

Figure 1b. Topographic map showing the location of the project area and culvert locations.

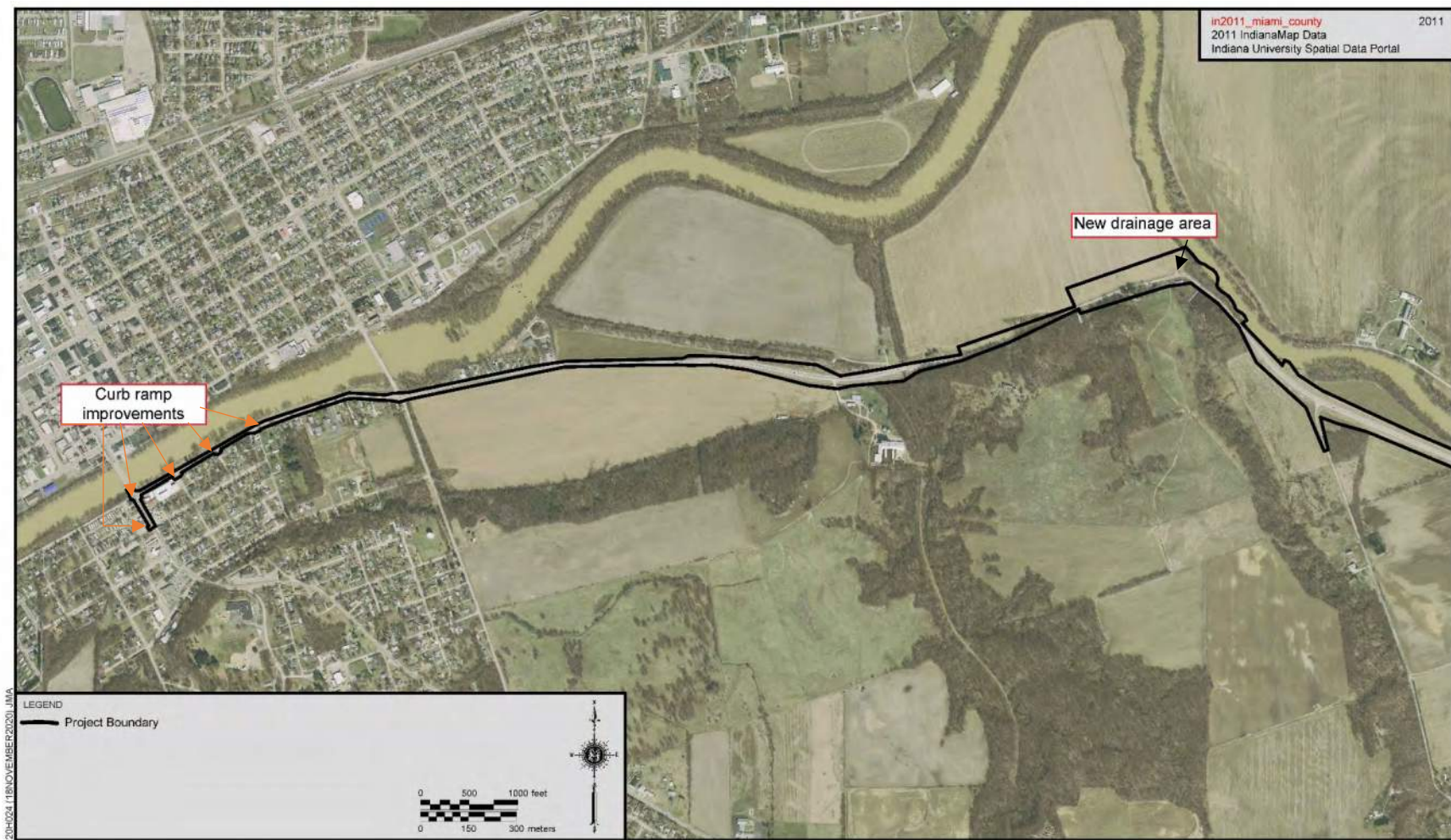


Figure 2a. Aerial map showing the location of the project area, curb ramp improvement locations, and the location of the new drainage area.

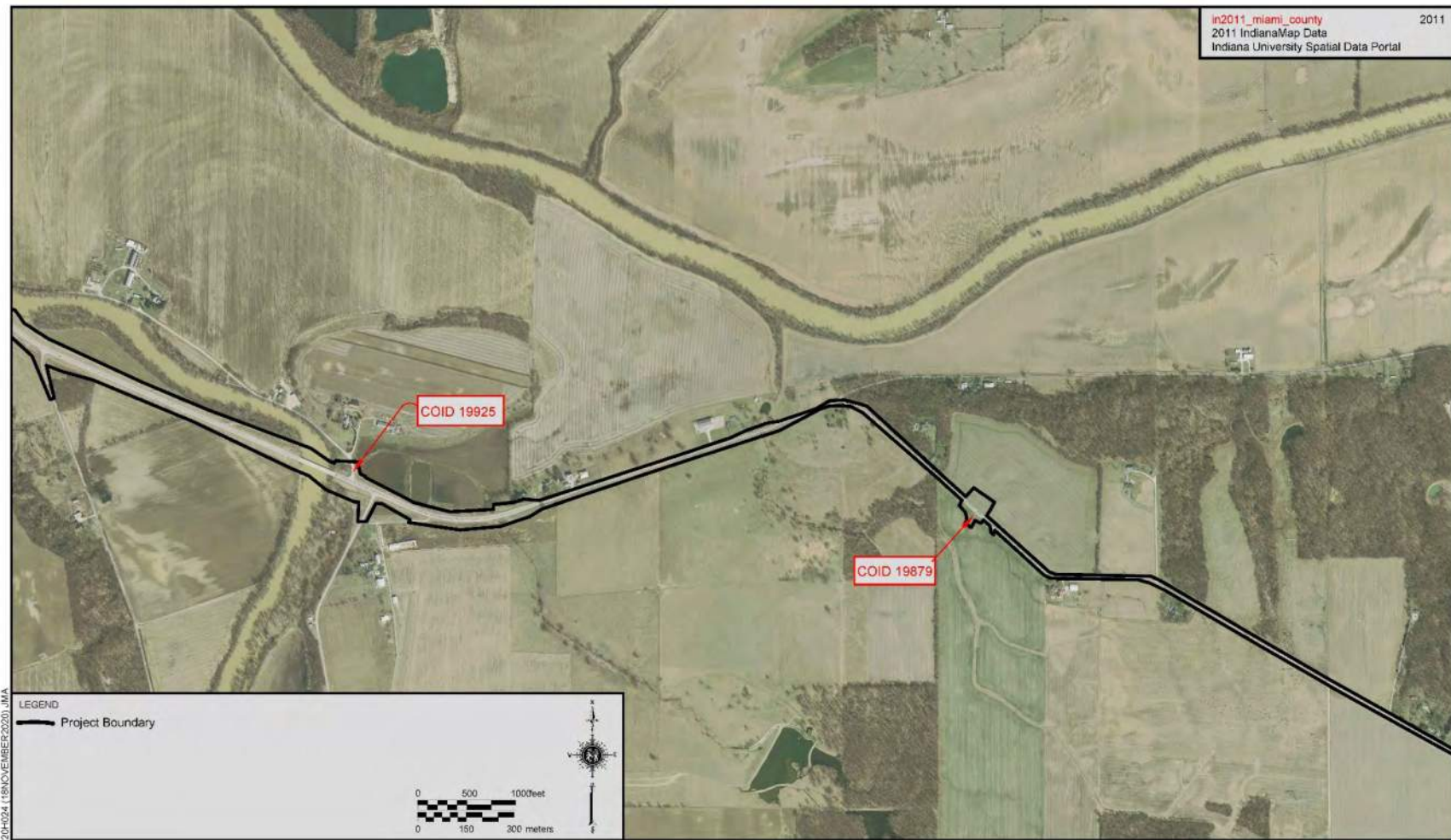


Figure 2b. Aerial map showing the location of the project area and the location of the culverts.

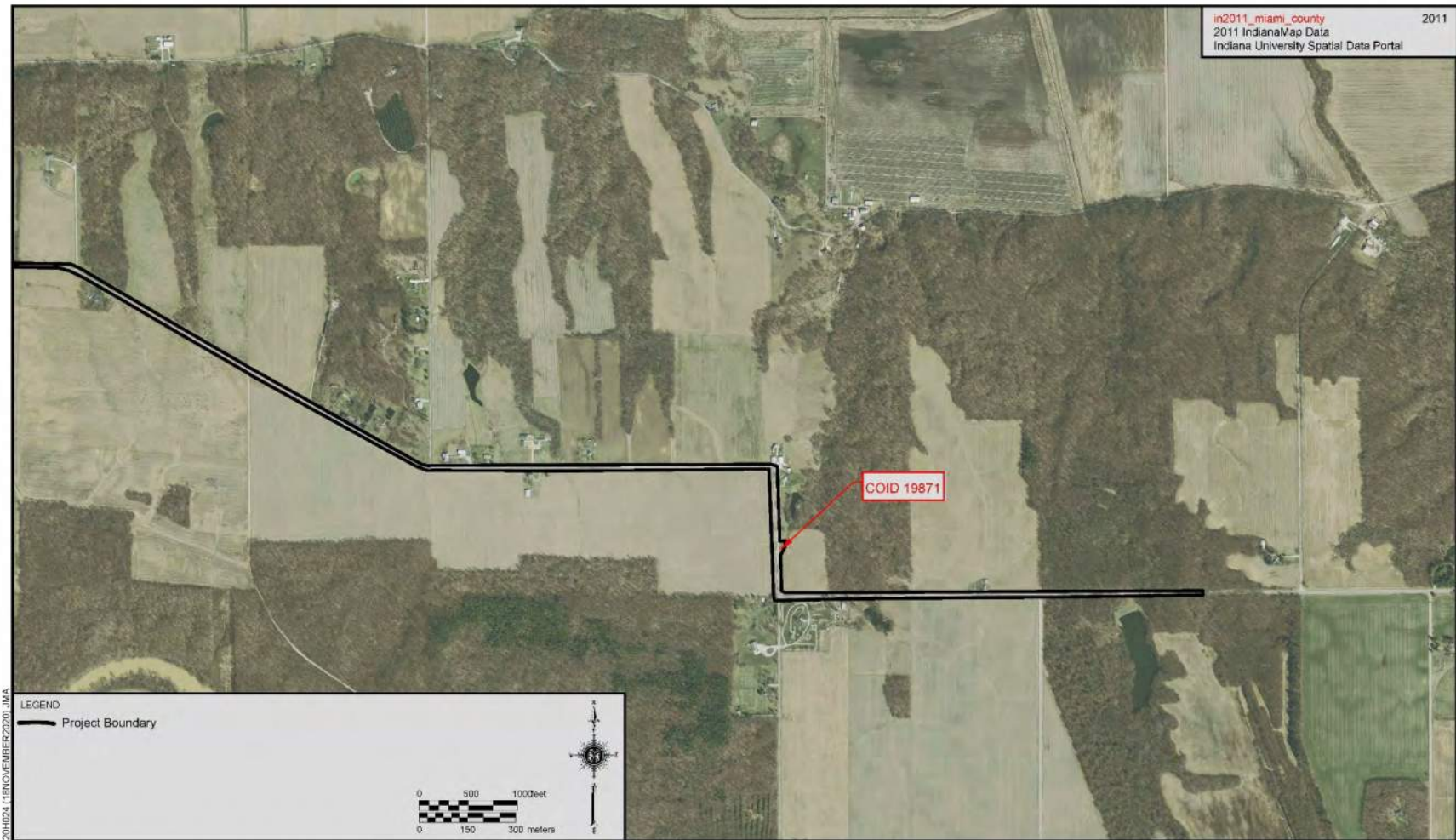


Figure 2c. Aerial map showing the location of the project area and the location of the culvert.



Figure 3. Intersection of SR 19 and E Franklin Street, facing northeast.



Figure 4. Intersection of SR 19 and East Franklin Street, facing west.



Figure 5. Intersection of SR 19 and SR 124, facing north.



Figure 6. Intersection of SR 19 and SR 124, facing west.



Figure 7. Intersection of SR 124 and S Wabash Street, facing northeast.



Figure 8. Intersection of SR 124 and S Huntington Street, facing southwest.



Figure 8. Intersection of SR 124 and Sullivan Lane, facing east.



Figure 9. Location of COID 19925, facing northwest.





Figure 10. View of COID 19925, facing west.



Figure 11. Location of COID 19879, facing southeast.



Figure 12. View of COID 19879, facing northeast.



Figure 13. Location of COID 19871, facing south.



Figure 14. View of COID 19871, facing southwest.



Figure 15. Overview of project area, facing north. A house (ISSHI No. 103-537-47003) associated with the Francis Godfrey Farm is visible.



Figure 16. Historic, stone wall associated with IHSSI No. 103-507-40001, “contributing” near the location of new drainage features. The house is no longer extant as it was demolished in circa 2012. This compromises the historic integrity of the farm as it no longer retains its original structures and does not retain its ability to convey its agricultural significance nor its vernacular/construction significance. The wall has also been severely damaged and stones have been replaced.



Figure 17. Detail of stone wall.

A PHASE IA ARCHAEOLOGICAL RECONNAISSANCE  
FOR PROPOSED ROAD IMPROVEMENTS ALONG  
SR 124 FROM SR 19 TO 7.32 MILES EAST OF  
SR 19 IN MIAMI COUNTY, INDIANA  
(INDOT DES. NO. 1800552)



by  
Michael J. Curran

Prepared for

*HNTB Corporation*

Except of Phase Ia  
Archaeological Report

Prepared by



Kentucky | West Virginia | Wyoming  
Indiana | Louisiana | Tennessee | Virginia

**A PHASE IA ARCHAEOLOGICAL RECONNAISSANCE  
FOR PROPOSED ROAD IMPROVEMENTS ALONG  
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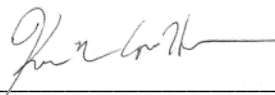
by  
Michael J. Curran  
With a contribution by Kevin Cupka Head

*Prepared for*

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CRA Project No.: I20H023



Kevin Cupka Head, RPA 989198  
Principal Investigator

April 15, 2021

Lead Agency: Indiana Department of Transportation Des. No.: 1800552  
Indiana State Museum Accession No.: 71.19.1787

# ABSTRACT

Between December 8, 2020, and March 11, 2021, Cultural Resource Analysts, Inc., personnel conducted a Phase Ia archaeological reconnaissance for proposed road improvements along State Road 124 in Miami County, Indiana (Indiana Department of Transportation Designation Number 1800552). The survey was conducted at the request of HNTB Corporation. The proposed project includes application of a hot mix asphalt overlay and preventative maintenance on 11.8 km (7.3 mi) of SR 124 from the intersection with SR 19 (Broadway Street/Strawtown Pike) to an area near the Miami and Wabash County line. No impacts will occur outside of the existing pavement in the SR 124 overlay area. Additional right-of-way is anticipated to be required for a proposed ditch and drainage structure, and also for three pipe culvert replacements and four curb ramp replacements. Archaeological reconnaissance was performed in these areas of proposed construction, as well as within existing right-of-way in the vicinity of previously reported sites mapped near the overlay area. The survey area encompasses a total of approximately 5.32 ha (13.14 acres) of existing right-of-way, residential lawns, commercial lawns, and agricultural fields. The survey area was investigated in its entirety with screened shovel testing, bucket augering, intensive pedestrian survey, and visual inspection of obviously disturbed areas.

Prior to initiating the fieldwork, a records review was conducted utilizing data from the Indiana Division of Historic Preservation and Archaeology. In total, 13 previously recorded sites (12Mi38, 12Mi123, 12Mi125, 12Mi126, 12Mi143, 12Mi159, 12Mi170, 12Mi175, 12Mi222, 12Mi223, 12Mi354, 12Mi355, and 12Mi872) are also situated within, or in close proximity to, the current survey and hot mix asphalt overlay area. The records search also showed that portions of the survey area were previously investigated during investigations completed in 1984, 1993, 2011, and 2020. The previously surveyed areas were reinvestigated during the current survey.

As a result of the current survey, six previously identified sites were relocated (12Mi123, 12Mi143, 12Mi159, 12Mi170, 12Mi175, and 12Mi222), and two new sites were identified (12Mi896 and 12Mi897). No evidence of Sites 12Mi38, 12Mi125, 12Mi126, 12Mi354, or 12Mi355 was encountered within the right-of-way. No additional survey was conducted near Sites 12Mi223 and 12Mi872. Sites 12Mi123, 12Mi170, and 12Mi175 are unidentified prehistoric lithic scatters. Site 12Mi143 is a lithic scatter with an Early Woodland component and a historic artifact scatter with an indeterminate temporal association. Site 12Mi159 is a lithic scatter of indeterminate temporal/cultural affiliation and a historic isolate with an indeterminate temporal association. Site 12Mi897 consists of the structural remains of an outbuilding dating to the twentieth century. Site 12Mi159 and the portions of Sites 12Mi123, 12Mi143, 12Mi170, 12Mi175, and 12Mi897 within the survey area are recommended not eligible for listing in the National Register of Historic Places. No further work is recommended within the survey area for these sites. The National Register of Historic Places eligibility of Site 12Mi222, a house/trading post associated with Francis Godfroy and a historic Miami occupation, could not be assessed with the data collected during the current investigation. Avoidance of this site is recommended. As long as project disturbances in the vicinity of Site 12Mi222 are limited to the existing pavement, no further work is recommended at this location. Site 12Mi896 is a lithic scatter of indeterminate temporal/cultural affiliation and a historic farmstead with a mid-nineteenth- through twentieth-century component. The National Register of Historic Places eligibility of the site could not be assessed with the data derived from the current investigation. It is recommended that a portion of the site that includes the footprint of a former residence be avoided or subjected to a Phase II National Register of Historic Places assessment. No additional work appears warranted at the remaining areas within the site's recorded boundary.

## Archival Data

A 1951 7.5-minute series topographic map depicts an outbuilding at the site (see MS 2 in Figure 13) (USGS 1951b). Reviewed aerial imagery indicates the outbuilding was standing by 1959, though it is unclear when the structure collapsed (NETR 2021). The historic aerials also suggest the outbuilding originally lay partially south of the survey area limits. Information provided by INDOT indicates the fallen structure was used as a horse barn (Patricia Korzeniewski, personal communication 2021).

## Investigation Methods

Based on the presence of possible historic remains at a location identified in the historic map review, the site was initially investigated by shovel testing at 10 m intervals. Shovel testing was also conducted to evaluate the depositional context of the soils and vertical extent of the site. Based on the absence of artifacts found in the 10 m interval shovel tests in this area, no additional shovel testing was performed. A site datum was recorded near the northern edge of the structural remains. The datum, shovel tests, distribution of structural remains, and natural features were plotted on a site schematic map (see Figure 43).

## Depositional Context

This site is located on a floodplain that is mapped as Gessie silt loam (Soil Survey Staff 2020a). Soil profiles recorded in shovel tests mostly consisted of a dark grayish brown to brown (10YR 4/2–4/3) silt loam Ap horizon to depths between 25 and 35 cm bgs, overlying a yellowish brown (10YR 5/4) silt loam Bw horizon. Aside from the presence of rounded gravels in the plow zone, the observed stratigraphy is consistent with the soil survey description of the Gessie series (Soil Survey Staff 2020b).

## Structural remains

The boundary of Site 12Mi897 coincides with the distribution of structural remains. Based on the state of the remains, the building apparently fell into disrepair and collapsed. It

appears to have consisted of a frame structure with steel roofing. The precise function of the building remains unclear.

## Summary and Recommendations

The investigation of Site 12Mi897 did not reveal the presence of intact sub-plow zone deposits or features. The portion of the site within the survey area is not considered to have the potential to make significant contributions to the understanding of history in the region, and is recommended not eligible for inclusion in the NRHP. No further work at this portion of the site is recommended.

# VI. CONCLUSIONS AND RECOMMENDATIONS

Between December 8, 2020, and March 11, 2021, CRA personnel conducted a Phase Ia archaeological reconnaissance for proposed road improvements along on SR 124 in Miami County, Indiana (INDOT Des. No. 1800552). The survey was conducted at the request of HNTB Corporation. In its entirety, the project consists of the application of an HMA overlay and preventative maintenance on 11.8 km of SR 124 from the intersection with SR 19 (Broadway Street/Strawtown Pike) to an area near the Miami and Wabash County line. The survey areas at the curb replacement, culvert replacement, and ditch relocation areas encompass a total of approximately 5.32 ha (13.14 acres) of existing ROW, residential lawns, commercial lawns, and agricultural fields. In addition, survey was conducted within the ROW adjacent to previously identified archaeological sites that were determined eligible or remain unassessed for the NRHP. The survey area was investigated in its entirety with screened shovel testing, bucket augering, intensive pedestrian survey, and visual inspection of obviously disturbed areas.

Prior to initiating the fieldwork, a records review was conducted utilizing data from the Indiana DHPA. In total, 13 previously recorded sites (12Mi38, 12Mi123, 12Mi125, 12Mi126,



12Mi143, 12Mi159, 12Mi170, 12Mi175, 12Mi222, 12Mi223, 12Mi354, 12Mi355, and 12Mi872) are also situated within, or in close proximity to, the current survey and HMA overlay area. The records search also showed that portions of the survey area were previously investigated during investigations completed in 1984, 1993, 2011, and 2020 (Angst 1993; Anuszczyk and Cochran 1984; Beard 1984; Bubb 2020; Laswell 2011). The previously surveyed areas were reinvestigated during the current survey.

As a result of the current survey, six previously identified sites were relocated (12Mi123, 12Mi143, 12Mi159, 12Mi170, 12Mi175, and 12Mi222), and two new sites were identified (12Mi896 and 12Mi897). No evidence of Sites 12Mi38, 12Mi125, 12Mi126, 12Mi354, or 12Mi355 was encountered within the ROW. No additional survey was conducted near Sites 12Mi223 and 12Mi872. Sites 12Mi123, 12Mi170, and 12Mi175 are unidentified prehistoric lithic scatters. Site 12Mi143 is a lithic scatter with an Early Woodland component and a historic artifact scatter with an indeterminate temporal association. Site 12Mi159 is a lithic scatter of indeterminate temporal/cultural affiliation and a historic isolate with an indeterminate temporal association. Site 12Mi897 consists of the structural remains of an outbuilding dating to the twentieth century. Site 12Mi159 and the portions of Sites 12Mi123, 12Mi143, 12Mi170, 12Mi175, and 12Mi897 within the survey area are recommended not eligible for listing in the NRHP. No further work is recommended within the survey area for these sites. Site 12Mi222, a house/trading post associated with Francis Godfroy and a historic Miami occupation, could not be assessed for its inclusion to the NRHP with the data collected during the current investigation. As long as project disturbances in the vicinity of Site 12Mi222 are limited to the existing pavement, no further work is recommended at this location. Site 12Mi896 is a lithic scatter of indeterminate temporal/cultural affiliation and a historic farmstead with a mid-nineteenth- through twentieth-century component. The NRHP eligibility of the site could not be assessed with the data derived from the current investigation. It is recommended that a portion of the site that includes the footprint of a former residence be avoided or subjected to a Phase II

NRHP assessment. No additional work appears warranted at the remaining areas within the site's recorded boundary.

Note that a principal investigator or field archaeologist cannot grant or withhold clearance to a project. Although the decision to grant or withhold clearance is reached, at least in part, on the recommendations made by the field investigator, clearance may be obtained only through an administrative decision made by a lead federal agency in consultation with INDOT and the State Historic Preservation Officer (Indiana DHPA).

If any previously unrecorded archaeological materials are encountered during construction activities, the DHPA should be notified immediately at (317) 232-1646, as well as the INDOT Cultural Resources Office (CRO) at (317) 416-0876. If human remains are discovered, construction activities should cease immediately, and the DHPA, the INDOT CRO, the local coroner, and the local law enforcement agency must be notified.

## REFERENCES CITED

- Andrefsky, William  
1994 Raw Material Availability and the Organization of Technology. *American Antiquity* 59:21–35.
- Angst, Michael G.  
1993 *Improvements to County Roads 550 East, 675 East, and 325 South Miami County, Indiana*. Archaeological Resources Management Service, Ball State University, Muncie, Indiana.
- 1994 *Archaeological Intensive Assessment: Improvements to County Roads 550 East, 675 East, and 325 South Miami County, Indiana*. Archaeological Resources Management Service, Ball State University, Muncie, Indiana.
- Anslinger, C. Michael  
1990 *The Akers Site: A Late Woodland Albee Phase Burial Mound in Warren County, West Central, Indiana*. Technical Report No. 10. Anthropology Laboratory, Indiana State University, Terre Haute.

**From:** [Korzeniewski, Patricia J](#)  
**To:** [Christine Meador](#)  
**Subject:** RE: Des 1800552 MPPA Approval  
**Date:** Monday, July 12, 2021 4:21:53 PM

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Christine,

The HMA overlay adjacent to the Francis Godfroy Cemetery will not leave edge of pavement, and will not impact the cemetery. Cemetery development plans are not necessary unless the cemetery is being impacted. We do not have any concerns at this time.

Patricia Jo Korzeniewski  
Archaeologist and Environmental Manager  
INDOT, Cultural Resources Office  
100 North Senate Avenue, N758-ES  
Indianapolis, Indiana 46204  
[PKorzeniewski@indot.in.gov](mailto:PKorzeniewski@indot.in.gov)  
[1-317-416-4377](tel:1-317-416-4377)  
[M-F 7:30 - 3:30](tel:1-317-416-4377)

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**From:** Christine Meador <CMeador@HNTB.com>  
**Sent:** Monday, July 12, 2021 2:57 PM  
**To:** Korzeniewski, Patricia J <PKorzeniewski@indot.IN.gov>; Alyssa Reynolds <adreyolds@crai-ky.com>; Andrew Martin <amartin@crai-ky.com>; Novak, Karen <KNovak@indot.IN.gov>; Boley, Jesse <JBoley@indot.IN.gov>; Robert Ball <rball@crai-ky.com>  
**Cc:** Branigin, Susan <SBranigin@indot.IN.gov>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>; Kelly, Clint <CKelly1@indot.IN.gov>  
**Subject:** RE: Des 1800552 MPPA Approval

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

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All –

As part of the review process for the NEPA document for this project, we have been asked to confirm if a Cemetery Development Plan is required for the HMA overlay adjacent to the Francis Godfroy Cemetery and if there are any other concerns associated with this project associated with the Francis Godfroy Cemetery.

Your assistance is appreciated. Have a great day.

Chris

**Christine Meador**  
Senior Project Manager  
Environmental Planning  
Cell (317) 459-3629 Direct (317) 917-5338 Email: [cmeador@hntb.com](mailto:cmeador@hntb.com)

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## APPENDIX E: RED FLAG AND HAZARDOUS MATERIALS



# INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue  
Room N758-ES  
Indianapolis, Indiana 46204

PHONE: (317) 694-8282

**Eric Holcomb, Governor**  
**Joe McGuinness, Commissioner**

Date: April 15, 2021

To: Site Assessment & Management (SAM)  
Environmental Policy Office - Environmental Services Division (ESD)  
Indiana Department of Transportation  
100 N Senate Avenue, Room N642  
Indianapolis, IN 46204

From: Christine Meador  
HNTB Corporation  
111 Monument Circle, Suite 1200  
Indianapolis, IN 46204  
cmeador@hntb.com

Re: RED FLAG INVESTIGATION  
DES # 1800552, State Project  
SR 124, from SR 19 To 7.32 miles east of SR 19  
HMA Overlay and Preventative Maintenance  
Miami County, Indiana

## PROJECT DESCRIPTION

Brief Description of Project: The proposed project includes application of a Hot Mix Asphalt (HMA) overlay and preventative maintenance on 7.32 miles of SR 124 from the intersection with SR 19 (Broadway Street/Strawtown Pike) to 7.32 miles east of SR 19 at the Miami and Wabash County line, located in Miami County. There are eight (8) existing curb ramps located between SR 19 and Wallace Avenue that will require analysis and potential replacement in order to meet current American with Disabilities Act (ADA) standards. In addition, multiple drainage improvements are included in this project. There are four (4) existing cross culverts and one (1) drive culvert in the corridor that will be replaced in kind and one (1) new cross culvert and drainage channel that will be constructed. The existing culverts are not included in the INDOT Bridge Inspection Application (BIAS) system. These include the following:

- Installation of a new 6 foot by 4 foot reinforced concrete box culvert crossing SR 124, 1.9 miles east of SR 19.
- Construction of approximately 1,350 linear feet of drainage channel on the north and east side of SR 124, beginning 1.9 miles east of SR 19 and outletting to the Mississinewa River.
- Replacement of a 15 inch metal pipe culvert located at 2.10 miles east of SR 19 at a driveway.
- Replacement of an existing 30 inch metal pipe culvert, CLV-124-052-2.16, located 2.13 miles east of SR 19.
- Replacement of an existing 15 inch metal pipe culvert, CLV-124-052-3.15, located under Circus Lane just north of the intersection with SR 124.
- Replacement of an existing 24 inch metal pipe culvert, CLV-124-052-4.48, located 4.50 miles east of SR 19.
- Replacement of an existing 24 inch metal pipe culvert, CLV-124-052-6.49, located under SR 124 approximately 0.1 mile north of CR 200 South and CR 625 East crossing SR 124.

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

Bridge and/or Culvert Project: Yes  No  Structure # CLV-124-052-2.16, CLV-124-052-3.15, CLV-124-052-4.48, & CLV-124-052-6.49

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 3.2 Not Applicable

Type and proposed depth of excavation: Open cut for ditch re-grading ranging in depth from 1 to 8 feet. Open cut for construction of a new culvert or replacement of existing culverts from 1 to 6 feet. There are eight (8) existing curb ramps in the project that will require analysis and potential replacement in order to meet current ADA standards. If required, excavation at these locations may be up to 3 feet in depth.

Maintenance of traffic: Traffic will be maintained with single lane closures utilizing a temporary signal or flagging operations for the HMA Overlay and a roadway closure with a temporary detour as required for construction of cross culverts.

Work in waterway: Yes  No  Below ordinary high water mark: Yes  No

State Project:  LPA:

Any other factors influencing recommendations: N/A

**INFRASTRUCTURE TABLE AND SUMMARY**

<b>Infrastructure</b>			
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	N/A	Recreational Facilities	10
Airports <sup>1</sup>	1	Pipelines	1
Cemeteries	2	Railroads	1
Hospitals	N/A	Trails	2
Schools	1	Managed Lands	2

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

**Explanation:**

**Airport:** Although not located within the 0.5 mile search radius, one (1) public-use airport, Mississinewa Reservoir Airport, is located within the 3.8 miles (20,000 feet) of the project area. The public-use airport is located approximately 2.34 miles southeast of the project area’s east end. This airport is for use by sea planes only. Coordination with INDOT Aviation will occur.

**Cemeteries:** Two (2) cemeteries are located within the 0.5 mile search radius. Francis Godfroy Cemetery is located adjacent to the project area south of the intersection of SR 124 and E CR 100 S. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.

**School:** One (1) school is located within the 0.5 mile search radius. The school, South Peru Elementary, is located approximately 0.25 mile southeast of the intersection of SR 19 and SR 124. No impact is expected.

**Recreational Facilities:** Ten (10) recreational facilities are located within the 0.5 mile search radius. The nearest facility, Frances Slocum Trail Riders, is located adjacent to the project area south of the intersection of SR 124 and S CR 625E. Coordination with Frances Slocum Trail Riders, Inc. will occur.

**Pipelines:** One (1) pipeline segment is located within the 0.5 mile search radius. The pipeline segment, Northern Indiana Public Service Co., is located approximately 0.38 mile north of the project area. No impact is expected.

Railroads: One (1) railroad is located within the 0.5 mile search radius. The unknown abandoned railroad crosses the project area approximately 0.9 mile east of the intersection of SR 124 and Wallace Avenue. Coordination with INDOT Utilities and Railroads should occur.

Trails: Two (2) trail segments are located within the 0.5 mile search radius. The nearest trail segment, River Walkway Park Trail, is located approximately 0.07 mile northwest of the project area on the north side of the Wabash River. No impact is expected.

Managed Lands: Two (2) managed lands are located within the 0.5 mile search radius. The nearest managed land, Mississinewa Spillway, is within the project area on both the north and south side of SR 124 just east of S CR 675 E. Coordination with U.S. Army Corps of Engineers is recommended.

**WATER RESOURCES TABLE AND SUMMARY**

<b>Water Resources</b>			
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	1	Canal Routes – Historic	2
Karst Springs	N/A	NWI – Wetlands	25
Canal Structures – Historic	5	Lakes	7
NPS NRI Listed	N/A	Floodplain – DFIRM	12
NWI-Lines	1	Cave Entrance Density	N/A
IDEM 303d Listed Streams and Lakes (Impaired)	12	Sinkhole Areas	N/A
Rivers and Streams	46	Sinking-Stream Basins	N/A

**Explanation:**

NWI – Point: One (1) NWI – Point is located within the 0.5 mile search radius. The point is located approximately 0.08 mile south of the project area. No impact is expected.

Canal Structures - Historic: Five (5) Canal Structures are located within the 0.5 mile search radius. The nearest structure is located approximately 0.13 mile north of the project area. No impact is expected.

NWI – Lines: One (1) NWI - Line is located within the 0.5 mile search radius. The line segment is located approximately 0.23 mile southeast of the project area. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired): Twelve (12) 303d Listed Streams and Lakes are located within the 0.5 mile search radius. Mississinewa River between 1.0 mile northwest of Circus Lane and Circus Lane within or adjacent to the project area is listed as impaired for polychlorinated biphenyls (PCBs) in fish tissue. UNT to Wabash, which crosses SR 124 0.17 mile west of E CR 100 S, is impaired for *E. coli*, nutrients, and PCBs in fish tissue.

- Concerning nutrient impairment and Impaired Biotic Communities (IBC), Best Management Practices (BMPs) will be used to avoid further degradation to the UNT to Wabash.
- UNT to Wabash is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

- Mississinewa River and one UNT to the Wabash River are impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.

Rivers and Streams: Forty-six (46) river and stream segments are located within the 0.5 mile search radius. Eight stream segments comprising five streams are located in or adjacent to the project area as noted below.

- Unnamed Tributary (UNT) 1 to Wabash River crosses the project area 1.0 mile east of SR 124 and Wallace Avenue
- Mississinewa River (3 segments) is within or adjacent to the project area between 1.0 mile northwest of Circus Lane and Circus Lane
- UNT to Mississinewa River (2 segments) is located adjacent to the project area at Circus Lane and also crosses SR 124 0.34 mile east of Circus Lane
- UNT 2 to Wabash River crosses SR 124 0.17 mile west of E CR 100 S
- UNT to Asher Branch of the Wabash River crosses SR 124 0.17 mile east of S CR 675 E.

A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Canal Routes – Historic: Two (2) Canal Routes are located within the 0.5 mile search radius. The nearest route is located approximately 0.14 mile north of the project area. No impact is expected.

NWI – Wetlands: Twenty-five (25) wetlands are located within the 0.5 mile search radius. One (1) wetland is located within the project area 0.13 mile east of Circus Lane. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Seven (7) lakes are located within the 0.5 mile search radius. The nearest lake is located 0.13 mile east of Circus Lane on the north side of SR 124 within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Floodplain – DFIRM: Twelve (12) floodplain polygons are located within the 0.5 mile search radius. Three (3) floodplain polygons associated with Wabash River are located on the north side of SR 124 between SR 19 and 0.2 mile east of Wallace Avenue and two (2) polygons associated with the Mississinewa River are located between 1.0 mile northwest of Circus Lane and Circus Lane on SR 124 within the project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

**MINING AND MINERAL EXPLORATION TABLE AND SUMMARY**

<b>Mining/Mineral Exploration</b>			
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	22	Mineral Resources	N/A
Mines – Surface	N/A	Mines – Underground	N/A

Explanation:

Petroleum Wells: Twenty-two (22) petroleum wells are located within the 0.5 mile search radius. Two (2) of the wells are located adjacent to the project area on the north side of SR 124 at E CR 100 S. Coordination with IDNR Oil and Gas Division will occur.

## **HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY**

<b>Hazardous Material Concerns</b>			
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	2	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	1	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	1
Underground Storage Tank (UST) Sites	13	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	1	Brownfields	4
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	8
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	21
Leaking Underground Storage (LUST) Sites	7	Notice of Contamination Sites	N/A

Unless otherwise noted, site specific details presented in this section were obtained from documents reviewed on the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC).

### Explanation:

**RCRA Generator/ TSD:** Two (2) RCRA Generators are located within the 0.5 mile search radius. The nearest generator, Former Kofabco/Classico Limited, Inc. (21 East Riverside, Peru, IN 46970, AI ID#42836) is located adjacent to the project area in the southwest corner of SR 124 and Wabash Street. The facility was released of its EPA ID Number as a hazardous waste site as of July 18, 2002. A follow-up inspection was performed by IDEM on November 15, 2002, and no hazardous concerns were observed or documented. No impact is expected.

**State Cleanup Sites:** One (1) State Cleanup site is located within the 0.5 mile search radius. The site is located approximately 0.48 mile southwest of the project area. No impact is expected.

**Underground Storage Tank (UST) Sites:** Thirteen (13) Underground Storage Tank sites are located within the 0.5 mile search radius. The nearest site, McClure Oil Corporation 31 (272 South Broadway, Peru, IN 46970, AI ID# 41599) is 0.03 mile southwest of the project area at the northwest quadrant of SR 19 and Warren Street. On February 25, 2020, the facility was found to be out of compliance with equipment, operating, and maintenance requirements set forth in Indiana's UST Rule 329 IAC 9; however, documentation reviewed does not indicate that a release occurred. No impact is expected.

**Voluntary Remediation Program:** One (1) Voluntary Remediation Program site is located within the 0.5 mile search radius. The site is located approximately 0.35 mile west of the project area. No impact is expected.

**Leaking Underground Storage (LUST) Sites:** Seven (7) LUST sites are located within the 0.5 mile search radius. Two (2) sites are located within or adjacent to the project area.

Gallahan Oil Kwik Mart/Peru Express Food Mart (215 South Broadway, Peru, IN 46970, AI ID# 43542) is located 0.02 mile southeast of the project area in the northeast quadrant of SR 19 and Franklin Street. On July 9, 2019, the facility was



found to be out of compliance with equipment, operating, and maintenance requirements set forth in Indiana's UST Rule 329 IAC 9; however, documentation reviewed does not indicate that a release occurred. No impact is expected.

Former Buck's Live Bait & Sports Goods (14 Wallace Row, Peru, IN 46970, AI ID# 44595) is located adjacent to the project area in the northwest corner of Wallace Row and SR 124. A Limited Subsurface Investigation Report was requested on May 26, 2017 due to petroleum contaminants detected during closure activities which were completed on May 17, 1990. No additional documentation was available in the VFC after this request. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary.

Tire Waste Sites: One (1) Tire Waste site is located within the 0.5 mile search radius. The waste site is located approximately 0.30 mile north of the project area. No impact is expected.

Brownfields: Four (4) Brownfield sites are located within the 0.5 mile search radius. The nearest brownfield, Former Kofabco, Inc./Classico Limited (21 East Riverside, Peru, IN 46970, AI ID# 42836), is located adjacent to the project area in the southwest corner of SR 124 and Wabash Street. IDEM issued a Comfort Letter for Kofabco Inc./Classico Limited February 17, 1999. IDEM confirms there are no potential receptors, and that the asbestos containing materials identified at the property present no current threat to human health unless disturbed by renovation or demolition. In addition, from December 1992 to February 1993, abandoned drums and containers labeled as solvents, lacquers, paints, waste oils and greases, and corrosives found inside the building were removed. No impact is expected.

NPDES Facilities: Eight (8) NPDES Facilities are located within the 0.5 mile search radius. The nearest facility, Ken Combs Storage Units (9 West Riverside Drive, Peru, IN 46970, AI# 118132/INR10N409) is located 0.02 mile southwest of SR 19 and Riverside Drive. The permit is still effective and will be terminated on March 6, 2022. Coordination with the property owner will occur.

NPDES Pipe Locations: Twenty-one (21) NPDES Pipe Locations are located within the 0.5 mile search radius. Six pipe locations, all property of Peru Utilities Wastewater Treatment Plant - Benton Street/East Canal Street Combined Sewer Overflow, are located adjacent to the project area. Coordination with Peru Utilities will occur.

### **ECOLOGICAL INFORMATION SUMMARY**

The Miami County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are provided at <https://www.in.gov/dnr/naturepreserve/files/np-miami.pdf>. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in both urban and rural areas. These culverts are not in BIAS and no inspection reports are available. Additional investigation to confirm the presence or absence of bats in the culverts will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

### **RECOMMENDATIONS SECTION**

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

#### **INFRASTRUCTURE:**

Airport: Although not mapped within the 0.5 mile search radius, one (1) public-use airport, Mississinewa Reservoir Airport, is located within 3.8 miles (20,000 feet) of the project area, 2.34 miles to the southeast. Coordination with INDOT Aviation will occur.

Cemeteries: Francis Godfroy Cemetery is located adjacent to the project area south of the intersection of SR 124 and E CR 100 S. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur.

Recreational Facilities: Frances Slocum Trail Riders is located adjacent to the project area south of the intersection of SR 124 and S CR 625 E. Coordination with Frances Slocum Trail Riders, Inc. will occur.

Railroads: One (1) unknown abandoned railroad crosses the project area approximately 0.9 mile east of the intersection of SR 124 and Wallace Avenue. Coordination with INDOT Utilities and Railroads should occur.

Managed Lands: Mississinewa Spillway lies within the project area on both the north and south side of SR 124 just east of S CR 675 E. Coordination with U.S. Army Corps of Engineers is recommended.

#### WATER RESOURCES:

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

- Rivers and Streams: Eight stream segments comprising five streams are located in or adjacent to the project area as noted below.
  - Unnamed Tributary (UNT) 1 to Wabash River crosses the project area 1.0 mile east of SR 124 and Wallace Avenue
  - Mississinewa River (3 segments) is within or adjacent to the project area between 1.0 mile northwest of Circus Lane and Circus Lane
  - UNT to Mississinewa River (2 segments) is located adjacent to the project area at Circus Lane and also crosses SR 124 0.34 mile east of Circus Lane
  - UNT 2 to Wabash River crosses SR 124 0.17 mile west of E CR 100 S
  - UNT to Asher Branch of the Wabash River crosses SR 124 0.17 mile east of S CR 675 E.
- One (1) wetland is located within the project area 0.13 mile east of Circus Lane.
- One (1) lake is located within the project area, 0.13 mile east of Circus Lane on the north side of SR 124.
- The project area is located within five floodplain polygons associated with two floodplains. Three (3) floodplain polygons associated with Wabash River are located on the north side of SR 124 between SR 19 and 0.2 mile east of Wallace Avenue and two (2) polygons associated with the Mississinewa River are located between 1.0 mile northwest of Circus Lane and Circus Lane on SR 124 within the project area (coordination only).

Mississinewa River between 1.0 mile northwest of Circus Lane and Circus Lane within or adjacent to the project area is listed as impaired for polychlorinated biphenyls (PCBs) in fish tissue. UNT to Wabash, which crosses SR 124 0.17 mile west of E CR 100 S, is impaired for *E. coli*, nutrients, and PCBs in fish tissue.

- Concerning nutrient impairment and Impaired Biotic Communities (IBC), Best Management Practices (BMPs) will be used to avoid further degradation to the UNT to Wabash.
- UNT to Wabash is listed for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.
- Mississinewa River and one UNT to the Wabash River are impaired for PCBs in fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. If there will be sediment and/or soils disturbed by construction, additional investigation may be necessary. Coordination with INDOT ESD SAM will occur.

**MINING/MINERAL EXPLORATION:**

Two (2) of the wells are adjacent to the project area on the north side of SR 124 at E CR 100 S. Coordination with IDNR Oil and Gas Division will occur.

**HAZARDOUS MATERIAL CONCERNS:**

- Former Buck's Live Bait & Sports Goods (14 Wallace Row, Peru, IN 46970, AI ID# 44595) is located adjacent to the project area in the northwest corner of Wallace Row and SR 124. A Limited Subsurface Investigation Report was requested on May 26, 2017 due to petroleum contaminants detected during closure activities which were completed on May 17, 1990. No additional documentation was available in the VFC after this request. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary.
- NPDES Facilities: Ken Combs Storage Units (9 West Riverside Drive, Peru, IN 46970, AI# 118132/INR10N409) is located 0.02 mile southwest of SR 19 and Riverside Drive. The permit is still effective and will be terminated on March 6, 2022. Coordination with the property owner will occur.
- NPDES Pipe Locations: Six pipe locations, all property of Peru Utilities Wastewater Treatment Plant - Benton Street/East Canal Street Combined Sewer Overflow, are located adjacent to the project area. Coordination with Peru Utilities will occur.

**ECOLOGICAL INFORMATION:** Coordination with USFWS and IDNR will occur. Additional investigation to confirm the presence or absence of bats in the culverts will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

INDOT ESD concurrence: \_\_\_\_\_ **Marlene Mathas** Digitally signed by Marlene Mathas  
Date: 2021.04.16 06:34:16  
-04'00' (Signature)

Prepared by:  
Christine Meador  
Environmental Planning Project Manager  
HNTB Corporation

**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

MINING/MINERAL EXPLORATION: YES

HAZARDOUS MATERIAL CONCERNS: YES

**Red Flag Investigation - Site Location**  
**SR 124, from SR 19 to 7.32 miles east of SR 19**  
**Des. No. 1800552, HMA Overlay and Preventative Maintenance**  
**Miami County, Indiana**



**Sources:** 1 0.5 0 1 Miles  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://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.

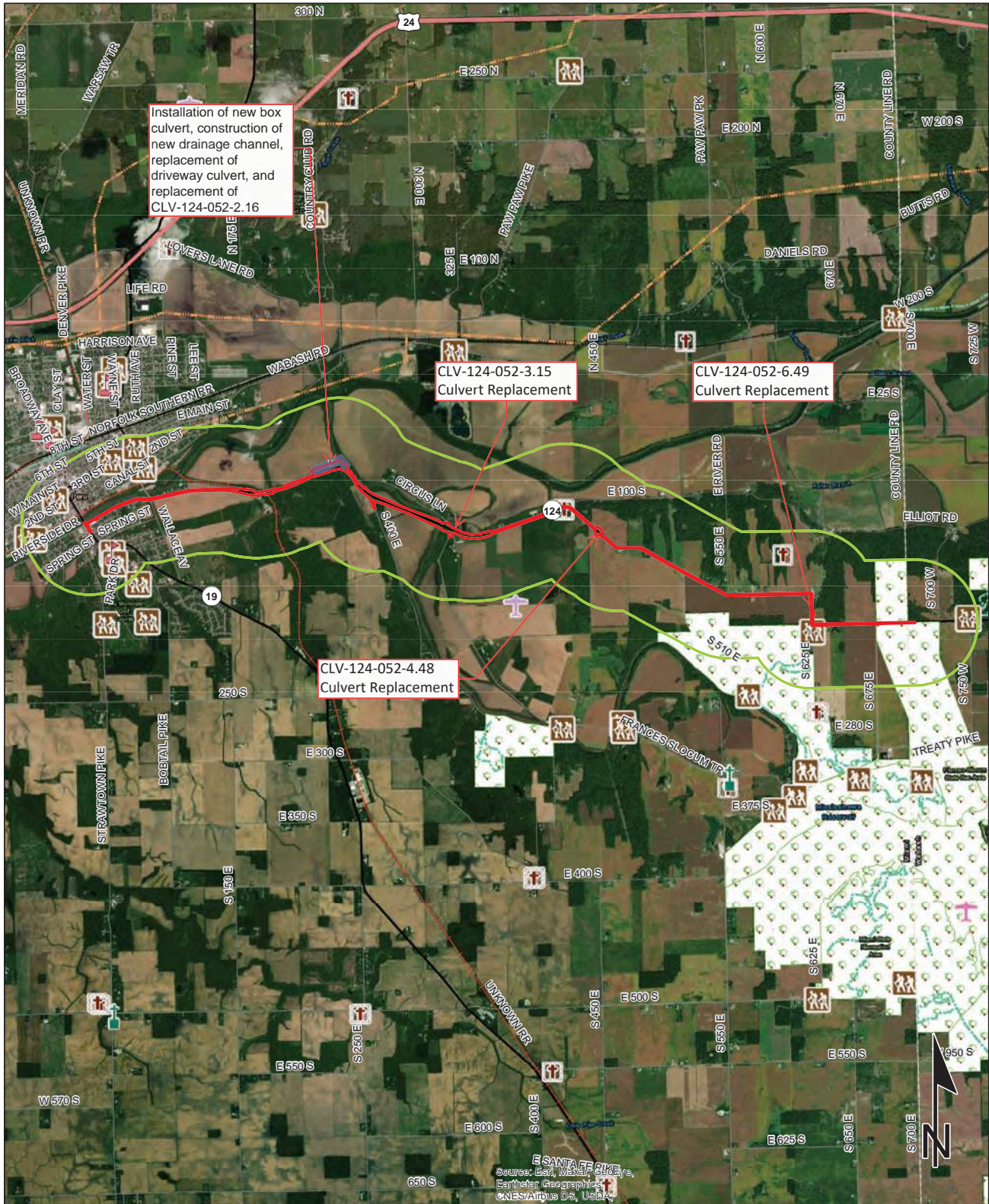
**PERU, BUNKER HILL,  
 PEORIA & RICHVALLEY  
 QUADRANGLES INDIANA  
 7.5 MINUTE SERIES  
 (TOPOGRAPHIC)**

# Red Flag Investigation - Infrastructure

## SR 124, from SR 19 to 7.32 miles east of SR 19

### Des. No. 1800552, HMA Overlay and Preventative Maintenance

#### Miami County, Indiana



**Sources:**

**Non Orthophotography**

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

**Orthophotography** - Obtained from Indiana Map Framework Data

([www.indianamap.org](http://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		Recreation Facility		Project Area
	Airport		Pipeline		Half Mile Radius
	Cemeteries		Railroad		Toll
	Hospital		Trails		Interstate
	School		Managed Lands		State Route
			County Boundary		US Route
					Local Road

# Red Flag Investigation - Water Resources

## SR 124, from SR 19 to 7.32 miles east of SR 19

### Des. No. 1800552, HMA Overlay and Preventative Maintenance

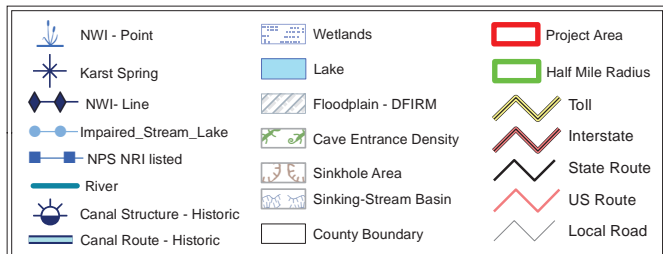
#### Miami County, Indiana



Source: Esri, Water, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA,

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

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

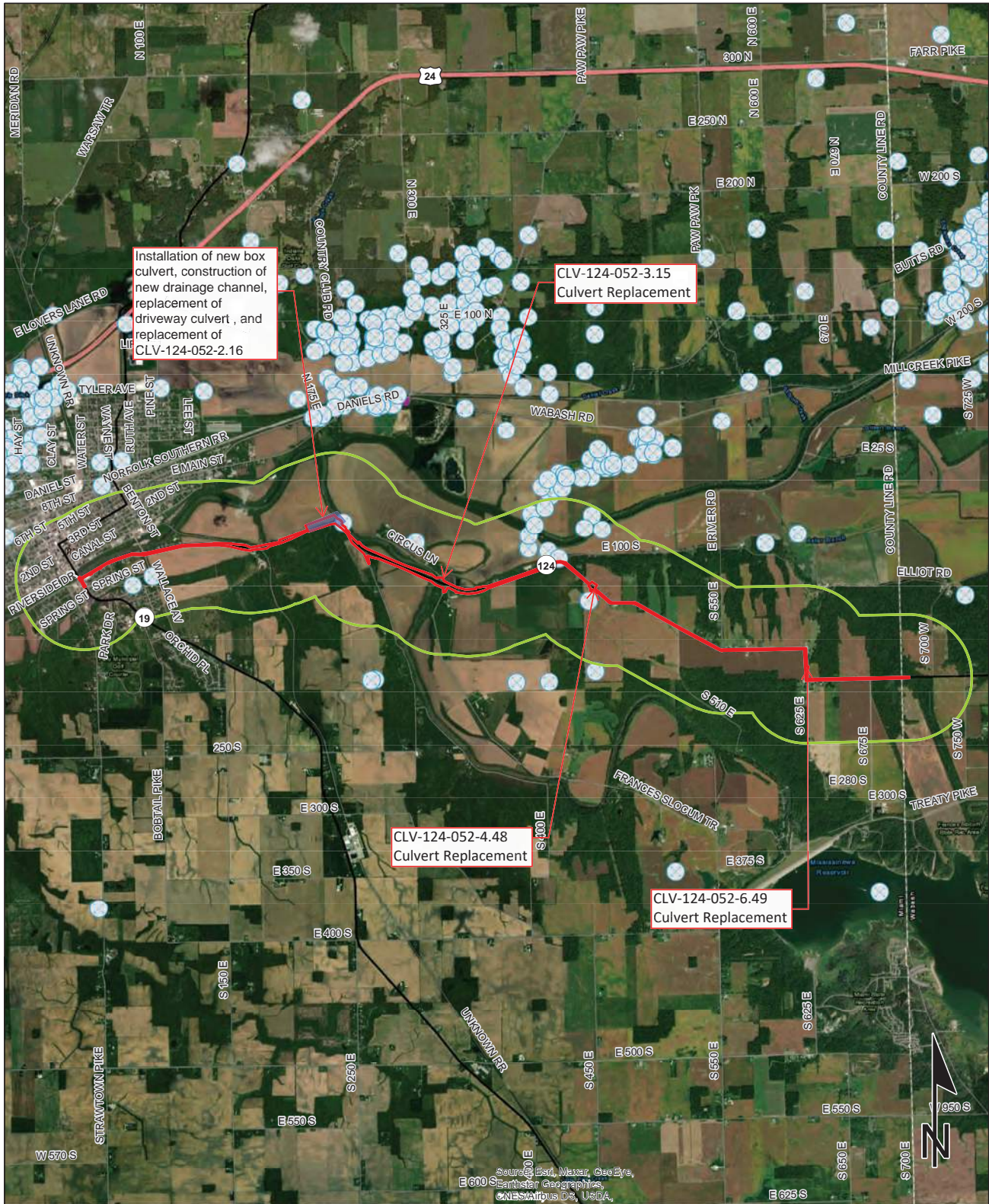


# Red Flag Investigation - Mining and Mineral Concerns

## SR 124, from SR 19 to 7.32 miles east of SR 19

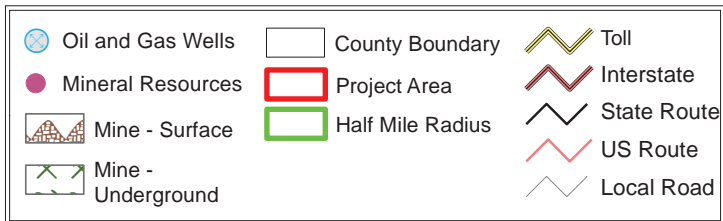
### Des. No. 1800552, HMA Overlay and Preventative Maintenance

#### Miami County, Indiana



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

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

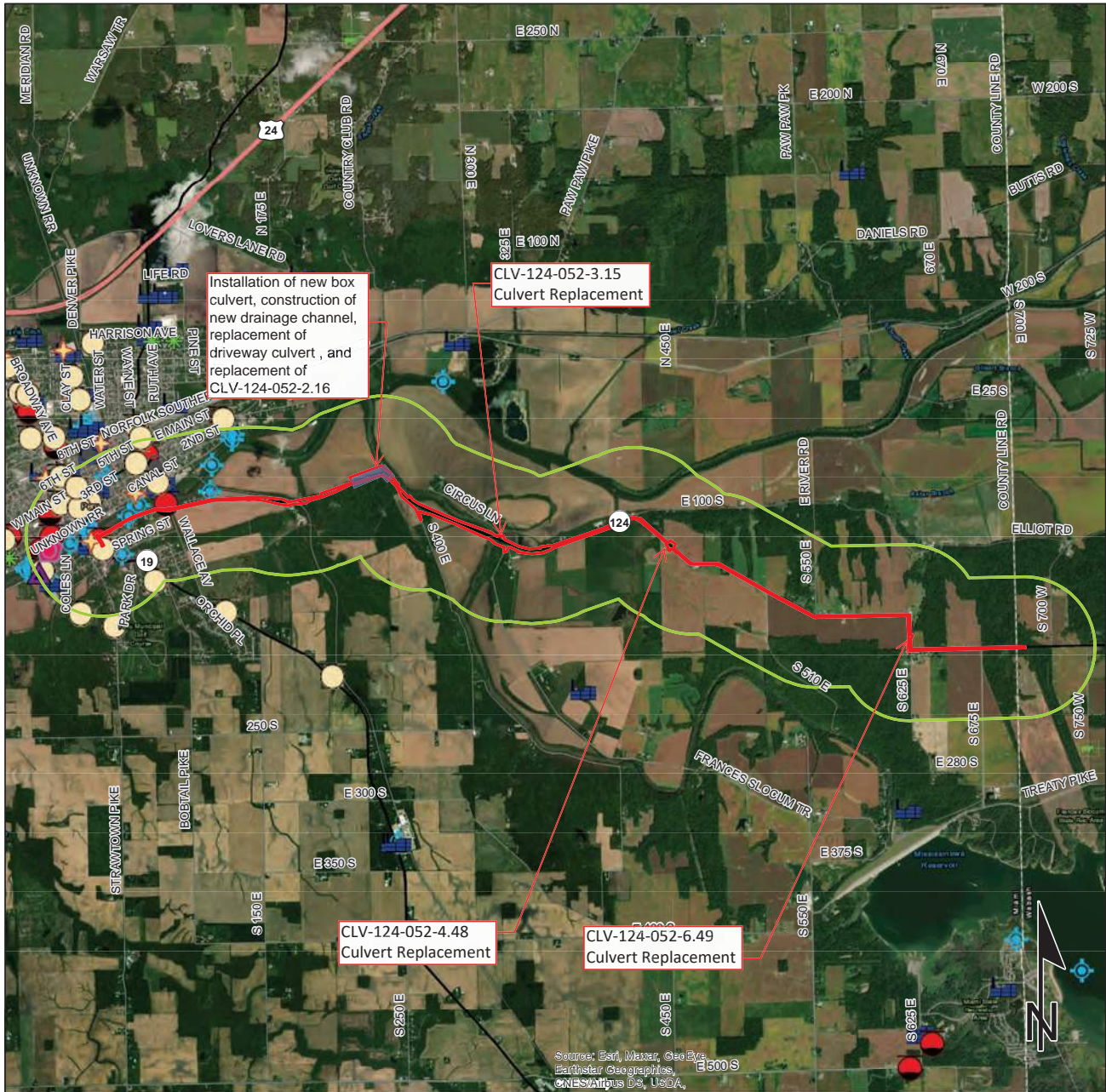


# Red Flag Investigation - Hazardous Material Concerns

## SR 124, from SR 19 to 7.32 miles east of SR 19

### Des. No. 1800552, HMA Overlay and Preventative Maintenance

#### Miami County, Indiana



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



This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.  
Des. No. 1800552

**Sources:**  
**Non Orthophotography**  
**Data** - Obtained from the State of Indiana Geographical Information Office Library  
**Orthophotography** - Obtained from Indiana Map Framework Data ([www.indianamap.org](http://www.indianamap.org))  
**Map Projection:** UTM Zone 16 N **Map Datum:** NAD83  
Appendix E, Page 13 of 19



<[DSTILZ@idem.IN.gov](mailto:DSTILZ@idem.IN.gov)>; Louks, Douglas <[DLouks@idem.IN.gov](mailto:DLouks@idem.IN.gov)>; STEWARD, BARRY  
<[BSTEWARD@idem.IN.gov](mailto:BSTEWARD@idem.IN.gov)>

**Subject:** IDEM Facilities in Relation to INDOT Lead Des. No.: 1800552

Shampayne::

Attached are 2 maps which are the basis of my reporting out of IDEM facilities within a 200 foot buffer of the Lead Des. No.: 1800552, Des. No. 1800552, SR 124, HMA Overlay and Preventative Maintenance, Miami County, Indiana

Also attached are the following:

- 1) An Excel spreadsheet of the attributes of the database points within the 200 foot buffer.
- 2) A Word document that details UST info

If you have any questions, please let me know and I can put you in contact with the appropriate IDEM personnel.

Sincerely,

Mike

**Mike Hill, GISP**

Senior Environmental Manager  
Indiana Department of Environmental Management  
Office of Land Quality, Science Services Branch  
Engineering and GIS Services  
[mhill@idem.in.gov](mailto:mhill@idem.in.gov)  
(317) 234-2475

**COVID-19 Resources:**

- **Indiana State Dept. of Health (ISDH) COVID-19 Call Center:** Call 877-826-0011 (available 8:00 am-5:00 pm daily).
- **Anthem NurseLine:** Call 800-337-4770 or visit the [Anthem NurseLine](#) online for a FREE symptom screening. Available to anyone with an Anthem health plan (this includes State of IN employees)
- **Anthem Employee Assistance Program (EAP):** Available to ALL state employees and adults in household regardless of health plan participation. Call 800-223-7723 or visit [anthemeap.com](http://anthemeap.com) (enter State of Indiana) for crisis counseling, help finding child/elder care, legal/financial consultation and much more.

## **UST (Underground Storage Tank) and LUST (Leaking Underground Storage Tank) Section Information**

### **LUST:**

FID 2374

Gallahan Kwik Mart

215 S Broadway

Peru, Miami County

Currently an active site with 3 tanks from 1990 – all double walled Sti-P3 tanks. Site is currently 'in compliance' and probably should not be an issue.

FID 2752

Buck's Live Bait & Spt Gds

14 Wallace Row

Peru, Miami County

This site had 2 tanks installed around 1951. The closure NF appears to show the tanks were emptied and left in place in 1990. While the owner at the time did request approval to remove the tanks in 1990, a notification form from 1991 did not have the option to state they were removed. It is a coin toss if anyone digging near this site will come across those tanks or additional tanks.

**UST:**

FID 12137

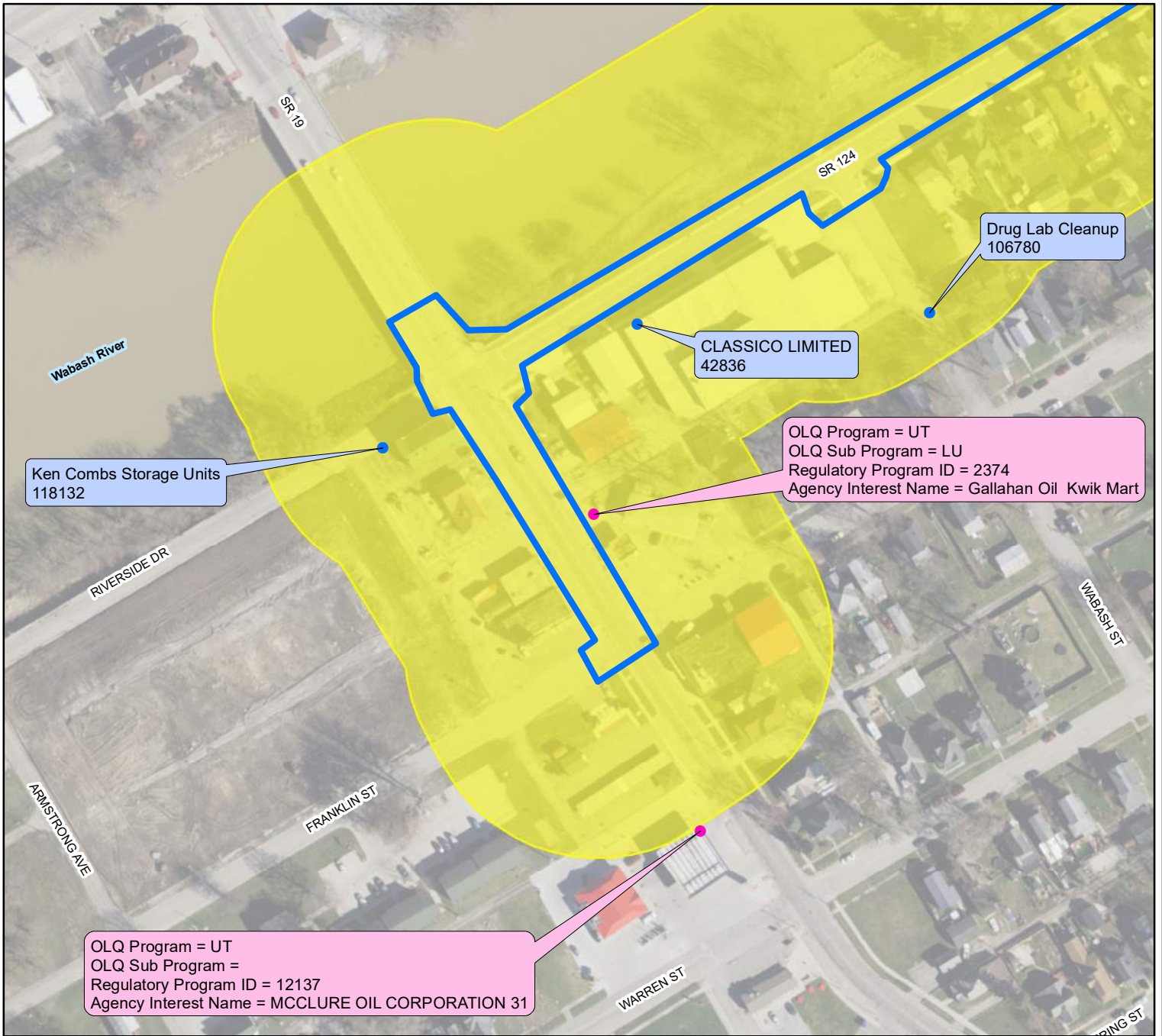
McClure Store 31

272 S Broadway

Peru, Miami County

Currently an active UST facility. 6 tanks were removed in 2015 and 7 new tanks were installed. There is probably a 50/50 chance that digging near this site will produce additional tanks and/or contamination.

# IDEM OLQ Facilities in Relation to INDOT Des. No. 1800552 (SR 124, Peru, Miami County) Intersection of SR 124 and SR 19



**Mapped By:** Mike Hill, IDEM, Office of Land Quality, Science Services Branch, Engineering & GIS Services, January 21, 2021

**IDEM Program / Sub Program Info:**  
UT / LU = Underground Storage Tanks Program / Leaking UST

**IDEM OLQ Loc(ational) Data Facility Label Info:**  
IDEM OLQ Program  
IDEM OLQ Sub Program  
Regulatory Program ID  
Agency Interest Name

**IDEM TEMPO Facility Label Info:**  
Agency Interest Name  
Agency Interest ID

**IDEM Facilities Source:** Geographic Information Officer (GIO) SDE data library  
OLQ Facilities = (SDEMGR.OLQ\_Loc\_Data)  
TEMPO Facilities = (SDEMGR.TEMPO\_Locations)

**INDOT Des. No.:** Des. No. 1800552

**PLSS Info:** INDOT Des. No. 1800552 is within Section No. 7 F. GODFROY Washington Township, Miami County, IN

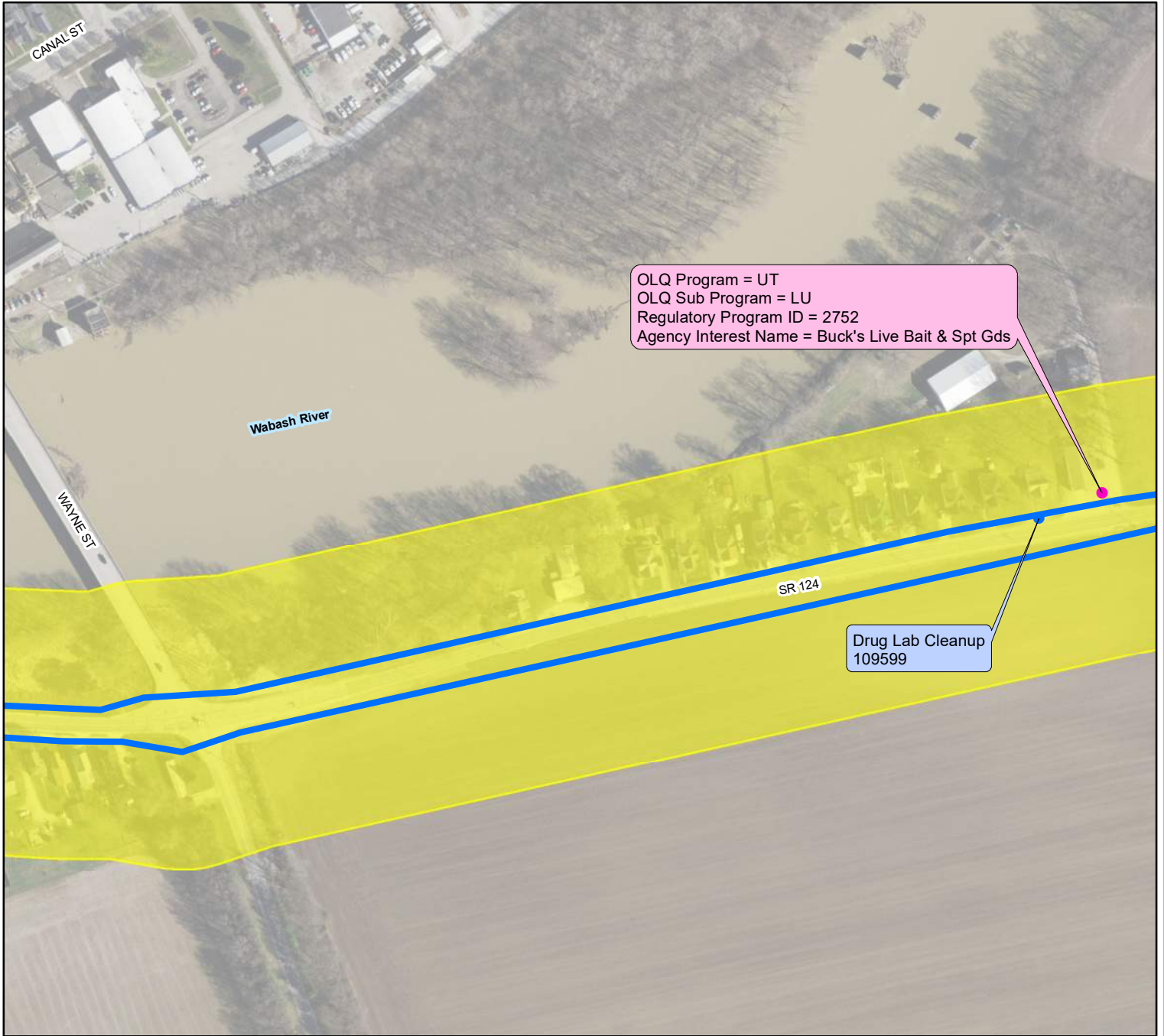
**Disclaimer:** This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

- IDEM Facility (TEMPO Locations)
- IDEM Facility (OLQ\_Loc\_Data)
- INDOT Des. No. 1800552
- 200' Buffer of INDOT Des. No. 1800552

Miami County

Project Area

# IDEM OLQ Facilities in Relation to INDOT Des. No. 1800552 (SR 124, Peru, Miami County) Vicinity of SR 124 and Wayne Street



**Mapped By:** Mike Hill, IDEM, Office of Land Quality, Science Services Branch, Engineering & GIS Services, January 21, 2021

**IDEM Program / Sub Program Info:**  
UT / LU = Underground Storage Tanks Program / Leaking UST

**IDEM OLQ Loc(ational) Data Facility Label Info:**  
IDEM OLQ Program  
IDEM OLQ Sub Program  
Regulatory Program ID  
Agency Interest Name

**IDEM TEMPO Facility Label Info:**  
Agency Interest Name  
Agency Interest ID

**IDEM Facilities Source:** Geographic Information Officer (GIO) SDE data library  
OLQ Facilities = (SDEMGR.OLQ\_Loc\_Data)  
TEMPO Facilities = (SDEMGR.TEMPO\_Locations)

**INDOT Des. No.:** Des. No. 1800552

**PLSS Info:** INDOT Des. No. 1800552 is within No. 5 JOHN B. RICHARDVILLE Washington Township, Miami County, IN

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

- IDEM Facility (TEMPO Locations)
- IDEM Facility (OLQ\_Loc\_Data)
- INDOT Des. No. 1800552
- 200' Buffer of INDOT Des. No. 1800552

Miami County

Project Area

IDEM Facilities (OLQ_Loc_Data) Within a 200' Buffer of INDOT Lead Des. No. 1800552													
INDOT Des. No. 1800552 (SR 124 & SR 19)													
OLQ_Loc_Data (GIS Layer)													
Leaking Underground Storage Tank (LUST)													
Agency_Interest_ID	Regulatory_Program_ID	Agency_Interest_Name	Program	Sub_Program	Reference_Point	Longitude	Latitude	Physical_Address	Municipality	Zip_Code			
43542	2374	Gallahan Oil Kwik Mart	UT	LU	Access Point	-86.06574	40.749453	215 S Broadway	<Null>	46970			
Underground Storage Tank (UST)													
Agency_Interest_ID	Regulatory_Program_ID	Agency_Interest_Name	Program	Sub_Program	Reference_Point	Longitude	Latitude	Physical_Address	Municipality	Zip_Code			
41599	12137	MCCLURE OIL CORPORATION 31	UT	<Null>	Access Point	-86.06523	40.748532	272 S Broadway	<Null>	46970			
TEMPO Locations (GIS Layer)													
MASTER_AI_ID		MASTER_AI_NAME				X_COORD_VALUE	Y_COORD_VALUE	PHYSICAL_ADDRESS_LINE_1	PHYSICAL_ADDRESS_MUNICIPALITY	PHYSICAL_ADDRESS_ZIP	START_DATE	USER_LAST_UPDT	ACCURACY_MSR
42836		CLASSICO LIMITED				578907.837	4511419.022	21 E RIVERSIDE	Peru	46970	3/1/2000	chammack	50
106780		Drug Lab Cleanup				-86.06408467	40.74996986	213 S Wabash St	Peru	46970	8/15/2013	kdolley	50
118132		Ken Combs Storage Units				-86.066336	40.749565	9 W Riverside Dr	Peru	46970	5/26/2017	kdolley	50
INDOT Des. No. 1800552 (SR 124 & Wayne Street)													
OLQ_Loc_Data (GIS Layer)													
Leaking Underground Storage Tank (LUST)													
Agency_Interest_ID	Regulatory_Program_ID	Agency_Interest_Name	Program	Sub_Program	Reference_Point	Longitude	Latitude	Physical_Address	Municipality	Zip_Code			
44595	2752	Buck's Live Bait & Spt Gds	UT	LU	Access Point	-86.056584	2/9/1900	14 Wallace Row	<Null>	46970			
TEMPO Locations (GIS Layer)													
MASTER_AI_ID		MASTER_AI_NAME				X_COORD_VALUE	Y_COORD_VALUE	PHYSICAL_ADDRESS_LINE_1	PHYSICAL_ADDRESS_MUNICIPALITY	PHYSICAL_ADDRESS_ZIP	START_DATE	USER_LAST_UPDT	ACCURACY_MSR
109599		Drug Lab Cleanup				-86.05095427	40.75349826	1134 E SR 124	Peru	46970	1/20/2015	kdolley	50

## APPENDIX F: WATER RESOURCES

*Aaron Kochlinger* 2/1/2021

## Waters of the U.S. Report

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### SR 124 PREVENTATIVE MAINTENANCE PROJECT



MIAMI COUNTY

DES. NO.

1800552

Prepared by:

**HNTB**

111 Monument Circle, Suite 1200

Indianapolis, IN, 46204

317.636.4682

**JANUARY 13, 2021**



## 1. PROJECT INFORMATION

Date(s) of Field Reconnaissance: October 20, 2020

### 1.1 LOCATION

The project is located along State Road (SR) 124, from the intersection with SR 19 to 7.32 miles east of SR 19 in Miami County, Indiana.

- Reserve No. 5 (Richardville), Reserve No. 9 (Godfroy), Sections 33 and 34, Township 27 North, Range 5 East, and Section 3, Township 26 North, Range 5 East
- Peru, Bunker Hill, Peoria, and Richvalley Quadrangles, Indiana 7.5 Minute Series
- Latitude/Longitude: 40.748964, -86.01103

### 1.2 PROJECT DESCRIPTION

The proposed project includes application of a Hot Mix Asphalt (HMA) overlay and preventative maintenance on 7.32 miles of SR 124 from the intersection with SR 19 (Broadway Street/Strawtown Pike) to 7.32 miles east of SR 19 at the Miami and Wabash County line, located in Miami County. The purpose of this project is to restore rideability and extend the pavement life of SR 124. In addition to the HMA Overlay, four drainage improvements are included in this project. There are three culverts in the corridor that will be replaced in kind. The culverts have a rating of 3 and are poor in condition and in danger of failing. The existing culverts are not included in the INDOT Bridge Inspection Application (BIAS) system. These include the following:

- Replacement of an existing 15 inch metal pipe culvert, COID 19925, located under Circus Lane just north of the intersection with SR 124
- ~~Replacement of an existing 24 inch metal pipe culvert, COID 19879, located 4.50 miles east of SR 19~~
- Replacement of an existing 24 inch metal pipe culvert, COID 19871, located under SR 124 approximately 0.1 mile north of CR 200 South and CR 625 East.

Structure removed from project

Additionally, at approximately RP 2+00, there are drainage concerns with existing ditch flow encroaching onto the edge of the existing pavement. There is also an existing ditch inlet that has been damaged by vehicles traversing over the inlet while making a sharp angle right turn on SR 124, and the outfall of this ditch to the Mississinewa River is failing. Construction of a roadside ditch/detention area along SR 124 approximately 0.36 mile northwest of the intersection of SR 124 and Mississinewa Road is anticipated.

## 2. DESKTOP RECONNAISSANCE

### 2.1 SOIL ASSOCIATIONS AND SERIES TYPES

According to the Soil Survey Geographic (SSURGO) Database for Miami County, Indiana, the following mapped soils series exist within the preventative maintenance project area (Attachments pages 13-18).

- Blount silt loam (BgmA): very deep, somewhat poorly drained soils that are moderately deep or deep to dense till. Blount soils formed in till and are on wave-worked till plains, till plains, and near-shore zones (relict). Slopes are 0 to 2 percent. Blount silt loam is not considered a hydric soil but hydric inclusions of Pewamo are known in ground moraines on till plains. This soil type has a hydric rating of 9%.
- Fox silt loam (FsB): very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. These soils formed in thin loess and in loamy alluvium or just in loamy alluvium overlying stratified calcareous sandy outwash on outwash plains, stream terraces, valley trains, kames, and glacial moraines. Slopes are 2 to 6 percent. Fox silt loam is not considered a hydric soil but hydric inclusions of Westland are known in drainage depression. The soil type has a hydric rating of 4%.
- Fox clay loam (FzC3): very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. These soils formed in thin loess and in loamy alluvium or just in loamy alluvium overlying stratified calcareous sandy outwash on outwash plains, stream terraces, valley trains, kames, and glacial moraines. Slopes are 8 to 15 percent. Fox clay loam is not considered a hydric soil. The soil type has a hydric rating of 0%.
- Gessie silt loam (Ge): very deep, well drained soils that formed in calcareous, loamy alluvium on flood plains. Gessie silt loam is not considered a hydric soil but hydric inclusions of Sloan are known in depressions. The soil type has a hydric rating of 3%.
- Glynwood silt loam (GlsB): very deep, moderately well drained soils that are moderately deep or deep to dense till. They formed in a thin layer of loess and the underlying till. These soils are on ground moraines and end moraines. Slopes are 2 to 6 percent. Glynwood silt loam is not considered a hydric soil but hydric inclusions of Pewamo are known in ground moraines on till plains. The soil type has a hydric rating of 6%.
- Hennepin silt loam (HeG): very deep, well drained soils formed in calcareous glacial till. These soils are on upland side slopes that border stream valleys and on moraines. Permeability is moderate or moderately slow. Slopes are 25 to 50 percent. Hennepin silt loam is not considered a hydric soil. The soil type has a hydric rating of 0%.
- Miami silt loam (MhB2): very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 2 to 6 percent. Miami silt loam is not a hydric soil but hydric inclusions of Treaty are known in till plains. The soil type has a hydric rating of 5%.
- Miami silt loam (MhC2): very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 6 to 12 percent. Miami silt loam is not a hydric soil but hydric inclusions of Treaty are known in till plains. The soil type has a hydric rating of 5%.
- Milford silty clay (Mk): very deep, poorly drained and very poorly drained soils formed in lacustrine sediments. These soils are on glacial lake plains. Milford silty clay is considered a hydric soil. The soil type has a hydric rating of 100%.

- Morley silt loam, 6 to 12 percent slopes (MsC): very deep, moderately well drained soils that are moderately deep to dense till. Morley soils formed in as much as 46 cm (18 inches) of loess and in the underlying clay loam or silty clay loam till. They are on till plains and moraines. Slopes are 6 to 12 percent. Morley silt loam is not considered a hydric soil but hydric inclusions of Pewamo are known in moraines. The soil type has a hydric rating of 3%.
- Morley silty clay loam, 6 to 12 percent slopes, severely eroded (MtC3): very deep, moderately well drained soils that are moderately deep to dense till. Morley soils formed in as much as 46 cm (18 inches) of loess and in the underlying clay loam or silty clay loam till. They are on till plains and moraines. Slopes are 6 to 12 percent. Morely silty clay loam is not considered a hydric soil. The soil type has a hydric rating of 0%.
- Morley silty clay loam, 12 to 25 percent slopes, severely eroded (MtD3): very deep, moderately well drained soils that are moderately deep to dense till. Morley soils formed in as much as 46 cm (18 inches) of loess and in the underlying clay loam or silty clay loam till. They are on till plains and moraines. Slopes are 12 to 25 percent. Morley silty clay loam is not considered a hydric soil. The soil type has a hydric rating of 0%.
- Ockley silt loam, 0 to 2 percent slopes (OcA): very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 0 to 2 percent. Ockley silt loam is not considered a hydric soil. The soil type has a hydric rating of 0%.
- Ockley silt loam, 2 to 6 percent slopes (OcB): very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 2 to 6 percent. Ockley silt loam is not considered a hydric soil but hydric inclusions of Rensselaer and Sebewa are known in depressions. The soil type has a hydric rating of 6%.
- Pewamo silty clay loam (Pw): very deep, very poorly drained soils formed in till on moraines, near-shore zones (relict), and lake plains. Slopes are 0 to 1 percent. Pewamo silty clay loam is considered a hydric soil. The soil type has a hydric rating of 91%.
- Sebewa loam (Se): very deep, poorly drained or very poorly drained soils formed in loamy outwash and the underlying gravelly and sandy outwash on outwash plains, valley trains, and stream terraces on terrace landscapes. They are moderately deep to the gravelly and sandy outwash. Slopes are 0 to 1 percent. Sebewa loam is considered a hydric soil. The soil type has a hydric rating of 95%.
- Shoals silt loam (Sh): very deep, somewhat poorly drained soils that formed in alluvium on flood plains. Slopes are 0 to 2 percent. Shoals silt loam is not considered a hydric soil but hydric inclusions of Sloan are known in flood plains. The soil type has a hydric rating of 8%.
- Sloan silty clay loam (So): very deep, very poorly drained soils formed in loamy alluvium on flood plains. Slopes are 0 to 1 percent. Sloan silty clay loam is considered a hydric soil. The soil type has a hydric rating of 94%

- Stonelick sandy loam (St): very deep, well drained soils formed in calcareous stratified alluvium on flood plains. Stonelick sandy loam is not considered a hydric soil but hydric inclusions of Sloan are known in depressions. The soil type has a hydric rating of 3%.

## 2.2 NATIONAL WETLANDS INVENTORY

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data ([www.fws.gov/wetlands/Data/State-Downloads.html](http://www.fws.gov/wetlands/Data/State-Downloads.html)) there are 9 wetland polygons mapped within the investigated area. NWI wetland polygons are summarized in Table 1 - See NWI Map for reference (Attachment pages 8-11).

TABLE 1: NWI SUMMARY TABLE

Map ID	Wetland Description (Classification Code)	Corresponding Delineated Water
1	Riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH)	Mississinewa River
2	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	None
3	Riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH)	Mississinewa River
4	Riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH)	Mississinewa River
5	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	UNT 2 to Mississinewa River
6	Palustrine, unconsolidated bottom, intermittently flooded, excavated (PUBGx)	None
7	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	None
8	Riverine, unknown perennial, permanently flooded (R5UBH)	None
9	Riverine, intermittent, streambed, seasonally flooded (R4SBC)	None

## 2.3 HYDROLOGY

The investigated area is contained within three watersheds. The 12-digit Hydrologic Unit Code (HUC) for the westernmost watershed of the investigated area is # 051201011602, which identifies the Prairie Ditch-Wabash River Watershed. The 12-digit HUC for the central watershed of the investigated area is #051201030606, which identifies the Town of Peoria-Mississinewa River Watershed. The 12-digit HUC for the easternmost watershed of the investigated area is #051201011407, which identifies the Daniel Creek-Wabash River Watershed (Attachment page 7). According to the Indiana Floodplain Information Portal, the project is within a 100-year floodplain or regulatory floodway (<http://dnrm.dnr.in.gov/appsphp/fdms/>) (Attachment page 12). The investigated area is within the 100-year floodplain

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and regulatory floodway of Mississinewa River and has a base floodplain elevation ranging from approximately 638.8 feet to 666.6 feet (NAVD88).

### 3. FIELD RECONNAISSANCE

HNTB Indiana staff performed a field review of the investigated area on October 20, 2020. The purpose was to determine the presence of Waters of the U.S. within the investigated area. HNTB Indiana staff collected data during the field review to appropriately characterize the investigated area and determine the presence or absence of jurisdictional waters.

The field investigation area encompassed the area required for construction access and completion of both the preventative maintenance work and the drainage structure work. Only those areas where earth disturbing activities and culvert replacement were anticipated were investigated beyond the existing edge of shoulder, and these Investigated Areas are illustrated in a yellow dashed line on relevant graphics. The full extent of the project area where the HMA overlay will occur was investigated only within the existing edge of pavement. The full project area is illustrated in a solid red line on all graphics. HNTB staff photographed select features and areas of interest throughout the investigated area. A photo location map and selected photographs are included as Attachment pages 22-77.

The proposed investigated area was analyzed using the methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (US Army corps of Engineers, 2010). Identification indicator status of plant species utilized the 2018 Midwest Region National Wetland Plant List. Field GIS data was collected using a Trimble R1 GNSS GPS with sub-meter accuracy.

### 4. WATERS

The October 2020 field reconnaissance for the SR 124 Preventative Maintenance project revealed one wetland, Wetland A, three streams, UNT 1 to Mississinewa River, UNT 2 to Mississinewa River, and UNT 1 to Asher Branch, and one roadside ditch, RSD 1.

#### 4.1 WETLANDS

##### WETLAND A

Wetland A is a palustrine, emergent, persistent, temporarily flooded (PEM1A) wetland according to the classifications defined by Cowardin *et al.* (1979). Wetland A is 0.03 acre in size. This fringe wetland developed due to the concentration of drainage from the surrounding agricultural fields and from SR 124 at the headwater of UNT 1 to Asher Branch. This wetland is not mapped as an NWI wetland. Wetland A is bounded to the west by the roadside slope to SR 124. To the east, Wetland A drains to the channel of UNT 1 to Asher Branch. Based on a qualitative analysis of Wetland A, this wetland is of poor quality based on its position adjacent to the roadside and the low quality of the surrounding vegetation. Wetland A is likely a non-jurisdictional feature, as it is associated with UNT 1 to Asher Branch, an ephemeral waterway. INDOT acknowledges that this wetland would likely not meet the definition of a Water of the US. However, INDOT is requesting that the USACE complete a jurisdictional determination on this feature.

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#### DATA POINT AW1

This data point was collected in a low spot at the base of the SR 124 roadside slope near a culvert conveying UNT 1 to Asher Branch, with little variation in topography and vegetative cover. Therefore, data point AW1 is thought to be representative of the entire wetland. Dominant vegetation consisted of narrowleaf cattail (*Typha angustifolia* OBL), and giant goldenrod (*Solidago gigantea* FACW). One hundred percent of the dominant species within this plot were FACW or wetter, therefore the vegetation passes the dominance test for hydrophytic vegetation. Hydrology indicators observed were oxidized rhizospheres on living roots (C3) and the FAC-Neutral test (D5). Soils excavated to a depth of 20 inches consisted of:

- 0-4 inches: 10YR 4/2 of silt loam
- 4-20 inches: 10YR 4/2 of silt loam, with 30% concentrations of 10YR 6/1, 5% concentrations of 10YR 4/6, and 5% concentrations of 10YR 2/1 within the matrix

Soils at this data point meet the criteria for depleted matrix (F3). HNTB staff determined that this point is located within Wetland A. The data form for this point is included as attachments 78-79.

#### DATA POINT AD1

This data point was taken in a field south UNT 1 to Asher Branch, south of the boundary of Wetland A. Dominant vegetation consisted of tall fescue (*Schedonorus arundinaceus* FACU) and Kentucky bluegrass (*Poa pratensis* FAC). Since a predominance of the vegetation within this plot has an indicator status of FACU, this data point does not meet the dominance test for hydrophytic vegetation. No wetland hydrology indicators were observed, so no wetland hydrology exists at this data point. Soils excavated to a depth of 18 inches consisted of:

- 0-4 inches: 10YR 4/2 of loamy clayey soils
- 4-18 inches: 10YR 4/2 loamy clayey soils with 5% concentrations of 10YR 4/6 and 5% concentrations of 10YR 2/1 within the matrix

Soils at this data point meet the criteria for hydric soils. However, this point is not within Wetland A, as hydrophytic vegetation and wetland hydrology indicators were not observed. The data form for this point is included as attachments 81-82.

#### DATA POINT BD1

This data point was taken in the floodway of the Mississinewa River, just east of where a constructed channel (roadside ditch 1) flowing under Circus Lane intersects UNT 2 to Mississinewa River. Dominant vegetation consisted of eastern cottonwood (*Populus deltoides* FAC), box elder (*Acer negundo* FAC), hackberry (*Celtis occidentalis* FAC), giant goldenrod (*Solidago gigantea* FACW), and panicled aster (*Symphotrichum lanceolatum* FAC). The dominant vegetation within this plot passes the dominance test for hydrophytic vegetation. No hydrology indicators were observed, so no wetland hydrology exists at this datapoint. Soils excavated to a depth of 12 inches consisted of:

- 0-2 inches: 10YR 4/2 of silt loam
- 2-12 inches: 10YR 4/3 of silt loam

Shovel refusal was encountered at a depth of 12 inches due to rock. Since hydric soil was not present at this datapoint and no wetland hydrology was observed, datapoint BD1 is not located within a wetland. The data form for this point is included as attachments 84-85.

**DATA POINT CD1**

This data point was collected in a roadside ditch on the south side of SR 124, just southwest of UNT 1 to Mississinewa. Dominant vegetation consisted of tall fescue (*Schedonorus arundinaceus* FACU). None of the dominant vegetation within this plot has an indicator status of FAC or wetter, and therefore this point does not meet the criteria for hydrophytic vegetation. An algal mat or crust (B4) and surface soil cracks (B6) were observed at this data point, so this data point exhibits wetland hydrology indicators. Soils excavated to a depth of 20 inches consisted of:

- 0-6 inches: 10YR 3/2 of silt loam
- 6-14 inches: 10YR 4/2 of gravel soil with a sandy fill
- 14-20 inches: 10YR 3/2 gravel soil with a sandy fill

Since neither hydrophytic vegetation nor hydric soils were observed at this data point, data point CD1 is not located within a wetland. The data form for this point is included as attachments 87-88.

**DATA POINT DD1**

This data point was taken in a low spot in the floodway of the Mississinewa River. Dominant vegetation consisted of sugar maple (*Acer saccharum* FACU), hackberry (*Celtis occidentalis* FAC), Japanese honeysuckle (*Lonicera japonica* FACU), and amur honeysuckle (*Lonicera maackii* UPL). Since a predominance of the vegetation within this plot does not have an indicator status of FAC or wetter, this data point does not meet the criteria for hydrophytic vegetation, though morphological adaptation in the form of buttressed roots was observed in the tree species within this plot. Buttressed roots also serve as a hydrology indicator for this data point, though no additional indicators were observed. Soils excavated to a depth of 20 inches consisted of:

- 0-4 inches: 10YR 4/2 of silt loam
- 4-20 inches: 10YR 4/3 of silt loam

Since hydric soil was not present at this datapoint and the hydrophytic vegetation was not observed, datapoint DD1 is not located within a wetland. The data form for this point is included as attachments 90-91.

TABLE 1: WETLAND SUMMARY TABLE

Wetland	Photo	Lat/Long	Cowardin Classification	Areas (Acre)	Quality	Water of the U.S.?
A	85, 90-91	40.738570, -85.955205	PUBG	0.03	Poor	No

TABLE 2: WETLAND DATA POINT SUMMARY TABLE

Data Point-ID	Vegetation	Soils	Hydrology	Within a Wetland?
AW1	Y	Y	Y	Yes, Wetland A
AD1	N	Y	N	No
BD1	Y	N	N	No
CD1	N	N	Y	No
DD1	N	N	Y	No

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## 4.2 STREAMS

The investigation resulted in the delineation of two non-jurisdictional streams, UNT 1 to Mississinewa River and UNT 1 to Asher Branch, as well as two jurisdictional streams, Mississinewa River and UNT 2 to Mississinewa River. A total of approximately 1670 linear feet of stream length lies within the investigated area. Characteristics of these UNTs are summarized in Table 3. The ordinary high-water marks (OHWM) were measured on the ground using a measuring tape, outside of the influence of any nearby structures.

### MISSISSINEWA RIVER

Mississinewa River is a riverine, lower perennial, unconsolidated bottom, permanently flooded (R2UBH) resource. The Mississinewa River is not a wadable stream. Due to the size of the Mississinewa River, field survey was utilized to determine the OHWM. Approximately 455 linear feet of the Mississinewa River flows through the investigated area in total. Based on measurements from 2017 aerial photography and topographic field survey, the OHWM of Mississinewa River where it meets UNT 1 is approximately 143 feet wide by 3 feet deep. Where UNT 2 flows into Mississinewa River, the OHWM is estimated to be approximately 295 feet wide by 3 feet deep. According to the USGS StreamStats website, the drainage area of Mississinewa River where it flows through the investigated area is approximately 816 square miles. Mississinewa River is a jurisdictional feature based on its connectivity to the Wabash River, a traditionally navigable waterway (TNW). Based on a qualitative assessment, this resource is an excellent-quality feature based on its flow and on its well-developed riparian corridor.

### UNT 1 TO MISSISSINEWA RIVER

UNT 1 to Mississinewa River (UNT 1) is an ephemeral stream feature that flows into the investigated area from a partially wooded pasture area to the south of SR 124, approximately 1.95 miles east of the intersection of SR 124 and Wallace Avenue. UNT 1 is not mapped as a USGS blue line stream, nor is it noted on the National Hydrography Flowlines layer. UNT 1 flows along the south side of SR 124 until the road curves to the southeast, at which point it drains into a structure under SR 124 and continues northeast until it drains into the Mississinewa River. Where UNT 1 flows out of the pipe structure on the north side of SR 124, a pipe failure has occurred (photos 50-51, attachment pages 57-58).

Approximately 1352 feet of this feature was evaluated as part of this investigation. This stream feature appears to be a partially excavated channel that drains stormwater from the agricultural property to the south of SR 124 via sheetflow and roadside ditches. At the time of the field investigation, the channel had approximately 1 inch of water flowing in the roadside portion of the stream, likely due to the rain recorded in the area in the later part of the day on October 19, 2020. The average rainfall recorded at the 3 rainfall gauges nearest the investigated area on October 19, 2020 was approximately 0.18 inches.

The substrate of UNT 1 was silt. The average OHWM of UNT 1 to Mississinewa is 3 feet wide by 1 foot deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. The drainage area of UNT 1 to Mississinewa River is approximately 816 square miles. This feature is hydrologically connected to the Wabash River, a TNW, via the Mississinewa River; however, due to its ephemeral nature, it would not be considered a jurisdictional feature. The drainage area of UNT 1 to Mississinewa River is not available on the USGS StreamStats website, because it is less than 0.1 square mile. Based on a qualitative assessment, this resource is a poor-quality feature based on lack of development and lack of instream cover. INDOT acknowledges that this stream



would likely not meet the definition of a Water of the US. However, INDOT is requesting that the USACE complete a jurisdictional determination on this feature.

**UNT 2 TO MISSISSINEWA RIVER**

UNT 2 to Mississinewa River (UNT 2) is an intermittent stream feature that flows into the investigated from the agricultural area to the east of Circus Lane. UNT 2 drains NWI Wetland 5 (Attachment page 9) as well as Roadside Ditch 1 (RSD 1) to the Mississinewa River. UNT 2 is mapped as a USGS blueline stream and a National Hydrography Flowline. Approximately 241 feet of this feature was evaluated as part of this investigation. The OHWM of UNT 2 is 2.5 feet wide by 8 inches deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, intermittent, streambed (R4SB). According to the USGS StreamStats website, the drainage area of UNT 2 to Mississinewa River is approximately 0.54 square miles. UNT 2 has hydrologic connectivity to the Wabash River, a TNW, via the Mississinewa River. Based on this connectivity and its intermittent regime, UNT 2 is likely a jurisdictional feature. Based on a qualitative assessment, this resource is a poor-quality feature based on lack of development and lack of flow.

**UNT 1 TO ASHER BRANCH**

UNT 1 to Asher Branch is an ephemeral stream feature that originates from a small structure under SR 124, near the boundary of Wetland A. Approximately 77 feet of this feature was evaluated as part of this investigation. UNT 1 to Asher Branch is not mapped as a USGS blueline stream, nor is it noted on the National Hydrography Flowlines layer. The OHWM of UNT 1 to Asher Branch is approximately 1 foot wide by 2 feet deep within Wetland A. Northeast of Wetland A, the OHWM widens to 1.5 feet and the stream channel becomes more clearly evident. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. Due to its ephemeral nature, UNT 1 to Asher Branch would not be considered a jurisdictional feature. The drainage area of UNT 1 to Asher Branch is not available on the USGS StreamStats website, because is it less than 0.1 square mile. Based on a qualitative assessment, this resource is a poor-quality feature based on its lack of development, low quality vegetation, and lack of flow. INDOT acknowledges that this stream would likely not meet the definition of a Water of the US. However, INDOT is requesting that the USACE complete a jurisdictional determination on this feature.

TABLE 3: STREAM AND WATERWAY SUMMARY TABLE

Stream Name	Photo #	Lat/Long	OHWM	Quality	Substrate	USGS Blue Line	Riffles/ Pools	Waters of U.S.
Mississinewa River	42-43, 45-47, 49,	40.749270, -86.012032	143 feet wide x 3 feet deep (at UNT 1) 295 feet wide by 3 feet deep (at UNT 2)	Good	Silt and gravel	Yes	Yes	Yes
UNT 1 to Mississinewa River	27-30, 34-35, 39-40, 48-51	40.755846, -86.028544	3 feet wide by 1 foot deep	Poor	Silt	No	No	No
UNT 2 to Mississinewa River	62-65	40.749330, -86.011280	2.5 feet wide by 8 inches deep	Poor	Silt	Yes	No	Yes
UNT 1 to Asher Branch	84-85	40.738641 -85.955152	1.5 feet wide by 24 inches deep	Poor	Silt with some rock armament	No	No	No

### 4.3 ROADSIDE DRAINAGE FEATURES

One roadside drainage feature, Roadside Ditch (RSD) 1, was observed within the survey area. East of Circus Lane, RSD 1 is a vegetated roadside ditch that transitions to a riprap lined ditch as it approaches the culvert under Circus Lane. West of Circus Lane, RSD 1 intersects UNT 2 to Mississinewa River. RSD 1 is approximately 244 feet long within the investigated area.

TABLE 3: ROADSIDE DRAINAGE SUMMARY TABLE

Stream Name	Photo #	Lat/Long	OHWM	Quality	Substrate	USGS Blue Line	Riffles/ Pools	Waters of U.S.
RSD 1	55-59, 61	40.749062, -86.010648	-	Poor	Riprap, silt	No	No	No

### 4.4 OPEN WATERS

Site investigations did not identify open water features within the investigated area.

## 5. CONCLUSION

The October 2020 field review for the SR 124 Preventative Maintenance Project identified two likely jurisdictional features within the identified survey area, Mississinewa River and UNT 2 to Mississinewa River. Both are likely waters of the U.S. with hydrologic connectivity to the Wabash River, a TNW.

Two ephemeral streams, UNT 1 to Mississinewa River and UNT 1 to Asher Branch, one roadside ditch, and one emergent wetland, Wetland A, were identified within the survey area. These features are likely non-jurisdictional. Final determination of jurisdiction of these features is the responsibility of the U.S. Army Corps of Engineers (USACE). INDOT acknowledges that UNT 1 to Mississinewa River, UNT 1 to Asher Branch, and Wetland A would likely not meet the definition of a Water of the US. However, INDOT is requesting that the USACE complete a jurisdictional determination on these features.

Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the preventative maintenance project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office’s best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE. The INDOT Office of Environmental Services should be contacted immediately if impacts occur.




This waters determination has been prepared based on the best available information, interpreted in the light of the investigator’s training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands*

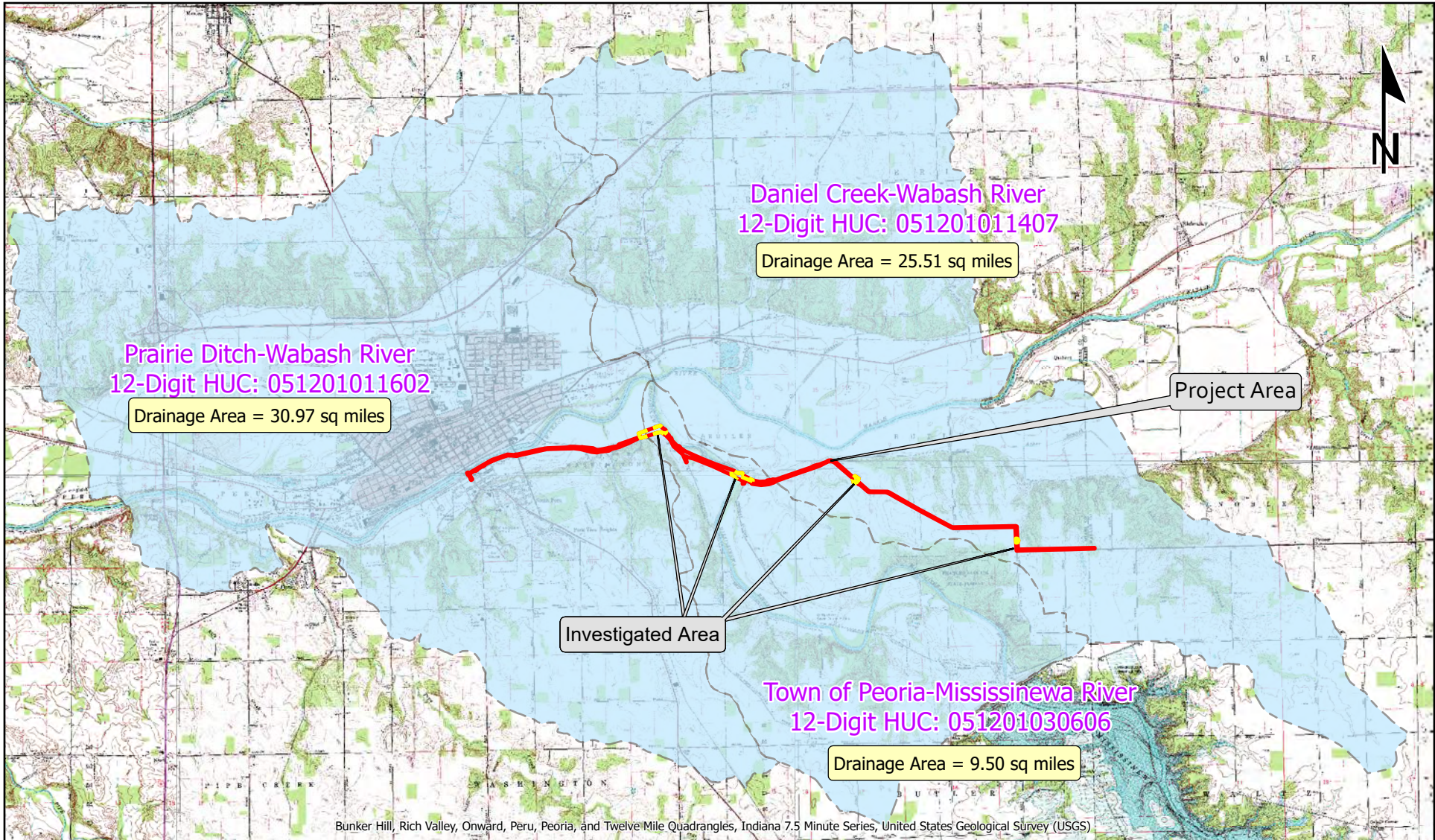
*Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.



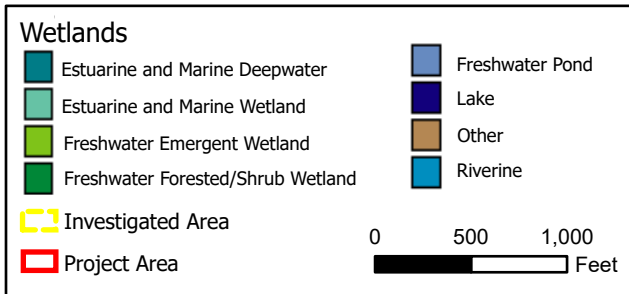
Christine Meador, Science Project Manager

PREPARERS:

HNTB Inc., Staff	Position	Contributing Effort
Christine Meador  <u>January 8, 2020</u>	Science Project Manager	Project Management Field Data Collection
Sharon Anton  <u>January 8, 2020</u>	Scientist I	Field Data Collection Report Preparation
Shampayne Jeffries  <u>January 8, 2020</u>	Environmental Planning Intern	Report Preparation Mapping



<p> Project Area</p> <p> Investigated Area</p> <p> Watershed</p>	<p><b>Watershed Map</b></p> <p>SR 124</p> <p>Preventative Maintenance Project</p> <p>Miami County, Indiana</p>	
<p>0 8,000  Feet</p>	<p>Des. No. 1800552</p> <p>1 inch = 8,000 ft</p>	<p><b>HNTB</b></p> <p>Graphics created by HNTB Corporation (2020)</p>



**National Wetlands Inventory Map**  
 SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

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Des. No. 1800552

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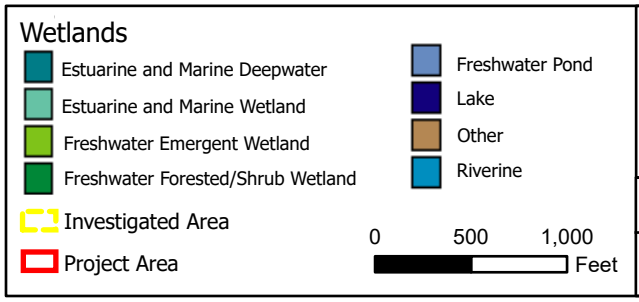
1 inch = 1,000 ft

**HNTB**  
 Graphics created by HNTB Corporation (2020)





Earthstar Geographics, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS,



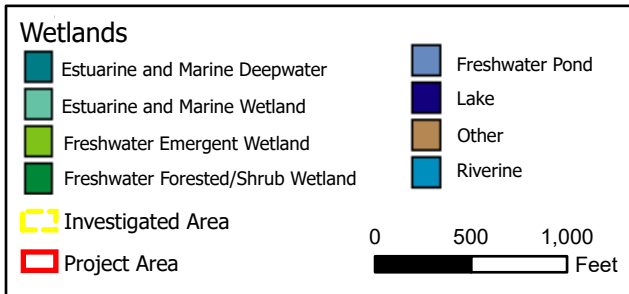
**National Wetlands Inventory Map**  
 SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

Des. No. 1800552

1 inch = 1,000 ft

**HNTB**  
 Graphics created by HNTB Corporation (2020)





**National Wetlands Inventory Map**

SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

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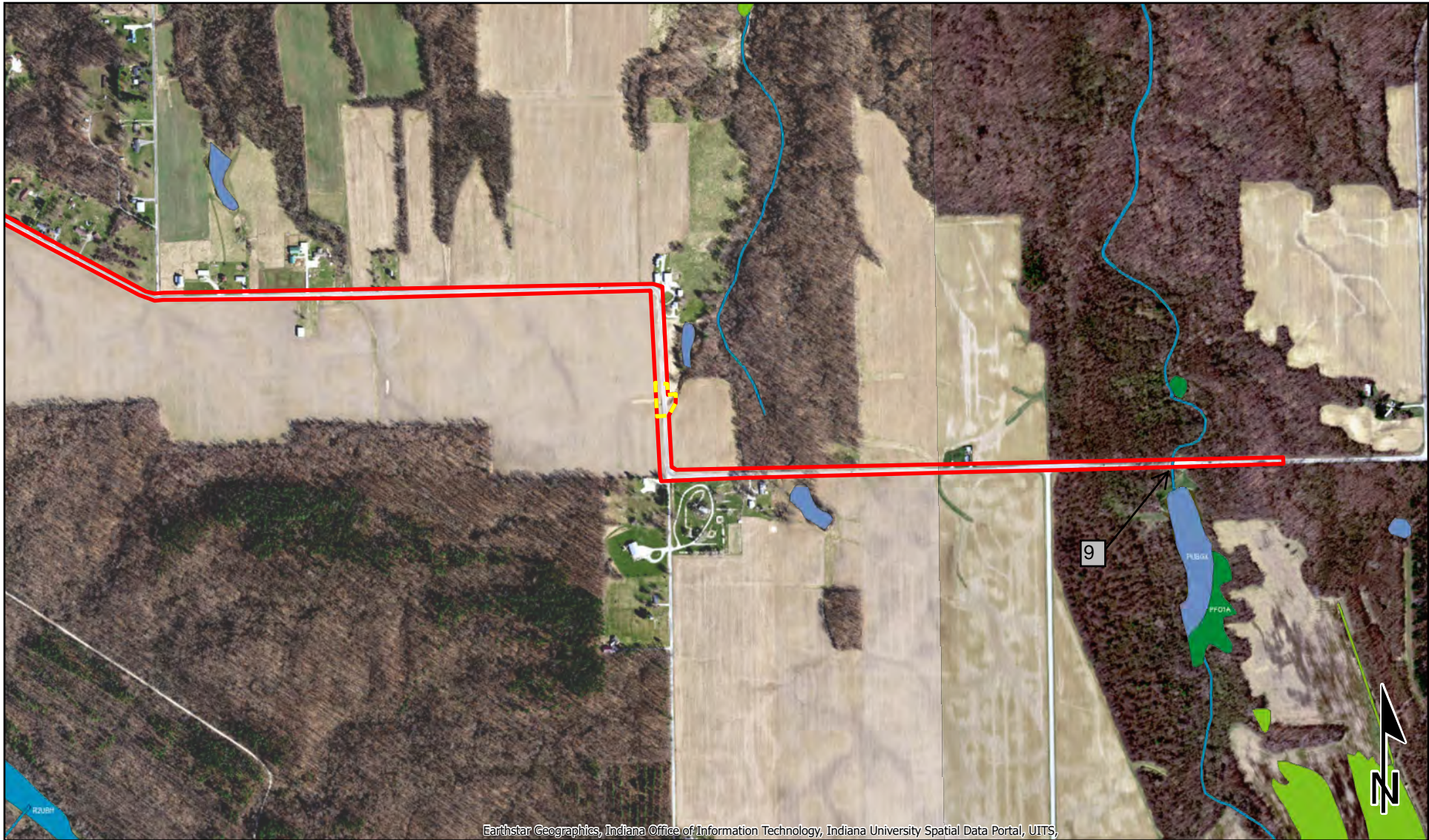
Des. No. 1800552

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1 inch = 1,000 ft

**HNTB**  
 Graphics created by HNTB Corporation (2020)





**Wetlands**

Estuarine and Marine Deepwater	Freshwater Pond
Estuarine and Marine Wetland	Lake
Freshwater Emergent Wetland	Other
Freshwater Forested/Shrub Wetland	Riverine

Investigated Area

Project Area

0 500 1,000  
 Feet

**National Wetlands Inventory Map**  
 SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

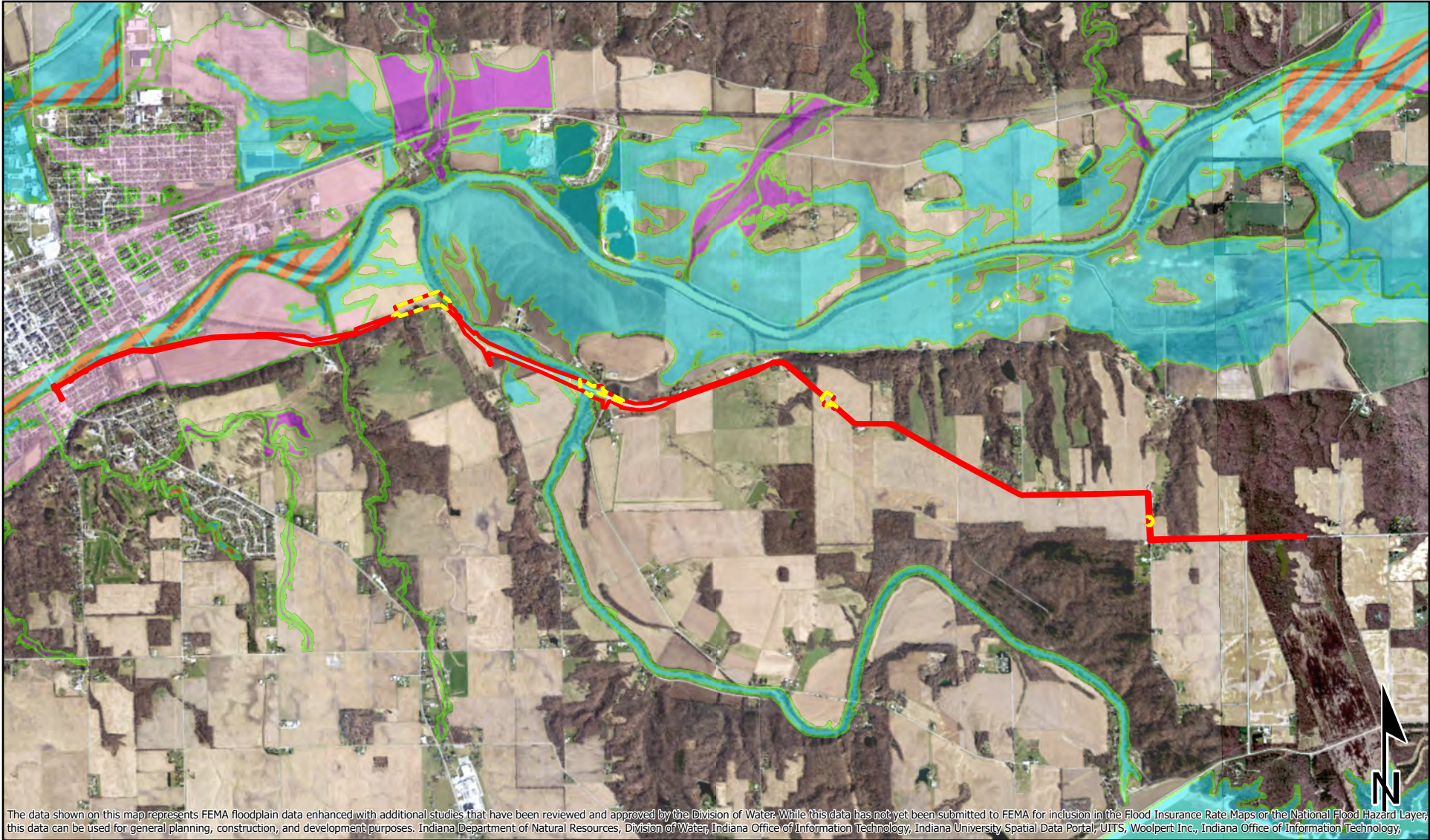
Des. No. 1800552

1 inch = 1,000 ft

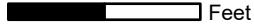

**HNTB**  
 Graphics created by HNTB Corporation (2020)



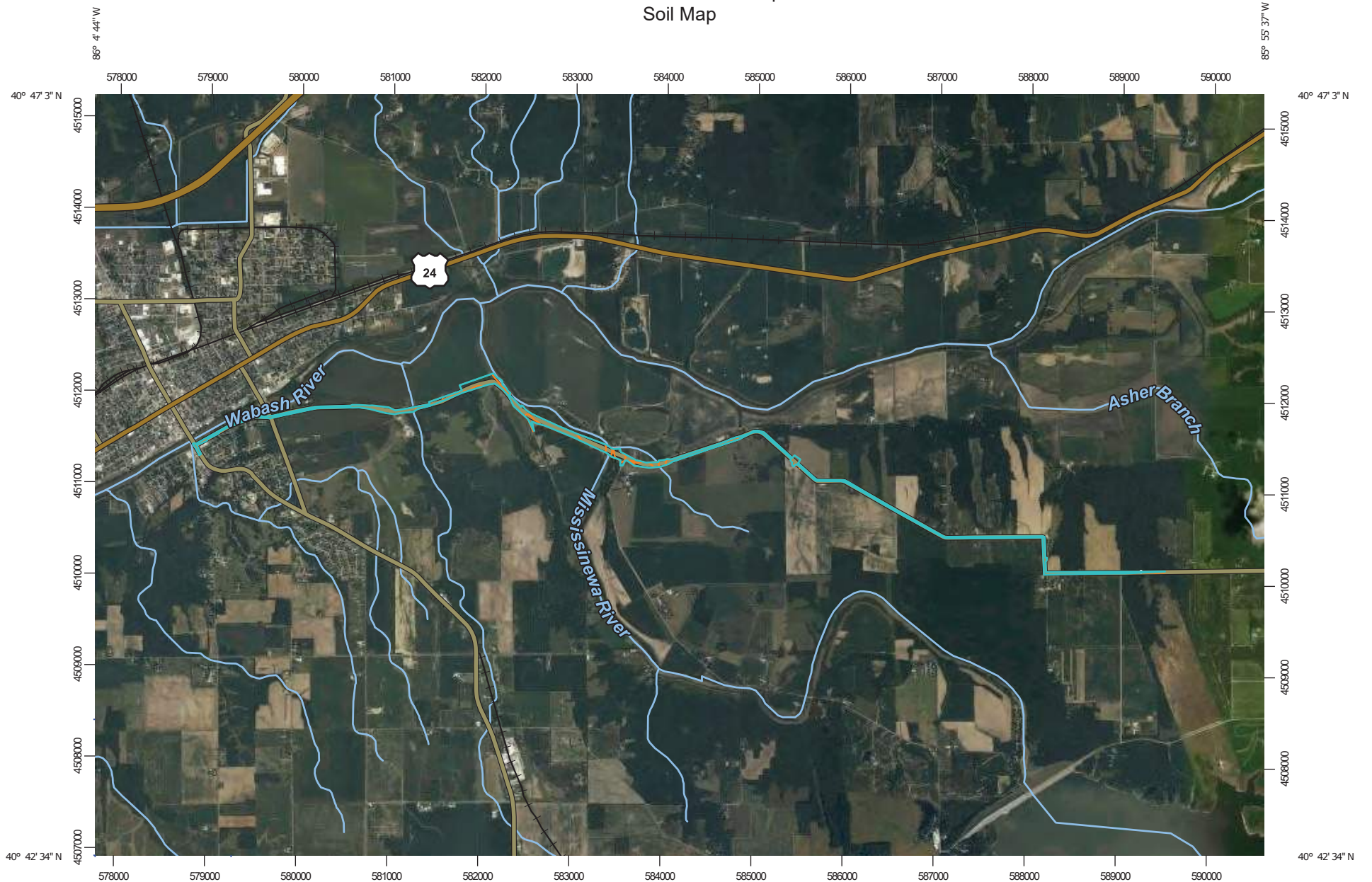




The data shown on this map represents FEMA floodplain data enhanced with additional studies that have been reviewed and approved by the Division of Water. While this data has not yet been submitted to FEMA for inclusion in the Flood Insurance Rate Maps or the National Flood Hazard Layer, this data can be used for general planning, construction, and development purposes. Indiana Department of Natural Resources, Division of Water, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, Woolpert Inc., Indiana Office of Information Technology,

<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightblue; border: 1px solid black; margin-right: 5px;"></span> FEMA Zone AE Floodway</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: darkblue; border: 1px solid black; margin-right: 5px;"></span> DNR Detailed Floodway</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: purple; border: 1px solid black; margin-right: 5px;"></span> DNR Approximate Floodway</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightgreen; border: 1px solid black; margin-right: 5px;"></span> FEMA Zone A</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: mediumblue; border: 1px solid black; margin-right: 5px;"></span> FEMA Zone AE</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: yellow; border: 1px solid black; margin-right: 5px;"></span> DNR Detailed Fringe</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: pink; border: 1px solid black; margin-right: 5px;"></span> DNR Approximate Fringe</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightpink; border: 1px solid black; margin-right: 5px;"></span> Additional Floodplain Area</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: brown; border: 1px solid black; margin-right: 5px;"></span> FEMA Protected by Levee</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightgreen; border: 1px solid black; margin-right: 5px;"></span> FEMA Floodplain - Ponding (Depth)</li> <li><span style="display: inline-block; width: 15px; height: 10px; background-color: lightgreen; border: 1px solid black; margin-right: 5px;"></span> FEMA Floodplain - Sheet Flow (Depth)</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 2px dashed yellow; margin-right: 5px;"></span> Investigated Area</li> <li><span style="display: inline-block; width: 15px; height: 10px; border: 2px solid red; margin-right: 5px;"></span> Project Area</li> </ul>	<p><b>IDNR Floodplain Map</b>  SR 124  Preventative Maintenance Project  Miami County, Indiana</p>	
<p>0    2,000    4,000   Feet</p>	<p>Des. No. 1800552  1 inch = 4,000 ft</p>	 <p>Graphics created by HNTB Corporation (2020)</p>

# Custom Soil Resource Report Soil Map



Map Scale: 1:58,700 if printed on A landscape (11" x 8.5") sheet.

Meters

0 500 1000 2000 3000

Feet


0 2500 5000 10000 15000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)




















**Soils**







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at scales ranging from 1:15,800 to 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Miami County, Indiana  
 Survey Area Data: Version 24, Jun 8, 2020

Soil Survey Area: Wabash County, Indiana  
 Survey Area Data: Version 25, Jun 11, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 12, 2013—Sep 26, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BgmA	Blount silt loam, ground moraine, 0 to 2 percent slopes	10.6	11.2%
FsB	Fox silt loam, till plain, 2 to 6 percent slopes	4.2	4.4%
FzC3	Fox clay loam, 8 to 15 percent slopes, severely eroded	2.2	2.4%
Ge	Gessie silt loam	38.1	40.1%
GlsB	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	9.2	9.7%
HeG	Hennepin silt loam, 25 to 50 percent slopes	1.5	1.6%
Mk	Milford silty clay	0.1	0.1%
MsC	Morley silt loam, 6 to 12 percent slopes	2.7	2.8%
MtC3	Morley silty clay loam, 6 to 12 percent slopes, severely eroded	0.7	0.7%
MtD3	Morley silty clay loam, 12 to 25 percent slopes, severely eroded	0.3	0.4%
OcA	Ockley silt loam, 0 to 2 percent slopes	7.0	7.4%
OcB	Ockley silt loam, 2 to 6 percent slopes	2.2	2.4%
Pw	Pewamo silty clay loam, 0 to 1 percent slopes	0.8	0.9%
Se	Sebewa loam, disintegration moraine, 0 to 1 percent slopes	0.8	0.8%
Sh	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	4.1	4.3%
So	Sloan silty clay loam, 0 to 1 percent slopes, frequently flooded	1.1	1.2%
St	Stonelick sandy loam	5.4	5.7%
W	Water	3.3	3.5%
<b>Subtotals for Soil Survey Area</b>		<b>94.5</b>	<b>99.6%</b>
<b>Totals for Area of Interest</b>		<b>94.9</b>	<b>100.0%</b>

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MhB2	Miami silt loam, 2 to 6 percent slopes, eroded	0.2	0.2%

## Custom Soil Resource Report

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
MhC2	Miami silt loam, 6 to 12 percent slopes, eroded	0.2	0.2%
<b>Subtotals for Soil Survey Area</b>		<b>0.4</b>	<b>0.4%</b>
<b>Totals for Area of Interest</b>		<b>94.9</b>	<b>100.0%</b>

**Table—Hydric Rating by Map Unit (SR 124 HMA Overlay)**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BgmA	Blount silt loam, ground moraine, 0 to 2 percent slopes	9	10.6	11.2%
FsB	Fox silt loam, till plain, 2 to 6 percent slopes	4	4.2	4.4%
FzC3	Fox clay loam, 8 to 15 percent slopes, severely eroded	0	2.2	2.4%
Ge	Gessie silt loam	3	38.1	40.1%
GlsB	Glynwood silt loam, ground moraine, 2 to 6 percent slopes	6	9.2	9.7%
HeG	Hennepin silt loam, 25 to 50 percent slopes	0	1.5	1.6%
Mk	Milford silty clay	100	0.1	0.1%
MsC	Morley silt loam, 6 to 12 percent slopes	3	2.7	2.8%
MtC3	Morley silty clay loam, 6 to 12 percent slopes, severely eroded	0	0.7	0.7%
MtD3	Morley silty clay loam, 12 to 25 percent slopes, severely eroded	0	0.3	0.4%
OcA	Ockley silt loam, 0 to 2 percent slopes	0	7.0	7.4%
OcB	Ockley silt loam, 2 to 6 percent slopes	6	2.2	2.4%
Pw	Pewamo silty clay loam, 0 to 1 percent slopes	91	0.8	0.9%
Se	Sebewa loam, disintegration moraine, 0 to 1 percent slopes	95	0.8	0.8%
Sh	Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	8	4.1	4.3%
So	Sloan silty clay loam, 0 to 1 percent slopes, frequently flooded	94	1.1	1.2%
St	Stonelick sandy loam	3	5.4	5.7%
W	Water	0	3.3	3.5%
<b>Subtotals for Soil Survey Area</b>			<b>94.5</b>	<b>99.6%</b>
<b>Totals for Area of Interest</b>			<b>94.9</b>	<b>100.0%</b>

Custom Soil Resource Report

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
MhB2	Miami silt loam, 2 to 6 percent slopes, eroded	5	0.2	0.2%
MhC2	Miami silt loam, 6 to 12 percent slopes, eroded	5	0.2	0.2%
<b>Subtotals for Soil Survey Area</b>			<b>0.4</b>	<b>0.4%</b>
<b>Totals for Area of Interest</b>			<b>94.9</b>	<b>100.0%</b>

**Rating Options—Hydric Rating by Map Unit (SR 124 HMA Overlay)**

*Aggregation Method: Percent Present*

*Component Percent Cutoff: None Specified*

*Tie-break Rule: Lower*



Earthstar Geographics, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS, MK

Investigated Area	Roadside Ditch 1
Project Area	Delineated Streams
Map Index Page	Delineated Wetlands
Current Extent	Hydic Soil
County Boundaries	
Data Points	

0 100 200  
 Feet

### Water Resources Map

SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

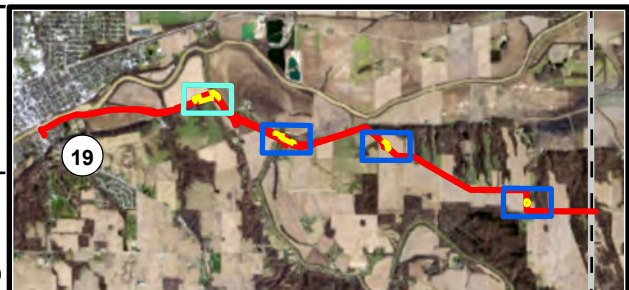
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Des. No. 1800552

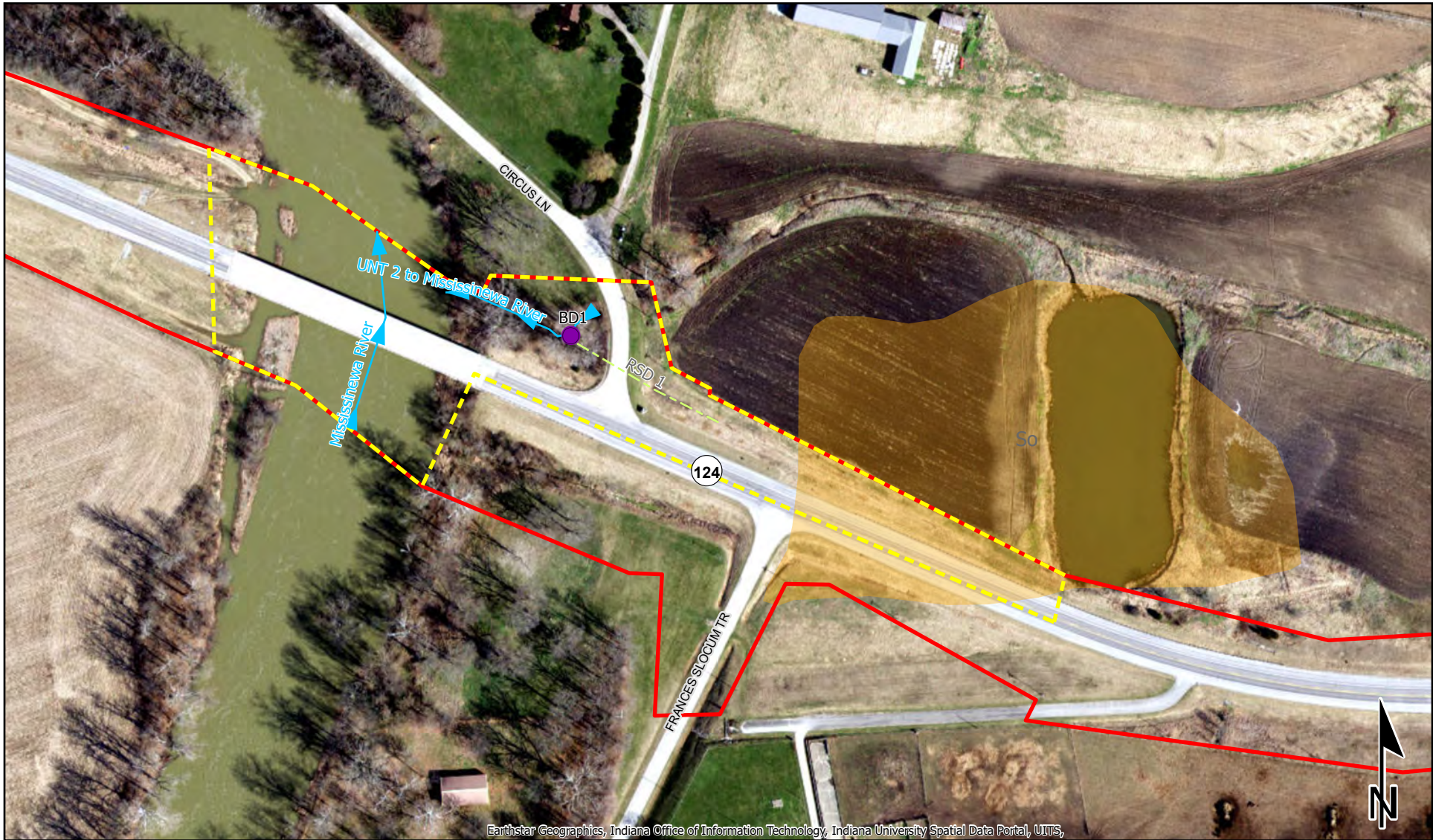
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1 inch = 200 ft

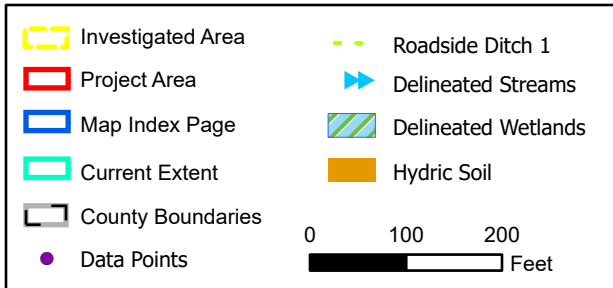
Graphics created by HNTB Corporation (2020)





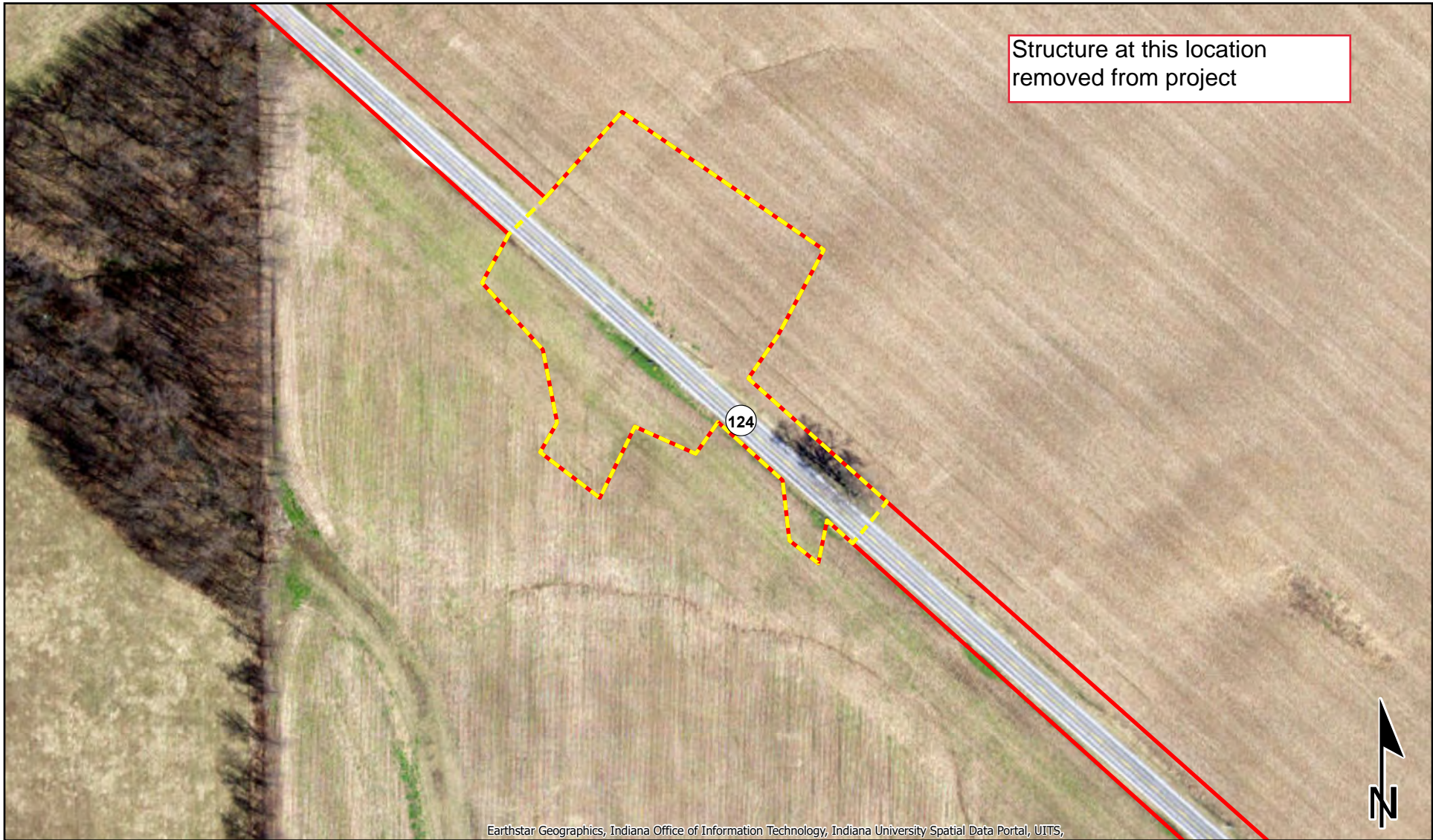


Earthstar Geographics, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UIITS,



<h3>Water Resources Map</h3> <p>SR 124 Preventative Maintenance Project Miami County, Indiana</p>	
Des. No. 1800552	 Graphics created by HNTB Corporation (2020)
1 inch = 200 ft	





Structure at this location removed from project

Earthstar Geographics, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS,

Investigated Area	Roadside Ditch 1
Project Area	Delineated Streams
Map Index Page	Delineated Wetlands
Current Extent	Hydric Soil
County Boundaries	
Data Points	

0 75 150  
 Feet

**Water Resources Map**  
 SR 124  
 Preventative Maintenance Project  
 Miami County, Indiana

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Des. No. 1800552

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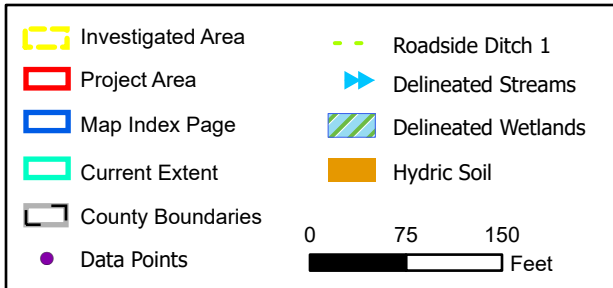
1 inch = 150 ft

**HNTB**  
 Graphics created by HNTB Corporation (2020)





Earthstar Geographics, Indiana Office of Information Technology, Indiana University Spatial Data Portal, UITS,



<h3>Water Resources Map</h3> <p>SR 124 Preventative Maintenance Project Miami County, Indiana</p>	
Des. No. 1800552	
1 inch = 150 ft	
<p>Graphics created by HNTB Corporation (2020)</p>	



**Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PJD:** November 16, 2020

**B. NAME AND ADDRESS OF PERSON REQUESTING PJD:** Christine Meador, HNTB Corp, 111 Monument Circle, Suite 1200 Indianapolis IN

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:**

The proposed project includes performing a Hot Mix Asphalt (HMA) overlay on 6.41 miles of SR 124 from 0.57 mile east of SR 19 (Wallace Street) to 7.32 miles east of SR 19 at the Miami and Wabash County line, located in Miami County. The purpose of this project is to restore rideability and extend the pavement life of SR 124. In addition to the HMA Overlay, three drainage improvements are included in this project. These include construction of a roadside ditch/detention area along SR 124 approximately 0.36 mile northwest of the intersection of SR 124 and Mississinewa Road, replacement of an existing culvert under Peru Circus Lane just north of the intersection with SR 124, and replacement of a culvert under SR 124 approximately 0.1 mile north of CR 200 South and CR 625 East. The existing culverts are not included in the INDOT Bridge Inspection Application (BIAS) system



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

State: **IN** County/parish/borough: **Miami** City:

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

Lat.: **40.48045** Long.: **-85.686439**

Universal Transverse Mercator: **16T4481913611336**

Name of nearest waterbody: **Mississinewa 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.**

<b>Site number</b>	<b>Latitude (decimal degrees)</b>	<b>Longitude (decimal degrees)</b>	<b>Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)</b>	<b>Type of aquatic resource (i.e., wetland vs. non-wetland waters)</b>	<b>Geographic authority to which the aquatic resource “may be” subject (i.e., Section 404 or Section 10/404)</b>
Mississinewa River	40.749270	-86.012032	445 linear ft	non-Wetland	Section 404
UNT 2 to Mississinewa River	40.749330	-86.011280	241 linear ft	non-Wetland	Section 404

- 1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
- 2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring “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:

- Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:  
Map: HNTB Indiana
- Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - Office concurs with data sheets/delineation report.
  - Office does not concur with data sheets/delineation report. Rationale: \_\_\_\_\_
- Data sheets prepared by the Corps: \_\_\_\_\_
- Corps navigable waters' study: \_\_\_\_\_
- U.S. Geological Survey Hydrologic Atlas: \_\_\_\_\_
  - USGS NHD data.
  - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: 1:24000 Indiana- Bunker Hill, Rich Valley, Peru, and Peoria
- Natural Resources Conservation Service Soil Survey. Citation: SURRGO Custom Soil Map
- National wetlands inventory map(s). Cite name: www.fws.gov/wetlands/Data/State-Downloads.html
- State/local wetland inventory map(s): \_\_\_\_\_
- FEMA/FIRM maps: floodway (http://dnrmmaps.dnr.in.gov/appsphp/fdms
- 100-year Floodplain Elevation is: \_\_\_\_\_.(National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date): 2017  
or  Other (Name & Date): Site Visit, October 20, 2020
- Previous determination(s). File no. and date of response letter: \_\_\_\_\_
- Other information (please specify): \_\_\_\_\_

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

\_\_\_\_\_  
Signature and date of  
Regulatory staff member  
completing PJD

 11/24/2020  
\_\_\_\_\_  
Signature and date of  
person requesting PJD  
(REQUIRED, unless obtaining  
the signature is impracticable)<sup>1</sup>

<sup>1</sup> 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



Sample of Notice of Survey

August 12, 2020

[Redacted]

Re: Miami County Tax Parcel – 63-05-04-200-002.000-001, 63-05-04-200-006.000-001

**NOTICE OF SURVEY**

Dear Property Owner:

HNTB, on behalf of The Indiana Department of Transportation (INDOT), will perform a survey for the proposed restoration and pavement life extension of SR 124 from 0.57 miles east of SR 19 (Wallace Street) to 7.32 miles east of SR 19, located in Miami County, Indiana, Des No. 1800552. 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 HNTB, 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 on or after August 17, 2020.

HNTB 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 HNTB Project Manager. This contact information is as follows:

Chris Buergelin, PS  
111 Monument Circle, Suite 1200  
Indianapolis, IN 46204  
(317) 903-4852  
Des. No. 1800552

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 Fort Wayne 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 Indiana Department of Transportation Central Office. This contact information is as follows:

1-855-INDOT4U (463-6848)  
www.INDOT4U.com

Thank you in advance for your cooperation in this matter.

Sincerely,

HNTB Corporation

A handwritten signature in blue ink that reads "William M. Jones". The signature is written in a cursive style with a large, looping "J" at the end.

William M. Jones  
Supervisory Survey Technician

## 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	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024	
Indiana Department of Transportation	41062 / 1800942	A 10	VA VARI	Traffic Signals Modernization	Various Locations Within the Fort Wayne District.	Fort Wayne	.04	STBG	\$2,223,789.00	Safety Consulting	PE	\$276,000.00	\$69,000.00	\$345,000.00					
Comments:MACOG MPO TIP Resolution M 27-19, DES 1700320 Adding PE to FY 2020 for \$345,000.																			
Indiana Department of Transportation	41062 / 1800942	A 41	VA VARI	Traffic Signals Modernization	Various Locations Within the Fort Wayne District.	Fort Wayne	.04	Safety	\$1,885,000.00	Safety ROW	RW	\$4,800.00	\$1,200.00		\$6,000.00				
Comments:No MPO, Adding RW to FY 2021 for \$6,000.																			
Indiana Department of Transportation	41121 / 1800552	Init.	SR 124	HMA Overlay, Preventive Maintenance	From 0.57 Miles East of SR 19 (Wallace St.) to 7.32 Miles East of SR 19	Fort Wayne	6.408	STPBG		Road Construction	CN	\$1,276,224.00	\$319,056.00		\$1,595,280.00				
Indiana Department of Transportation	41121 / 1800552	A 19	SR 124	HMA Overlay, Preventive Maintenance	From 0.57 Miles East of SR 19 (Wallace St.) to 7.32 Miles East of SR 19.	Fort Wayne	6.408	STBG	\$2,726,306.00	Road Construction	CN	\$600,456.00	\$150,114.00		(\$1,595,280.00)		\$2,345,850.00		
											Road Consulting	PE	\$244,364.80	\$61,091.20		\$305,456.00			
											Road ROW	RW	\$60,000.00	\$15,000.00			\$75,000.00		
Comments:NO MPO for DES 1800552, Adding PE for \$305,456 to FY 2021, RW for \$75,000 to FY 2022, and CN for \$2,345,850 to FY 2023, Removing \$1,595,280 CN from FY 2021.																			
Indiana Department of Transportation	41550 / 1800146	Init.	SR 16	HMA Overlay Minor Structural	From SR 19 South Jct. to SR 19 North Jct.	Fort Wayne	3.16	STPBG		Road Construction	CN	\$1,234,999.20	\$308,749.80					\$1,543,749.00	
Indiana Department of Transportation	41550 / 1800146	A 07	SR 16	HMA Overlay Minor Structural	From SR 19 South Jct. to SR 19 North Jct.	Fort Wayne	3.16	STBG	\$1,608,949.00	Road Consulting	PE	\$52,160.00	\$13,040.00	\$65,200.00					
Comments:NO MPO for DES 1800146, Adding PE for \$65,200 to FY 2020.																			
Indiana Department of Transportation	41558 / 1800022	Init.	US 31	Small Structure Replacement	Carries William H. Russell Ditch, 0.12 Miles North of SR 18.	Fort Wayne	.72	NHPP		Bridge Construction	CN	\$3,496,922.40	\$874,230.60			\$15,000.00	\$4,356,153.00		
											Bridge Consulting	PE	\$500,000.00	\$125,000.00	\$625,000.00				
											Bridge ROW	RW	\$28,000.00	\$7,000.00			\$35,000.00		
Indiana Department of Transportation	41564 / 1800056	Init.	SR 16	Bridge Replacement, Other Construction	Bridge Over Weesau Creek, 2.92 Miles East of US 31	Fort Wayne	.385	STPBG		Bridge Construction	CN	\$648,270.40	\$162,067.60					\$810,338.00	
											Bridge ROW	RW	\$16,000.00	\$4,000.00			\$20,000.00		
Indiana Department of Transportation	41640 / 1800042	Init.	US 31	New Interchange Construction	3.2 Miles South of US 24 (Business 31).	Fort Wayne	.594	NHPP		Mobility Construction	CN	\$9,440,000.00	\$2,360,000.00			\$200,000.00	\$11,600,000.00		
											Mobility ROW	RW	\$240,000.00	\$60,000.00			\$300,000.00		
Indiana Department of Transportation	41640 / 1802090	A 05	US 31	New Interchange Construction	US 31 at SR 18	Fort Wayne	0	NHPP	\$54,900,000.00	Mobility Consulting	PE	\$1,600,000.00	\$400,000.00	\$2,000,000.00					
											Safety Construction	CN	\$9,600,000.00	\$2,400,000.00				\$12,000,000.00	

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

## APPENDIX I: Additional Studies

**From:** Bales, Ronald <[rbales@indot.IN.gov](mailto:rbales@indot.IN.gov)>  
**Sent:** Monday, April 19, 2021 12:15 PM  
**To:** Susan Harrington  
**Cc:** Christine Meador; Miller, Brandon  
**Subject:** RE: EJ Analysis for SR 124 HMA Overlay and preventative maintenance Des 1800552  
**Attachments:** EJ Analysis.pdf

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 minimal right-of-way, require no relocations, and would not disrupt community cohesion or create a physical barrier. With the information provided, 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.

**Ron Bales**

INDOT-Environmental Services Division

**Office:** (317) 515-7908

**Email:** [rbales@indot.in.gov](mailto:rbales@indot.in.gov)

---

**From:** Susan Harrington <[sharrington@HNTB.com](mailto:sharrington@HNTB.com)>  
**Sent:** Monday, March 29, 2021 4:46 PM  
**To:** Bales, Ronald <[rbales@indot.IN.gov](mailto:rbales@indot.IN.gov)>; Miller, Brandon <[BrMiller1@indot.IN.gov](mailto:BrMiller1@indot.IN.gov)>  
**Cc:** Christine Meador <[CMeador@hntb.com](mailto:CMeador@hntb.com)>  
**Subject:** EJ Analysis for SR 124 HMA Overlay and preventative maintenance Des 1800552

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

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Hi Ron and Brandon, I hope that you are both doing well.

We are working on the a CE-3 for the above reference project in Miami County. Our analysis identified EJ population of concern for both minority and low-income in one segment of the project, AC1 – Census Tract 9525. I've attached the analysis for your review and concurrence.

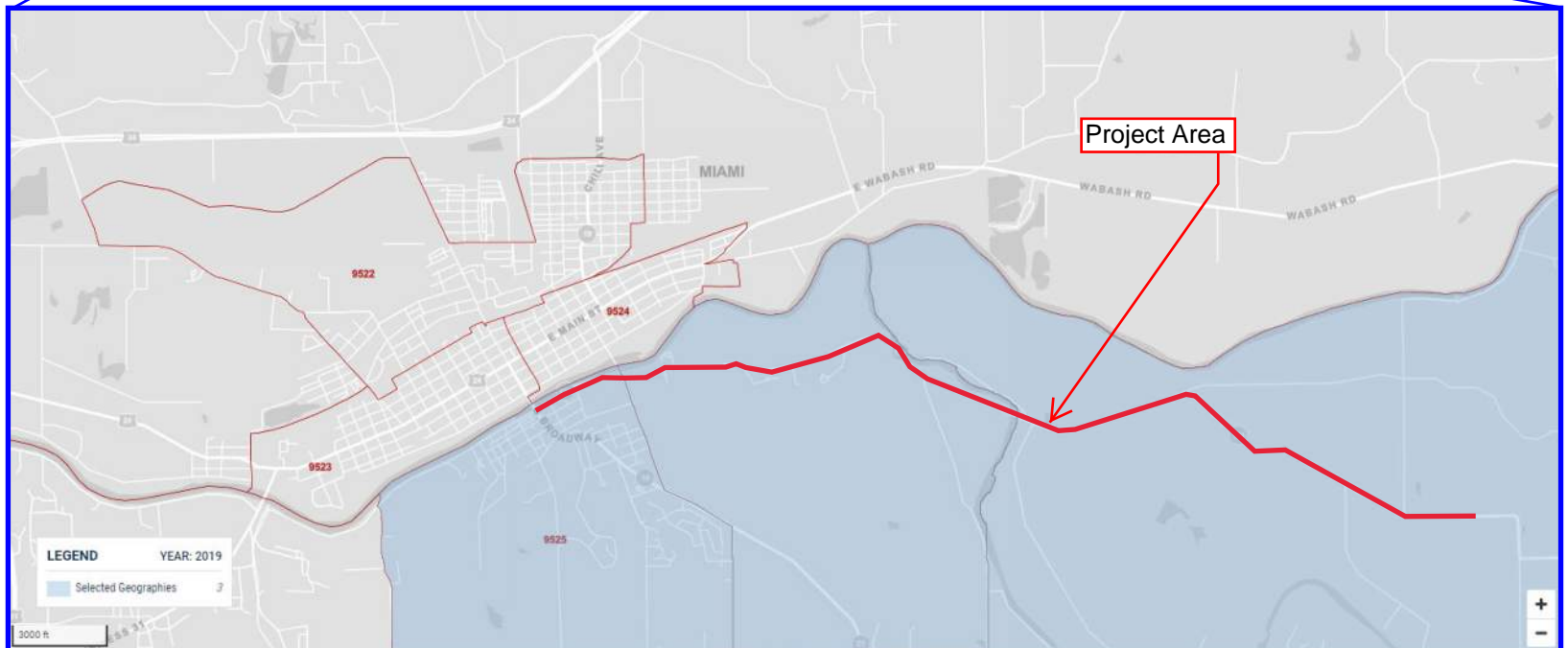
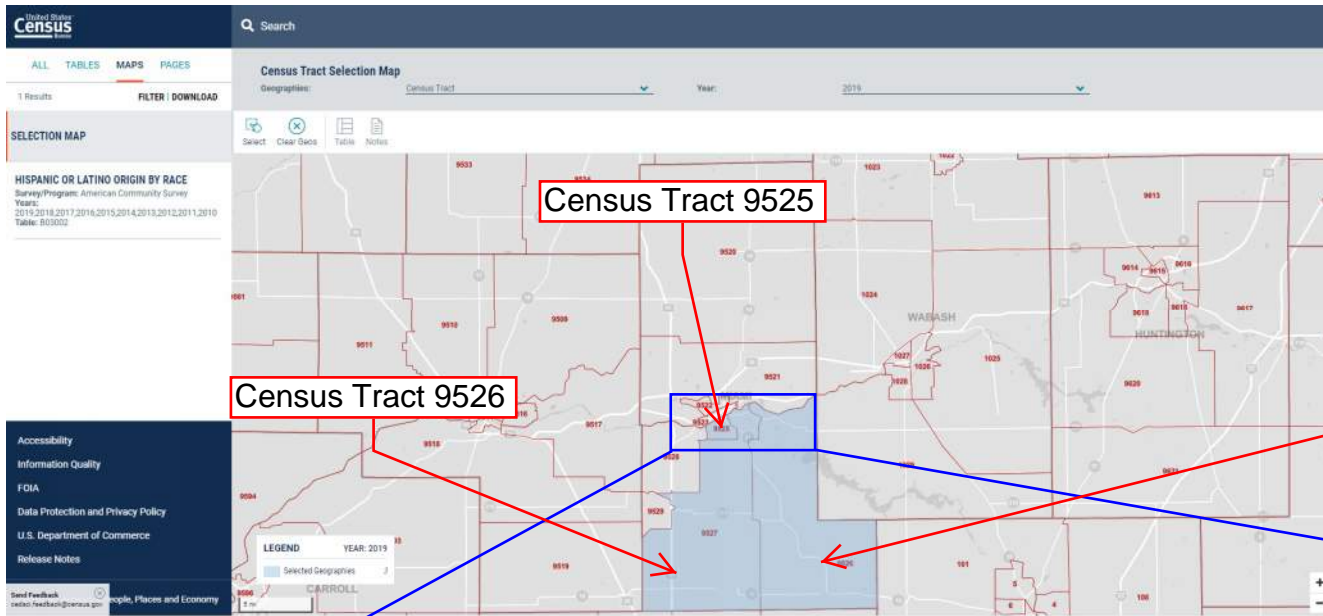
The proposed project includes application of a Hot Mix Asphalt (HMA) overlay and preventative maintenance of SR 124, including curb ramp construction, shoulder widening, and ditch regrading. In addition, four existing cross culverts and one drive culvert in the corridor will be replaced in kind and one new cross culvert and drainage channel will be constructed. Overall, the project will require 3.3 acres of new right-of-way and no relocations. However, the portion of the project that will occur in AC1 – Census Tract 9525 where minority and low income EJ populations were identified will not require any acquisition of new right-of-way. There will be no changes in access to residential or community properties, and the identified populations of EJ concern are not expected to experience a disproportionately high and adverse impact from the project.

Please let me know if you need any additional information.  
Thank you!

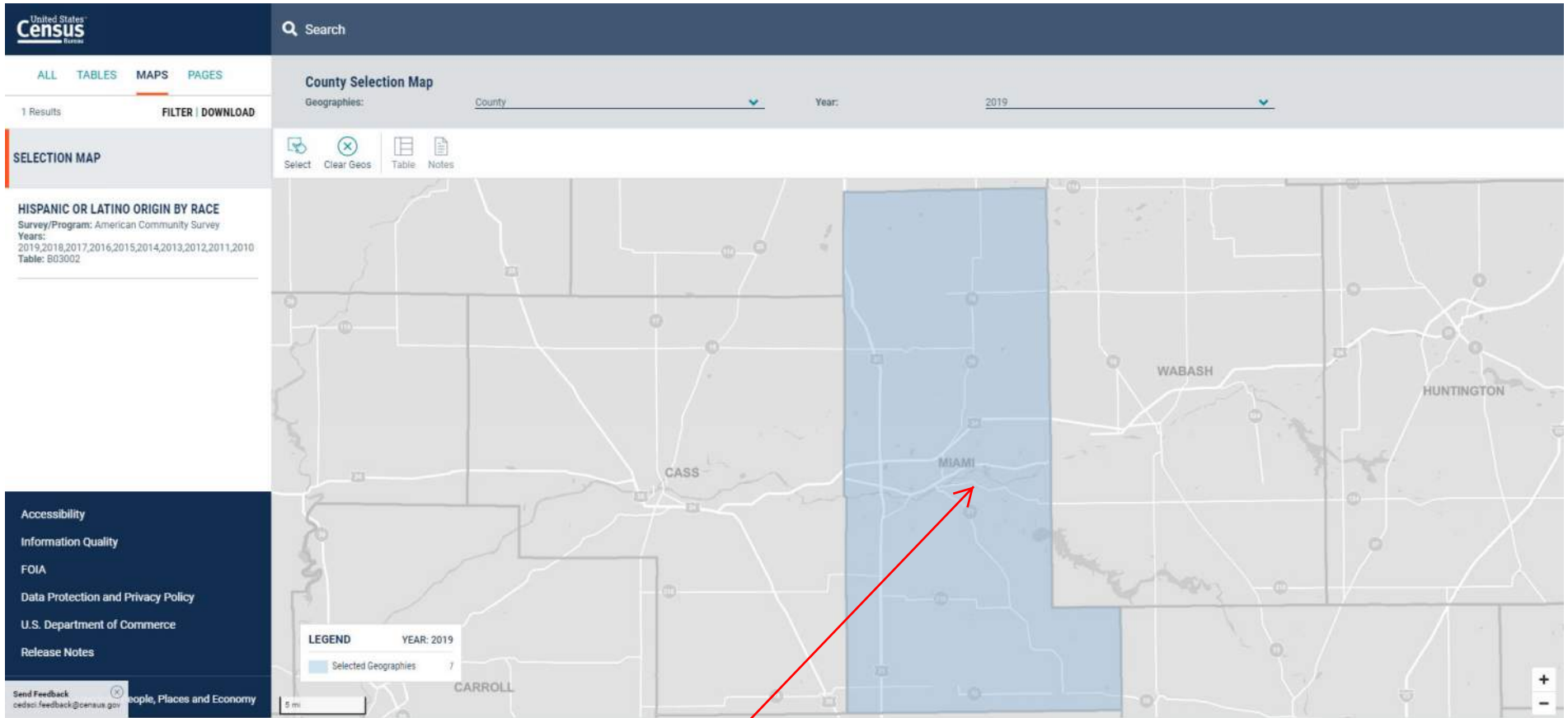
# US Census Data

## SR 124 Environmental Justice Analysis Des No. 1800552

Affected Communities: Census Tracts 9525, 9526, 9527



Community of Comparison: Miami County



Project Area





**POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE**

**Note: The table shown may have been modified by user selections. Some information may be missing.**

<b>DATA NOTES</b>	
TABLE ID:	B17001
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2019
DATASET:	ACSDT5Y2019
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Population for whom poverty status is determined
FTP URL:	None
API URL:	<a href="https://api.census.gov/data/2019/acs/acs5">https://api.census.gov/data/2019/acs/acs5</a>
<b>USER SELECTIONS</b>	
GEOS	Census Tract 9525, Miami County, Indiana; Census Tract 9527, Miami County, Indiana; Census Tract 9526, Miami County, Indiana; Miami County, Indiana
<b>EXCLUDED COLUMNS</b>	
	None
<b>APPLIED FILTERS</b>	
	None
<b>APPLIED SORTS</b>	
	None
<b>WEB ADDRESS</b>	
	<a href="https://data.census.gov/cedsci/table?text=B17001&amp;g=0500000US18103_1400000US18103952500,18103952600,18103952700&amp;tid=ACSDT5Y2019.B17001&amp;hidePreview=true">https://data.census.gov/cedsci/table?text=B17001&amp;g=0500000US18103_1400000US18103952500,18103952600,18103952700&amp;tid=ACSDT5Y2019.B17001&amp;hidePreview=true</a>
<b>TABLE NOTES</b>	
	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.
	Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.
	Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates
	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.
	The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.
	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.
	Explanation of Symbols: * An "***" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate. * An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself. * An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution. * An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution. * An "***" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate. * An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate. * An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small. * An "(X)" means that the estimate is not applicable or not available.
<b>COLUMN NOTES</b>	
	None

Table: ACSDT5Y2019.B17001

Label	Miami County, Indiana		Census Tract 9525, Miami County, Indiana		Census Tract 9526, Miami County, Indiana		Census Tract 9527, Miami County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	33,444	±212	2,183	±189	3,401	±312	7,117	±303
Income in the past 12 months below poverty level:								
Male:	5,110	±673	738	±222	376	±208	913	±352
Under 5 years	2,477	±387	362	±114	190	±122	478	±226
5 years	265	±90	97	±47	7	±13	68	±48
6 to 11 years	49	±32	4	±6	0	±12	0	±17
12 to 14 years	408	±131	46	±28	38	±32	54	±69
15 years	191	±91	8	±10	26	±39	0	±17
16 and 17 years	64	±51	5	±8	25	±38	0	±17
18 to 24 years	97	±69	0	±12	11	±13	50	±67
25 to 34 years	263	±113	69	±54	3	±5	65	±62
35 to 44 years	302	±114	35	±27	42	±48	75	±61
45 to 54 years	198	±83	20	±22	12	±18	2	±3
55 to 64 years	316	±127	55	±36	11	±17	105	±95
65 to 74 years	179	±69	19	±20	11	±13	38	±44
75 years and over	102	±53	0	±12	0	±12	21	±32
Female:	43	±24	4	±6	4	±4	0	±17
Under 5 years	2,633	±362	376	±122	186	±91	435	±162
5 years	238	±86	16	±18	1	±3	50	±67
6 to 11 years	120	±95	21	±15	0	±12	62	±86
12 to 14 years	335	±105	106	±59	9	±12	44	±64
15 years	136	±120	4	±7	35	±47	0	±17
16 and 17 years	26	±19	0	±12	2	±3	4	±5
18 to 24 years	35	±42	0	±12	0	±12	0	±17
25 to 34 years	337	±164	39	±31	8	±12	21	±25
35 to 44 years	428	±101	79	±36	10	±11	52	±45
45 to 54 years	372	±95	61	±37	82	±54	16	±14
55 to 64 years	219	±84	9	±10	15	±17	65	±57
65 to 74 years	196	±63	36	±32	16	±14	83	±57
75 years and over	66	±35	0	±12	0	±12	15	±15
Income in the past 12 months at or above poverty level:	125	±52	5	±7	8	±8	23	±21
Male:	28,334	±682	1,445	±219	3,025	±293	6,204	±504
Under 5 years	14,399	±420	731	±135	1,590	±204	2,994	±321
5 years	680	±100	44	±29	211	±81	61	±42
6 to 11 years	220	±77	16	±19	38	±26	49	±54
12 to 14 years	903	±136	22	±24	93	±48	240	±128
15 years	401	±87	22	±23	48	±34	36	±27
16 and 17 years	182	±51	19	±13	15	±17	34	±31
18 to 24 years	387	±93	30	±27	35	±22	62	±48
25 to 34 years	1,214	±117	71	±53	97	±51	252	±86
35 to 44 years	1,659	±203	101	±61	204	±77	241	±94
45 to 54 years	1,891	±154	86	±36	137	±48	440	±138
55 to 64 years	2,122	±159	115	±39	146	±52	486	±132
65 to 74 years	2,104	±107	76	±32	296	±71	434	±117
75 years and over	1,641	±95	94	±35	182	±62	471	±119
Female:	995	±60	35	±19	88	±39	188	±71
Under 5 years	13,935	±375	714	±125	1,435	±158	3,210	±346
5 years	641	±103	40	±35	81	±47	198	±82
6 to 11 years	118	±61	0	±12	14	±16	25	±34
12 to 14 years	697	±146	22	±20	101	±47	177	±73
15 years	694	±142	46	±34	16	±17	198	±110
16 and 17 years	148	±66	0	±12	15	±18	72	±64
18 to 24 years	453	±70	27	±25	55	±42	101	±70
25 to 34 years	1,093	±163	80	±66	62	±35	278	±112
35 to 44 years	1,447	±101	75	±35	243	±67	242	±94
45 to 54 years	1,567	±110	74	±31	97	±39	356	±131
55 to 64 years	1,940	±99	106	±38	172	±48	440	±119

	Miami County, Indiana		Census Tract 9525, Miami County, Indiana		Census Tract 9526, Miami County, Indiana		Census Tract 9527, Miami County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
55 to 64 years	2,097	±67	102	±37	247	±39	485	±128
65 to 74 years	1,760	±70	124	±38	140	±46	382	±98
75 years and over	1,280	±80	18	±12	192	±52	256	±98

<b>HISPANIC OR LATINO ORIGIN BY RACE</b>		<b>United States Census Bureau</b>
<b>Note: The table shown may have been modified by user selections. Some information may be missing.</b>		
<b>DATA NOTES</b>		
TABLE ID:	B03002	
SURVEY/PROGRAM:	American Community Survey	
VINTAGE:	2019	
DATASET:	ACSDT5Y2019	
PRODUCT:	ACS 5-Year Estimates Detailed Tables	
UNIVERSE:	Total population	
FTP URL:	None	
API URL:	<a href="https://api.census.gov/data/2019/acs/acs5">https://api.census.gov/data/2019/acs/acs5</a>	
<b>USER SELECTIONS</b>		
GEOS	Census Tract 9525, Miami County, Indiana; Census Tract 9527, Miami County, Indiana; Census Tract 9526, Miami County, Indiana; Miami County, Indiana	
<b>EXCLUDED COLUMNS</b>		
	None	
<b>APPLIED FILTERS</b>		
	None	
<b>APPLIED SORTS</b>		
	None	
<b>WEB ADDRESS</b>		
	<a href="https://data.census.gov/cedsci/table?text=B03002&amp;g=0500000US18103_1400000US18103952500,18103952600,18103952700&amp;tid=ACSDT5Y2019.B03002&amp;hidePreview=true">https://data.census.gov/cedsci/table?text=B03002&amp;g=0500000US18103_1400000US18103952500,18103952600,18103952700&amp;tid=ACSDT5Y2019.B03002&amp;hidePreview=true</a>	
<b>TABLE NOTES</b>		
	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.	
	Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.	
	Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.	
	Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates	
	Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.	
	The 2015-2019 American Community Survey (ACS) data generally reflect the September 2018 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.	
	Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.	
	<p>Explanation of Symbols: * An "*" entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.</p> <p>* An "-" entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution, or the margin of error associated with a median was larger than the median itself.</p> <p>* An "-" following a median estimate means the median falls in the lowest interval of an open-ended distribution.</p> <p>* An "+" following a median estimate means the median falls in the upper interval of an open-ended distribution.</p> <p>* An "*" entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.</p> <p>* An "*****" entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.</p> <p>* An "N" entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.</p> <p>* An "(X)" means that the estimate is not applicable or not available.</p>	
<b>COLUMN NOTES</b>		
	None	

Table: ACSDT5Y2019.B03002

Label	Miami County, Indiana		Census Tract 9525, Miami County, Indiana		Census Tract 9526, Miami County, Indiana		Census Tract 9527, Miami County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	35,815	*****	2,214	±194	3,425	±317	7,117	±303
Not Hispanic or Latino:	34,664	*****	1,884	±223	3,389	±313	7,050	±302
White alone	31,775	±34	1,722	±225	3,235	±293	6,982	±302
Black or African American alone	1,926	±142	112	±94	15	±23	4	±7
American Indian and Alaska Native alone	297	±86	0	±12	0	±12	0	±17
Asian alone	208	±36	0	±12	11	±14	60	±44
Native Hawaiian and Other Pacific Islander alone	6	±11	6	±11	0	±12	0	±17
Some other race alone	24	±33	0	±12	0	±12	0	±17
Two or more races:	428	±177	44	±36	128	±64	4	±5
Two races including Some other race	4	±6	0	±12	0	±12	0	±17
Two races excluding Some other race, and three or more races	424	±176	44	±36	128	±64	4	±5
Hispanic or Latino:	1,151	*****	330	±194	36	±49	67	±53
White alone	616	±148	316	±193	34	±48	45	±45
Black or African American alone	8	±11	0	±12	0	±12	0	±17
American Indian and Alaska Native alone	0	±25	0	±12	0	±12	0	±17
Asian alone	0	±25	0	±12	0	±12	0	±17
Native Hawaiian and Other Pacific Islander alone	0	±25	0	±12	0	±12	0	±17
Some other race alone	441	±139	5	±8	2	±5	0	±17
Two or more races:	86	±56	9	±15	0	±12	22	±28
Two races including Some other race	36	±40	0	±12	0	±12	0	±17
Two races excluding Some other race, and three or more races	50	±37	9	±15	0	±12	22	±28

	COC	AC 1	AC 2	AC 3
SR 127 Overlay and Drainage Improvements (Des. No. 1800552)	Miami County, Indiana	Census Tract 9525, Miami County, Indiana	Census Tract 9526, Miami County, Indiana	Census Tract 9527, Miami County, Indiana
<b>LOW-INCOME</b>				
Total Population for whom poverty status is determined (estimated)	33,444	2,183	3,401	7,117
Total Population Below Poverty Level (estimated)	5,110	738	376	913
Percent low-income	15.3%	33.8%	11.1%	12.8%
125 percent of COC	19.1%			
Potential Low-income EJ Impact?		Yes	No	No
<b>MINORITY</b>				
Total Population (all races)	35,815	2,214	3,425	7,117
Not Hispanic or Latino: White alone	31,775	1,722	3,235	6,982
Number Non-white/Minority ( B03002)	4,040	492	190	135
Percent Non-White/Minority	11.3%	22.2%	5.5%	1.9%
125 percent of COC	14.1%			
Potential Non-White/Minority EJ Impact?		Yes	No	No

Sources:  
Demographics information based on data from the U.S. Census Bureau's 2013-2017 American Community Survey  
5-year Summary (ACS). Data accessed by HNTB Corporation staff August 2016

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

ProjectNumber	SubProjectCode	County	Property
1800069	1800069B	Miami	Miami State Recreation Area
1800171	1800171Y	Miami	Mississinewa Reservoir
1800375	1800375D	Miami	Mississinewa Reservoir
1800413	1800413H	Miami	Miami State Recreation Area, Mississinewa Reservoir
1800449	1800449A	Miami	Miami State Recreation Area, Mississinewa Reservoir
1800563	1800563	Miami	Mississinewa Reservoir - Miami SRA
1800594	1800594B	Miami	Miami SRA

\*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.



# Abbreviated Engineer's Assessment

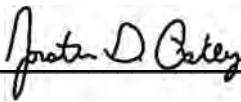
SR 124 HMA Overlay and Preventive Maintenance

INDOT Fort Wayne District  
Miami County, IN  
Des. No: 1800552

**January 18, 2021**

**Prepared For**  
INDOT Fort Wayne District  
5333 Hatfield Road  
Fort Wayne, IN 46808  
Contact: Jesse Boley

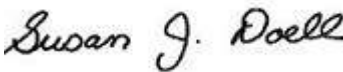
**Prepared By**  
HNTB Corporation  
111 Monument Circle, Suite 1200  
Indianapolis, IN 46204  
Phone (317) 636-4682  
Contact: Jonathan Oakley, PE

Approved:  Date: January 18, 2021

Jonathan Oakley  
HNTB, Project Manager

Approved:  Date: 2/3/2021

Jesse Boley  
INDOT, Project Manager

Approved:  Date: 1/20/2021

Susan Doell  
INDOT, Scoping Manager

Approved: \_\_\_\_\_ Date: 2/8/2021

Nathan Edwards  
INDOT, System Asset Manager



## Table of Contents

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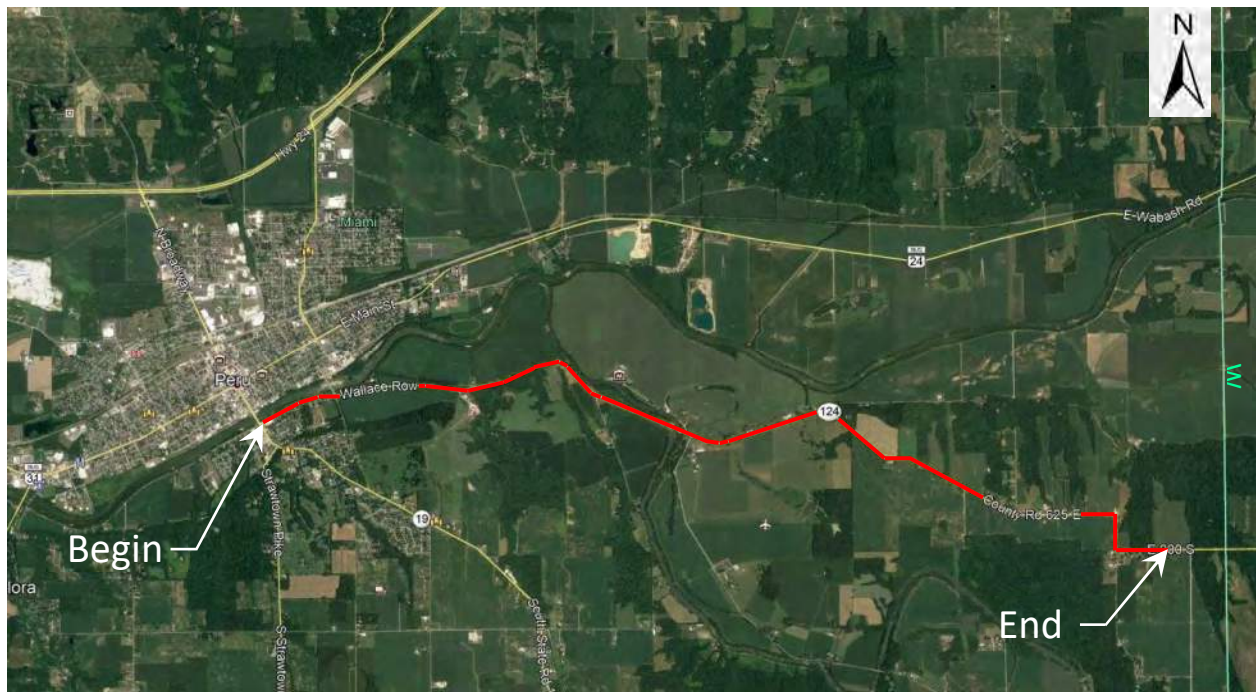
## Purpose of Assessment

This Abbreviated Engineer’s Assessment covers SR 124 HMA overlay and preventive maintenance (Des. 1800552). The purpose of this project is to restore rideability and extend the pavement life of 7.32 miles of SR 124 from SR 19 to 0.57 miles east of SR 19 (Wallace St.) – PK20258 and from 0.57 miles east of SR 19 (Wallace St.) to 7.32 miles east of SR 19 – PK20259 , located in Miami County. This segment of SR 124 is experiencing pavement deterioration necessitating a preventive maintenance overlay. An HMA mill and overlay will improve the rideability and extend the pavement life. Drainage improvements along the corridor, further described in this report, will eliminate existing problematic areas experiencing runoff, ponding, or flooding issues as well as locations with existing culvert deterioration.

## Project Location

The project is on SR 124 in Miami County, Indiana near Peru. More specifically the project is from SR 19 to 7.32 miles east of SR 19. The project location map is shown in **Figure 1**.

Figure 1: Project Location



## Project Purpose and Need

### Pavement

The purpose of this project is to restore rideability and extend the pavement life of 7.32 miles of SR 124 from SR 19 to 0.57 miles east of SR 19 (Wallace St.) – PK 20258 and from 0.57 miles east of SR 19 (Wallace St.) to 7.32 miles east of SR 19 – PK 20259. This segment of SR 124 has a chip seal on it placed

in 2012 and is experiencing pavement deterioration necessitating a preventive maintenance overlay. INDOT provided 2019 data that showed PK 20258 had an average International Roughness Index (IRI) of 130.84; an average Distress Box Area (DBA) of 24.5%; and an average Rut of 0.12 inches. PK 20259 had an average IRI of 125.26; an average DBA of 34.6%; and an average Rut 0.23 inches. An IRI is a statistic used to determine the amount of roughness in a measured longitudinal profile. The IRI is computed from a single longitudinal profile using a quarter-car simulation at 50 mph. INDOT uses the IRI to assess pay factors for smoothness of HMA and PCCP pavements. A typical IRI value is 70 in./mi. for both HMA and PCCP surfaces. Per INDOT IDM Fig. 602-1B HMA Pavement PM Treatments, the IRI should be 150 or less.

**Drainage**

There are three culverts in the corridor that will be replaced in kind. The culverts have a rating of 3 and are poor in condition and in danger of failing. The three culverts are east of SR 19 approximately 3.15 miles (15” Metal Pipe), 4.48 miles (existing culvert to be surveyed) and 6.49 miles (24” Metal Pipe). Their Collector Object IDs (COID), which are a unique identifier for the small culverts, are COID 19871 (24” metal pipe at RP 6+49), COID 19879 (24” metal pipe at RP 4+48), and COID 19925 (15” metal pipe at RP 3+15). At approximately RP 2+00, there are drainage concerns with existing ditch flow encroaching onto the edge of the existing pavement, as well as an existing ditch inlet that has been damaged by vehicles traversing over the inlet while making a sharp angle right turn on SR 124. At approximately RP 2+00, there is also a concern with soil erosion from off-site private property entering into the INDOT drainage network and silting in the existing ditch and drainage structures.

**ADA Curb Ramps**

The existing curb ramps at the intersections in the table below require analysis and potential replacement in order to meet current ADA standards.

Intersection	Number of Curb Ramps	Quadrant/Locations
SR 124 and SR 19	2	NE, NW
SR 124 and Wabash Street	2	SE, SW
SR 124 and Huntington Street	2	SE, SW
SR 124 and Sullivan Lane	2	SE, SW

**Existing Facility**

**SR 124**

SR 124 is a 2-lane undivided facility. It’s classified as a rural, major collector at this location. The INDOT project traffic forecast report for SR 124, from RP 0+57 to RP 7+01, has four segments. Segment 1, from measure 0.570 miles to measure 2.486 miles from SR 19, carried an Annual Average Daily Traffic (AADT) of 1,226 vehicles per day in 2017 and is forecasted to carry 1,226 vehicles per day for design year 2043. Segment 2, from measure 2.490 miles to measure 3.181 miles from SR 19, carried an AADT of 1,103 vehicles per day in 2017 and is forecasted to carry 1,103 vehicles per day for design year 2043. Segment 3, from measure 3.180 miles to measure 6.980 miles from SR 19, carried an AADT of 677 vehicles per day in 2017 and is forecasted to carry 677 vehicles per day for design year 2043. Segment 4, an addition

to the scope of the project, from measure 0.000 miles to measure 0.570 miles from SR 19, does not currently have traffic data. For the purpose of the report, the traffic data provided for Segment 1 was used in the analysis for Segment 4.

Beginning at SR 19 to 0.57 miles east of SR 19 (Wallace St.), SR 124 was reconstructed in 2011. This portion of roadway is full depth HMA pavement, varying from 5" to 12" in depth. From 0.57 miles east of SR 19 (Wallace St.) and continuing 2.20 miles east, existing SR 124 is a composite pavement, originally built as an 18-foot concrete pavement. This portion of roadway was covered with asphalt in 1958 and 1985. From where the concrete ended, the remainder of the existing roadway was constructed with bituminous material at a 20-foot width in 1954. This portion of the road was overlaid in 1960 and 1985. No other treatments were completed until 2006 when the roadway was widened to a total width of 24-feet. Since 2006 maintenance has chip and sealed the roadway one time. The extent of any necessary partial and full depth patching will be determined through Falling Weight Deflectometer (FWD) and Pavement Core testing.

The existing roadway typical cross section consists of two 12-foot wide lanes with unpaved shoulders and varying paved shoulders of 4-feet – 12-feet. There are two stop-controlled intersections along this corridor at SR 19 and Wallace Ave. The right-of-way width varies throughout the project but has an average width of approximately 50-feet, and a minimum width of approximately 22-feet or edge-of-pavement. There will be shoulder widening at approximately RP 2+00 to reconstruct the existing curve. This widening will require additional right-of-way at a location that is on an existing Indian Reservation.

The project limits of SR 124 run through an existing Indian Reservation. The Miami Nation of Indians of the State of Indiana Historic and Cultural Preservation Office serves for the protection, preservation, and management of significant historical properties, traditional cultural properties, and archaeological sites. Further coordination throughout the project will be necessary for project development and any right-of-way acquisition.

The horizontal alignment along the SR 124 is primarily in the east-west direction. The posted speed limit is 35, 45, and 55 MPH. Based on INDOT recommendations, Chapter 56 of the INDOT Design Manual (IDM) Partial 3R should be followed for design parameters for HMA Overlay portion of the project. Culvert Replacements will utilize Chapter 55 design parameters. See **Appendix A** for site photos.

## **Bridges**

Per INDOT direction, an evaluation of the following bridges will not be required as part of this contract. The following bridges (NBI) are located within the extents of this project.

- NBI No. 26090: Bridge over Treaty Creek, 1.56 miles East of SR 19
- NBI No. 26100: Bridge over Mississinewa River
- NBI No. 26110: Bridge over local stream

## Drainage

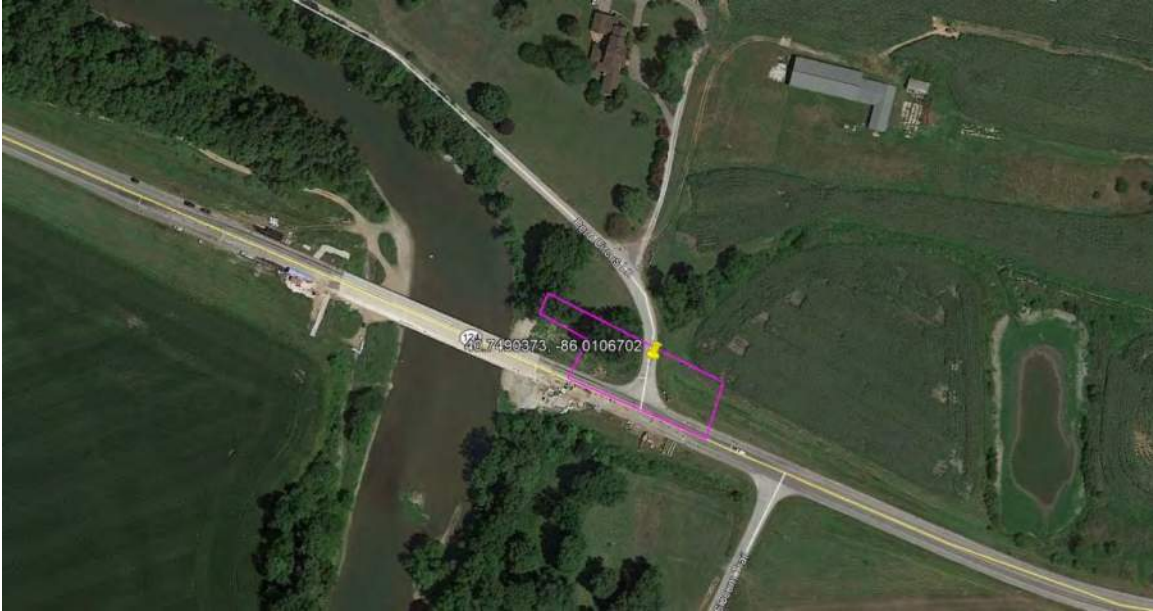
Existing drainage through the project is primarily sheet flow into roadside ditches. There are existing drainage issues at approximately RP 2+00, as well as shoulder widening, which will require additional right-of-way. A proposed 6'x4' box culvert will be constructed crossing SR 124, see Exhibit A. The proposed culvert is sized to provide access to maintenance in order to remove potential sediment build-up that originates from off-site private properties. Coordination will occur with the Miami County Soil and Water Conservation Office for assistance in minimizing the offsite soil erosion from entering INDOT right-of-way.

## EXHIBIT A

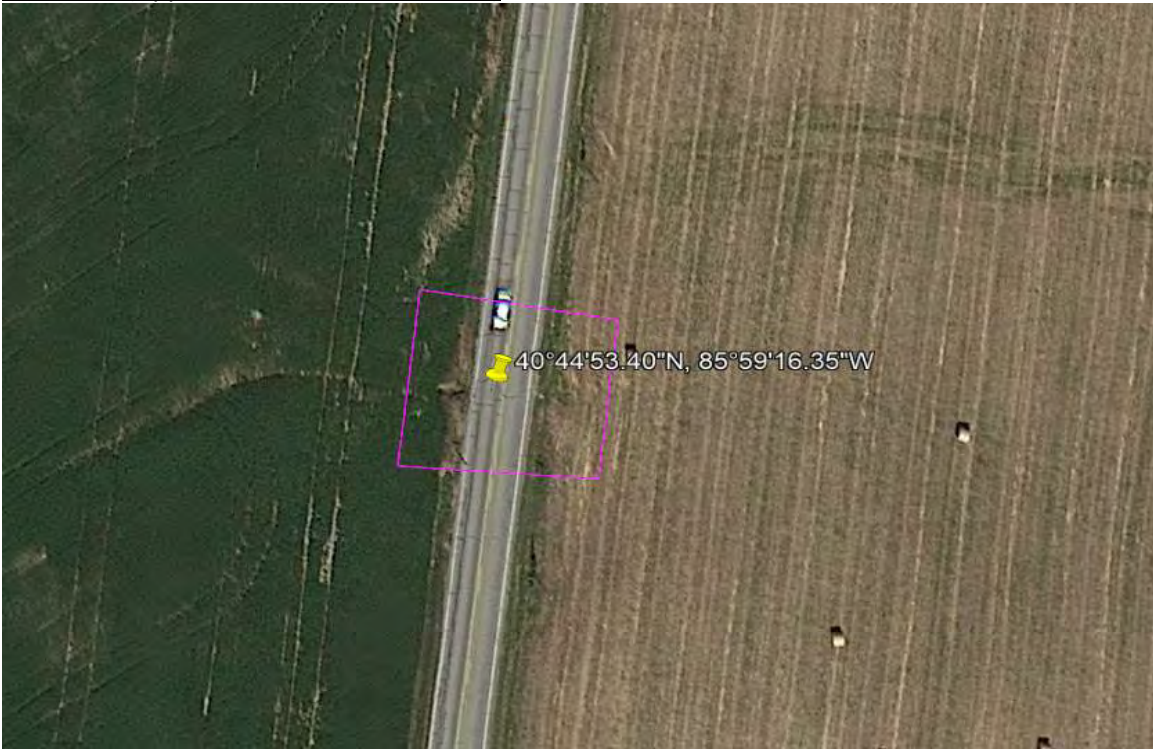


There are three culverts in the corridor that will be replaced in kind. The culverts have a rating of 3 and are poor in condition and in danger of failing. The three culverts are east of SR 19 approximately 3.15 miles (15" Metal Pipe), 4.50 miles (existing culvert to be surveyed) and 6.50 miles (24" Metal Pipe). See Exhibit B, C, and D.

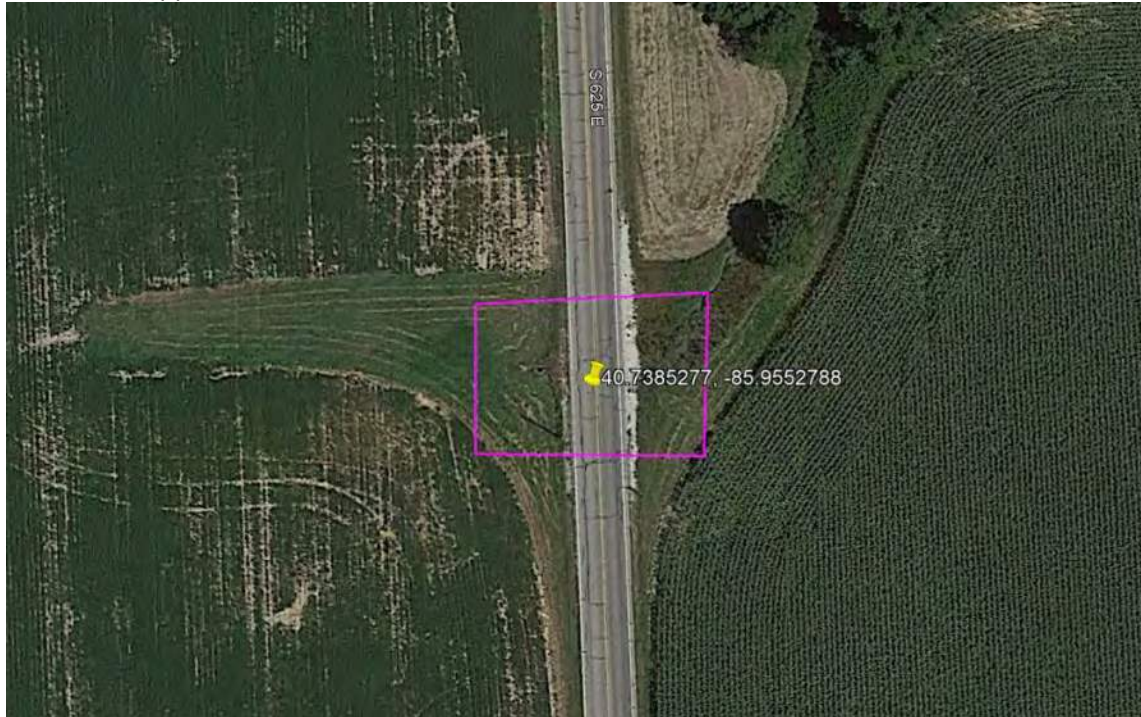
**EXHIBIT B** (Approx. 3.15 mi. East of SR 19)



**EXHIBIT C** (Approx. 4.50 mi. East of SR 19)



**EXHIBIT D** (Approx. 6.50 mi. East of SR 19)



**Utilities**

Relocation is anticipated for overhead utilities within the SR 124 right-of-way at approximately RP 2+00. Peru Utilities Electric Department and AT&T - Distribution utilities are in this area. There will be shoulder widening at this location to reconstruct the existing horizontal curve. The existing utility poles on the north and south side of SR 124 are located within the footprint of the shoulder widening and proposed roadside ditch. Underground utilities are not anticipated to be relocated as the three culvert replacements are to be replaced in kind. The facilities of four utility companies exist within the project limits and is anticipated to be reimbursable. A list of these existing utilities can be found in **Appendix B**.

**Pavement**

Beginning 0.57 miles east of SR 19 (Wallace St.) and ending 7.32 miles east of SR 19, existing SR 124 is a composite pavement, originally built as an 18-foot concrete pavement. This portion of roadway was covered with asphalt in 1958 and 1985. From where the concrete ended, the remainder of the existing roadway was constructed with bituminous material at a 20-foot width in 1954. This portion of the road was overlaid in 1960 and 1985. No other treatments were completed until 2006 when the roadway was widened to a total width of 24-feet. Since 2006 maintenance has chip and sealed the roadway one time. The proposed pavement treatment for this project consists of full and partial depth patching as needed followed by a mill and preventative maintenance HMA overlay.

### Full Depth HMA Pavement Patching

Full depth patching shall be in accordance with the attached Full Depth HMA Patch figure and shall consist of removal of the existing pavement section and subgrade followed by placement of the following materials:

- 1115  $lb/yd^2$  HMA Patching, Type B consisting of
- 440  $lb/yd^2$  HMA Intermediate, Type B on
- Variable Depth HMA Base, Type (715  $lb/yd^2$  min., match existing total pavement thickness) on
- Subgrade Treatment, Type ID (12 in. coarse aggregate with Type 2B geotextile)

### Partial Depth HMA Patching

Partial depth patching shall be in accordance with Revised Figure 304-21CC and shall consist of milling 4.0" of the existing pavement followed by placement of the following materials:

- 440  $lb/yd^2$  HMA Patching, Type B consisting of
- 440  $lb/yd^2$  HMA Intermediate, Type B on existing pavement

### Mill and Overlay – Travel Lanes and Shoulders

- Milling, Asphalt, 1.5"
- 165  $lb/yd^2$  QC/QA-HMA, 2, 64, Surface, 9.5 mm on existing pavement

### Mill and Overlay – Public Road Approaches

- Milling, Approaches, 1.5"
- 165  $lb/yd^2$  HMA for Approaches, Type B consisting of
- 165  $lb/yd^2$  HMA Surface, Type B on existing pavement

Pavement information for the additional portion of pavement from SR 19 east to Wallace St. is not included in this report or the pavement design provided by INDOT. This additional information is in the process of being completed at this time. This section will require an amendment to the approved INDOT Pavement Design and Geotech Report.

### **Other Programmed Projects**

INDOT reports three other projects are programmed within the project limits at this time. Projects and project schedules are subject to change.

- Des. No. 1700230 Preservation: Bridge over Treaty Creek, 1.56 miles east of SR 19. Programmed Q2 2021
- Des. No. 1900083 Preservation: 5.91 miles east of SR 19, Carries UNT of Wabash River. Programmed Q4 2023
- Des. No. 1802959 Superstructure Replacement of Miami County Bridge #501, Wayne Street over Wabash River. Programmed Q1 2022
- Des. No. 2002005, B-43284: Bridge Deck Overlay, SR 19 Bridge over Wabash River, 00.03 N SR 124. Programmed Q4 2024

### **Traffic and Crash Data**

The INDOT Traffic Forecast results are provided in **Appendix C**. Per INDOT Fort Wayne District instructions, SR 124 was evaluated between notable intersections (where the minor street is a collector or greater significance), with these intersections themselves evaluated independently. The RoadHAT



Form F1 results of this analysis is summarized in Table 1 and Table 2 below and are provided in **Appendix D**.

**Table 1: Roadway Segment RoadHAT Analyses**

Segment: SR 124		ICC	ICF
From	To		
SR 19	Wallace Ave	0.39	1.89
Wallace Ave	Peru Circus Ln / S. Frances Slocum Trl.	-0.14	1.54
Peru Circus Ln / S. Frances Slocum Trl.	CR 100 S.	-0.25	-0.05
CR 100 S.	CR 675 E	0.92	2.43
CR 675 E	County Line	-0.03	0.63

**Table 2: Intersection RoadHAT Analyses**

SR 124 Intersection at	ICC	ICF
Wallace Ave	-0.22	0.07
Peru Circus Ln / S. Frances Slocum Trail	0.24	1.66
CR 100 S	0.04	1.41
CR 675 E	0.04	1.41

**Table 3: SR 124 Intersection Mitigation Tools**

Mitigation Tool	Cost	Crash Reduction Factor (FI/NI/PDO)	Benefit-Cost Ratio
W2-7L / W2-7R Signage	\$650	0.25/0.5/0.5	4.6
Overhead Red-Yellow Flashing Beacon	\$1500	0.5/0.5/0.5	2.1
Centerline and Shoulder Rumble Strips	\$76,500	0.258/0.258/0.258	2.13
[Fix Design Deficiency]	\$225,000	0.25 / 0.25 / 0.25	0.11

An ICC (Index of Crash Cost) and ICF (Index of Crash Frequency) of 0 indicates the average expected rate based on the facility type and traffic volume. Above this value means the crashes occurring are more costly or more frequent, respectively, while the inverse is true for values below 0. Per INDOT Fort Wayne District Policy, an ICC or ICF of up to 1.5, or 1.5 standard deviations above the mean, does not inherently necessitate a design reconfiguration. Roadway segments SR 19 to Wallace Ave., Wallace Ave. to Peru Circus Ln/S. Frances Slocum Trail and CR 100 S to CR 675 E are outside these limits. As well as the intersection of Peru Circus Ln / S. Frances Slocum Trail with SR 124, which has an ICF of 1.66. Therefore, the proposed design will include mitigation strategies to reduce this safety risk. The combined application of centerline and shoulder rumble strips from 0.57 miles east of SR 19 (Wallace St.) to 7.32 miles east of SR 19 was selected to reduce the frequency of crashes by alerting drivers that they are about to leave the travelled lane. A pair of Intersection Ahead signs (W2-7L and W2-7R) as well as an overhead red-yellow flashing beacon will be installed at the intersection of Peru Circus Ln / S. Frances Slocum Trail with SR 124, upon concurrence from Ft. Wayne Traffic, to improve driver awareness and reduce the risk of collision. Both these mitigation tools have a Benefit-Cost Ratio well

above 1.0, the ratio that determines the financial viability of these improvements. It is preferred to implement these mitigating factors rather than improve the design deficiency, in part because improving the design deficiency would require reconstructing SR 124 through the entire horizontal curve at significant cost, resulting in a benefit-cost ratio of 0.11, well below the 1.0 threshold that justifies the expense.

## Identification of Proposal

The existing pavement structure on SR 124 will undergo a mill of 1.5 inches and overlay with 1.5 inches of HMA. This alternative was selected as the most economically feasible alternative that meets the project's purpose and need. Other alternatives were reviewed and found to be either economically unfeasible or they did not meet the project's need nor achieve the project's purpose. Pavement patching is anticipated on this project. Other anticipated work includes adjust existing castings within project limits to finish grade and replace any curb inlets that are damaged and unsafe. A field review will be required to determine if existing guardrail is to be replaced and existing sheet signs within project limits are warranted for replacement. There are 8 existing curb ramps within the project limits that require analysis and potential replacement in order to meet current ADA standards. HNTB has identified three alternatives to address the needs of the project.

Alternative 1 (Do Nothing): This alternative allows the existing roadway and structures to remain in place with no improvements. This alternative will result in continued deterioration of the road, which could allow development of unsafe travel conditions and likely increase costs of repair at a later date. This alternative does not meet the need nor achieves the purpose of the project and will not be considered further.

Alternative 2 (INDOT mini-scope alternative): Place another chip seal since only one has been placed in 2012. 2016 data from INDOT shows that the wheel path rutting is on average 0.24 inches and provides an IRI of 113. Roadway shoulder widening is required at approximately RP 2+00 to alleviate a substandard horizontal curve and additional proposed ditch configuration at this location to eliminate drainage issues. The proposed roadway widening and ditch regrading will require right-of-way at approximately RP 2+00. There are 8 existing curb ramps in the project that will require analysis and potential replacement in order to meet current ADA standards. INDOT Mini-Scope is provided in **Appendix E**.

Alternative 3 (Recommended): The existing pavement structure on SR 124 will undergo a mill of 1.5 inches and overlay with 1.5 inches of HMA. Roadway shoulder widening is required at approximately RP 2+00 to alleviate a substandard horizontal curve and additional proposed ditch configuration at this location to eliminate drainage issues. The proposed roadway widening and ditch regrading will require right-of-way at approximately RP 2+00. There are 8 existing curb ramps in the project that will require analysis and potential replacement in order to meet current ADA standards. No changes to the horizontal alignment or profile are proposed. These alternatives are further described below:

Comparison of Costs of Select Items by Alternative		
	Alternative 2	Alternative 3
Pavement (1)	\$981,820	\$2,125,663
Earthwork	\$120,320	\$120,320
Curb Ramps	\$11,560	\$11,560
Drainage	\$168,800	\$168,800
Maintenance Of Traffic (5%)	\$64,125	\$121,317
Mobilization and Demobilization (5%)	\$64,125	\$121,317
20% Contingency (2)	\$282,150	\$533,795
<b>CN Construction Subtotal</b>	<b>\$1,692,901</b>	<b>\$3,202,773</b>
(UT) Utilities (3)	\$175,000	\$175,000
(RW) Right of Way	\$68,298	\$68,298
(PE) Project Engineering	\$305,456	\$305,456
<b>Total</b>	<b>\$2,241,654</b>	<b>\$3,751,527</b>

Notes:

Estimates based off a Replace in Kind assumption

- (1) Pavement includes HMA Milling, HMA Patching, subgrade treatment, and new HMA pavement for Option 3. Option 2 includes HMA Patching, subgrade treatment, and chip seal treatment.
- (2) Construction Costs to replace and relocate 7 overhead poles
- (3) Contingency includes the additional costs for, but not limited to, pavement markings, signs, erosion control, etc.

Alternative 3 is recommended as it significantly increases the pavement life, pavement rideability, and improves the drainage issues and concerns as outlined above. Alternatives 1 and 2 are less desirable as they would not increase pavement life and the rideability will deteriorate with the existing truck traffic currently on this segment of roadway.

### Design Exceptions

A level 1 or level 2 design exception is anticipated for the horizontal curve at approximately RP 2+00. The individual geometric design does not satisfy the established speed limit requirements. HNTB will investigate meeting desirable design criteria and based on the analysis of the substandard Level One design features, we believe that the design exception is justified.

### Cost Estimate

The preliminary cost estimate for SR 124 Preventive Maintenance HMA Overlay is \$3,751,527. This includes a 20% contingency to account for erosion control, and pavement markings. For preliminary cost estimate details, see **Appendix F**.

### Environmental Impacts

INDOT's Red Flag Database identified several noteworthy resources within a half-mile radius of the study area. The following is a summary of noted resources and recommendations for additional study.

The public airport, Mississinewa Reservoir Airport, is located approximately 2.34 miles south of the project area. This airport is for use by sea planes only as there are no land-based runways. Coordination with INDOT Aviation will occur. Two cemeteries are located within the 0.5 mile search radius. The

nearest cemetery, Francis Godfroy Cemetery, is located adjacent to the project area. A Cemetery Development Plan may be required since this project is within 100 feet of the cemetery. Coordination with INDOT Cultural Resources will occur. Five recreational facilities are located within the 0.5 mile search radius. The nearest facility, Frances Slocum Trail Riders, is located adjacent to the project area. Coordination with Frances Slocum Trailriders, Inc. will occur. One unknown abandoned railroad crosses the project area approximately 1.47 miles east of SR 19, RP 1+46. Per field check, rails have been removed outside of the existing right-of-way and appear to have been removed within the right of way. Conditions under the pavement are unknown. Coordination with INDOT Utilities and Railroads should occur. The Frances Slocum State Forest is located adjacent to the project area and Mississinewa Spillway lies within the project area. Coordination with the DNR Forestry and U.S. Army Corps. Of Engineers will occur.

The Mississinewa River is located within the project area and is listed on the Indiana Department of Environmental Management (IDEM) 303d List of Impaired Streams and Lakes. Mississinewa River is listed as impaired biotic community and for PCBs is fish tissue. Exposure to PCBs in fish tissue is considered low, assuming workers are not eating biota surrounding or associated with the water body. Workers will be informed. Six rivers, three unnamed tributaries (UNT) to Mississinewa River, Mississinewa River, UNT to Wabash River, and UNT to Asher Branch of the Wabash River, multiple National Wetland Inventory (NWI) mapped wetlands, and one lake are located within the project area. A Waters of the US Report will be prepared and coordination with INDOT ESD Ecology and Waterway Permitting will occur. The floodway of the Mississinewa River is located within the project area. Coordination with INDOT ESD Ecology and Waterway Permitting will occur.

This project lies within the Peru Urbanized Area Boundary. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. Coordination with the appropriate MS4 will be necessary.

Twenty-two petroleum wells are located within the 0.5 mile search radius. Two of the wells are adjacent to the project area. Coordination with IDNR Oil and Gas Division will occur.

Multiple leaking underground storage tanks (LUST) sites are located within the 0.5 mile search radius. Former Buck's Live Bait & Sports Goods (AI ID# 44595), is located adjacent to the project area at 14 Wallace Row, Peru, IN 46970. According to the IDEM VFC, a Limited Subsurface Investigation Report was requested on May 26, 2017 due to petroleum contaminants (PCPs) detected during closure activities which were completed on May 17, 1990. No additional documentation was available in the VRF after this request. No excavation will occur at this site and therefore no impact is expected. Gallahan Oil Kwik Mark (AI ID#43542), is located adjacent to the project area at 215 South Broadway, Peru, IN 46970. This site is located 0.05 miles south of the intersection of SR 19 and SR 124 at the northeast corner of SR 19 and East Franklin Street. An initial inspection was completed by IDEM on this site and violations were noted in June 23, 2019 letter regarding appropriate spill detention systems and other violations. Additional information has been submitted to IDEM; however, the violation has not yet been resolved. No spills or releases are associated with this violation. On October 30, 1990, Gallahan Oil Company reported a release of gasoline

associated with a tank removal. At the time 100 cubic yards of soil were excavated and removed from the site and a soil vapor extraction was planned. No further information regarding this release is noted in the IDEM VFC beyond the initial Site Characterization. No excavation will occur at this site and therefore no impact is expected.

Two Brownfield sites are located within the 0.5 mile search radius. KOFABCO, Inc. is listed as a Brownfield site located adjacent to the project area at 21 East Riverside Drive, Peru, IN 46970 (AI ID#42836). A comfort letter was issued for this site on February 17, 1999 indicating that all threats due to hazardous substances on the site have been mitigated. Limited excavation may occur at the northeast corner of the site for curb ramp reconstruction; however, no impact is expected as no contaminants remain on site.

The nearest NPDES Pipe locations include combined sewer overflows. The Peru Utilities Wastewater Treatment Plant - Benton Street/East Canal Street Combined Sewer Overflow, is located adjacent to the project area at 335 East Canal Street, Peru, IN 46970 and the Peru Utilities Wastewater Treatment Plant – Huntington Street/East Canal Street Combined Sewer Overflow is mapped at the SR 124 and Sullivan Lane. Coordination with Peru Utilities will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent “Using the USFWS’s IPaC System for Listed Bat Consultation for INDOT Projects”. A review of aerial imagery indicates potentially suitable summer habitat for Indiana bats and northern long-eared bats within the project. During the field investigation, a qualified professional will investigate the project area for bat habitat. USFWS Information for Planning and Consultation (IPaC) website will be used to complete information consultation with USFWS.

Within or adjacent to the project limits, multiple contributing above and below ground cultural resources have been noted. In addition, the L. Cole Farm (County Survey site 103-079-47004) is listed as Notable and as part of the Godfroy-Cole Rural Historic District, the Ben Wallace Farm (County Survey site 103-504-45005) is listed as notable, and the Francis Godfroy Cemetery (NR-0644) is listed on the National Register of Historic Places (NRHP). Coordination with the INDOT Cultural Resources Office will occur and at a minimum an archaeological investigation will be conducted in order to determine the effect of the project on cultural resources. An evaluation under Section 106 National Historic Preservation Act (NHPA) of 1966 is underway to determine the eligibility of the existing structures and the projects effects on cultural resources.

**Right of Way Impacts**

Right-of-way is required for the proposed roadway widening and ditch regrading at approximately RP 2+00, approximately 2.10 miles east of SR 19. See Exhibit A. Additional right-of-way is anticipated for three culvert replacements approximately 3.15 miles, 4.50 miles, and 6.50 miles east of SR 19. No additional right-of-way is anticipated for ADA curb ramp reconstruction.

## **Maintenance of Traffic (MOT)**

It is anticipated construction will be completed in one season, with the MOT utilizing a two week closure and detour to construct the 6'x4' box culvert located approximately 2.10 miles east of SR 19 and the two culvert replacements located approximately 4.50 miles and 6.50 miles east of SR 19. The SR 124 detour will utilize SR 13, through Wabash, US 24 and SR 19 in Peru. The Area Engineer recommended this MOT plan due to successful implementation during a previous project on SR 124. Intermittent lane closures with flagging operations may still be necessary to finalize construction.



## Appendix A - Site Photos

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Excluded from Report



## Appendix B – Utility Ticket

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Excluded from Report





## Appendix C – INDOT Traffic Forecast

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Excluded from Report



## Appendix D – RoadHAT Analysis

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Excluded from Report



## Appendix E – INDOT Mini-Scope

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# Roadway Project Application

Application Date	12/6/2017	Des	RK6340
Proposed FY	2021	Work Type	HMA Overlay, Preventive Mainte
<b>Project Information</b>		<b>Project History (Last Work)</b>	
Pvmt Section ID	2259	Project Type	Des # Contract # Year
Route	SR124	PM	500629 RS-28406 2006
Limits	From 0.57 Miles East of SR 19 (Wallace St.) to 7.32 Miles East of SR 19 (Miami/Wabash CL)	Work Type	HMA Overlay, Functional
From RP + Offset	0+0.57	From SL	0.57
To RP + Offset	7+0.32	To SL	6.98
Beg Lat	40.7526	Beg Long	(86.0558)
End Lat	40.7372	End Long	(85.9473)
<b>Existing Roadway Information</b>		<b>2016 Condition Data</b>	
AAADT	932	% Functional Cracking	64.2 Rut (in) 0.24
AAADTT	66	% Structural Cracking	6.3 IRI (in/mile) 115
AAADT Year	2016	<b>Purpose/ Need of Project</b>	
Project Length (miles)	6.41	The current need for this project is to restore the ride and prevent further deterioration of the existing pavement structure. This project has on chip seal on it placed in 2012.	
# Thru Lanes	2.00		
# Lane Miles	12.82		
Pavement Area (sys)	110,490		
Pavement Type	Asphalt		
County 1	Miami		
County 2	-	<b>History/Current Condition</b>	
Subdistrict	-	Beginning at Wallace Street and continuing 2.77 miles to the east, the road was originally constructed as an 18' wide concrete pavement. This portion was covered with asphalt in 1958 and 1985. From were the concrete ended, the rest of the road was constructed with bituminous material at a 20' width in 1954. This portion of the road was overlaid in 1960, and 1985. No other treatments were completed until 2006 that widened the road to a total width of 24'. Since 2006, maintenance has chip sealed the road one time. Overall the road is performing well with the exception of light rutting and breakdown near the pavement edge.	
Functional Class	Major Collector		
On NHS?	No		
Are Underdrains Present?	No		
Are Curbs Present?	No		
<b>Additional Features to be Included</b>		<b>Recommended Alternative</b>	
RPMs	No	Two alternatives would be to do nothing to the HMA or perform another chip seal. The do nothing alternative is prohibitive since cracking is present. Placing another chip seal is a good option since only one has been placed. 2016 data from slicer shows that the wheel path rutting is on average 0.24 inches. Data from Slicer provides an IRI of 113. A HMA mill and overlay is a good option but the most cost effective treatment appears to be a chip seal.	
Centerline Rumble Stripes	Yes		
Edgeline Rumble Stripes	No		
Shoulder Corrugations	No		
Curb Ramps	No		
<b>Project Cost</b>		If the chip seal option is not picked and an HMA overlay is pursued, a pavement design shall be performed to determine the correct and most cost effective treatment to this pavement. Determination of patching locations and extents shall be coordinated with the District Pavement Engineer.	
Right of Way Purchase (RW):			
Preliminary Engineering (PE):			
Railroad (RR):			
Utilities CN (UT):			
Construction (CN):	\$1,473,661.00		
Construction Engineering (CE):	Included in CN Cost	<b>Testing</b> In order to determine the final pavement treatment, pavement cores, geotechnical borings, and FWD testing shall be obtained to develop the final pavement design. In order to receive a pavement design in a timely manner, coordination of the pavement analysis shall be through the Project Manager as soon as practical after the notice to proceed. Geotechnical boring and coring locations shall also be coordinated with the District Pavement Engineer.	
Relinquishment Payment (RQP):			
<b>Total Roadway Costs:</b>	<b>\$1,473,661.00</b>		
Total Cost for Additional Asset Improvements	\$0.00		
<b>What are we buying?</b>			
Lane-mile Years	Small Culvert Condition Points	Other (Safety, Geometric, etc.)	
12.844 ln-mi x 9 yr	-	-	
<b>Projected Condition Targets</b>			
FI	SI	IRI	
0	0	70	

**Secondary Considerations**

Bridge Approaches

Evaluate all bridge approaches within the project extents for smoothness and ride. Adjust profile as necessary to provide a smooth transition from the roadway pavement. Provide elevations showing existing profile and proposed profile to ensure the transition is constructed correctly. The transition shall be evaluated using the requirement set forth in Standard Drawing No. E306-TMPT. The following bridges (NBI) are located within the extents of this project:

R/W Information

It shall not be assumed that INDOT has valid R/W outside the edge of pavement. It is recommended that additional research be performed to determine R/W if substantial planned work is proposed beyond the edge of pavement.

Environmental Document Requirements

This project should qualify under the PCE. If endangered species are found within the project limits the level of NEPA document may become a higher level CE. As the project progresses, the environmental document requirements shall be continuously monitored to ensure the correct level environmental document is developed.

Curb Ramps

Curb ramps are not present within the project limits.

Culvert and Pipes

Estimate costs provided did not include any culvert or pipe work. Additional funds will need to be allocated for any work that is necessary to the drainage system.

**Supporting Documentation**

File Name	Description
RK 6340 District 2_Fort_Wayne (V2)	Roadway Asset Pavement spreadsheet using 2016 data
FW Photos 2021PLC RK6340 SR 124	2017 Photos at RP Markers
FW Cost Estimating Tool 11_15_2017 20212 PLC	Project estimating tool provided by Roadway Asset

**Additional Asset Improvements**

Asset Group	Des	Work Type	Total Cost
<b>Total Cost for Additional Asset Improvements</b>			<b>\$0</b>

**Report Prepared By and Approved By**

	Name	Title	Date
Prepared by:	Kathleen Herber, P.E.	Asset Management Engineer	
Reviewed by:	Doug Moser, P.E.	Pavement Engineer	12/6/2017



## Appendix F – Cost Estimate

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Excluded from Report



## Appendix G – Meeting Minutes

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## MEETING MINUTES - INITIAL FIELD CHECK



**CN:** R-41121

**DES No. :** 1800552

**Meeting Name:** SR 124 Preventative Maintenance

**Meeting Date:** September 18, 2020

**Location:** SR 124 from SR 19 east to the Miami/Wabash county line

**Purpose:** Initial Field Inspection and kickoff

**Attending:** Jesse Boley, INDOT Fort Wayne District, Project Manager  
Susan Lewis, INDOT Central Office  
Brad Taylor, INDOT Fort Wayne District  
Teresa Cole, INDOT Fort Wayne District  
Nicki Colchin, INDOT Fort Wayne District  
Kelly Ellis, INDOT Fort Wayne District  
Doug Moser, INDOT Fort Wayne District  
Justin Allred, INDOT Fort Wayne District  
Doug Garvin, HNTB  
Jonathan Oakley, HNTB

### SR 124 Preventative Maintenance

#### DISCUSSION

- Revisions to the minutes have been added below in **bold**
- The discussion began with an overview of the project and team introductions. The meeting began at the eastern project limits near the Miami/Wabash county line. The team visited 5 locations along the corridor including the two culvert rehabs, a location with an apparent culvert scour concern, the drainage reconstruction and shoulder widening site, and the western project limits.
- It was discussed the scope of the project contained two culvert rehabs along SR 124. Jesse Boley to confirm these two culverts are included in the project funding.
  - **Justin Allred confirmed 3 culverts, locations approximately 3.1 miles east of SR 19, 4.5 miles east of SR 19, and 6.5 miles east of SR 19 to be included in this contract. Pending an on-going hydraulic analysis and culvert inspection, the culverts located 4.5 miles east of SR 19 and 6.5 miles east of SR 19 may be removed from the contract.**
- Stage 1 plans for the HMA overlay are complete and have gone through a Stage 1 submittal.
- Pavement design and Geotech is complete.
  - **Pavement Design addendum required for 0.57-mile western extension.**
- The following pavement keys are to be included in the project description:
  - **PK20258; SR124; From SR 19 to 0.57 Miles East of SR 19 (Wallace St.)**



- PK20259; SR124; From 0.57 Miles East of SR 19 (Wallace St.) to 7.32 Miles East of SR 19 (Miami/Wabash CL).
- Survey has been acquired at the two culvert reconstruction locations as well as the location of the ditch and shoulder reconstruction.
- Environmental has begun preparing the RFI. Field work to be obtained during the 2020 growing season.
- Utility coordination has begun.
  - Utilities were marked roughly two weeks prior to the site visit to be picked up by survey.
  - Underground utility markings were not apparent during the site visit.
- There is a pavement preservation project east of the project limits (Wabash County) that will tie into the SR 124 project.
  - Jesse Boley to determine if project is active, information unable to be found.
  - It was discussed the Wabash County project's western paving limits would extend to CR S 675 E, which overlaps with the current SR 124 eastern paving limits of the county line.
    - **Eastern project paving limits to end 7.32 miles east of SR 19, RP 7+10, STA. 348+03.**
- The team visited the existing culvert located approximately 6.5 miles east of SR 19.
  - There appeared to be structural deficiencies with the top of the culvert.
    - **The existing culvert appeared to have been replaced after the 2017 inspection report. INDOT to confirm if culvert requires replacement or if should be removed from the contract.**
  - It was noted the apparent existing right-of-way appeared to be very close to the SR 124 shoulder and likely permanent right-of-way would be required if reconstruction of the existing culvert is required.
- The team visited an apparent culvert scour slope concern approximately 4.5 miles east of SR 19.
  - It was noted that existing Right of Way appeared to be very close to the SR 124 shoulder.
  - Jesse Boley to determine if reconstruction of this structure and/or scour hole is to be incorporated into the contract.
    - **Structure reconstruction has been added to the contract. An on-going hydraulic analysis will determine if the culvert reconstruction remains in the contract or if it's to be removed from the contract and addressed by INDOT maintenance.**
- The team visited the circus drive culvert located approximately 3.1 miles east of SR 19.
  - It was noted that trenchless installation should be considered due to the apparent available ROW and the large drive embankment.

- The team visited the drainage reconstruction and shoulder widening site located approximately 2.1 miles east of SR 19.
  - It was noted that the property south of SR 124 may be a historic farm.
  - Right of Way will be required.
  - HNTB to confirm the need for a Construction in a Floodway (CIF) permit due to the impacts near the Mississinewa River.
    - **It is not anticipated that a CIF will be required. To be confirmed with a permit determination.**
- The team visited the western project limits at SR 124 and Wallace Ave.
  - Western project limits to be extended 0.52 miles west of Wallace Ave. to SR 19.
    - Jesse to confirm scope of additional work and the need for additional services including, but not limited to, survey, environmental, curb ramp design, pavement design, geotechnical, and utility coordination.
      - **It is anticipated the curb ramp reconstruction will be located within the footprint of the existing ramp. Existing ROW analysis and temporary/permanent ROW acquisition will not be required.**
      - Brad Taylor provided information on the existing project for the section of SR 124 from SR 19 to Wallace St/Wayne St in Peru. Project is R-31896, Letting on 10-09-2013.
- There is an LPA project north of Wallace Ave. on the existing bridge structure over the Wabash.
  - Brad Taylor provided project information, B-41950 (Des 1802959) letting on 3-3-2021.
  - Bridge project includes new sidewalks and curb ramps tying into the sidewalks on SR 124.
- **DES 1900083 RP5+90 Small structure replacement will not be bundled with R-41121. Structure to remain in B-42365.**

#### NEXT STEPS

- INDOT to confirm the project scope regarding the two culvert rehabs.
  - **To be included in the contract.**
- INDOT to determine if the culvert scour hole concern visited during the field check will be included in the project.
  - **Culvert to be included in the contract.**
- HNTB and INDOT to coordinate efforts for Environmental and Permitting.
- HNTB to confirm the need for a Construction in a Floodway (CIF) permit due to the impacts to the Mississinewa River.
  - **CIF is not anticipated, to be confirmed with the permit determination.**