Juliana Clayton
Approved 5.24.21

Waters of the US Report

SR 244 Rehabilitation

Shelby and Rush Counties, Indiana

Des. No. 1600801

Report Completed: May 21, 2021

Prepared for:

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Table of Contents

List of Tables

List of Appendices

Waters of the US Report
SR 244 Rehabilitation
Liberty and Orange Townships, Shelby and Rush Counties, Indiana
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I. Introduction

The Indiana Department of Transportation (INDOT) is proposing to proceed with the rehabilitation of State Road (SR) 244 from Michigan Road to west of Deer Creek in Shelby and Rush Counties, Indiana. Project activities will include HMA overlay, pavement resurfacing, shoulder extension, roadway realignment, structure replacement, and curve correction. The purpose of this investigation was to identify wetlands and waterways within and adjacent to the study area. A routine wetland determination, per the *1987 Corps of Engineers Wetland Delineation Manual (Y-87-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (*Version 2.0) was conducted. This report details the findings of the investigation. The entire project area was investigated, and no features were noted in areas without photos.

The project is a total of 5.41 miles long, located along SR 244 from 0.32 mile west of I-74 at the intersection of Michigan Road to 0.06 mile west of Deer Creek in Liberty and Orange Townships, Shelby and Rush Counties, Indiana. (Attachment A, State Location Map). The center of the project is located at 39.497263, -85.64841, the west end is at 39.497166 and -85.700504, and the east end is at 39.497535 and -85.599063. Lastly, the study area is located within the Waldron and Adams, Indiana United States Geological Survey (USGS) 7.5 Minute Quadrangles (Attachment A, USGS Project Location Map).

II. Existing Data

7.5 Minute USGS Quadrangle Maps and Watershed

The USGS map was reviewed to determine the topography and drainage patterns within the study area. The map indicates that the study area and surrounding terrain are relatively flat with the elevation ranging from approximately 830 to 900 feet. Drainage patterns lead towards the streams within the study area including two perennial blue line streams, Conns Creek and Little Conns Creek. Two intermittent blue line streams are mapped south of the study area, identified as unnamed tributary (UNT) 2 and UNT 3 to Conns Creek.

Drainage basins are divided into hydrologic units by the USGS based on major river systems. The entire study area is within the 8-digit Hydrologic Unit Code (HUC); 05120205, Flatrock-Haw Watershed. Furthermore, the study area is within two 12-digit HUCs; 051202050501 and 051202050303, Lewis Creek and Conns Creek Watersheds.

National Wetland Inventory (NWI) Map

The NWI map was evaluated for the presence of potential jurisdictional wetlands within the study area (Attachment A, NWI Wetlands Map). Two forested wetlands (PFO1A) are mapped within the study area directly along Conns Creek. Two freshwater ponds are mapped directly adjacent to the study area west of Conns Creek and north of SR 244 (Table 1).

Table 1. NWI Wetlands Summary

Code	System	Class	Subclass	Water Regime	Modifiers
PFO1A	Palustrine	Forested (FO)	Broad-Leaved Deciduous (1)	Temporarily Flooded (A)	none
PUBGh	Palustrine	Unconsolidated Bottom (UB)	none	Intermittently Exposed (G)	Diked/ Impounded (h)

County Soil Survey Map

The Natural Resources Conservation Service (NRCS) Web Soil Survey was reviewed to determine soil classification within the study area (Attachment A, NRCS Soils Map). Sixteen soil types were identified within the study area with two soil types identified as fully hydric and nine soil types are identified as partially hydric (Table 2).

Table 2. Soil Summary

Soil Type	Symbol	Drainage Class	Hydrology	Hydric Rating	Hydric
Celina silt loam, 2 to 6 percent slopes, eroded	CeB2	Moderately well drained	None	4%	Partially
Crosby silt loam, New Castle Till Plain, 0 to 2 percent slopes	CrA	Somewhat poorly drained	None	5%	Partially
Miamian silt loam, New Castle Till Plain, 2 to 6 percent slopes, eroded	MpB2	Well drained	None	5%	Partially
Miamian clay loam, 6 to 12 percent slopes, severely eroded	MuC3	Well drained	None	5%	Partially
Shoals silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Sh	Somewhat poorly drained	Frequent flooding	4%	Partially
Treaty silty clay loam, 0 to 1 percent slopes	Tr	Poorly drained	Frequent ponding	95%	Yes
Brookston silty clay loam, 0 to 2 percent slopes	Br	Poorly drained	Frequent ponding	95%	Yes
Crosby silt loam, New Castle Till Plain, 0 to 2 percent slopes	CrA	Somewhat poorly drained	None	5%	Partially
Crosby silt loam, 2 to 4 percent slopes	CrB	Somewhat poorly drained	None	3%	Partially
Crosby-Miami silt loams, 0 to 6 percent slopes	CsB	Somewhat poorly drained	None	15%	Partially
Fox clay loam, 6 to 12 percent slopes, severely eroded	FxC3	Well drained	None	0%	No
Genesee loam	Ge	Well drained	Frequent flooding	0%	No
Hennepin loam, 25 to 50 percent slopes	HeF	Well drained	None	0%	No
Miami silt loam, 2 to 6 percent slopes, eroded	MlB2	Moderately well drained	None	5%	Partially
Miami clay loam, 6 to 12 percent slopes, severely eroded	MmC3	Moderately well drained	None	0%	No
Ockley loam, 0 to 2 percent slopes	OcA	Well drained	None	0%	No

Flood Map

The Indiana Department of Natural Resources (IDNR) Best Available Floodzone Mapping was reviewed for the presence of the Special Flood Hazard Areas (Appendix A, IDNR Floodplain Map). The study area is located within Zone A of the UNT 2 floodplain and Zone A of the Conns Creek floodplain and floodway. These zones are defined by the Federal Emergency Management Agency (FEMA) as an area subject to inundation by the 1-percent-annual-chance flood event.

III. Methodology

Wetland Delineation

The study area was analyzed using methods outlined in the *1987 Corps of Engineers Wetland Delineation Manual (Y-81-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0). These manuals require wetland boundaries to be delineated using a 3-parameter approach: hydrophytic vegetation, hydric soils, and wetland hydrology. Hydrophytic vegetation is met by the dominance of wetland species; plants identified with an indicator status of OBL, FACW, and FAC. Hydric soil is caused by anaerobic conditions and is observed by the presence of field indicators including; gray or dark brown color, mottling, gleying, muck and/or peat, hydrogen sulfide odor, or iron-manganese masses. Lastly, wetland hydrology is met by the presence of water for more than 5 percent of the growing season; one primary indicator or two secondary indicators must be observed.

IV. Field Reconnaissance

CHA staff conducted a field investigation on September 29 and 30, 2020 to determine the presence of wetlands, Waters of the U.S., and Waters of the State within the study area. Locations of data points, wetlands and streams are provided in Attachment A on the Water Resources Map. Photographs of the study area and Wetland Delineation Data Forms are included in Attachments B and C, respectively. The following provides a brief description of the findings of the field investigation.

Streams

Five streams were identified within the study area; two perennial and three intermittent. One additional stream was identified outside the study area to the south. No evidence of bats or bird nests were observed within or under the structures along the streams. Two non-jurisdictional roadside ditches were observed within the study area. The coordinates of the ordinary high water mark (OHWM) measurements are provided in Table 4 below.

Conns Creek
Conns Creek is a perennial stream that flows south under SR 244, 0.3 mile east of S CR 700 E. Conns Creek has year-round water flow and is mapped as a USGS blue-line perennial stream. The stream has an OHWM 60 feet wide and 2 feet deep with substrate consisting primarily of cobble and gravel. The stream has a narrow to wide forested riparian buffer consisting of upland and wetland areas with surrounding agriculture and residential land use. Conns Creek has a drainage area of 56 square miles and provides good aquatic habitat including pools and riffles. Based on these attributes, the stream is considered good quality. Conns Creek continues to flow south outside the study area and drains into the Flatrock River that connects with the East Fork White River, a TNW and Waters of the U.S. Due to this perennial hydrologic connection, Conns Creek is also considered a Waters of the U.S. and is jurisdictional under the United States Army Corps of Engineers (USACE). A total of 157 linear feet of Conns Creek is within the study area.

Little Conns Creek
Little Conns Creek is a perennial stream that flows south under SR 244, 0.6 mile east of S CR 800 E. Little Conns Creek has year-round water flow and is mapped as a USGS blue-line perennial stream. The stream has an OHWM 15 feet wide and 2 feet deep with substrate consisting mostly of gravel and cobble. The stream has a very narrow to moderate riparian buffer with surrounding agriculture and residential land use. Little Conns Creek provides aquatic habitat including pools and riffles and has a drainage area of 2 square miles. Due to all these characteristics, Little Conns Creek is considered average quality. Little Conns Creek continues to flow south outside the study area draining into Conns Creek, a Waters of the U.S. Due to this perennial hydrologic connection, Little Conns Creek is also considered a Waters of the U.S. A total of 120 linear feet of Little Conns Creek is within the study area.

UNT 1 to Little Lewis Creek

UNT 1 to Little Lewis Creek is an intermittent stream that flows south under SR 244, just east of Michigan Road. UNT 1 was identified as intermittent due to seasonal water flow from groundwater and precipitation indicated by steady water flow and depth during the late summer field visit. However, the stream is not mapped as a USGS blue-line stream. The stream has an OHWM 2.0 feet wide and 0.5 feet deep with a substrate consisting of mostly of silt and sand. The stream has a very narrow riparian buffer with the surrounding area dominated by high intensity row cropping and development. The stream has a drainage area of 1.1 square mile and has some aquatic habitat except during dry periods. Due to all these attributes, the stream is considered poor quality. UNT 1 flows southwest outside the study area and appears to be connected via underground drainage tiles to Little Lewis Creek. Little Lewis Creek drains into Flatrock Creek, a Waters of the U.S. Due to this intermittent hydrologic connection, UNT 1 is also likely considered a Waters of the U.S. and is jurisdictional under USACE. A total of 764 linear feet of UNT 1 are within the study area.

UNT 2 to Conns Creek

UNT 2 to Conns Creek is an intermittent stream that flows south under SR 244, 0.7 mile east of I-74. The stream is fed by tile outlets along the north side of SR 244. UNT 2 was identified as intermittent due to seasonal water flow from groundwater and precipitation indicated by hydrophytic vegetation observed along the stream channel. This stream is mapped as a USGS intermittent blue line stream directly south of the study area. This stream has with an OHWM 2.5 feet wide and 0.5-foot-deep with a substrate consisting of mostly of silt and gravel. The stream has a very narrow riparian buffer with high intensity row cropping in the surrounding area. The drainage area is less than 0.33 square mile and the stream has some aquatic habitat, except during dry periods. Due to these characteristics, the UNT 2 is considered poor quality. UNT 2 is hydrologically connected to Conns Creek, a Waters of the U.S. Due to this intermittent hydrologic connection, UNT 2 is also considered a Waters of the U.S. and is jurisdictional under USACE. A total of 87 linear feet of UNT 2 are within the study area.

UNT 4 to Conns Creek

UNT 4 to Conns Creek is an intermittent stream that starts at the north side of SR 244 and flows south under the roadway, 0.1 mile east of Conns Creek. UNT 4 is identified as intermittent due to seasonal water flow from groundwater and precipitation indicated by the surrounding wetland, however, the stream is not mapped as a USGS blue-line stream. The stream has an OHWM 3.0 feet wide and 0.5-foot-deep with substrate consisting of silt, gravel and cobble. The stream has a narrow to wide forested riparian buffer consisting of upland and wetland areas with surrounding agriculture and residential land use. The stream has a drainage area of 0.63 square mile and has some aquatic habitat except during dry periods. Due to these characteristics, the stream is considered average quality. The stream continues south outside the study area and drains into Conns Creek, a Waters of the U.S. Due to this intermittent hydrologic connection, UNT 4 is also considered a Waters of the U.S. and is jurisdictional under USACE. A total of 547 linear feet of UNT 4 are within the study area.

Non-Jurisdictional Roadside Ditches (RSD)

Three roadside ditches were observed within the study area. RSD 1 is located 0.5 mile east of I-74 along the north side of SR 244 and totals 0.015 acre (656 linear feet by 1 foot wide). RSD 2 is located along S CR 600 E and curves west along SR 244 for 0.25-mile and totals 0.105 acre (1,517 linear feet by 3 feet wide). RSD 3 is located 0.27 mile east of Little Conns Creek along the north side of SR 244 and totals 0.004 acre (181 linear feet by 1 foot wide). These features were designed along the roadway to convey storm water, were excavated within upland areas, drain upland water, and did not contain hydrophytic vegetation. Due to these reasons, these features are likely not considered Waters of the U.S.

Wetlands

Wetlands A and B
Wetland A is a forested wetland and Wetland B is an emergent wetland totaling 1.06 and 0.02 acres, respectively within the study area. Based on their hydrologic connection with Conns Creek and UNT 4, location within the floodplain, moderate cover of invasive plants and surrounding forested land use, the wetlands are considered good quality. These wetlands directly abut Conns Creek, a jurisdictional stream. Due to these connections, the wetlands are also considered Waters of the U.S. and will be under the jurisdiction of the USACE. Due to the close proximity, shared hydrology and similar herbaceous vegetation of the wetlands, data for one wetland point and one upland point were recorded to complete the delineation of the wetlands.

Data Point 1 was located within Wetland A where *Acer saccharinum* (silver maple, FACW), *Acer negundo* (boxelder, FAC), and *Phalaris arundinacea* (reed canary grass, FACW) were some of the dominant species. This data point passed the Dominance Test and Prevalence Index, meeting the hydrophytic vegetation criterion. Depleted Below Dark Surface (A11) was the observed hydric soil indicator that is common in floodplain wetlands. Geomorphic position and the FAC-Neutral Test were the hydrology indicators observed at this point.

Data Point 2 was in an upland area adjacent to Wetland A along SR 244. With *Festuca arundinacea* (tall fescue, FACU) the observed species at this data point, the hydrophytic vegetation criterion was not met. No hydric soil or hydrology indicators were observed at this point.

Data Point 3 was located within an upland area along Conns Creek where *Juglans nigra* (black walnut, FACU), *Fraxinus pennsylvanica* (green ash, FACW), and *Phalaris arundinacea* were three of the dominant species. This data point passed the Dominance Test and Prevalence Index, meeting the hydrophytic vegetation criterion. Geomorphic position and the FAC-Neutral Test were the hydrology indicators observed at this point; however, no hydric soil indicators were met at this data point.

Data Point 4 was taken in an upland area adjacent to Little Conns Creek. This area was dominated by *Juglans nigra* and *Festuca arundinacea* and therefore did not meet the hydrophytic vegetation indicators. Geomorphic position was the hydrology indicator at this point; however, no hydric soil was observed.

Data Points

A total of four data points were taken along the study area. DP-1 was located within Wetland A and DP-2 was in an upland area adjacent to Wetland A. DP-3 was located within an upland area along Conns Creek. DP-4 was in an upland area adjacent to Little Conns Creek. Table 3 provides a summary of these data points.

Table 3. Summary of Data Points

Data Point	Photos	Latitude/ Longitude	Wetland Indicators Observed			Wetland/ Upland
			Hydrophytic Vegetation	Hydric Soils	Hydrology	
DP-1	PP-32 & 33 DP-1	39.49717183 -85.6423394	Yes	Yes	Yes	Wetland
DP-2	PP-31, DP-2	39.49722254 -85.64236555	No	No	No	Upland
DP-3	PP-30, DP-3	39.49736043 -85.64271793	Yes	No	Yes	Upland
DP-4	PP-45, DP-4	39.49722176 -85.61881542	No	No	No	Upland

V. Conclusion

Five streams were identified within the study area: two perennial and three intermittent (Table 4). One forested and one emergent wetland were identified within the study area (Table 5). All the streams and wetlands are considered Waters of the U.S. Three non-jurisdictional RSDs were also identified within the study area.

Table 4. Summary of Streams

Stream Name	Photo Points	Latitude/ Longitude*	OHWM Width/ Depth	USGS Blue Line, Type	Pools/ Riffles	Substrate	Stream Quality	Waters of the U.S.	Steam Type
Conns Creek	24-29	39.497219, -85.642751	60'/2'	Yes, Perennial	Yes	Cobble and gravel	Good	Yes	Perennial
Little Conns Creek	43-45	39.497141 -85.618908	15'/2'	Yes, Perennial	Yes	Gravel and cobble	Average	Yes	Perennial
UNT 1	1-6	39.497141 -85.699807	2'/0.5'	No	No	Silt and sand	Poor	Yes	Intermittent
UNT 2	9, 12-14	39.497004 -85.679513	2.5'/0.5'	Yes, Intermittent**	No	Silt and gravel	Poor	Yes	Intermittent
UNT 4	34-37	39.496996 -85.640996	3'/0.5'	No	No	Silt, gravel, and cobble	Average	Yes	Intermittent

*Location of OHWM measurements.
**UNT 2 is mapped as intermittent blue line stream south of the study area.
UNT 3 is located outside of the study area at 39.496929, -85.672462 and is a mapped USGS intermittent blue-line stream.

[redacted] of Wetlands

Wetland Name	Photos	Latitude/ Longitude	Wetland Type	Acres	Wetland Quality	Waters of the U.S.
Wetland A	PP-32 & 33 DP-1	39.49717183 -85.6423394	PFO1A	1.065	Average	Yes
Wetland B	PP-24	39.49714025 -85.64291279	PEM1A	0.018	Average	Yes

A preliminary jurisdictional determination form is included in Attachment D outlining the water resources described in this report. Every effort should be taken to avoid and minimize impacts to these water resources. If impacts are necessary, then mitigation may be required. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the USACE.

VI. Acknowledgement

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

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VII. References

Cowardin, Lewis M. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. U.S. Department of the Interior, Fish and Wildlife Service, Washington D.C.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List*: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

United States Department of Agriculture, Natural Resources Conservation Service. 2018. Field Indicators of Hydric Soils in the United States, Version 8.2. L.M. Vasilas, G.W. Hurt, and J.F. Berkowitz (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.

U.S. Army Corps of Engineers. 2005. *Regulatory Guidance Letter* (No. 05-05). Published 07 December 2005. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*, ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-10-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Please Note - Attachments have been removed from this document to conserve space. Project maps can be found in Appendix B of this document. Attached forms can be found in the project file.

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Water Resources Map

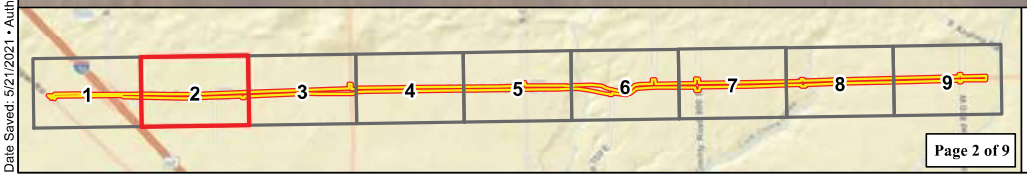
SR 244
Shelby & Rush Counties, Indiana

Scale 1" = 200'

DES No. 1600801

Image Courtesy of the IndianaMap
Photo Date: 2017

Date Saved: 5/21/2021 • Author: E.Butterfield



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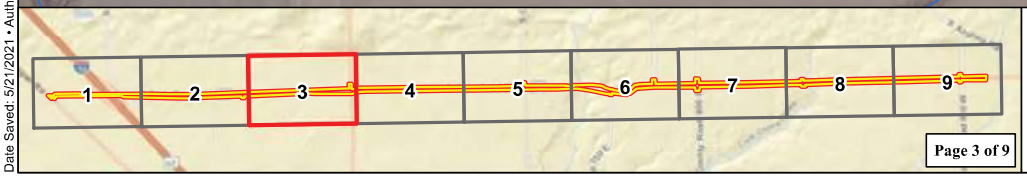

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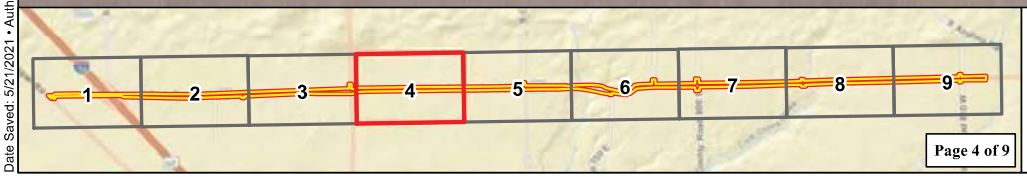

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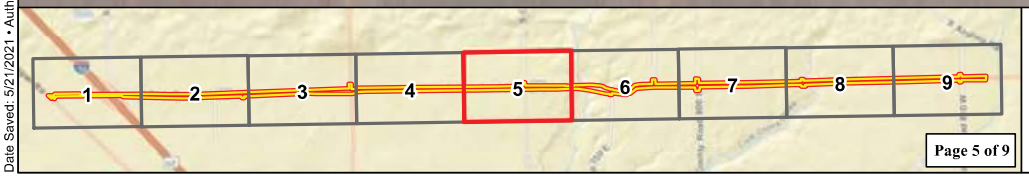

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Legend
Environmental Study Area (ESA)
Wetland
Photo Points
Data Point
Stream
Non-Jurisdictional Roadside Ditch
Conns Creek
Conns Creek Perennial 157 ft. within ESA
Wetland A Forested 1.06 ac.
Wetland B Emergent 0.02 ac.
UNT 4
UNT 4 Intermittent 547 ft. within ESA
Conns Creek
1
2
3
4
5
6
7
8
9
Page 6 of 9
N
Indiana Department of Transportation
CHA
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Shelby & Rush Counties, Indiana
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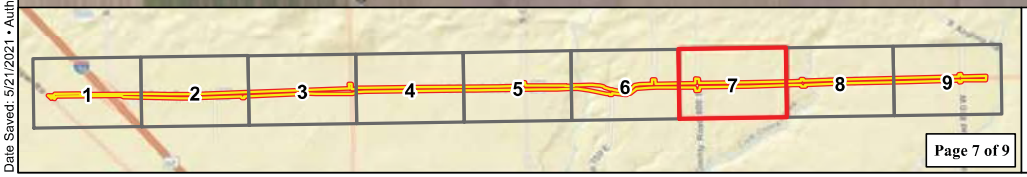

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Legend
Environmental Study Area (ESA)
Wetland
Photo Points
Data Point
Stream
Non-Jurisdictional Roadside Ditch
Little Conns Creek
Little Conns Creek Perennial 120 ft. within ESA
Little Conns Creek
RSD 3
43
44
45
46
47
1
2
3
4
5
6
7
8
9
Page 8 of 9
N
Indiana Department of Transportation
CHA
Water Resources Map
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Shelby & Rush Counties, Indiana
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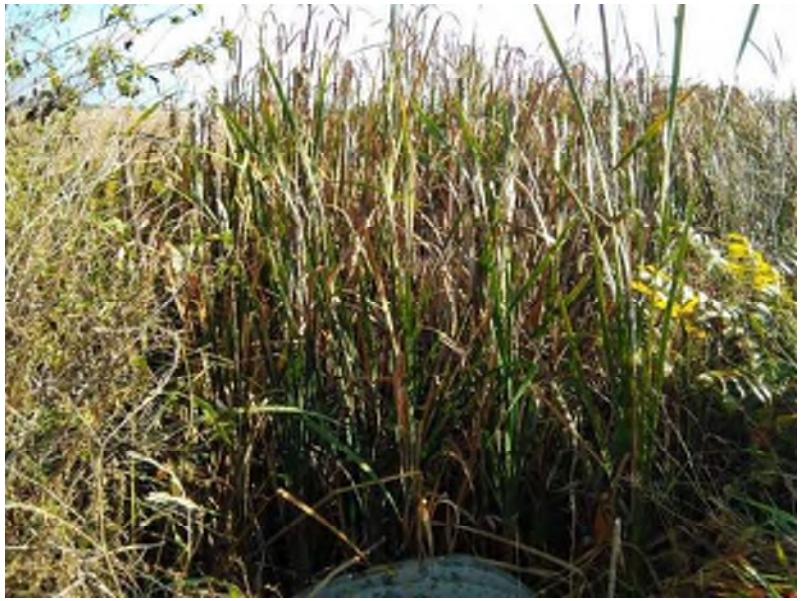
PP-1; Looking southwest, downstream at UNT 1 (9-29-2020). OHWM 39.497141, -85.699807 and overflow drain

PP-2; Looking northeast, upstream at the UNT 1, an intermittent stream (9-29-2020).



PP-3; Looking northeast at UNT 1 from the culvert north of SR 244 (9-29-2020).

PP-4; Looking east along UNT 1 on the north side of SR 244 (9-29-2020).

PP-5; Looking west at the upstream end of UNT 1 (9-29-2020).

PP-6; Looking east at the culvert conveying water to the beginning of UNT 1 (9-29-2020).

PP-7; Looking west at non-jurisdictional RSD 1 (9-29-2020).

PP-8; Looking east non-jurisdictional RSD 1 (9-29-2020).

PP-9; Looking south at the culvert where UNT 2 begins from the north side of SR 244 (9-29-2020).

PP-10; Looking west at tile outlets that feed UNT 2 (9-29-2020).

PP-11; Looking east at another tile outlet that feeds UNT 2 (9-29-2020).

PP-12; Looking south, downstream at UNT 2, an intermittent stream (9-29-2020). OHWM at 39.497004, -85.679513

PP-13; Looking north at the culvert that carries UNT 2 from the south side of SR 244 (9-29-2020).

PP-14; Looking north, upstream at UNT 2 (9-29-2020).

PP-15; Looking south at RSD 2 where the ditch flows south outside the study area (9-29-2020).

PP-16; Looking north at RSD 2 and the culvert under SR 244 from the southern study area boundary (9-29-2020).

PP-17; Looking southwest at RSD 2 from the culvert on the south side of SR 244 (9-29-2020).

PP-18; Looking west at RSD 2 along the north side of SR 244 (9-29-2020).

PP-19; Looking east at RSD 2 (9-29-2020).

PP-20; Looking west at RSD 2 at the intersection of SR 244 and S CR 600 E (9-29-2020).

PP-21; Looking north at RSD 2 along S CR 600 E (9-29-2020).

PP-22; Looking west along SR 244 showing typical mowed ROW and farm fields along the project area (9-29-2020).

PP-23 Looking east along SR 244 showing typical mowed ROW and farm fields along the project area (9-29-2020).

PP-24; Looking north, upstream at Conns Creek and the SR 244 bridge (9-29-2020). OHWM at 39.497219, -85.642751

PP-25; Looking south along Conns Creek (9-29-2020).

PP-26; Looking northwest along Conns Creek toward Wetland B (9-29-2020).

PP-27; Looking north, upstream at Conns Creek north of SR 244 (9-29-2020).

PP-28; Looking southeast at Conns Creek and the SR 244 bridge (9-29-2020).

PP-29; Looking north, upstream at Conns Creek (9-29-2020).

PP-30; Looking north from DP-3 at upland area along Conns Creek (9-29-2020).

DP-3; Looking down at the upland soil profile (9-29-2020).

PP-31; Looking east at the upland area of DP-2 adjacent to Wetland A (9-29-2020).

DP-2; Looking down at the upland soil profile of DP-2 (9-29-2020).

PP-32; Looking west from DP-1 at Wetland A (9-30-2020).

PP-33; Looking south from DP-1 at Wetland A (9-30-2020).

DP-1; Looking down at the soil profile of Wetland A (9-30-2020).

PP-34; Looking west, downstream at UNT 4 (9-29-2020).
OHWM 39.496996, -85.640996

PP-35; Looking east, upstream at UNT 4 (9-29-2020).

PP-36; Looking north at the culvert that conveys UNT 4 under SR 244 (9-29-2020).

PP-37; Looking south, downstream at UNT 4 from the culvert on the south side of SR 244 (9-29-2020).

PP-38; Looking south along a non-jurisdictional, agriculture drainage swale (9-30-2020).

PP-39; Looking north at the SR 244 culvert along the agriculture drainage swale (9-30-2020).

PP-40; Looking west along SR 244 (9-30-2020).

PP-41; Looking east along SR 244 (9-30-2020).

PP-42; Looking south at a non-jurisdictional, agriculture drainage swale (9-30-2020).

PP-43; Looking north, upstream at Little Conns Creek from the north side of SR 244 (9-30-2020).

PP-44; Looking northwest at Little Conns Creek, a perennial stream from south of SR 244 (9-30-2020).

PP-45; Looking southeast, downstream at Little Conns Creek (9-30-2020). OHWM at 39.497141, -85.618908

PP-46; Looking east from DP-4 at upland area along Little Conns Creek (9-30-2020).

DP-4; Looking down at the upland soil profile (9-30-2020).

PP-47; Looking east at non-jurisdictional RSD 3 (9-30-2020).

PP-48; Looking west at the east end of the project area (9-30-2020).

Appendix G

Public Involvement

Certified MBE, State of Indiana; City of Indianapolis INDOT Certified DBE

Job #20SU027

NOTICE OF SURVEY

June 29, 2020

RE: PROJECT: S.R. 244 Road Rehabilitation
I-74 to Angling Road
Shelby and Rush Counties

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed road rehabilitation project. Our employees will be doing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or someone else occupies it, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

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

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, and obtaining ground elevations. This work is necessary for the proper planning and design of the road rehabilitation project. Please be assured of our sincere desire to cause you as little inconvenience as possible during the survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown below.

We do appreciate your input regarding any issues that this project may encounter during the design phase. Included with this notice is a short questionnaire that you can fill out and return to us in the enclosed self-addressed stamped envelope. Thank you, in advance, for your participation in this process.

Sincerely,

SJCA P.C.

Daniel G. Kovert

Daniel G. Kovert, PE, PS
Director of Surveying
dkovert@sjcainc.com

INDIANA DEPARTMENT OF TRANSPORTATION

LEGAL NOTICE OF PUBLIC INFORMATION MEETING – DES#1600801

Proposed Roadway Rehabilitation Project on S.R. 244 in Rush and Shelby Counties

The Indiana Department of Transportation (INDOT) will host a public information meeting on Wednesday July 14, 2021, in the Saint Vincent Catholic Church, 4218 E Michigan Rd, Shelbyville, IN 46176. The formal presentation will begin at 5:30 p.m., doors will open at 5:00 p.m. Attendees are advised that INDOT will be adhering to CDC guidelines for facial coverings and social distancing.

The purpose of the public information meeting is to offer all interested persons an opportunity to comment on current preliminary design plans for the S.R. 244 rehabilitation project, from the intersection of Michigan Road and SR 244 (0.32 miles west of I-74) in Shelby County to 5.41 miles east at 0.06 mile west of Deer Creek in Rush County. The purpose of the project is to provide an improved roadway that meets future traffic capacity, affords accommodations for moving agricultural machinery, and addresses repeated maintenance concerns along the corridor.

The proposed project will involve rehabilitation of the existing pavement with new pavement at various locations along the route. Additionally, the project will include the construction of new shoulders, side ditches and replacement of inadequate drainage along S.R. 244. The project will also improve the s-curve alignment and intersection of Shelby County Road 750 E. No bridge construction will be included in the project.

Permanent right-of-way will be required for the construction of the roadway, shoulders, and ditches. It is anticipated that approximately 50 acres of both permanent and temporary right-of-way will be required from 64 parcels.

The recommended maintenance of traffic (MOT) will include full closure of SR 244 with access to local property owners and businesses. The proposed construction will occur in 2024.

Federal and state funds are proposed to be used for construction of this project. INDOT and the Federal Highway Administration have agreed that this project poses minimal impact to the natural environment. A Categorical Exclusion (CE) Level 2 environmental document will be prepared for the project. The preliminary project information is available to view prior to the meeting at the following locations:

1. On-line via INDOT Greenfield District website; https://www.in.gov/indot/2704.htm
2. Interested persons may request project documents be mailed by submitting the request to the attention of Toni Lynn Giffin, Environmental Scientist, CHA Consulting, Inc., 300 South Meridian Street Indianapolis, Indiana 46204-2216, Phone: (317) 780-7185, or email tgiffin@chacompanies.com.

With advance notice, INDOT will provide accommodations for persons with disabilities with regards to participation and access to project information as part of the public information process

NextLevel INDIANA

including arranging auxiliary aids, interpretation services for the hearing impaired, services for the sight impaired and other services as needed. In addition, INDOT will provide accommodations for persons of Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion. Should accommodation be required please contact Toni Lynn Giffin, Environmental Scientist, CHA Consulting, Inc., at 317-780-7185, or email tgiffin@chacompanies.com.

This notice is published in compliance with Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) states: "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program." 23 CFR 450.212(a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all and revision of the process as necessary." approved by the Federal Highway Administration, U.S. Department of Transportation on August 16, 2012.

SIGN-IN / MAILING LIST

PUBLIC HEARING

State Road (SR) 244 Roadway Rehabilitation
July 14, 2021 / 5:30 PM
Saint Vincent Catholic Church

Name	Mailing Address	Email	Check box to join mailing list
Randa Blankenship	Address: 3755 E St Rd. 244 City: Shelbyville State: IN Zip: 46176		☑
Brett Mahin	Address: 4487 E 250 S City: Shelbyville State: IN Zip: 46176		☑
Allen Hurst	Address: 7627 W. 650 S. City: Manilla State: Ind Zip: 46150		☐
Matt Settles	Address: 4614 E St Rd 2244 City: Shelbyville State: In Zip: 46176		☐
Paul J Neal	Address: 6626 East St. Rd 244 City: Waldron State: IN Zip: 46182		☐
	Address: City: State: Zip:		☐
	Address: City: State: Zip:		☐
	Address: City: State: Zip:		☐
	Address: City: State: Zip:		☐

SIGN-IN / MAILING LIST

PUBLIC HEARING

State Road (SR) 244 Roadway Rehabilition
July 14, 2021 / 5:30 PM
Saint Vincent Catholic Church

Name	Mailing Address	Email	Check box to join mailing list
[illegible] George	Address: Shelbyville I.N 4485 St. Rd 244 City: Shelbyville State: Ind Zip: 46176		☐
Libby Hudson	Address: 5544 E ST Rd 244 City: SHELBYVILLE State: IN Zip: 46176		☑
[illegible]	Address: 7294 E. S.R. 244 City: Waldron State: IN Zip: 46182		☑
JOHN FISHER	Address: 3525 SOUTH 800 EAST City: WALDRON State: INo Zip: 46182		☑
Robert Hurst	Address: 9289 W SR. 244 City: Waldron State: I Zip: 46182		☐
Brooke or Kenneth Thompson	Address: 4614 E St. Rd 244 City: Shelbyville State: IN Zip: 46176		☑
Greg Hudson Sherry Stone	Address: 3395 E Michigan Rd City: Shelbyville State: IN Zip: 46176		☑
	Address: City: State: Zip:		☐
	Address: City: State: Zip:		☐

SIGN-IN / MAILING LIST

PUBLIC HEARING

State Road (SR) 244 Roadway Rehabilition
July 14, 2021 / 5:30 PM
Saint Vincent Catholic Church

Name	Mailing Address	Email	Check box to join mailing list
George Truster	Address: 8181 W St Rd 244 City: Manilla State: IN Zip: 46150		☑
R Sam Scott	Address: 6739 E SR 244 City: Waldron State: IN Zip: 46182		☑
Paul V. Pollman	Address: 4664 E. St. Rd 244 City: Shelbyville State: IN Zip: 46176		☑
Gene Goodman	Address: 6881 E, St Rd 244 City: Waldron State: Ind Zip: 46182		☐
Eric J. Fisher	Address: 9442 W State Rd 244 City: Waldron State: IN Zip: 46182		☑
Rick + Andrea Ney	Address: 7430 E SR 244 City: Waldron State: IN Zip: 46182		☑
Carl Stoltenburg	Address: 7293 E St Rd 244 City: Waldron State: In Zip: 46182		☐
Tom Rogers	Address: 5460 E SR 244 City: Shelbyville State: In Zip: 46176		☑
Sharon K. Sever	Address: 7143 E St. Rd 244 City: Waldron State: In. Zip: 46182		☑

SR 244 Road Rehabilitation Project
DES. 1600801

Rush and Shelby Counties

Indiana Department of Transportation
July 14, 2021
5:30 PM

St. Vincent's Catholic Church

Welcome

- Purpose/explanation of public information meeting
- Public information meeting format
- Informational handouts
- Project display area

Introduction

- **Introduction of INDOT project team**
  - Project management
  - Public involvement
  - Greenfield District – INDOT Regional Office
- CHA Consulting, Inc.
  - Engineering, design, and environmental analysis team
- **Recognition of elected and local public officials**

- A public information notice was mailed to known property owners in the project area.
- Notice published in the *Shelbyville News* and the *Rushville Recorder* on June 30 and July 7, 2021
- An announcement of this meeting was posted to INDOT's website.
- A copy of the presentation and project documentation is available online via INDOT's website.

Project Resource Locations

- Visit the project web page:

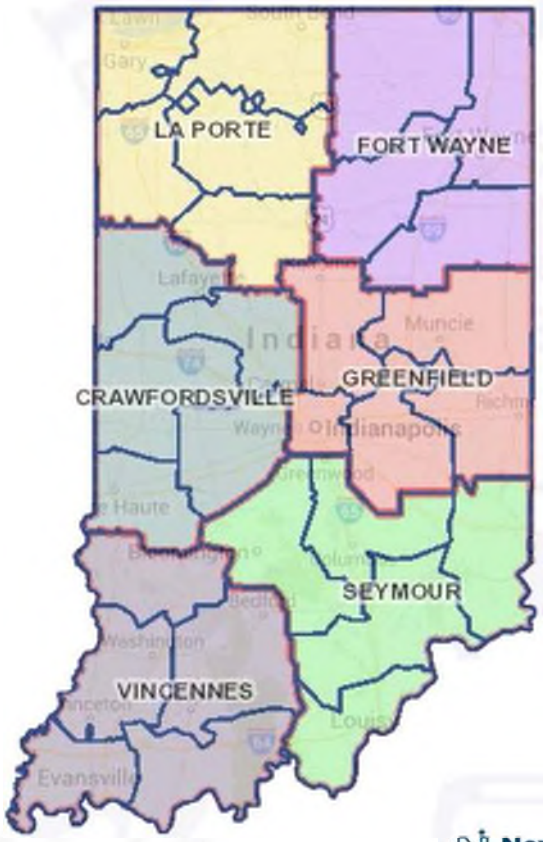
  INDOT Greenfield District website;
  https://www.in.gov/indot/2704.htm

- Transportation Services Call Center

  Provides citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.

  855-463-6848 • INDOT4U.com • INDOT@indot.in.gov

855 INDOT4U
855-463-6848



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Project Stakeholders

- Indiana Department of Transportation
- Indiana Division Federal Highway Administration
- Rush and Shelby Counties
- Elected and local officials
- Residents and citizens
- Commuters
- Businesses
- Emergency services
- Schools
- Churches
- Community organizations

Project Development

Project Location

- Project is Located on SR 244, 0.35 mile west of I-74 at Michigan Road in Shelby County to 5.06 mile east of I-74 at Deer Creek in Rush County

Purpose and Need

- The need of the project is due to the poor site-distance at intersections, substandard curves, absence of shoulders, substandard side slopes, and improper roadway drainage.

- The primary purpose of the project is to provide an improved roadway that meets future traffic capacity, affords accommodations for moving agricultural machinery, and addresses repeated maintenance concerns along the corridor.

Alternatives Considered

- Do Nothing
  - This alternative does not address the identified purpose and need of the project, which is to address the safety and maintenance problems with SR 244. This alternative will result in safety risks and continual closures of SR 244 in the future for maintenance. Therefore, this is alternative was dismissed from further consideration.
- Add Shoulder to both sides of the road
  - This alternative meets the purpose and need of the project by addressing the safety and maintenance concerns due to a nonexistent shoulders and deep roadside ditches. This alternative also addresses curve repairs, allowing for safer travel. However, this alternative requires more right-of-way and more environmental impacts along SR 244. Therefore, this is alternative was dismissed from further consideration.

Preferred Alternative

- Widening to preferred side based on site conditions
  - This alternative meets the purpose and need of the project by addressing the safety and maintenance concerns due to nonexistent shoulders and deep roadside ditches. This alternative addresses curve corrections, allowing for safer travel. This alternative also reduces environmental impacts as well as reduces the right-of-way amount.

Proposed Improvements

- Widen the existing roadway to one side to add shoulder width and address curve corrections within project limits
- Full-depth pavement for shoulders and a portion of the travel lane outside the existing pavement limits
- Full-depth pavement for new drainage structure installation
- New drainage structures and drive culverts
- Existing guardrail for bridge over Conns Creek will be replaced to meet current INDOT standards
- Slight realignment of CR 750 E intersection

Environmental Document

National Environmental Policy Act (NEPA)

- Requires INDOT to analyze and evaluate the impacts of a proposed project to the natural and socio-economic environments
- NEPA is a decision-making process
  - Purpose and Need
  - Alternatives Screening
  - Preferred Alternative

- Impacts are analyzed, evaluated, and described in an environmental document
  - What are the impacts this project might have on the community?
  - How can impacts be avoided?
  - Can impacts be minimized?
  - Mitigation for impacts?

- Environmental document
  - In Process

Examples of Items Evaluated

- Right-of-way
- Streams, wetlands, and other waters
- Floodplains
- Endangered species
- Farmland
- Cultural resources (historic/archaeological)
- Parks and recreational lands (trails)
- Residential Development
- Air quality
- Noise
- Community impacts
- Environmental justice
- Hazardous materials
- Permits
- Mitigation
- Public involvement
- Commercial development

Preliminary Environmental Investigation

- Infrastructure:
  - Religious Facilities: St. Vincent Catholic Church
  - Cemeteries: Rockwell Cemetery and St. Vincent Catholic Cemetery.
  - Managed Lands: Meltzer Woods Nature Preserve
- Mining/Mineral Exploration:
  - Thirteen gas wells
- Hazardous Material Concerns:
  - Two (2) Underground Storage Tank Sites
- Threatened And Endangered Species:
  - 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"
- Cultural Resources – Section 106
  - Above Ground
  - Archaeology

Preliminary Environmental Investigation

- Water Resources
  - Preliminary Waters of the US investigation was conducted on September 29 and 30, 2020

Resource Name	Resource Type	Amount within Study Area	Waters of the U.S.	Notes
Conns Creek	Perennial Stream	157 linear feet	Yes	Floodway totals 1.4 acres within study area
Little Conns Creek	Perennial Stream	120 linear feet	Yes	Drainage area 2 sq. miles
UNT 1	Intermittent Stream	41 linear feet	Yes	Drainage area 1.1 sq. miles
UNT 2	Intermittent Stream	87 linear feet	Yes	Drainage area 0.3 sq. mile
UNT 3	Ephemeral Stream	1,517 linear feet	Yes	Drainage area 0.2 sq. mile
UNT 4	Intermittent Stream	547 linear feet	Yes	Drainage area 0.6 sq. mile

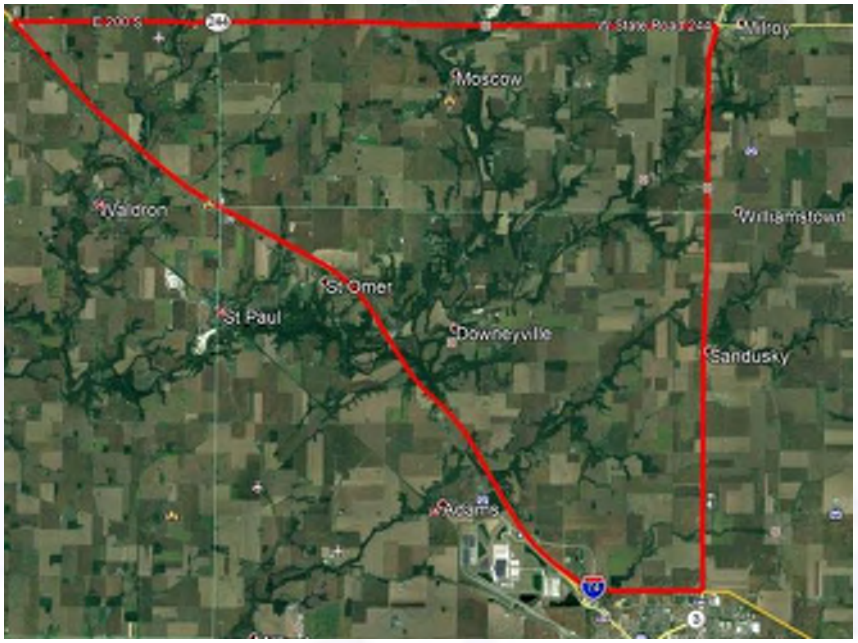
Resource Name	Resource Type	Amount within Study Area	Waters of the U.S.	Notes
Wetland A	Forested Wetland	1.06 acres	Yes	Includes 0.3 acre of forested floodway of Conns Creek
Wetland B	Emergent Wetland	0.02 acre	Yes	Along Conns Creek
Wetland C	Emergent Wetland	0.02 acre	Yes	Along Conns Creek

Maintenance of Traffic (MOT)

The recommended maintenance of traffic (MOT) will be broken up into multiple phases.

- For the project area between Michigan Road and I-74
  - Construction will be completed under traffic using flaggers.

- The remaining portion of the project will be constructed under a full closure with a detour for SR 244. (Local access only)
  - The anticipated detour would be I-74 to SR 3 for both directions.
    - The full closure of SR 244 would be phased in segments (three segments: ① 74 to 600E, ②600E to county line, ③ county line to end of project) to maintain local traffic in certain sections as other sections are being built. Local access will be maintained throughout construction in accordance with the Indiana Design Manual (IDM) Chapter 503. The final determination of maintenance of traffic plans will be coordinated with the District Traffic Engineer, Area Engineer, and INDOT Project Manager. Additional coordination will be required with Shelby and Rush County for unofficial detours.



Right-of-way and Project Cost

- Right-of-way
  - Permanent Right-of-Way is anticipated at approximately 50 acres from 64 parcels
- Overall Estimated Project Cost:
  - $9,000,000 (2024 dollars)

Project Schedule

Public Information Meeting	July 2021
Tentative Public Hearing	January 2022
Anticipated Completion of the Environmental Document	February 2022
Right-of-Way Acquisition	April 2022
Project Letting	September 2023
Construction	Fall 2023-Fall 2024

Questions or Comments

- The team is interested in hearing your feedback either tonight or if you have questions after this meeting.
  - Please visit with the INDOT design team and project officials following the presentation
  - Project maps, displays, INDOT project team and informal Q & A
  - Comment box available for written comments

This Photo by Unknown Author is licensed under CC BY-NC

Questions or Comments

- Visit the project web page:

https://www.in.gov/indot/2704.htm

- Mail to

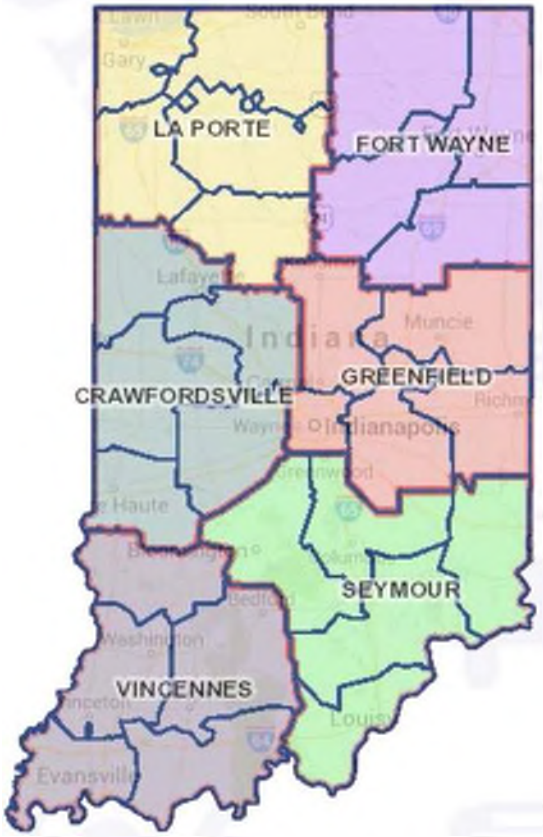
  ATTN:
  INDOT, c/o Toni Giffin
  CHA Consulting, Inc.,
  300 South Meridian Street
  Indianapolis, IN 46225

- Email:
  - tgiffin@chacompanies.com
- Transportation Services Call Center

  Provides citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.

  855-463-6848 • INDOT4U.com • INDOT@indot.in.gov

855 INDOT4U
855-463-6848



NextLevel INDIANA

INDIANA DEPARTMENT OF TRANSPORTATION

July 14, 2021

Dear Resident:

Welcome to the Indiana Department of Transportation (INDOT) public information meeting regarding the State Road (SR) 244 Roadway Rehabilitation project (Des. No. 1600801) in Rush and Shelby Counties, Indiana. CHA Consulting, Inc., acting on behalf of INDOT will be conducting the public information meeting this evening.

The purpose of this meeting is to present information regarding the roadway rehabilitaion project, as well as solicit input from local residents, community stakeholders, and local officials. The project team will be happy to answer any questions following the formal presentation. Comments can also be submitted in the following ways:

1. You may complete one of the comment sheets and leave it in the comment box in the meeting hall or return it to the project personnel attending the meeting. The comment sheets are attached to this packet and extra copies are available at the sign-in table.

2. You may also forward your comments to my email address at tgiffin@chacompanies.com by **July 29, 2021**. If you choose to utilize the email option a response will be provided acknowledging receipt of your submission.

Thank you for your participation in this public information meeting.

Best regards,
CHA Consulting, Inc.

Toni Lynn Giffin
Environmental Scientist

"Satisfying Our Clients with Dedicated People Committed to Total Quality"
Union Station, 300 S. Meridian Street, Indianapolis, IN 46225
T 317.786.0461 • F 317.788.0957 • www.chacompanies.com

Presentation Agenda

1. Public Information Meeting Called to Order (5:30 PM)
    - Introduction of Project Team
    - Purpose of Meeting
    - Overview of the Project Development Process
    - Project Location and Description
    - Purpose and Need

2. Review of Design Information
    - Alternatives
    - Proposed Design
    - Overview of Environmental Process
    - Maintenance of Traffic
    - Right-of-way Requirements
    - Estimated Project Cost & Schedule

3. Conclusion
    - Public Comment Reminders
    - Wrap-Up / Closing

4. Informal Open House Discussion

Adjournment

PROJECT DESCRIPTION

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration, proposes to proceed with a roadway rehabilitation project on SR 244 from Michigan Road to 0.06 mile west of Deer Creek in Liberty Township, Shelby County, and Orange Township, Rush County, Indiana. Specifically, the project is located within Sections 12 and 13, Township 12 North, Range 7 East and Sections 7, 8, 9, 10, 11, 14, 15, 16, 17 and 18, Township 12 North, Range 8 East as indicated on the 7.5 minute Waldron and Adams, Indiana, United States Geological Survey (USGS) quadrangle map.

Purpose and Need

The need of the project is due to the poor site-distance at intersections, substandard curves, absence of shoulders, substandard side slopes, and improper roadway drainage.

The primary purpose of the project is to provide an improved roadway that meets future traffic capacity, affords accommodations for moving agricultural machinery, and addresses repeated maintenance concerns along the corridor.

Existing Conditions

SR 244 in functionally classified as a Rural Major Collector within the project area. SR 244 consist of two 11-foot travel lanes in each direction. The shoulders are 2 feet wide from the near east I-74 interchange ramps to the near west I-74 interchange ramps. There are no existing shoulders throughout the rest of the project area. According to INDOT's Traffic Count Database System, SR 244 had an Annual Average Daily Traffic (AADT) volume of 1,350 Vehicles Per Day (VPD) in 2013, is anticipated to have an AADT of 1,996 VPD in 2024, and 2,483 VPD in 2044. The posted speed limit along SR 244 in the project area is 50 mph.

There is minor transverse and longitudinal cracking along SR 244. The pavement is starting to develop some moderate severity edge cracks. The majority of the existing pavement is narrow with no shoulders. The ditches are shallow or nonexistent throughout a majority of the project area. Where ditches exist, they are directly adjacent to the edge of the white line causing a potential safety hazard to motorists. The majority of the existing edge cracking is occurring in these areas. The underlying pavement below the surface is showing signs of stripping, which is the loss of bond between aggregates (e.g. sand, gravel, crushed stone, slag or rock dust) and the asphalt binder. Land use in the project area consists of residential and agricultural properties located to the north and south of the project area, and a religious facility is located at the west end of the project area.

Proposed Improvements

The proposed project will involve a Hot Mix Asphalt (HMA) overlay from Michigan Road to just east of I-74. The existing pavement for the remainder of the project area will be milled and resurfaced in some locations with full depth replacement in other locations. New pavement will be installed for new shoulders and the roadway will be slightly re-aligned in some areas. The rehabilitated roadway will provide two 11-foot travel lanes with 5-foot usable (4-foot paved) shoulders. Although no bridge work is included in the proposed project, drainage structures will be replaced throughout the project area. The existing approach guardrail at Conns Creek will be replaced to meet current INDOT standards.

Description of Right–of-way

There is no documented existing right-of-way, except at 3 parcel locations from previous projects; therefore, it is assumed the existing right-of-way is at the edge of pavement. It is anticipated that approximately 50 acres of both permanent and temporary right-of-way will be required from an anticipated 64 parcels.

Estimated Cost and Schedule

The total estimated construction cost for the proposed project is $9,000,000 (2024 dollars). Construction is expected to begin in the fall of 2023 and is anticipated to be completed in the fall of 2024.

Maintenance of Traffic during Construction

The recommended maintenance of traffic (MOT) will be broken up into multiple phases. For the project area between Michigan Road and I-74, construction will be completed with traffic using flaggers. The remaining portion of the project will be constructed under a full closure with a detour for SR 244 (Local access only). The anticipated detour would be I-74 to SR 3 for both directions. The full closure of SR 244 would be phased in segments (three segments: ① I-74 to 600E, ② 600E to county line, ③ county line to end of project) to maintain local traffic in certain sections as other sections are being built. Local access will be maintained throughout construction in accordance with the Indiana Design Manual (IDM) Chapter 503. The final determination of maintenance of traffic plans will be coordinated with the District Traffic Engineer, Area Engineer, and INDOT Project Manager. Additional coordination will be required with Shelby and Rush County for unofficial detours.

CHA CONSULTING, INC.
300 S. MERIDIAN ST.
INDIANAPOLIS, IN 46225
PHONE: (317) 780-7185
FAX: (317) 788-0957

To be assured that your comment will be included in the official project file, please forward to CHA Consulting, Inc. by **July 29, 2021**.

Public Meeting Date: July 14, 2021
Project: SR 244 Roadway Rehabilitation Project
Des. No.: 1600801

Name (please print): _____
Address: _____

_____

Comments: _____

Signature: _____

Comments can be mailed to CHA Consulting, Inc. at 300 S. Meridian St., Indianapolis, IN 46225, faxed to 317-788-0957, or emailed to tgiffin@chacompanies.com .

CHA CONSULTING, INC.
300 S. MERIDIAN ST.
INDIANAPOLIS, IN 46225
PHONE: (317) 780-7185
FAX: (317) 788-0957

To be assured that your comment will be included in the official project file, please forward to CHA Consulting, Inc. by **July 29, 2021**.

Public Meeting Date: July 14, 2021
Project: SR 244 Roadway Rehabilitation Project
Des. No.: 1600801

Name (please print): Rick + Andrea Lux
Address: 7430 E SR 244
Waldron 46182

Comments: We have a U-cut Christmas tree Farm Scheduled to Start Selling in 2-3 years. If we could be Scheduled around the late Fall early Winter that would be ~~[illegible]~~ helpful.

BIRCH ISLAND FARM

Signature: [signature]

Comments can be mailed to CHA Consulting, Inc. at 300 S. Meridian St., Indianapolis, IN 46225, faxed to 317-788-0957, or emailed to tgiffin@chacompanies.com .

CHA CONSULTING, INC.
300 S. MERIDIAN ST.
INDIANAPOLIS, IN 46225
PHONE: (317) 780-7185
FAX: (317) 788-0957

To be assured that your comment will be included in the official project file, please forward to CHA Consulting, Inc. by **July 29, 2021.**

Public Meeting Date: July 14, 2021
Project: SR 244 Roadway Rehabilitation Project
Des. No.: 1600801

Name (please print): Randa Braunagel
Address: 5755 E. St. Rd. 244
Shelbyville IN 46176

Comments: I didn't send the packet back about things close to the road but coming down by one of electric jars the electric lines + the telephone lines are buried from the road though the farm field all the way to the house.

Signature: Randa Braunagel, OM

Comments can be mailed to CHA Consulting, Inc. at 300 S. Meridian St., Indianapolis, IN 46225, faxed to 317-788-0957, or emailed to tgiffin@chacompanies.com .

Appendix H

Air Quality

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2022 - 2026

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Total Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2022	2023	2024	2025	2026
Indiana Department of Transportation	40506 / 1601973	Init.	I 74	Road Reconstruction (3R/4R Standards)	From 0.11 mi W of SR 244 to 0.11 mi E of SR 244	Greenfield	.22	NHPP	$15,220,701.42	Road Consulting	PE	$119,376.00	$13,264.00	$132,640.00				
Comments:Include DES 1601974, 1601978, 1601980, 1601973																		
Indiana Department of Transportation	40937 / 1801267	Init.	SR 9	Relinquishments/Road Transfer	from N. Jct. of SR 44 (E. Broadway St.) to I-74 for Route Transfer	Greenfield	1.51	NHPP	$5,655,000.00	Route Transfer/relinquishment	CN	$2,720,000.00	$680,000.00	$1,700,000.00	$1,700,000.00			
Performance Measure Impacted: Safety																		
Comments:Include DES 1801267																		
Shelbyville	41302 / 1702775	Init.	ST 1023	Intersection Improvement, Roundabout	The Intersection of Miller St and McKay Road in Shelbyville Indiana	Greenfield	.5	STBG	$3,534,450.00	Group III Program	CN	$2,442,000.00	$0.00		$2,442,000.00			
										Group III Program	RW	$103,200.00	$0.00	$103,200.00				
										Route Transfer/relinquishment	CN	$619,200.00	$0.00		$619,200.00			
										Route Transfer/relinquishment	RW	$25,800.00	$0.00	$25,800.00				
Performance Measure Impacted: Safety																		
Comments:Include DES 1702775																		
Indiana Department of Transportation	42211 / 1901538	Init.	SR 9	Bridge Thin Deck Overlay	over N BRANCH LEWIS CREEK, 04.54 S SR 44	Greenfield	0	STBG	$322,942.00	Bridge Construction	CN	$278,400.00	$69,600.00	$348,000.00				
Performance Measure Impacted: Bridge Condition																		
Comments:Include DES 1901543, 1901538																		
Indiana Department of Transportation	42260 / 1901508	Init.	SR 9	HMA Overlay, Preventive Maintenance	0.24 mi S of I-74 to 0.29 mi N of I-74	Greenfield	1.52	STBG	$456,225.00	Road Construction	CN	$364,980.00	$91,245.00	$456,225.00				
Performance Measure Impacted: Pavement Condition																		
Comments:Include DES 1901508																		
Indiana Department of Transportation	42264 / 1600801	Init.	SR 244	Road Rehabilitation (3R/4R Standards)	from 0.06 mi E of I-74 (E ramps I-74) to 5.18 mi E of I-74 at Deer Creek	Greenfield	5.098	STBG	$7,327,051.00	Road Construction	CN	$3,449,960.80	$862,490.20			$4,312,451.00		
										Road ROW	RW	$1,200,000.00	$300,000.00	$500,000.00	$1,000,000.00			
Comments:Include DES 1600801																		
Indiana Department of Transportation	42269 / 1900222	Init.	I 74	Small Structure Pipe Lining	10.613 E MARION/SHELBY	Greenfield	0	NHPP	$227,000.00	Bridge Construction	CN	$204,300.00	$22,700.00			$227,000.00		
										Bridge ROW	RW	$0.00	$0.00	$0.00				
Performance Measure Impacted: Safety																		
Comments:Include DES 1900222																		

Report Created:6/28/2022 10:58:10AM

*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

State Road 244 Roadway Rehabilitation
Structure Work Summary

Plan Set Structure Number	Culvert Asset ID	Work Type	Existing Size	Proposed Size	Location	Impacts to Waters
101	CLV-8231	Replacement	15" x 28' CMP	18"x32' RCP	Approximately 0.22 mile east of I-74	No
102	CV 244-073-1.12	Extension	4'x4' Concrete Box	4'x4' Concrete Box (Extended), 22 feet of extension. Overall length: 64 feet	Approximately 0.77 mile east of I-74	19 feet of impact to UNT 2
103	CV 244-073-1.51	Replacement	73"x55"x34' CMPA	7'x4'x77' Concrete Box	Approximately 1.16 miles east of I-74	No
104	N/A	New Structure	N/A	24" x 32' RCP	Approximately 0.05 mile east of S CR 600 E	No
105	CLV-8234	Replacement	15" x 37' CMP	18"x32' RCP	Approximately 0.39 mile east of S CR 600 E	No
106	CLV-8235	Replacement	18"x30' CMP	18"x32' RCP	Approximately 0.85 mile east of S CR 600 E	No
107	CLV-8236	Replacement	18" x 48' CMP	18" x 51' RCP	Approximately 0.21 mile east of CR 700 E	No
108	CV 244-073-3.22	Replacement	4'x4'x35' Concrete Box	4'x 4'x 64' Concrete Box	Approximately 2.87 miles east of I-74	64 feet of impacts to UNT 4
109	CLV-8237	Replacement	12"x28' CMP	15"x64' RCP	Approximatley 0.62 mile east of CR 700 E (cross culvert)	No
109a	N/A	New Structure	N/A	15"x109' RCP	Approximatley 0.62 mile east of CR 700 E (adjacent to SR 244, south)	No
110	CLV-8238	Replacement	18"x40' CMP	24"x32' RCP	Approximately 0.22 mile east of S CR 700 E	No
111	CLV-8239	Replacement	15"x36' CMP	15"x32' RCP	Approximately 0.09 mile east of S CR 1000 W	No
112	CLV-8242	Replacement	30"x39' CMP	5'x2'x61' Concrete Box	Approximately 0.40 mile east of CR 1000 W	No
113	CLV-8243	Replacement	18"x 31'CMP	15"x32' RCP	0.81 mile east of CR 1000 W	No
114	N/A	Replacement	15"x31' CMP	15"x52' RCP	1.02 miles east of CR 1000 W	No
115	CLV-8247	Replacement	15"x 42' CMP Dual Pipe Crossing	24"x32' RCP	1.25 miles east of CR 1000 W	No
116	N/A	New Structure	N/A	15"x51' RCP	At intersection with CR 850	No

State Road 244 Roadway Rehabilitation
Structure Work Summary

Plan Set Structure Number	Culvert Asset ID	Work Type	Existing Size	Proposed Size	Location	Impacts to Waters
201	Drive Pipe	New Structure	N/A	15"x33' RCP	0.01 mile east of I-74 (south side of SR 244)	No
203	Drive Pipe	New Structure	N/A	15" x24' RCP	0.11 mile east of I-74 (north side of SR 244)	No
204	Drive Pipe	New Structure	N/A	15"x58' RCP	0.11 mile east of I-74 (south side of SR 244)	No
205	Drive Pipe	Replacement of Ex. 201	12"x32' CMP	15" x27' RCP	0.27 mile east of I-74 (south side of SR 244)	No
206	Drive Pipe	Replacement of Ex. 202	15" x59' CPP	15" x48' RCP	0.46 east of I-74 (south side of SR 244)	No
207	Drive Pipe	Replacement of Ex. 203	18" x 76' RCP	24"x41' RCP	0.47 east of I-74 (north side of SR 244)	No
208	Drive Pipe	New Structure	N/A	15"x50' RCP	0.56 mile east of I-74 (south side of SR 244)	No
209	Drive Pipe	New Structure	N/A	18"x33' RCP	0.65 east of I-74 (south side of Sr 244)	No
210	Drive Pipe	New Structure	N/A	24" x 25" RCP	0.74 east of I-74 (north side of SR 244)	No
211	Drive Pipe	New Structure	N/A	15" x57' RCP	0.74 east of I-74 (south side of SR 244)	No
212	Drive Pipe	New Structure	N/A	15" x 30' RCP	0.83 east of I-74 (north side of SR 244)	No
213	Drive Pipe	New Structure	N/A	15"x30' RCP	0.99 east of I-74 (south side of SR 244)	No
214	Drive Pipe	Replacement of Ex. 214	15"x38' RCP	36"x58' RCP	Across S CR 600 E south of the SR 244 intersection	No
Ex 205	Drive Pipe	Removed	15"x 34' CMP	N/A	Across S CR 600 E north of the SR 244 intersection	No
216	Drive Pipe	New Structure	N/A	36"34' RCP	1.31 mile east of I-74 (south side of SR 244)	No
218	Drive Pipe	New Structure	N/A	15"x30' RCP	1.47 mile east of I-74 (north side of SR 244)	No
220	Drive Pipe	New Structure	N/A	15"x59' RCP	1.75 mile east of I-74 (south side of SR 244)	No
221	Drive Pipe	Replacement of Ex. 206	12"x40' Steel Pipe	15"x28' RCP	1.87 miles east of I-74 (north side of SR 244)	No
222	Drive Pipe	New Structure	N/A	15"x57' RCP	1.93 miles east of I-74 (south side of SR 244)	
223	Drive Pipe	New Structure	N/A	15"x26' RCP	2.17 miles east of I-74 (south side of SR 244)	No

State Road 244 Roadway Rehabilitation
Structure Work Summary

Plan Set Structure Number	Culvert Asset ID	Work Type	Existing Size	Proposed Size	Location	Impacts to Waters
224	Drive Pipe	New Structure	N/A	15"x26' RCP	2.20 miles east of I-74 (north side of SR 244)	No
225	Drive Pipe	New Structure	N/A	15"x48' RCP	2.34 miles east of I-74 (south side of SR 244)	No
226	Drive Pipe	New Structure	N/A	15"x43' RCP	2.44 miles east of I-74 (south side of SR 244)	No
227	Drive Pipe	New Structure	N/A	18"x56' RCP	2.52 miles east of I-74 (south side of SR 244)	No
Ex. 207	Drive Pipe	Removed	15"x28' RCP	N/A	2.75 miles east of I-74 (south side of SR 244	No
231	Drive Pipe	Replacment of Ex. 208	15"x24' CMP	18"x63' RCP	3.27 miles east of I-74 (north side of SR 24)	No
232	Drive Pipe	Replacement of Ex. 209	15"x34' CMP	15"x65' RCP	3.27 miles east of I-74 (south side of SR 24)	No
233	Drive Pipe	New Structure	N/A	15" x 36' RCP	3.32 miles east of I-74 (south side of SR 244)	No
234	Drive Pipe	New Structure	N/A	15"x49" RCP	3.55 miles east of I-74 (south side of SR 244)	No
235	Drive Pipe	New Structure	N/A	15"x56' RCP	3.62 miles east of I-74 (north side of SR 244)	No
236	Drive Pipe	New Structure	N/A	15"x33' RCP	3.67 miles east of I-74 (south side of SR 244)	No
237	Drive Pipe	Replacement of Ex. 210	18"x42' CPP	24"x26' RCP	4.09 miles east of I-74 (north side of SR 244)	No
239	Drive Pipe	New Structure	N/A	15"x61' RCP	4.41 miles east of I-74 (north side of SR 244)	No
240	Drive Pipe	New Structure	N/A	15"x28' RCP	4.44 miles east of I-74 (north side of SR 244)	No
241	Drive Pipe	New Structure	N/A	15"x57' RCP	4.53 miles east of I-74 (south side of SR 244)	No
243	Drive Pipe	Replacement of Ex. 243	36"x22"x32' CMP	38"x24"x37' RCP	Across S CR 850 W north of the SR 244 intersection	No

IPaC Structure Table

Structure Number	Location	Inspection Date	Signs/Evidence of Bats	Existing Structure Type	Work Type on existing structure
Driveway Culvert	39.4971, -85.6900	9/29/2020	No	12" CPP	To be removed
Driveway Culvert	39.4970, -85.6909	9/29/2020	No	15" CMP	To be removed
CLV-8231	39.4971, -85.6893	9/29/2020	No	15" CMP	To be removed
Driveway Culvert	39.4972, -85.6859	9/29/2020	No	12" CMP	To be removed
Driveway Culvert	39.4971, -85.6821	9/29/2020	No	15" CMP	To be removed
Driveway Culvert	39.4971, -85.6822	9/29/2020	No	18" CMP	To be removed
CV 244-073-1.12	39.4972, -85.6794	9/29/2020	No	4' x 4' Box Culvert	To be extended
CV 244-073-1.51	39.4975, -85.6721	9/29/2020	No	73" x 55" CMA	To be removed
CLV-8233	39.4974, -85.6677	9/29/2020	No	15" CMP	To be removed
CLV-8234	39.4972 -85.6604	9/29/2020	No	15 " CMP	To be removed
Driveway Culvert	39.4973, -85.6561	9/29/2020	No	12" Steel	To be removed
CLV-8235	39.4972 -85.6517	9/29/2020	No	18" CMP	To be removed
CLV-8236	39.4973, -85.6449	9/29/2020	No	18" CMP	To be Removed
CV 244-073-3.22	39.497244, -85.640554	9/29/2020	No	5 x 4' Box Culvert	To be removed
N/A	39.496952, -85.639683	9/29/2020	No	15" CMP	To be removed
CLV-8237	39.4968, -85.6376	9/29/2020	No	15" CMP	To be removed

CLV-8238	39.4973, -85.6332	9/29/2020	No	18" CMP	To be removed
CLV-8241	39.4972, -85.6302	9/29/2020	No	15" CMP	To be removed
CLV-8240	39.4973, -85.6303	9/29/2020	No	15" CMP	To be removed
CLV-8239	39.4973, -85.6287	9/29/2020	No	18" CMP	To be removed
CLV-8242	39.4974, -85.6226	9/29/2020	No	30" CMP	To be removed
CLV-8243	39.4974, -85.6154	9/29/2020	No	18" CMP	To be removed
Driveway Culvert	39.4975, -85.6148	9/29/2020	No	18" CPP	To be removed
N/A	39.4976, -85.6100	9/29/2020	No	15" CMP	To be removed
CLV-8247	39.4975, -85.6079	9/29/2020	No	15" CMP	To be removed
CLV-8250	39.4975 -85.4975	9/29/2020	No	36" x 24" CMP	To be removed
Driveway Culvert	39.4977, -85.6013	9/29/2020	No	12" CMP	To be removed
Driveway Culvert	39.4977, -85.6013	9/29/2020	No	12" CMP	To be removed

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

ProjectNumber	SubProjectCode	County	Property
1800537	1800537	Shelby	Blue River Park
1800544	1800544	Shelby	Blue River Park
1800548	1800548	Shelby	Blue River Park

Environmental Justice (EJ) Analysis

2020 American Community Survey 5-Year Estimates

SR 244 Road Reconstruction

Shelby and Rush County, Indiana

Des. No. 1600801

	Community of Comparison (COC)	Affected Community (AC)
	Shelby County, Indiana	**Census Tract 7108,Shelby County, Indiana**
Race		
Total population for the purpose of surveying race:	44559	4776
Total population non-hispanic/latino; white alone:	40965	4753
Number of Minorities:	**3594**	**23**
Percent minority:	**8.07%**	**0.48%**
125 Percent of COC	*10.08%*	
Potential Minority EJ Concern?		**No**

	Community of Comparison (COC)	Affected Community (AC)
	Shelby County, Indiana	**Census Tract 7108, Shelby County, Indiana**
Income		
Total population for the purpose of surveying poverty income:	43,612	4,706
Population with income in the past 12 months below poverty level:	4,667	173
Percent low income:	**10.70%**	**3.68%**
125 % of COC	***13.38%***	
Potential Low-income EJ Concern:		**No**

	Community of Comparison (COC)	Affected Community (AC)
	Rush County, Indiana	**Census Tract 9745, Rush County, Indiana**
Race		
Total population for the purpose of surveying race:	16632	3909
Total population non-hispanic/latino; white alone:	15896	3812
Number of Minorities:	**736**	**97**
Percent minority:	**4.43%**	**2.48%**
125 Percent of COC	*5.53%*	
Potential Minority EJ Concern?		**No**

	Community of Comparison (COC)	Affected Community (AC)
	Rush County, Indiana	**Census Tract 9745, Rush County, Indiana**
Income		
Total population for the purpose of surveying poverty income:	16,368	3,909
Population with income in the past 12 months below poverty level:	2,084	633
Percent low income:	**12.73%**	**16.19%**
125 % of COC	***15.92%***	
Potential Low-income EJ Concern:		**No**

Environmental Justice
Des 1600801
Shelby County B03002

	Shelby County, Indiana		Census Tract 7108, Shelby County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total:	44,559	*****	4,776	±453
Not Hispanic or Latino:	42,575	*****	4,773	±452
White alone	40,965	±96	4,753	±444
Black or African American alone	465	±135	4	±8
American Indian and Alaska Native alone	17	±29	0	±12
Asian alone	221	±102	0	±12
Native Hawaiian and Other Pacific Islander alone	0	±26	0	±12
Some other race alone	84	±93	0	±12
Two or more races:	823	±193	16	±30
Two races including Some other race	12	±21	0	±12
other race, and three or more races	811	±192	16	±30
Hispanic or Latino:	1,984	*****	3	±6
White alone	981	±287	0	±12
Black or African American alone	0	±26	0	±12
American Indian and Alaska Native alone	8	±13	0	±12
Asian alone	0	±26	0	±12
Native Hawaiian and Other Pacific Islander alone	7	±13	0	±12
Some other race alone	921	±311	0	±12
Two or more races:	67	±89	3	±6
Two races including Some other race	9	±11	3	±6
other race, and three or more races	58	±85	0	±12

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

DATA NOTES

TABLE ID:	B03002
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Total population
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5
USER SELECTIONS	
TABLES	B03002
GEOS	Shelby County, Indiana; Census Tract 7108, Shelby County, Indiana
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?q=b03002&g=0500000US18145_1400000US18145710800&tid=ACSDT5Y2020.B03002
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, 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, 2016-2020 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 Hispanic origin and race codes were updated in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website. The 2016-2020 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:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

	Shelby County, Indiana		Census Tract 7108, Shelby County, Indiana	
Label	Estimate	Margin of Error	Estimate	Margin of Error
Total:	43,612	±258	4,706	±439
Income in the past 12 months below poverty level:	4,667	±827	173	±74
Male:	1,953	±406	92	±56
Under 5 years	206	±84	13	±20
5 years	20	±18	0	±12
6 to 11 years	323	±120	0	±12
12 to 14 years	67	±55	0	±12
15 years	20	±31	0	±12
16 and 17 years	99	±49	7	±12
18 to 24 years	214	±128	0	±12
25 to 34 years	231	±114	0	±12
35 to 44 years	164	±84	0	±12
45 to 54 years	264	±110	32	±44
55 to 64 years	192	±84	26	±31
65 to 74 years	134	±69	14	±17
75 years and over	19	±21	0	±12
Female:	2,714	±509	81	±43
Under 5 years	179	±118	0	±12
5 years	0	±26	0	±12
6 to 11 years	388	±129	0	±12
12 to 14 years	118	±111	0	±12
15 years	88	±95	0	±12
16 and 17 years	77	±45	0	±12
18 to 24 years	298	±115	12	±19
25 to 34 years	394	±126	13	±18
35 to 44 years	309	±121	3	±6
45 to 54 years	325	±114	17	±20
55 to 64 years	262	±104	22	±21
65 to 74 years	101	±53	0	±12
75 years and over	175	±100	14	±22
Income in the past 12 months at or above poverty level:	38,945	±915	4,533	±433
Male:	19,510	±438	2,238	±230
Under 5 years	1,116	±100	180	±93
5 years	178	±70	33	±33
6 to 11 years	1,460	±185	90	±52
12 to 14 years	780	±146	58	±47
15 years	274	±83	59	±48
16 and 17 years	469	±83	59	±38
18 to 24 years	1,482	±135	216	±128
25 to 34 years	2,442	±174	239	±86
35 to 44 years	2,419	±107	287	±84
45 to 54 years	2,700	±148	295	±99
55 to 64 years	2,995	±87	337	±73
65 to 74 years	1,994	±80	235	±63
75 years and over	1,201	±42	150	±50
Female:	19,435	±561	2,295	±277
Under 5 years	986	±143	131	±87
5 years	255	±211	12	±19
6 to 11 years	1,175	±212	145	±70
12 to 14 years	920	±245	123	±81
15 years	258	±79	87	±72
16 and 17 years	453	±79	45	±29
18 to 24 years	1,329	±128	163	±112
25 to 34 years	2,325	±143	237	±90
35 to 44 years	2,252	±147	285	±98
45 to 54 years	2,659	±136	346	±110
55 to 64 years	3,047	±127	390	±72
65 to 74 years	2,142	±60	220	±65
75 years and over	1,634	±128	111	±54

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

DATA NOTES	
TABLE ID:	B17001
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Population for whom poverty status is determined
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5
USER SELECTIONS	
TABLES	B17001
GEOS	Shelby County, Indiana; Census Tract 7108, Shelby County, Indiana
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?q=B17001&g=0500000US18145_1400000US18145710800&tid=ACSDT5Y2020.B17001
TABLE NOTES	Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, 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, 2016-2020 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 2016-2020 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.
	ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.
COLUMN NOTES	None

Environmental Justice
Des 1600801
Rush County B03002

	Rush County, Indiana		Census Tract 9745, Rush County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total:	16,632	*****	3,909	±365
Not Hispanic or Latino:	16,349	*****	3,846	±361
White alone	15,896	±18	3,812	±367
Black or African American alone	312	±103	0	±12
American Indian and Alaska Native alone	3	±7	0	±12
Asian alone	17	±31	17	±31
Other Pacific Islander alone	0	±19	0	±12
Some other race alone	15	±18	15	±18
Two or more races:	106	±89	2	±7
including Some other race	0	±19	0	±12
excluding Some other race, and three or more	106	±89	2	±7
Hispanic or Latino:	283	*****	63	±61
White alone	260	±31	59	±61
Black or African American alone	0	±19	0	±12
American Indian and Alaska Native alone	0	±19	0	±12
Asian alone	0	±19	0	±12
Other Pacific Islander alone	0	±19	0	±12
Some other race alone	23	±31	4	±8
Two or more races:	0	±19	0	±12
including Some other race	0	±19	0	±12
excluding Some other race, and three or more	0	±19	0	±12

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

DATA NOTES

TABLE ID:	B03002
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Total population
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5

USER SELECTIONS

TABLES	B03002
GEOS	Rush County, Indiana; Census Tract 9745, Rush County, Indiana
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?q=B03002&g=0500000US18139_1400000US18139974500&tid=ACSDT5Y2020.B03002

TABLE NOTES

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, 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, 2016-2020 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 Hispanic origin and race codes were updated in 2020. For more information on the Hispanic origin and race code changes, please visit the American Community Survey Technical Documentation website.

The 2016-2020 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:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.

COLUMN NOTES None

	Rush County, Indiana		Census Tract 9745, Rush County, Indiana	
Label	**Estimate**	**Margin of Error**	**Estimate**	**Margin of Error**
Total:	16,368	±98	3,909	±365
months below poverty level:	2,084	±441	633	±334
Male:	894	±244	225	±117
years	91	±56	0	±12
5 years	9	±15	0	±12
years	92	±66	8	±13
years	51	±41	19	±29
15 years	0	±19	0	±12
years	66	±50	0	±12
years	126	±70	50	±40
years	118	±83	54	±57
years	77	±56	2	±4
years	120	±62	70	±52
years	88	±56	17	±18
years	41	±28	3	±6
and over	15	±18	2	±5
Female:	1,190	±267	408	±238
years	85	±63	79	±63
5 years	30	±40	26	±40
years	57	±51	27	±39
years	9	±13	0	±12
15 years	40	±29	20	±27
years	55	±51	49	±54
years	126	±77	49	±50
years	178	±88	59	±55
years	98	±60	0	±12
years	152	±69	67	±61
years	148	±74	32	±26
years	94	±65	0	±12
and over	118	±72	0	±12
months at or above poverty level:	14,284	±460	3,276	±425
Male:	7,146	±289	1,699	±254
years	364	±56	64	±58
5 years	52	±30	5	±9
years	548	±118	193	±107
years	225	±87	61	±43
15 years	85	±59	6	±10
years	209	±61	53	±43
years	569	±81	125	±70
years	766	±87	219	±90
years	834	±40	94	±54
years	1,012	±61	272	±87
years	1,284	±149	331	±83
years	708	±38	214	±60
and over	490	±35	62	±38
Female:	7,138	±300	1,577	±230
years	374	±68	120	±77
5 years	54	±45	0	±12
years	431	±79	25	±27
years	423	±113	10	±13
15 years	111	±66	8	±14
years	164	±64	21	±20
years	507	±88	159	±88
years	744	±76	211	±99
years	832	±85	149	±66
years	989	±92	236	±76
years	1,093	±82	237	±71
years	780	±65	286	±92
and over	636	±82	115	±71

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

DATA NOTES

TABLE ID:	B17001
SURVEY/PROGRAM:	American Community Survey
VINTAGE:	2020
DATASET:	ACSDT5Y2020
PRODUCT:	ACS 5-Year Estimates Detailed Tables
UNIVERSE:	Population for whom poverty status is determined
FTP URL:	None
API URL:	https://api.census.gov/data/2020/acs/acs5

USER SELECTIONS

TABLES	B17001
GEOS	Rush County, Indiana; Census Tract 9745, Rush County, Indiana
EXCLUDED COLUMNS	None
APPLIED FILTERS	None
APPLIED SORTS	None
PIVOT & GROUPING	None
WEB ADDRESS	https://data.census.gov/cedsci/table?q=B17001&g=0500000US18139_1400000US18139974500&tid=ACSDT5Y2020.B17001

TABLE NOTES

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, for 2020, the 2020 Census provides the official counts of the population and housing units for the nation, states, counties, cities, and towns. For 2016 to 2019, the Population Estimates Program provides estimates of the population for the nation, states, counties, cities, and towns and intercensal housing unit estimates for the nation, 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.

Source: U.S. Census Bureau, 2016-2020 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.

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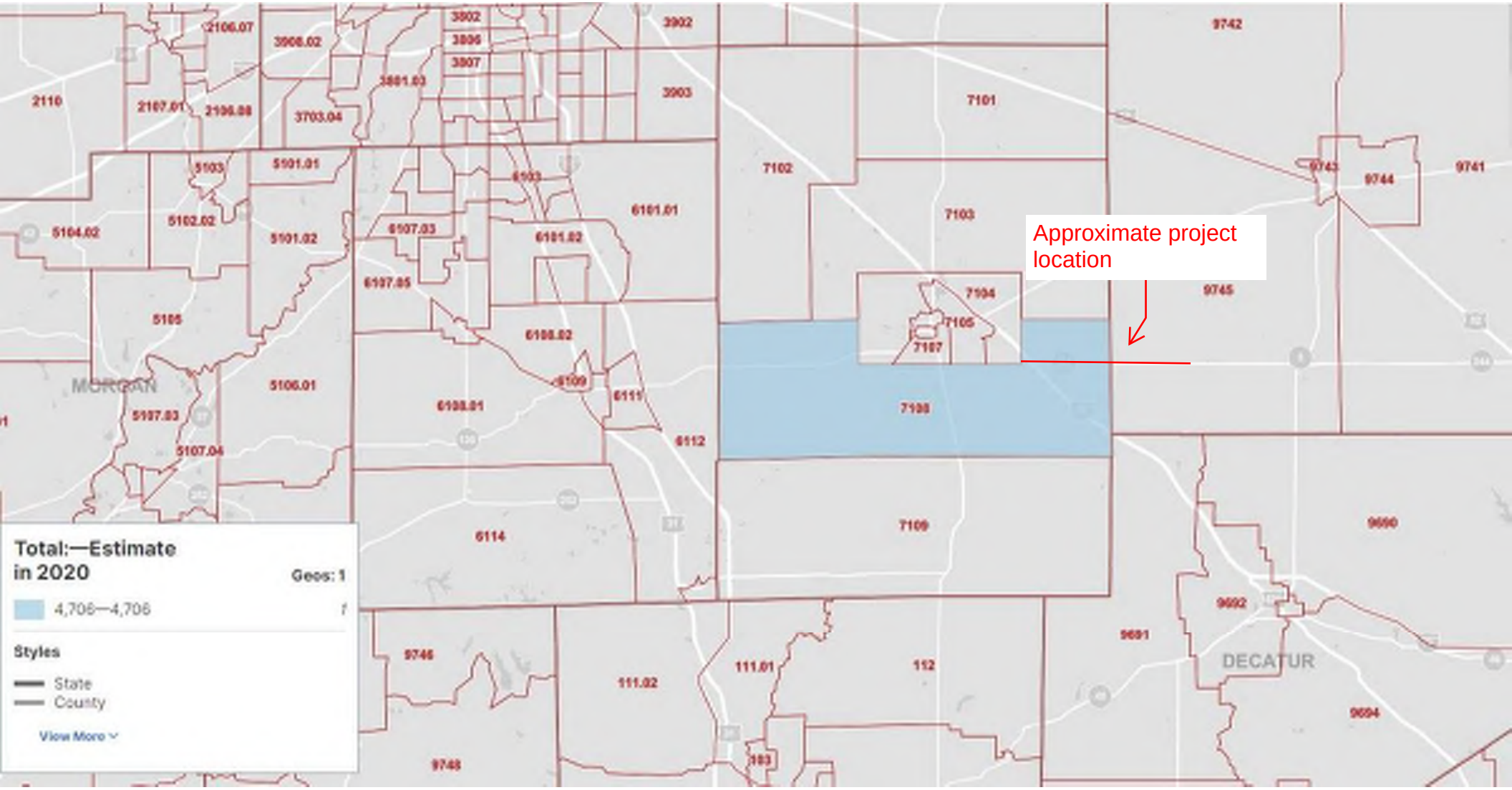
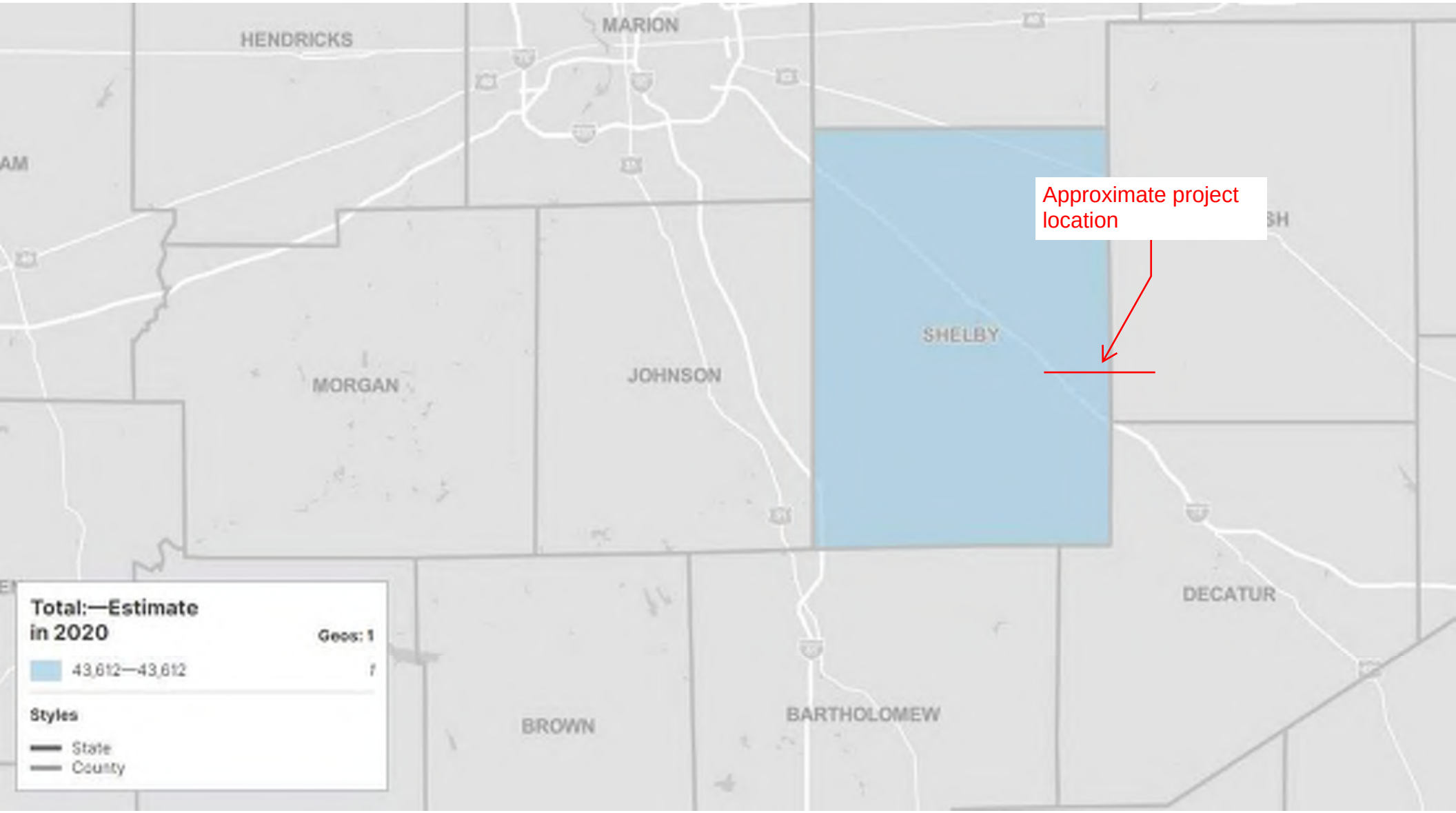
Explanation of Symbols:- The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution.N The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area. (X) The estimate or margin of error is not applicable or not available.median- The median falls in the lowest interval of an open-ended distribution (for example "2,500-")median+ The median falls in the highest interval of an open-ended distribution (for example "250,000+").** The margin of error could not be computed because there were an insufficient number of sample observations.*** The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.***** A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling error and the margin of error may be treated as zero.

COLUMN NOTES None

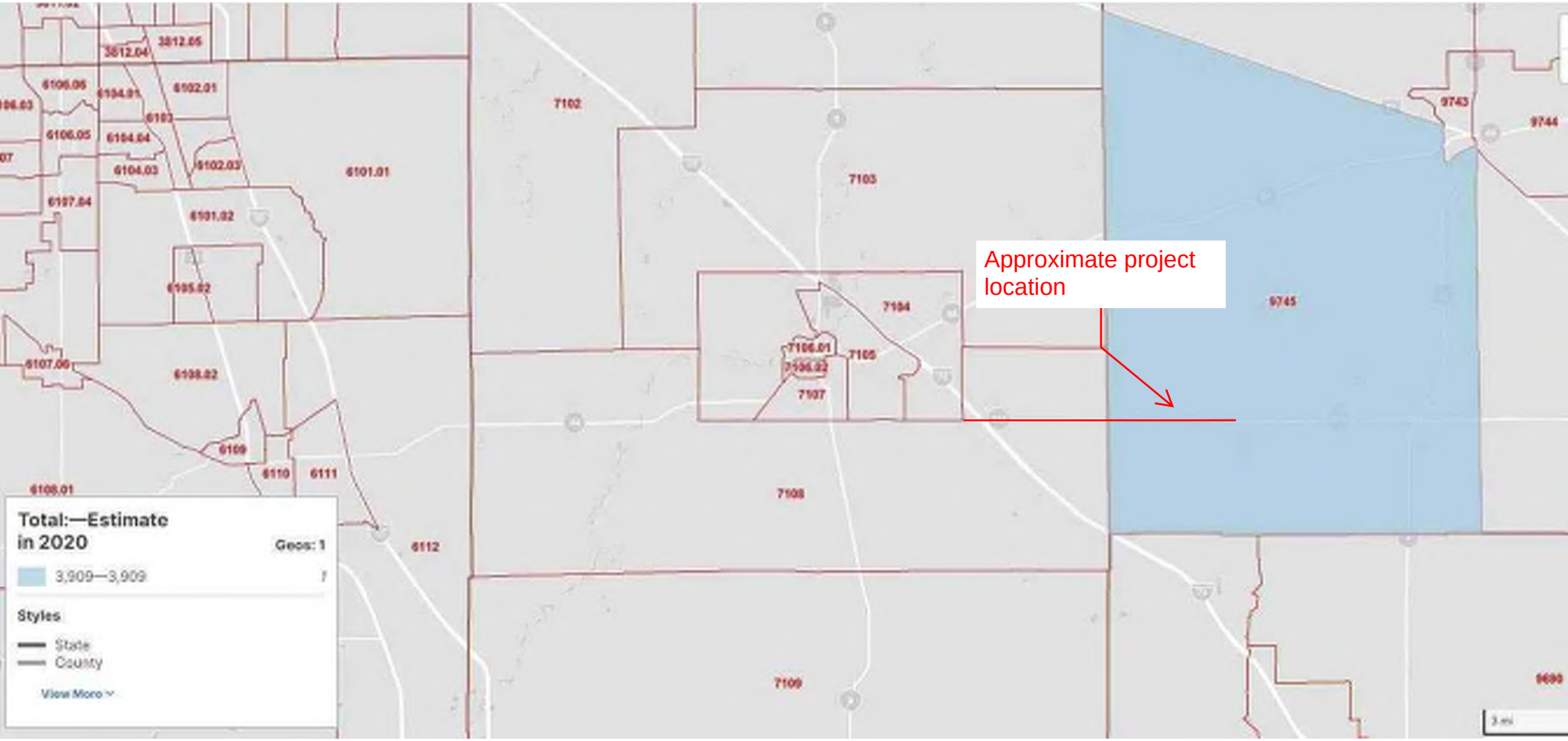
Environmental Justice
Des 1600801
Shelby County AC Map
Census Tract 7108



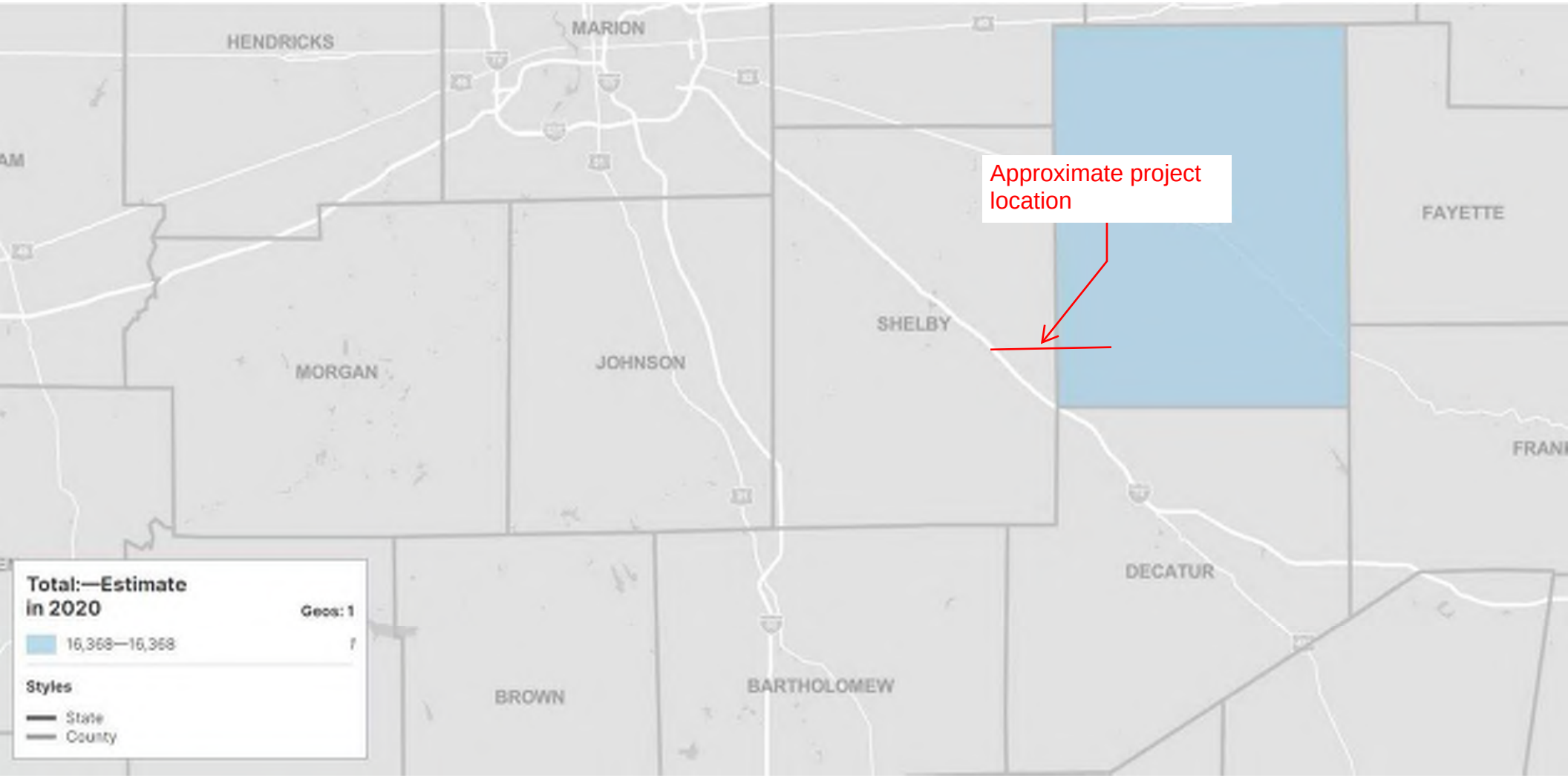
Environmental Justice
Des 1600801
Shelby County COC Map
Shelby County, Indiana



Environmental
Justice Des 1600801
Rush County AC Map
Census Tract 9745



Environmental Justice
Des 1600801
Rush County COC Map
Rush County, Indiana



SR 244 Road Rehabilitation Project From 0.35 mi West of I-74 to 5.06 mi East of I-74 at Deer Creek

Shelby and Rush County, Indiana
Contract No. R-42264
Des. No. 1600801

Engineer's Report

Prepared for: Indiana Department of Transportation
Greenfield District

Prepared by: Samantha Stroebel, PE
CHA Consulting

300 S. Meridian Street
Indianapolis, Indiana 46225

January 6, 2021

TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

LIST OF TABLES

300 S. Meridian Street, Union Station, Indianapolis, IN 46225
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ENGINEER'S ASSESSMENT

Route: SR 244
Des. No.: 1600801
Project No.: 1600801
County: Shelby and Rush
Federal Oversight: Not Required

A. PURPOSE OF REPORT:

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this road rehabilitation project. This document outlines feasible project alternatives and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction. The preferred alternative identified in this document is considered pre-decisional.

B. PROJECT LOCATION:

This project is located on SR 244, 0.35 mi West of I-74 to 5.06 mi East of I-74 at Deer Creek in Shelby and Rush Counties. The GPS coordinates, for the center of the project, are 39°29'49" north by 85°38'49" west. The project is in the Indiana Department of Transportation's Greenfield District, Greenfield Sub-District. See **Appendix A** for Location Map.

Figure 1: SR 244 Existing Aerial

C. PROJECT NEED AND PURPOSE:

The primary purpose of the project is to provide an improved roadway that meets future traffic capacity, affords accommodations for moving agricultural machinery, and addresses repeated maintenance concerns along the corridor.

The need of the project is due to the poor site-distance at intersections, substandard curves, absence of shoulders, substandard side slopes, and improper roadway drainage.

D. PROJECT HISTORY:

The following is a short list of past projects along SR 244:

- Conns Creek Bridge Replacement in 2004 and Thin Deck Overlay in 2019. (Structure Number 244-73-05843 C)
- Small Structure Replacement at 0.77 miles E of I-74 in 2020 (CV 244-073-1.12)
- Emergency Small Structure replacement at 1.16 miles E of I-74 by maintenance in 2008. (CV 244-073-1.51)

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- Small Structure Replacement at 2.87 miles E of I-74 in 2001. (CV 244-073-3.22)
- Little Conns Creek Bridge Replacement at 4.54 miles E of I-74 in 1996. (Structure Number 244-70-08039)

E. EXISTING FACILITY:

The existing roadway facility is classified as a rural major collector and is not part of the US National Highway System (NHS). The roadway is not on the National Truck Network. The posted speed limit at the project location is 50 mph.

Roadway

The existing roadway is primarily 22 feet through the project limits. The existing roadway consists of 11-foot travel lanes and no paved shoulder. There are various locations that the roadway narrows to 20.5 feet and various locations of previous project work where the roadway is 30 feet.

Table 1: SR 244 Roadway Information

Geometric Criteria			
Design Speed	50 mph	Functional Class	Major Collector
Design Criteria	3R (Non-Freeway)	Rural/Urban	Rural
Terrain	Level	Access Control	None
Approach Cross Section – IDM Fig. 55-3B			
Travel Lane Count	2	Travel Lane Width	11'-0" (existing) 11'-0" (proposed)
Shoulder Width (Usable)	0'-0" (existing) 5'-0" (proposed)	Shoulder Width (Paved)	0'-0" (existing) 4'-0" (proposed)
Mainline Pavement	Full Depth HMA	Shoulder Pavement	N/A (existing) HMA (proposed)
Alignments			
Horizontal	200' radius (existing) 758' curve (proposed)	Vertical	Varies (existing) Match Existing (proposed)

Road History

The existing pavement has a long history of various pavement maintenance. Currently, the pavement along SR 244 is full depth HMA. Table 2 below summarizes the Pavement History through 1999 based on the INDOT Pavement History Logs. Based on 2006 pavement core data from INDOT, the existing pavement varies from 9-10 inches depth. Based on 2018 pavement core data from Des. 1500008 geotechnical report, the existing pavement at RP 0.77 is 11 inches in depth.

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Table 2: SR 244 Pavement History within Project Limits

Year	*Width*	*Type of Work*
Unknown	N/A	Gravel
1932	18’	Mix Bituminous on gravel
1939	16’	Mix Bituminous
1961	22’	Reinforced Cement Concrete built in Connection with I-74
1962	18’	Bituminous Concrete and Bituminous Asphalt Resurface
1985	20’	Hot Asphalt Emulsion Resurface
1999	22’	Bituminous Concrete Resurface

Structure (Greater than 20’)

Structure Number 244-73-04184 C carries SR 244 over I-74. The existing structure, from 1959, was rehabilitated in 1977, 2000 and 2019. The rehabilitation in 2000 was a replacement of the superstructure in end spans and entire deck. The most recent rehabilitation in 2019 was a thin deck overlay. The current structure consists of 4 spans and steel beams. This project will not impact the current bridge.

Structure Number 244-73-05843 C carries SR 244 over Conns Creek. The existing structure, from 1968, was replaced in 2004. The most recent rehabilitation in 2019 was a thin deck overlay. The current structure consists of 3 spans with a max span of 45’ and total structure length of 137’. This project will not impact the current bridge but bridge approach guardrail will be updated to current standards.

Structure Number 244-70-08039 carries SR 244 over Little Conns Creek. The existing structure is a Twin 10’x8’ Reinforced Concrete Box that was built in 1997. This project will not impact the existing structure. The existing scour, documented in the bridge inspection report, was inspected during the field visit and is located downstream of the structure. It is not anticipated that the scour will endanger the structural integrity of the structure or road and is therefore not being addressed with this project.

Drainage

Existing drainage through the project is primarily sheet flow to roadside ditches that drain to cross culverts under the roadway. There are three major cross culverts greater than 36” with Culvert Asset numbers within the project limits. Below is a summary of the cross culverts:

Culvert ≥ 36”:

1) Culvert Asset ID: CV 244-073-1.12 – Culvert Replacement Project in 2020 will upgrade this structure to a 4’x4’ Reinforced Concrete Box with 2’ cover. This project may widen the existing structure.
2) Culvert Asset ID: CV 244-073-1.51 – This structure was replaced by Greenfield Maintenance department in 2008 with a 78” x 48” Corrugated Metal Pipe. It is anticipated that this project will replace the existing structure under the new pavement.
3) Culvert Asset ID: CV 244-073-3.22 – This structure is an existing 4’x4’ Reinforced Concrete Box with 1’ cover. This project will replace the existing structure because of the new roadway alignment.

All Culverts < 36” within the project limits will be replaced.

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See **Appendix C** for preliminary hydraulic reports for culverts mentioned above and preliminary hydrology for cross culverts.

Existing Wells

Existing wells have been researched from IDNR Oil and Gas Well Record within the project limits and locations are listed below. The proposed construction is being adjusted to avoid most conflicts with the existing wells. See **Appendix J** for exhibits of existing well locations.

4614 E SR 244 (No. 11037)– It is documented that these is a gas well approximately 250' north from edge of pavement at this address. The proposed construction will not impact this gas well.

5192 E SR 244 (No. 146412)– It is documented that these is a gas well approximately 220' north from edge of pavement at this address. The proposed construction will not impact this gas well.

5192 E SR 244 - It is documented that these is a water well approximately 90' north from edge of pavement at this address. The proposed construction will not impact this water well.

1855 S 600 E (No. 146411) – It is documented that these is a gas well approximately 35' north from edge of pavement for SR 244 for this property. The proposed construction will not impact this gas well.

6099 E SR 244 (No. 8047) - It is documented that these is a gas well approximately 175' south from edge of pavement at this address. The proposed construction will not impact this gas well.

6626 E SR 244 (No. 38693) - It is documented that these is a gas well approximately 140' north from edge of pavement at this address. The proposed construction will not impact this gas well.

6739 E SR 244 (No. 48847) – It is documented that these is a gas well approximately 155' south from edge of pavement at this address. The proposed construction will not impact this gas well.

6881 E SR 244 (No. 146430) - It is documented that these is a gas well approximately 290' south from edge of pavement at this address. The proposed construction will not impact this gas well.

7296 E SR 244 (No. 5423) – It is documented that these is a gas well approximately 160' north from edge of pavement at this address. The proposed construction will not impact this gas well.

7430 E SR 244 (No. 55062) – It is documented that these is a gas well approximately 470' north from edge of pavement at this address. The proposed construction will not impact this gas well.

2129 S 750 E (No. 146425) - It is documented that these is a gas well approximately 64' south from edge of pavement for SR 244 for this property. The existing gas well will be investigated further during Right-of-way acquisition to determine if the gas well needs to remain in place since our proposed construction

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impacts it. If it is determined the gas well needs to be left in place, a reinforced concrete wall will need to be placed around the gas well.

9951 W SR 244 – It is documented that there is a water well approximately 25' south from edge of pavement at this address. The proposed construction will not impact this water well.

9951 W SR 244 (No. 37749) – It is documented that there is a gas well approximately 240' south from edge of pavement at this address. The proposed construction will not impact this gas well.

9617 W SR 244 (No. 37630) - It is documented that there is a gas well approximately 200' south from edge of pavement at this address. The proposed construction will not impact this gas well.

9289 W SR 244 (No. 54113) - It is documented that there is a gas well approximately 15' south from edge of pavement at this address. The proposed construction will not impact this gas well.

F. FIELD CHECK:

A field check was conducted on 8/6/2020. Below are a few of the highlights from the Field Check. The full meeting minutes are included in **Appendix D**.

- There is an overhead utility that runs along the south side of the roadway and an underground telecom that runs along the north side of the roadway. The exact side of the road varies within the project limits and is further specified in the full meeting minutes.
- The proposed culvert at 0.77 mi E of I-74 has been constructed.
- It was discussed to move the end project 450' west of Deer Creek and add mill/resurface/patching from Michigan Rd to the east side of I-74 interchange.
- There will be a paving exception for the limits of the bridge over I-74.
- There are several properties with historic significance that will need to be researched further.

G. TRAFFIC DATA:

A.A.D.T. (2024)	1,996 VPD
A.A.D.T. (2044)	2,483 VPD
D.H.V. (2044)	219 VPH
Directional Distribution	48.81% (EB)
Trucks (2044)	18.00% A.A.D.T.

See **Appendix E** for the Traffic Forecast Report.

H. CRASH DATA AND ANALYSIS:

A search of the area for reported accident data revealed that there were 37 crashes in the vicinity of the project during the last 3 years. 20 accidents involved the driver running off the road, 8 of which were due to poor roadway surface conditions, and three were due to driver distraction/fatigue. 4 accidents involved a vehicle collision with an animal/object in the roadway. The other accidents involved two vehicles; 5 failed to yield to Right of Way, 4 were involved in rear end collisions, and 4 were involved in sideswipes.

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Based on the crash history during the last 3 years, the Index of Crash Frequency (I_{cf}) and the Index of Crash Cost (I_{cc}) were determined. Using RoadHAT 4.0, an I_{cc} of 1.49 and I_{cf} of 1.94 were found for the project limits on SR 244. Both of these indices compare historical crash data against similar roadways throughout Indiana based on crash frequency or crash cost respectively. A threshold of 1.5 is used by the INDOT Office of Traffic Safety to identify high crash locations for potential safety improvements. See **Appendix F** for more information and RoadHAT analysis output. Crash information was obtained from Roy Wasson with INDOT.

I. DISCUSSION OF ALTERNATIVE/IDENTIFICATION OF PROPOSAL:

Alternative 1: Add shoulders to both sides of the road.

This alternative meets the need and purpose of the project by addressing the safety and maintenance concerns due to a nonexistent shoulders and deep roadside ditches. This alternative also addresses curve repairs, allowing for safer travel. However, this alternative requires more Right-of-Way be purchased and more environmental impacts along SR 244, therefore this is not the preferred alternative.

Alternative 2: One side widening.

This alternative meets the need and purpose of the project by addressing the safety and maintenance concerns due to a nonexistent shoulders and deep roadside ditches. This alternative address curve repairs, allowing for safer travel. This alternative also reduces environmental impact as well as impact to historical areas and maintains only one roadway joint. **This is the preferred alternative**.

Alternative 3: Do Nothing

This alternative does not address the identified need and purpose of the project, which is to address the safety and maintenance problems with SR 244. This alternative will result in safety risks and continual closures of SR 244 in the future for maintenance and is not deemed prudent. This alterative will not be considered further.

DETAILS OF PREFERRED ALTERNATIVE

The preferred alterative widens the existing roadway to one side to add shoulder width and address curve repairs within the project limits. New full-depth pavement will be placed for the shoulder and portion of lane that is outside the existing pavement width. All existing pavement will be milled and resurfaced. Based on 2006 pavement core data from INDOT, specific locations of existing pavement may need full-depth patching. At the existing bridge over Conns Creek, the existing guardrail will be replaced to meet current INDOT standard guardrail on the approaches. Preliminary plan sheets for typical cross-sections, horizontal alignment, and vertical alignment for the preferred alternative are found in **Appendix H**.

Roadway design standards used for this project shall be as follows:

- Design Standard: 3R, Rural Collector, State Route, Figure 55-3B
- Design Speed: Posted, 50 mph
- Lane Width: 11’ (match existing)
- Paved Shoulder Width: 4.0’
- Usable Shoulder Width: 5.0’
- Side Slopes: 4:1

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- Obstruction Free Zone: 14’

Pavement design and a geotechnical investigation will be needed for this project.

In order to reduce historical impacts and utility conflict, the proposed alignment has been shifted in multiple locations. At the intersection of CR S 600 E, the proposed horizontal alignment was shifted south to avoid impacting a historic school house as well as a gas well. The horizontal alignment was shifted north to avoid impacting historical houses located approximately 425 feet west of CR S 700 E and 1400 feet West of CR S 700 E. The horizontal alignment was shifted south approximately 250 feet past the Conns Creek bridge in order to avoid impacts to a cemetery. The proposed design then realigns the curvature through the Harker Family Farms & Orchard in order to more closely align with INDOT standards.

Design Exceptions

A Level 1 Design Checklist has been performed and attached as **Appendix G**. A Level 1 Design Exception is anticipated for the project for the minimum radius for the curves in front of the Harker Family Farms & Orchard and for the vertical stopping sight distance in front of the Trackwell Cemetery. A Level 2 Design Exception will be required for the presence of guardrail within the shy-line offset at the existing bridge over Conns Creek.

The Level 1 Design Exception for the minimum radius for the curves in front of the Harker Family Farms & Orchard is necessary to reduce impacts to historic property and reduce the right-of-way costs on the project. An exhibit has been provided in **Appendix G** to shows the alterative horizontal alignment to meet all the Level 1 design criteria including minimum radius and corresponding super elevation transition lengths for the larger radii. A cost estimate for the additional costs is included in the cost estimate section of the report. The impacts to the historic property would create additional environmental coordination since the property is considered a notable resource and require a Memorandum of Agreement with the property owner, INDOT, Federal Highway and SHPO. Additionally, the right-of-way will be more costly due to the business impacts to the property.

J. TRAFFIC MAINTENANCE DURING CONSTRUCTION:

This project is not considered a mobility significant project per IDM 503-2.02. The following is the temporary traffic control plan concept that shall be used for the preferred alternative project:

It is recommended to provide a full closure with a detour for SR 244 due to the narrow existing roadway. The anticipated detour would be I-74 to SR 3 for both directions. The closure of SR 244 would be phased in 1-mile sections to maintain traffic in certain sections as other sections are being built. Local access will be maintained throughout construction in accordance with the IDM Chapter 503.

The final determination of maintenance of traffic plans will be coordinated with the District Traffic Engineer, Area Engineer, and INDOT Project Manager. Additional coordination will be required with Shelby and Rush County for unofficial detours.

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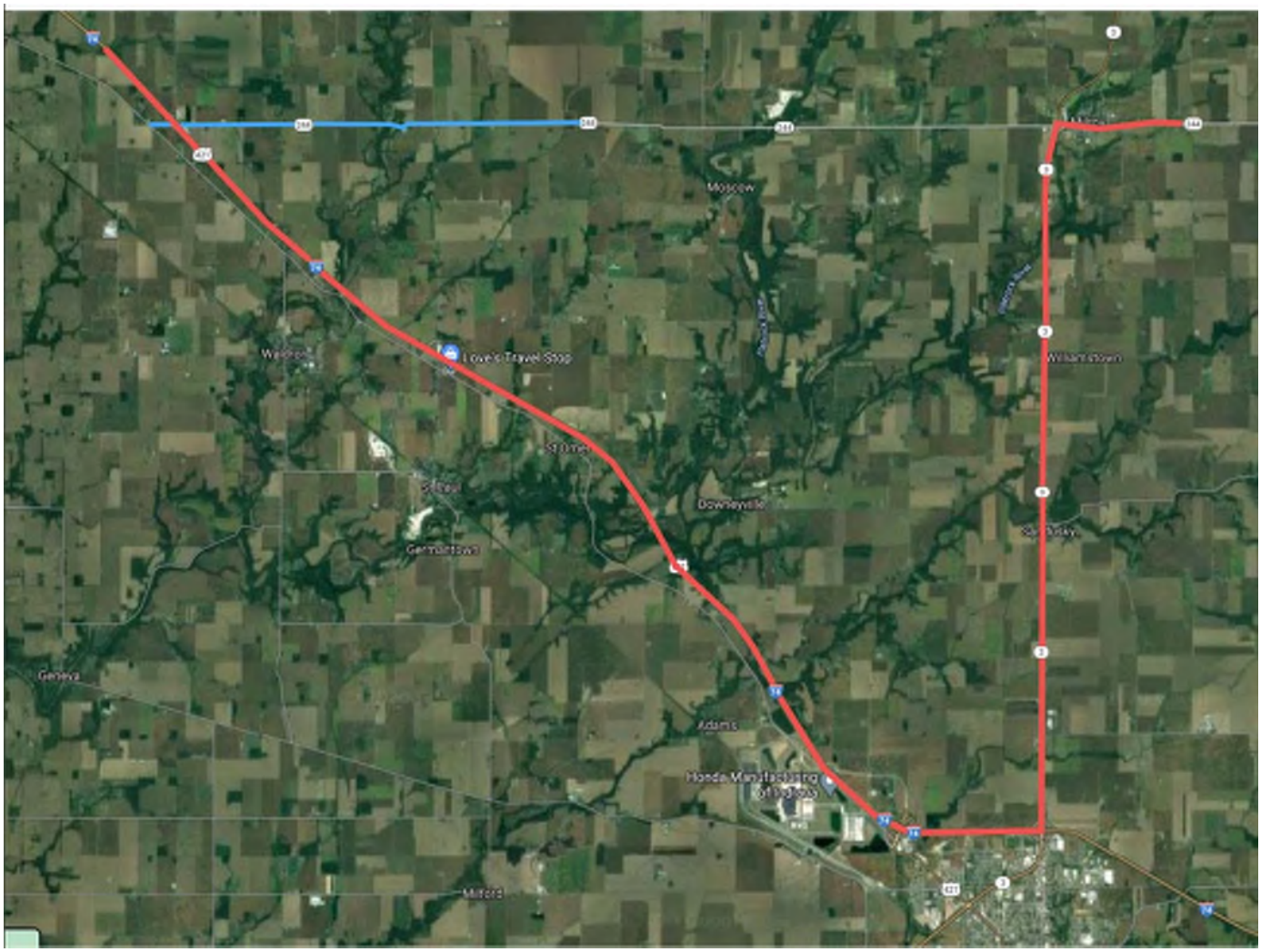
Figure 2: SR 244 Maintenance of Traffic Detour



K. COST ESTIMATE:

For each alternative, cost estimates were developed to determine the potential project, construction, preliminary engineering, and right of way costs. The Cost Estimates for each of the alternatives are found in **Appendix I**. To determine the total project cost for each alternative, the construction costs and right of way costs were determined based on appropriate quantities while other costs including the preliminary engineering and construction engineering costs were estimated as a percentage of the construction cost.

The cost of the Alternative 1 is as follows:

	Year 2024
Construction Cost (CN)	$5,410,000
Right-of-Way (RW)	$437,700
Preliminary Engineering (PE)	$927,000
Utility (UT)	$0.00

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Construction Engineering (CE)	$680,000
Mitigation (Tree and Wetland)	$320,000
TOTAL PROJECT COST	**$7,770,000**

The cost of the Alternative 2 is as follows:

	Year 2024
Construction Cost (CN)	$5,010,000
Right-of-Way (RW)	$437,700
Preliminary Engineering (PE)	$927,000
Utility (UT)	$0.00
Construction Engineering (CE)	$630,000
Mitigation (Tree and Wetland)	$320,000
TOTAL PROJECT COST	**$7,320,000**

Additional cost to meet Level One criteria at curves near CR S 750 E is as follows:

	Year 2024
Construction Cost (CN)	$162,800.00
Right-of-Way (RW)	$791,600.00
TOTAL COST	**$954,400.00**

L. ENVIRONMENTAL CONSIDERATIONS:

A cursory review for potential red flags was completed for the project area (**Appendix J**) using IndianaMAP, Indiana StreamStats, National Park Service data and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). Environmental Red Flag Maps created as a part of this review are found in **Appendix J**. The following notable features were identified within or directly adjacent to the project area:

Infrastructure:

- Religious Facilities: St. Vincent Catholic Church is within the project area. Coordination may be required to discuss maintenance of traffic and any potential alteration of traffic patterns.
- Cemeteries: Two cemeteries are located within the project area, Rockwell Cemetery and St. Vincent Catholic Cemetery. The construction occurring in the area of the St. Vincent Catholic Cemetery is an HMA overlay and will not require excavation. Therefore, a Cemetery Development Plan is not anticipated to be required for St. Vincent Catholic Cemetery. A Cemetery Development Plan may be required if right-of-way is acquired from the Rockwell Cemetery. Coordination with INDOT Cultural Resources Office will occur.
- Managed Lands: The nearest managed land, Meltzer Woods Nature Preserve is located 0.22 mile north of the project area (**Appendix J**). No impact is expected.

Water Resources:

The presence of the following water resources (**Appendix J**) will require the preparation of a Waters of the United States (US) Report and coordination with INDOT Environmental Services (ES) Ecology and Waterway Permitting Office (EWPO):

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- Four NWI-lines are located within the project area.
- Six rivers and streams are located within the project area.
    - Four are unnamed Intermittent Streams.
    - The other two are Conns Creek and Little Conns Creek.
        - Conns Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

A preliminary Waters of the US investigation was conducted on September 29 and 30, 2020 and the following resources were identified in the project area (**Appendix J**).

Table 3: Waters of the US Investigation Resources

Resource Name	Resource Type	Amount within Study Area	Waters of the U.S.	Notes
Conns Creek	Perennial Stream	157 linear feet	Yes	Floodway totals 1.4 acres within study area
Little Conns Creek	Perennial Stream	120 linear feet	Yes	Drainage area 2 sq. miles
UNT 1	Intermittent Stream	41 linear feet	Yes	Drainage area 1.1 sq. miles
UNT 2	Intermittent Stream	87 linear feet	Yes	Drainage area 0.3 sq. mile
UNT 3	Ephemeral Stream	1,517 linear feet	Yes	Drainage area 0.2 sq. mile
UNT 4	Intermittent Stream	547 linear feet	Yes	Drainage area 0.6 sq. mile

- Three wetlands are located within the project study area (**Appendix J**).

Table 4: Wetlands Within the Project Study Area

Resource Name	Resource Type	Amount within Study Area	Waters of the U.S.	Notes
Wetland A	Forested Wetland	1.06 acres	Yes	Includes 0.3 acre of forested floodway of Conns Creek
Wetland B	Emergent Wetland	0.02 acre	Yes	Along Conns Creek
Wetland C	Emergent Wetland	0.02 acre	Yes	Along Conns Creek

- The project area is located within the floodplain of Conns Creek (**Appendix J**).

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Permits:

- Section 401/404 permits will likely be required for impacts to Conns Creek, Little Conns Creek, and UNT 1.
- An Indiana Department of Environmental Management (IDEM) Rule 5 Permit will be required as the proposed project will disturb more than one acre of total land area.
- A Construction in a Floodway Permit will likely be required from the IDNR as the drainage area of Conns Creek and Little Conns Creek is greater than 1 square mile.

An Individual Section 404 permit will be required if wetland impacts exceed 1 acre. That process can take over 12 months to complete once the application is submitted. Wetland mitigation is also required for any impacts exceeding 0.10 acre of wetland impact or 300 linear feet of stream impacts.

Mining/Mineral Exploration:

- Thirteen petroleum wells are located within or adjacent to the project area. Coordination with IDNR Oil and Gas Division will occur (**Appendix J**).

Hazardous Material Concerns:

Two (2) UST Sites were located within the project area (**Appendix J**).

- I-74 & 244 Service (5585 SR 244 E; AI: 51639) is located within the project area 1 mile east of I-74 and SR 244. IDEM conducted an UST Inspection on July 13, 1999 and it was noted that there were no signs of tanks. According to the October 22, 1997 IDEM UST inspection report the tanks were removed in July or August 1997. No other investigations have been done on the property. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or ground water, analysis for lead will be necessary.
- Mahin Grain (I-74 & SR 244; AI: 51870) is located within the project area at I-74 and SR 244. According to the May 9, 1990 Notification for Underground Storage Tanks three storage tanks were removed from the ground in April 1990. No other investigation has been done on the property. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

Threatened And Endangered Species:

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"

Cultural Resources – Section 106:

Above Ground

Staff at Gray & Pape, qualified professional historians meeting the Secretary of the Interior's Professional Qualification Standards, reviewed the project area. 27 properties with buildings over 50-years-old are within the Area of Potential Effects (APE) (adjacent to the project area). 10 buildings, sites, or structures previously listed on the Indiana Historic Sites and Structures Inventory (IHSSI) are within the APE. Of the 10 previously listed resources, 5 are located on one property (St. Vincent Catholic Church campus). Of the 5 buildings or structures on the St. Vincent Catholic Church campus, one building is rated "Outstanding", two

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buildings are rated "Notable", one structure is rated "Contributing", and one building has been Demolished. Of the 5 remaining buildings and sites, one farmstead (Mahan Farmstead) is rated "Outstanding", two buildings (Liberty Township District Number 2 School and the Huffman House) are rated "Notable", and the two remaining sites (Trackwell Cemetery and the Redenbaugh Farmstead) are rated "Contributing". One building is listed on the National Register of Historic Places (NRHP). It should be noted that this building, the Liberty Township District Number 2 School (IHSSI # 145-657-35019), was only rated Notable on the IHSSI. Gray & Pape asserts the Liberty Township District Number 2 School be rated "Outstanding".

In addition to the aboveground resources listed above, a low dry-laid limestone wall was identified on the north side of SR 244. The wall is deteriorated, partially collapsing, and overgrown by dense vegetation in several areas. During an investigation by INDOT on May 2, 2017, the wall was determined to not be individually eligible for listing on the NRHP. Gray & Pape concurs and INDOT's assessment continues to be applicable.

Gray & Pape asserts that all of the buildings that are rated Notable have the potential to be eligible for listing on the NRHP; however, further work is needed to make the NRHP recommendations. Gray & Pape recommends avoidance of the individual elements that comprise both Notable and Outstanding resources until further research is conducted and a definitive recommendation can be effectively submitted in a formal Historic Property Report (HPR). As such, Gray & Pape has provided preliminary design avoidance measures for each of these properties based upon the potential for both direct and indirect impacts (see recommendations below). In addition, please keep in mind that any removal or alteration of ancillary structural features (e.g. fencing or sidewalks) and/or landscaping/vegetative elements (especially trees), may negatively impact the integrity of these properties. For the remaining two previously surveyed properties and the 16 newly surveyed properties, none are recommended as eligible for listing on the NRHP due to a lack of architectural significance and historic integrity. Please see the attached map, **Appendix J**, for reference.

Recommendations:

Table 5: Aboveground Resources Within the Project Study Area

Property Address	Eligibility Rating	Recommendations
4218 East Michigan Road	Notable	Closest point of St. Vincent Church campus - Stay within existing right-of-way
4614 East SR 244	Notable	Stay within 30-ft.
5192 East SR 244	Notable	Stay within 30-ft.
6014 East SR 244	Outstanding	Complete avoidance of property
6739 East SR 244	Notable	Stay within 25-ft.
6881 East SR 244	Notable	Stay within 15-ft.; do not disturb sidewalk
7589 East SR 244	Notable	Complete avoidance of property directly around residence
9617 West SR 244	Notable	Stay within 20-ft.
9289 West SR 244	Notable	Stay within 25-ft.
Trackwell Cemetery	Contributing	project is within 100-ft. - Cemetery Development Plan required if right-of-way acquired.

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Archaeology:

Staff at Gray & Pape, qualified professional archaeologists meeting the Secretary of the Interior's Professional Qualification Standards, reviewed the project area. An archaeological records review was performed prior to fieldwork and revealed the presence of 10 previously recorded archaeological sites within a 1-mile radius of the survey area. Of these sites, 7 were recorded either adjacent to or within the proposed survey limits. In addition, nineteenth century plat maps depicted the presence of 15 historical buildings near the survey limits, three of which were schoolhouses. Ten of these buildings have since been removed.

The archaeological investigation identified 14 new sites and reidentified 2 previously recorded sites. No potential features (with the exception of 12SH337; Schoolhouse; Sawmill; Machine Shop) or fire-cracked-rock (FCR) were noted within any of the recorded site boundaries. None of the sites appear to be eligible for the NRHP under Criterion D.

Environmental Justice:

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. As approximately 40 acres of right-of-way is anticipated to be required, a preliminary investigation was conducted.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, there are two COC's; Orange Township, Rush County, Indiana and Liberty Township, Shelby County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, the respective AC's are Census Tract 9745, Rush County, Indiana, Block Group 2, Census Tract 9745, Rush County, Indiana, Census Tract 7108, Shelby County, Indiana, and Block Group 1, Census Tract 7108, Shelby County, Indiana. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the American Community Survey 2018 was obtained from the US Census Bureau Website https://factfinder.census.gov/. The data collected for minority and low-income populations within the AC are summarized in the below table.

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Table 6: Environmental Justice (EJ) Analysis

	Community of Comparison (COC)	Affected Community (AC 1)	Affected Community (AC 2)
	Orange Township, Rush County, Indiana	Census Tract 9745, Rush County, Indiana	Block Group 2, Census Tract 9745, Rush County, Indiana
Percent minority:	1.68%	0.98%	1.51%
125 Percent of COC	2.09%		
Potential Minority EJ Concern?		No	No
	Community of Comparison (COC)	Affected Community (AC 1)	Affected Community (AC 2)
	Orange Township, Rush County, Indiana	Census Tract 9745, Rush County, Indiana	Block Group 2, Census Tract 9745, Rush County, Indiana
Percent low income:	38.85%	19.84%	******
125 % of COC	48.56%		
Potential Low-income EJ Concern:		No	******

	Community of Comparison (COC)	Affected Community (AC 1)	Affected Community (AC 2)
	Liberty Township, Shelby County, Indiana	Census Tract 7108, Shelby County, Indiana	Block Group 1, Census Tract 7108, Shelby County, Indiana
Percent minority:	0.00%	0.00%	0.00%
125 Percent of COC	0.00%		
Potential Minority EJ Concern?		No	No
	Community of Comparison (COC)	Affected Community (AC 1)	Affected Community (AC 2)
	Liberty Township, Shelby County, Indiana	Census Tract 7108, Shelby County, Indiana	Block Group 1, Census Tract 7105, Shelby County, Indiana
Percent low income:	5.14%	4.85%	******
125 % of COC	6.43%		
Potential Low-income EJ Concern:		No	******

AC-1, Census Tract 9745, Rush County, Indiana has a percent minority of 0.98% which is below 50% and is below the 125% COC threshold. AC-2, Block Group 2, Census Tract 9745, Rush County, Indiana has a percent minority of 1.51% which is below 50% and is below the 125% COC threshold. AC-1, Census Tract 7108, Shelby County, Indiana has a percent minority of 0% which is below 50% and is below the 125% COC threshold. AC-2, Block Group 1, Census Tract 7108, Shelby County, Indiana has a percent minority of 0% which is below 50% and is below the 125% COC threshold. Therefore, both AC's do not contain minority population of EJ concern.

AC-1, Census Tract 9745, Rush County, Indiana has a percent low-income of 19.84 which is below 50% and is below the 125% COC threshold. AC-1, Census Tract 7108, Shelby County, Indiana has a percent low-income of 4.85% which is below 50% and is below the 125% COC threshold. Therefore, both AC's do not contain low-income populations of EJ concern.

Conclusion:

The census data sheets, map, and calculations can be found in **Appendix J**. No further environmental justice analysis is warranted.

Environmental Document:

The level of environmental documentation is normally dictated by the chosen alternative and anticipated level of impacts. In this case, the potential Section 4(f) impacts to historic properties will likely elevate the level of documentation to a Categorical Exclusion (CE) - Level 4 for all alternatives considered. All alternatives excluding the "Do Nothing" alternative will require the full Section 106 process. The project should try to minimize impacts to the identified historic resources to avoid an adverse effect and Individual Section 4(f) analysis.

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M. SURVEY REQUIREMENTS:

Topographic survey with location control was completed as part of this Engineer's Report. The survey limits along the centerline of the roadway extend from the east ramps to/from I-74 to Deer Creek, an approximate length of 5.12 miles. The survey limits extend 70 feet either side of the roadway centerline and 250 feet along the centerline of the intersecting public roadway from the centerline of SR 244. Survey should be in accordance with the procedures outlined in the INDOT Design Manual.

N. RIGHT-OF-WAY IMPACT:

There is no documented existing Right-of-Way except at 3 past project locations and therefore it is assumed to be at the edge of pavement. Permanent Right-of-Way will be required for the road widening. It is anticipated that 64 parcels (31.7 acres) will be affected by this project. See **Appendix K** for exhibits with anticipated right-of-way takes for the preferred alternative.

There are substantial Right-of-Way needs at the parcel just northwest of Coons Creek due to the narrow existing roadway. The house and barn will need to be acquired during Right-of-Way acquisition.

O. UTILITIES:

Initial Utility Notices were sent out on 9/11/2020. The following utilities responded that they have facilities in the project area:

AT&T Distribution
240 N. Meridian St., Room 1791
Indianapolis, IN 46204
Attn: Matt Spindler
317-265-3050
ms4822@att.com

Rushshelby Energy
2777 CR 840 West
Manilla, IN 46150
Attn: Chris Chastain
765-544-2600
cchastain@rse.coop

Duke Energy
100 S. Mill Creek Road
Noblesville, IN 46062
Attn: Cindy Rowland
317-776-5341
cindy.rowland@duke-energy.com

Vectren (Franklin)
16000 Allisonville Road
Noblesville, IN 46061
Attn: Jeff Donnelly
jeff.donnelly@centerpointenergy.com

Home Telephone/TDS
1575 Tezon Pkwy
Wyoming, MI 49519
Attn: Jeffery Wells
616-301-3033
jeff.wells@tdstelecom.com

Waldron Conservancy District
765-525-9696
waldronwater@yahoo.com

It is anticipated that permanent or temporary relocation will be required for utilities within the construction limits. Utilities within the construction limits includes power poles for overhead electric lines as well as pedestals for telecom lines. Also, a gas well located approximately 75' south of SR 244 and 135' West of S750 E will require accommodations as it is located within construction limits. Utility Coordination will be completed by an INDOT certified utility coordinator following the appropriate guidelines.

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P. RELATED PROJECTS/CONSISTENCY:

There are four related projects that may require coordination on this project:

In 2021, a Road Reconstruction project (R-40506, Des. 1601973) will upgrade I-74 from .11 mi West of SR 244 to .11 mi E of SR 244.

In 2023, a Slide Correction project (R-42031, Des. 1901370) will be completed on SR 244 at North Branch Clifty Creek, South Side of Roadway, 4.79 mi East of SR 3.

In 2023, a Bridge Deck Overlay project (B-41505, Des. 1702914) will be completed on SR 244 over Little Flatrock River, 0.13 miles East of SR 3.

In 2024, an HMA Overlay, Preventative Maintenance project (Des. 2000592) will be completed on SR 244 from SR 3 to .92 mi East of SR 3.

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Q. CONCURRENCE:

This Document was prepared by:

Samantha Stroebel

Samantha Stroebel, P.E.
CHA Consulting

January 6th, 2021
Date

Reviewed by:

_____

Nathan Riggs
INDOT Project Manager
Recommend: Approval / Disapproval

_____
Date

Reviewed by:

_____

Aschalew Aberra, P.E.
INDOT Scoping Manager
Recommend: Approval / Disapproval

_____
Date

Reviewed by:

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Amy Groff, P.E.
INDOT System Asset Manager
Recommend: Approval / Disapproval

_____
Date

Reviewed by:

_____

Chris Moore, P.E.
INDOT, Greenfield District Pavement Asset Manager
Recommend: Approval / Disapproval

_____
Date

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