh, IN 46124
DES #1700108
Small Town Pavement Replacement Project
SR 252 from US 31 to 0.18 mile west of I-65
Edinburgh, Johnson and Shelby Counties, Indiana

Dear Property Owner:

Metric Environmental and SJCA, under contract with USI Consultants (Designer) and the Indiana Department of Transportation (INDOT – Project Owner), will be conducting additional environmental surveys, in the near future, for the above referenced project at 308 W. Center Cross St., Edinburgh, IN 46124. This is permitted under Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, 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 that we can contact them about the survey or investigation.

The survey work may include the identification and mapping of wetlands, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), and various other environmental studies. The information we obtain from such studies is necessary for the proper planning and design of this project.

It is our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact the field crew or contact Susan Castle, Metric Environmental, LLC at (317) 608-2730 or Susanc@metricenv.com. We thank you in advance for your cooperation.

On behalf of INDOT,
Metric Environmental, LLC

Susan K. Castle
Senior Scientist

cc: File No. 18-0002
Karen Wood, SJCA
Greg Wendling, USI Consultants, Inc.
Nicole Carter, INDOT Seymour District

8415 E. 56th St. • Suite A
Indianapolis, IN 46216

February 13, 2018

SR 252 Reconstruction
Des No. 1700108

Meeting with Edinburgh, 2-13-18

Introductions: Attendees listed below

Wade Watson	Town Manager
Glenn Giles	Water & Waste Water Manager
Curtis Rooks	Street Superintendent
Kevin Rubush	Electric Superintendent
Steve	Electric
Nicole Curry	INDOT, Project Manager
Greg Wendling	USI Consultants, Inc.

Project Description/Schedule: Road Reconstruction: February 2022 Letting

Project is in the early stages of development. Survey field work is nearing completion. Processing of survey data will take 3-4 weeks. Development of the Engineering Assessment will begin after the survey is processed.

It is anticipated that from US 31 to Eisenhower, and from Franklin to I-65 will be pavement rehabilitation. From Eisenhower to Franklin is anticipated to be full reconstruction.

Utilities: The town of Edinburgh has municipal water, sanitary and electric. Phone provider is AT&T. Duke Energy provides the electric transmission power to the town, but does not have facilities within the project area. New Wave Communications has fiber facilities in the area. Vectren Energy is the natural gas provider and has facilities within the area.

West of the railroad, all storm inlets go into a combination sewer. East of the railroad, separated storm water facilities exist. It was noted that a 60” storm sewer exists along the north side of SR 252 at the intersection of Kyle Street.

Accident Concern areas: 3 specific areas were mentioned by the town

1. Curve just east of the railroad is too tight, with semi-trucks encroaching into the on-coming lane
2. Curve at Grant Street is too tight, with semi-trucks encroaching into the on-coming lane.

Curve at the Thompson property. Historic retaining wall is close to the roadway, high pedestrian traffic, limited shoulder.

Additional concern areas mentioned were poor sight distance exiting the Casey's store, and high truck volumes at CR 800 E (due to Quarry) and also at Main Street (due to commercial business).

Cross Section Alternates: Discussion occurred regarding shoulder section versus curb and gutter. USI will develop an alternate in their Engineering Assessment that includes sidewalk on both sides with a 10' utility strip on one side.

Drainage Improvements: Despite limited ditching, no specific drainage problems were mentioned. This area has a large layer of granular material that helps reduce the impacts from rain events. Greg mentioned that roadway improvements would necessarily include positive outlets for ditches.

Maintenance of Traffic: It was noted that SR 252 would officially be detoured for through traffic (I-65 to US 31), however access to property owners, businesses' and emergency vehicles will be a requirement of the project design and Contractor. Segmenting the reconstruction section into shorter segments of closure will help alleviate access concerns through the town. In discussion with the town, one possible location for the segment breaks would be as follows:
Segment 1: Eisenhower to just west of Main Street
Segment 2: Just west of Main Street to Grant Street
Segment 3: Grant Street to end of Reconstruction

Town Concerns/Events: No specific events were mentioned as concerns. Most town activities take place south of the SR 252 project area.

Other Items:
Edinburgh has had relinquishment discussions with INDOT. Relinquishment could occur with or without road improvements. Nicole Curry, INDOT PM, will monitor these discussions, and provide direction to the USI design team as necessary.

The town has water and wastewater mapping information that they will be providing USI. Thanks!

The above notes are the summary of my recollection of the meeting. Thank you all for your input and cooperation.

Sincerely,

Greg Wendling

APPENDIX H

Air Quality

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2020 - 2024

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Performance Measure Impacted: Reliability and Freight Reliability																		
Comments:Adding CN funds in the amount of $1,028,429.00. Via MPO Tip page																		
Greenwood	40312 / 1700789	Init.	ST 1042	Intersection Improvement, Roundabout	Intersection of Main Street and Yorktown Road/Meadowview Lane	Seymour	.5	STBG		Local Funds	RW	$0.00	$150,000.00	$150,000.00				
										Local Funds	CN	$0.00	$185,175.00		$185,175.00			
										Indianapolis MPO	CN	$740,700.00	$0.00		$740,700.00			
Performance Measure Impacted: Safety																		
Indiana Department of Transportation	40347 / 1701145	Init.	SR 44	Bridge Deck Overlay	0.86 mile W of SR 44 over Youngs Creek	Seymour	0	NHPP		Bridge Construction	CN	$2,048,668.00	$512,167.00	$2,560,835.00				
Performance Measure Impacted: Bridge Condition																		
Indiana Department of Transportation	40411 / 1700108	Init.	SR 252	Pavement Replacement	US 31 to 0.18 miles W. of I-65	Seymour	2.358	STBG		Road Construction	CN	$5,114,397.60	$1,278,599.40					$6,392,997.00
										Road ROW	RW	$1,424,000.00	$356,000.00	$1,780,000.00				
Performance Measure Impacted: Pavement Condition																		
Indiana Department of Transportation	40411 / 1700108	A 56	SR 252	Pavement Replacement	US 31 to 0.18 miles W. of I-65	Seymour	2.358	STBG	$11,662,660.20	Local Transportation Alternatives	RW	$83,200.00	$20,800.00			$104,000.00		
										Local Funds	RW	$20,800.00	$5,200.00			$26,000.00		
Performance Measure Impacted: Pavement Condition																		
Comments:Add FY22 RW ($130,000.00). IMPO Amendment 20-05 dated 4/15/2020. AQC Exempt - 4/15/2020.																		
Indiana Department of Transportation	40442 / 1700115	Init.	SR 135	HMA Overlay Minor Structural	3.74 miles N of SR 144 (Stones Crossing) to 5.61 miles N of SR 144 (Curry Rd)	Seymour	1.878	NHPP		Road Construction	CN	$2,284,012.80	$571,003.20			$2,855,016.00		
Performance Measure Impacted: Pavement Condition																		
Indiana Department of Transportation	40698 / 1702224	Init.	VA VARI	Traffic Signal Visibility Improvements	Various locations in Johnson County on SR135 and SR 37	Seymour	0	Multiple		Safety Construction	CN	$771,223.20	$192,805.80	$964,029.00				
Performance Measure Impacted: Safety																		
Johnson County	40880 / 1800989	Init.	VA 1031	Signs, Lighting, Signals And Markings	4 At-Grade Road Crossings with the LIRC line	Seymour	.045	STBG		Local Funds	CN	$0.00	$92,042.80			$92,042.80		
										Local Safety Program	CN	$828,385.20	$0.00			$828,385.20		
Performance Measure Impacted: Safety																		
Johnson County	40881 / 1702954	Init.	IR 1010	Bridge Deck Replacement	Bridge 38 East Greensburg Road over Sugar Creek	Seymour	.08	STBG		Group III Program	CN	$1,126,480.00	$0.00			$1,126,480.00		
										Local Funds	CN	$0.00	$281,620.00			$281,620.00		
Performance Measure Impacted: Bridge Condition																		

Report Created:1/31/2022 10:31:59AM

*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.

Planning the Transportation Future for the Indianapolis Region

Project Overview | Funding History | Amendment History

<<Go Back

SR 252 Pavement Rehab + Bike/Ped Enhancements (1700108)

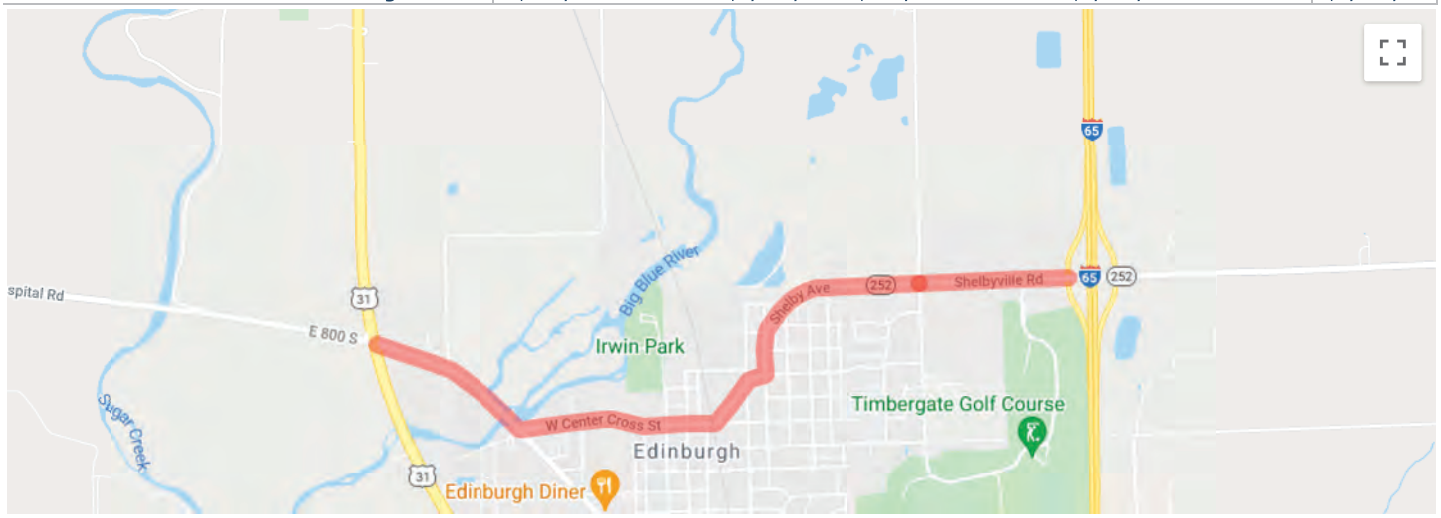
Des Number	1700108	*Amendment*	20-05 INDOT	*Exempt Category*	Exempt	*Est Total Project Cost*	$9,741,816
Lead Agency	INDOT	*Contact (ERC)*		*INDOT District*	Seymour	*County*	Johnson Johnson Co.
Project Type	Pavement Replacement, Small Town	*Letting Date*	09/13/2023	*Functional Classification*	Minor Collector	*Bike/Ped Component(s)*	No
Project Type	Pavement Replacement, Small Town						

Title SR 252 Pavement Rehab + Bike/Ped Enhancements

Limits From 28+-01 to 30+22 of Distance (mile) 2.36 Milepost begins at 28 ends at 30

Description Small Town replacement of pavement in Edinburgh + 1902760 - bike/ped enhancements

Phase	Fund Source	Prior SFY	SFY2020	SFY2021	SFY2022	SFY2023	SFY2024	Future SFY	Total
PE	FEDERAL - State STBG	$185,862	-	-	-	-	-	-	$185,862
PE	LOCAL - General fund, property taxes	-	-	$15,000	-	-	-	-	$15,000
PE	STATE - Other	$46,465	-	-	-	-	-	-	$46,465
	Total Preliminary Engineering	$232,327	-	$15,000	-	-	-	-	$247,327
RW	FEDERAL - State STBG	-	-	$1,424,000	-	-	-	-	$1,424,000
RW	LOCAL - General fund, property taxes	-	-	-	$130,000	-	-	-	$130,000
RW	STATE - Other	-	-	$356,000	-	-	-	-	$356,000
	Total Right of Way	-	-	$1,780,000	$130,000	-	-	-	$1,910,000
CN	FEDERAL - State STBG	-	-	-	-	-	$5,504,000	-	$5,504,000
CN	FEDERAL - State TAP	-	-	-	-	-	$563,591	-	$563,591
CN	LOCAL - General fund, property taxes	-	-	-	-	-	$140,898	-	$140,898
CN	STATE - Other	-	-	-	-	-	$1,376,000	-	$1,376,000
	Total Construction	-	-	-	-	-	$7,584,489	-	$7,584,489
	Total Programmed	**$232,327**	**-**	**$1,795,000**	**$130,000**	**-**	**$7,584,489**	**-**	**$9,741,816**



Google Map data ©2022 Google

Planning the Transportation Future for the Indianapolis Region

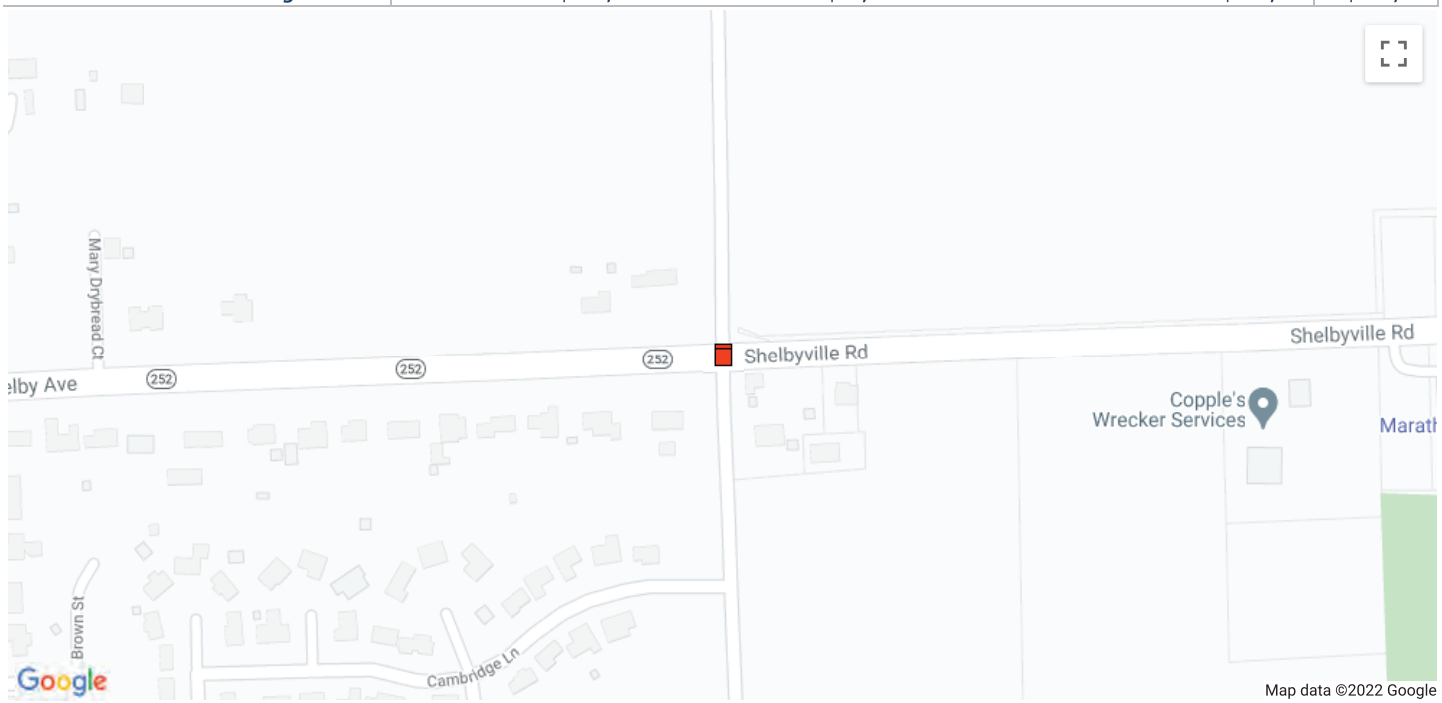
Project Overview | Funding History | Amendment History

<<**Go Back**

SR 252 Small Structure Replacement (1900353)

Des Number	1900353	*Amendment*	20-12 INDOT	*Exempt Category*	Exempt	*Est Total Project Cost*	$335,253
Lead Agency	INDOT	*Contact (ERC)*		*INDOT District*	Seymour	*County*	Johnson
Project Type	Small Structure Replacement	*Letting Date*		*Functional Classification*	Major Collector	*Bike/Ped Component(s)*	No
Project Type	Small Structure Replacement						
Title	SR 252 Small Structure Replacement						
Limits	Bridge #: 93006300						
Description	Small Structure Replacement on SR 252 2.20 miles E of US 31 Jct						

Phase	Fund Source	Prior SFY	SFY2020	SFY2021	SFY2022	SFY2023	SFY2024	Future SFY	Total
PE	FEDERAL - State STBG	-	$140,000	-	-	-	-	-	$140,000
PE	STATE - Other	-	$35,000	-	-	-	-	-	$35,000
	Total Preliminary Engineering	-	$175,000	-	-	-	-	-	$175,000
RW	FEDERAL - State STBG	-	-	-	$8,000	-	-	-	$8,000
RW	STATE - Other	-	-	-	$2,000	-	-	-	$2,000
	Total Right of Way	-	-	-	$10,000	-	-	-	$10,000
CN	FEDERAL - State STBG	-	-	-	-	-	-	$96,202	$96,202
CN	STATE - Other	-	-	-	-	-	-	$24,051	$24,051
	Total Construction	-	-	-	-	-	-	$120,253	$120,253
CE	FEDERAL - State STBG	-	-	-	-	-	-	$24,000	$24,000
CE	STATE - Other	-	-	-	-	-	-	$6,000	$6,000
	Total Construction Engineering	-	-	-	-	-	-	$30,000	$30,000
	Total Programmed	**-**	**$175,000**	**-**	**$10,000**	**-**	**-**	**$150,253**	**$335,253**



APPENDIX I

Additional Studies

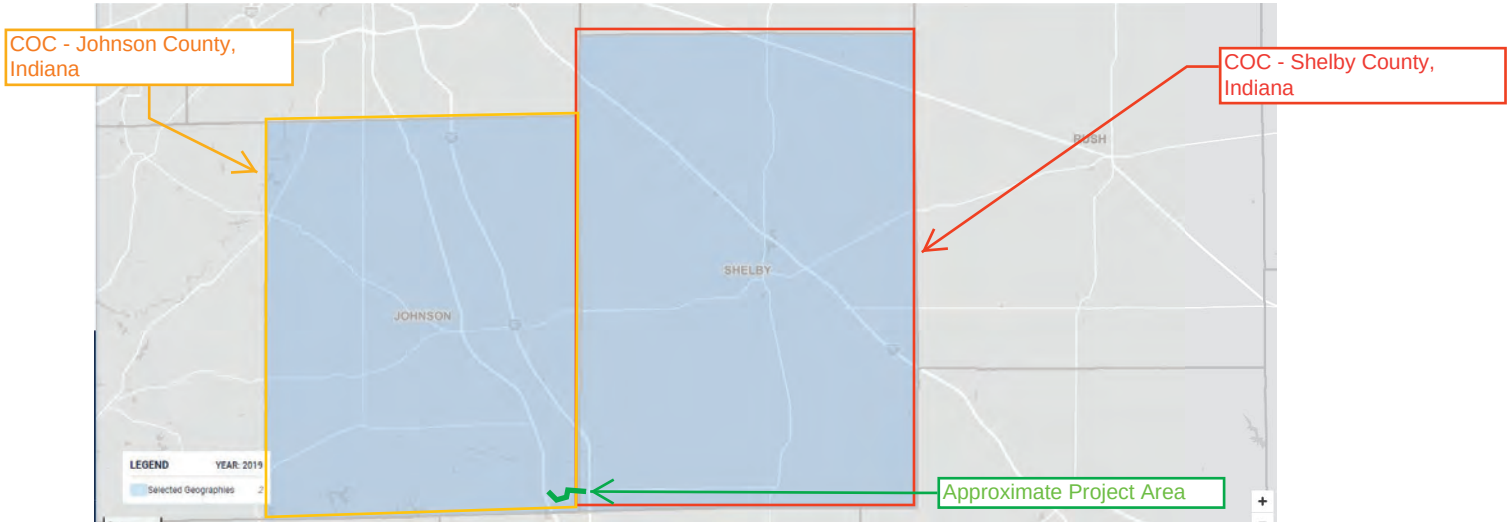
Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated July 2020)

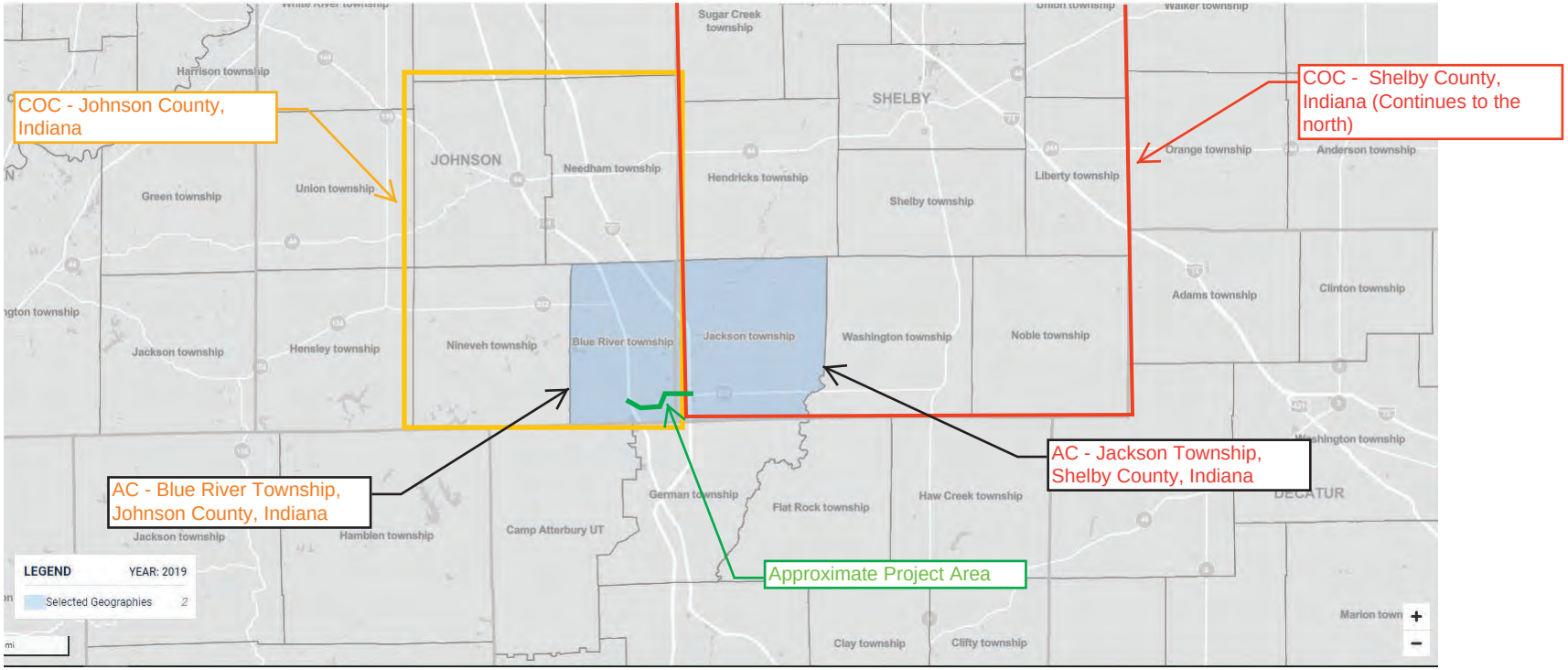
ProjectNumber	SubProjectCode	County	Property
1800148	1800148	Johnson	Tot Park, New Whiteland Park
1800369	1800369B.10	Johnson	Independence Park
1800369	1800369B	Johnson	Johnson Co. Park/Hoosier Horse Park
1800537	1800537	Shelby	Blue River Park
1800544	1800544	Shelby	Blue River Park
1800548	1800548	Shelby	Blue River Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination

Environmental Justice Maps – Communities of Comparison (COCs) and Affected Communities (ACs)

2019 Maps retrieved from https://data.census.gov/cedsci/ on June 15, 2021 by Metric





Environmental Justice Data – Hispanic or Latino Origin By Race

2019 5-year estimates data retrieved from https://data.census.gov/cedsci/ on June 15, 2021 by Metric

	Johnson County, Indiana	Shelby County, Indiana	Blue River township, Johnson ...	Jackson township, Shelby Cou...
Label	Estimate	Estimate	Estimate	Estimate
Total:	153,716	44,438	5,098	1,669
Not Hispanic or Latino:	148,218	42,565	4,759	1,636
White alone	136,803	41,006	4,480	1,581
Black or African American alone	3,664	519	147	0
American Indian and Alaska Native alone	178	21	13	0
Asian alone	5,192	250	0	0
Native Hawaiian and Other Pacific Islander alone	27	0	12	0
Some other race alone	375	73	0	0
Two or more races:	1,979	696	107	55
Two races including Some other race	49	0	0	0
Two races excluding Some other race, and three or more races	1,930	696	107	55
Hispanic or Latino:	5,498	1,873	339	33
White alone	3,119	1,104	50	23
Black or African American alone	137	0	0	0
American Indian and Alaska Native alone	28	17	0	0
Asian alone	0	0	0	0
Native Hawaiian and Other Pacific Islander alone	18	11	0	0
Some other race alone	1,662	723	289	10
Two or more races:	534	18	0	0
Two races including Some other race	438	0	0	0
Two races excluding Some other race, and three or more races	96	18	0	0

Environmental Justice Data – Poverty Status in the Past 12 Months by Sex and by Age

2019 5-year estimates data retrieved from https://data.census.gov/cedsci/ on June 15, 2021 by Metric

Communities of Comparison

	Johnson County, Indiana	Shelby County, Indiana
Label	Estimate	Estimate
Total:	150,832	43,556
Income in the past 12 months below poverty level:	11,196	4,903
Male:	5,139	2,034
Female:	6,057	2,869
Income in the past 12 months at or above poverty level:	139,636	38,653
Male:	68,642	19,395
Female:	70,994	19,258

Affected Communities

	Blue River township, Johnson ...	Jackson township, Shelby Cou...
Label	Estimate	Estimate
Total:	5,009	1,669
Income in the past 12 months below poverty level:	765	47
Male:	487	15
Female:	278	32
Income in the past 12 months at or above poverty level:	4,244	1,622
Male:	1,995	869
Female:	2,249	753

Note: The darker blue boxes around “Income in past 12 months below poverty level” and “male” are errant marks that were not able to be removed and can be disregarded.

Environmental Justice Analysis, Lead Des. No. 1700108, 1902760, and 1900353, Pavement Project, SR 252, Edinburgh, Shelby and Johnson Counties, Indiana					
		COC	**AC**	**COC**	**AC**
		Shelby County, Indiana	Jackson Township, Shelby County, Indiana	Johnson County, Indiana	Blue River Township, Johnson County, Indiana
	LOW-INCOME				
B17001001	Population for whom poverty status is determined: Total	43,556	1,669	150,832	5,009
B17001002	Population for whom poverty status is determined: Income in 2019 below poverty level	4,903	47	11,196	765
	Percent Low-Income (Income in 2019 below poverty level/Total population)	11.26%	2.82%	7.42%	15.27%
	125 Percent of COC (125 x COC Percent Low-Income)	14.07%	**AC <125% COC**	9.28%	**AC >125% COC**
	Potential Low-Income EJ Impact?		**No**		**Yes**
	MINORITY				
B03002001	Total Population: Total	44,438	1,669	153,716	5,098
B03002002	Total Population: Not Hispanic or Latino	42,565	1,636	148,218	4,759
B03002003	Total Population: Not Hispanic or Latino; White alone	41,006	1,581	136,803	4,480
B03002004	Total Population: Not Hispanic or Latino; Black or African American alone	519	0	3,664	147
B03002005	Total Population: Not Hispanic or Latino; American Indian and Alaska Native alone	21	0	178	13
B03002006	Total Population: Not Hispanic or Latino; Asian alone	250	0	5,192	0
B03002007	Total Population: Not Hispanic or Latino; Native Hawaiin and Other Pacific Islander alone	0	0	27	12
B03002008	Total Population: Not Hispanic or Latino;Some other race alone	73	0	375	0
B03002009	Total Population: Not Hispanic or Latino;Two or more races	696	55	1,979	107
B03002010	Total Population: Hispanic or Latino	1,873	33	5,498	339
B03002011	Total Population: Hispanic or Latino; White alone	1,104	23	3,119	50
B03002012	Total Population: Hispanic or Latino;; Black or African American alone	0	0	137	0
B03002013	Total Population: Hispanic or Latino; American Indian and Alaska Native alone	17	0	28	0
B03002014	Total Population: Hispanic or Latino;Asian alone	0	0	0	0
B03002015	Total Population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	11	0	18	0
B03002016	Total Population: Hispanic or Latino; Some other race alone	723	10	1,662	289
B03002017	Total Population: Hispanic or Latino; Two or more races	18	0	534	0
	Number Non-white/minority (B03002001 - B03002003)	3,432	88	16,913	618
	Percent Non-white/Minority (Total population - white alone)/Total population	7.72%	5.27%	11.00%	12.12%
	125 Percent of COC (125 x COC Percent Non-white/Minority)	9.65%	**AC <125% COC**	13.75%	**AC <125% COC**
	Potential Minority EJ Impact?		**No**		**No**

Susan Castle

Subject: FW: Des. No. 1700108, 1902760, and 1900353, SR 252 Pavement Project, Johnson and Shelby Counties

From: Fair, Terri <TFair@indot.IN.gov>
Sent: Tuesday, February 1, 2022 10:54 AM
To: Susan Castle <susanc@metricenv.com>
Cc: Bales, Ronald <rbales@indot.IN.gov>
Subject: Des. No. 1700108, 1902760, and 1900353, SR 252 Pavement Project, Johnson and Shelby Counties

External Message: *This message originated outside of Metric Environmental.*
Do not click links or open attachments unless you recognize the sender and know the content is safe.

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. With the information provided, the project may require right-of-way. There will be relocations. With the information provided, the relocations would not disrupt community cohesion or create a physical barrier. INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.