

Indiana Department of Transportation

County Hamilton Route 276th Street Des. No. 1600597

**FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM
GENERAL PROJECT INFORMATION**

Road No./County:	276 th Street / Hamilton County
Designation Number:	1600597
Project Description/Termini:	276 th Street roadway realignment and extension project (Phase II), from 0.6 mile west of Gwinn Road northeast to 281 st Street/SR 19, for a total length of approximately 1.9 miles. The project also includes the original eastern portion of the 276 th Street roadway rehabilitation project (Phase I), from the east side of the bridge over Little Cicero Creek east to Gwinn Road, for a total length of approximately 0.7 miles; and on Gwinn Road, from 0.04 mile south of the 276 th intersection to 0.09 mile north of the 276 th intersection, for a total length of approximately 0.13 mile.

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

<input type="checkbox"/>	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
<input type="checkbox"/>	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
<input checked="" type="checkbox"/>	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
<input type="checkbox"/>	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval N/A Robert E Dirks 9-18-18
 ESM Signature Date ES Signature Date
Robert E. Dirks Digitally signed by ROBERT E DIRKS
 FHWA Signature Date Date: 2018.09.20 14:19:16 -04'00'

Release for Public Involvement

N/A REB 5-22-18
 ESM Initials Date ES Initials Date

Certification of Public Involvement Mary Wright 8/8/18
 Office of Public Involvement Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

INDOT ES/District Env. Reviewer Signature: Thomas D. Beauchamp Date: 9-18-18
 Name and Organization of CE/EA Preparer: Aaron Lawson / RQAW Corporation

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Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. The level of public involvement should be commensurate with the proposed action.

Does the project have a historic bridge processed under the Historic Bridges PA*? If No, then: Opportunity for a Public Hearing Required? Yes No X

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks: Notice of Entry for Survey or Investigation letters were mailed to potentially affected property owners (i.e. adjacent owners) on October 21, 2016 (Appendix G, page G1).

To meet the public involvement requirements of Section 106, FHWA's finding of "No Adverse Effect" was advertised in the Indianapolis Star on April 26, 2017. The notice offered the public a 30-day comment period to remark on the finding (Appendix D, pages D46 to D48). The comment period expired on May 26, 2017 and no comments were received. Although changes to the preferred alignment were modified after the legal notice was published, the "No Adverse Effect" Section 106 remains valid. Therefore, additional public involvement regarding Section 106 is not necessary.

The project meets the minimum requirements described in the current INDOT Public Involvement Manual which requires the project sponsor to offer the public an opportunity to submit comment and/or request a public hearing. This document was initially released for public involvement by INDOT on August 18, 2017. However, the preferred roadway alignment was subsequently modified (shifted in two places) to avoid and minimize impacts. Due to this change, a legal notice offering the public an opportunity to comment and/or request a public hearing was never published. This resulted in INDOT rescinding the initial August 18, 2017 release for public involvement. This document was subsequently updated to reflect the project modifications and was released for public involvement again on May 22, 2018 by INDOT. The requirements for public involvement, as stated above, were then followed and are discussed below.

Hamilton County decided to forgo the offering of a public hearing and went straight to holding a public hearing. The announcement of the public hearing was published in the Indianapolis Star on June 4, 2018 and June 11, 2018 (Appendix G, pages G2 to G5). A Notice of Public Hearing letter, dated June 11, 2018, was also mailed to adjacent property owners notifying them of the public hearing (Appendix G, pages G8 to G10). The public hearing was held on June 19, 2018 at Hamilton Heights High School located at 25802 SR 19, Arcadia, IN. 46030. Representatives from INDOT, RQAW (project designer and preparer of this environmental document) and Hamilton County were in attendance. The public hearing began at 5:30 p.m. and allowed the public to hear information on the project and to comment on the environmental document and preliminary design plans (Appendix G, pages G15 to G33). According to the sign-in sheet, approximately 23 people attended the public hearing (Appendix G, pages G13 to G14). A comment form was also provided to each attendee with instructions on how to submit comments (Appendix G, pages G11 to G12). The public had 30 days to provide comments on the project. The opportunity for the public to provide comments on the project and public hearing expired on July 3, 2018. Several comments were received and are discussed below.

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Comments received during the public hearing generally pertained to another route option and opposition of the project by an affected property owner. Comments received after the public hearing generally pertained to opposition of the preferred alternative route, need for the project, sponsorship and ownership of the project, concerns regarding impacts to agricultural land and other environmental resources, other alternatives considered, impacts to people in the surrounding communities, and general information regarding one of the agricultural properties being impacted. Hamilton County officials and RQAW responded to the comments, explaining the need for the proposed project, the sponsors of the project, the other alternatives considered and the reasons why they were discarded, analysis of impacts to affected environmental resources and measures to avoid impacts. Please see Appendix G for a summary of the comments received and responses to comments (pages G33 to G57). Although some adjacent property owners voiced concerns with the project, the comments and concerns received regarding this project were not considered substantially controversial. The public involvement requirements for the proposed project have been completed.

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts? Yes No X

Remarks: During and after the public hearing (within the 30-day comment period), several comments and concerns were received by the co-owners (family members) of one of the agricultural properties being impacted by the project. The comments and concerns raised by the co-owners of the property pertained to opposition of the preferred alternative route, need for the project, sponsorship and ownership of the project, concerns regarding impacts to agricultural land and other environmental resources, other alternatives considered, impacts to people in the surrounding communities, and general information regarding their agricultural property being impacted. Hamilton County officials and RQAW provided responses to the comments and the reasoning and decisions made for the project. Please see Appendix G for a summary of the comments received and the responses that were provided (pages G33 to G57). The comments and concerns received regarding this project were not substantially controversial.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Hamilton County INDOT District: Greenfield
Local Name of the Facility: 276th Street

Funding Source (mark all that apply): Federal X State Local X Other*

*If other is selected, please identify the funding source:

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

The need for the project is due to the deteriorating condition of the existing 276th Street pavement and lack of efficient connectivity between 276th Street and SR 19. The existing 276th Street pavement has deteriorated and shows signs of edge cracking, moderate longitudinal and transverse cracking, and minor raveling. 276th Street currently consists of two, 9 to 10-foot wide travel lanes (one eastbound and one westbound) with variable width shoulders (0 to 4-foot wide). Currently, 276th Street terminates at Gwinn Road and does not directly connect to SR 19. To reach SR 19 from 276th Street, motorists and large trucks (semi-trucks) must utilize local routes. The existing narrow travel lane widths of 276th Street and the local

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roadway system increases the risk of head-on collisions between large trucks and smaller passenger vehicles traveling in opposing directions.

Beck's Superior Hybrids is located approximately 0.3 mile west of the 276th Street/Gwinn Road Intersection and experiences a high volume of large truck traffic daily. The proposed expansion of Beck's Superior Hybrids is expected to increase large truck traffic in the area, thus causing the existing pavement conditions of 276th Street to further deteriorate, as well as increase the volume of large trucks traveling on the narrow local routes to reach SR 19.

The purpose of the project is to provide a structurally sufficient and efficient route between 276th Street and SR 19 to accommodate the expected increase in large truck traffic volume associated with Beck's Superior Hybrids, as well as alleviate large truck traffic on the nearby narrow local routes. The purpose of the project is also to improve the deteriorating condition of the existing 276th Street pavement from east of Little Cicero Creek to Gwinn Road.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Hamilton Municipality: Town of Millersburg

Limits of Proposed Work: The project begins on 276th Street approximately 0.6 mile west of Gwinn Road; the project will head in a northeasterly direction for approximately 0.7 mile, head east for approximately 1.2 miles and terminate at the 281st Street/SR 19 Intersection. The project also includes the original eastern portion of the 276th Street roadway rehabilitation project (Phase I), from the east side of the bridge over Little Cicero Creek east to Gwinn Road, for a total length of approximately 0.7 miles; and on Gwinn Road, from 0.04 mile south of the 276th intersection to 0.09 mile north of the 276th intersection, for a total length of approximately 0.13 mile.

Total Work Length: 1.9 Mile(s) Total Work Area: 27.1 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?

Yes ¹	No
	X
Date: _____	

If yes, when did the FHWA grant a conditional approval for this project?

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Hamilton County and the Federal Highway Administration (FHWA) propose to proceed with a roadway realignment and extension project in Hamilton County, Indiana (Des. Number 1600597). The project (Phase II) includes realigning and extending 276th Street beginning approximately 0.6 mile west of Gwinn Road; the project will head in a northeasterly direction for approximately 0.7 mile, head east for approximately 1.2 miles and terminate at the 281st Street/SR 19 Intersection. The project also includes the original eastern portion of the 276th Street roadway rehabilitation project (Phase I/Des. Number 1383334), which involves rehabilitation of the existing 276th Street pavement beginning at the east side of the bridge over Little Cicero Creek and extending east to Gwinn Road, for a total length of approximately 0.7 mile; and rehabilitation of the existing Gwinn Road pavement, from 0.04 mile south of the 276th Street intersection with Gwinn Road to 0.09 mile north of the 276th Street intersection with Gwinn Road for approach work, for a total length of approximately 0.13 mile. It is within Jackson Township, Arcadia Quadrangle, Township 20 North, Range 4 East and Sections

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10, 11, 12, 14, and 15. Adjacent land use is largely agricultural with commercial (Beck's Superior Hybrids) and residential in a rural setting (Appendix B, pages B1 to B6).

Existing Conditions: Within the project area, 276th Street consists of two, 9 to 10-foot wide travel lanes (one eastbound and one westbound) with variable width shoulders (0 to 4-foot wide). The existing pavement has deteriorated and shows signs of edge cracking, moderate longitudinal and transverse cracking, and minor raveling. Currently, 276th Street terminates at Gwinn Road and does not directly connect to SR 19. To reach SR 19 from 276th Street, motorists and large trucks (semi-trucks) must utilize local routes. The existing narrow travel lane widths of 276th Street and the local roadway system increases the risk of head-on collisions between large trucks and smaller passenger vehicles traveling in opposing directions.

Beck's Superior Hybrids is located approximately 0.3 mile west of the 276th Street/Gwinn Road Intersection and experiences a high volume of large truck traffic daily. The proposed expansion of Beck's Superior Hybrids is expected to increase large truck traffic in the area, thus causing the existing pavement conditions of 276th Street to further deteriorate, as well as increase the volume of large trucks traveling on the narrow local routes to reach SR 19.

Preferred Alternative: This project (Phase II) will tie into Phase I of the 276th Street Extension and Rehabilitation project (Des. No. 1383334), which begins at US 31 and extends east to Little Cicero Creek. Construction of Phase I, from US 31 east to Little Cicero Creek, is currently under construction. The original eastern terminus of Phase I on 276th Street extended east of the bridge over Little Cicero Creek to Gwinn Road. The environmental impacts for Phase I were documented in a CE-4 document that was approved by INDOT on February 24, 2016. A Note to File, dated December 19, 2016, provided to INDOT explained that the eastern terminus of Phase I was reduced to just west of the bridge over Little Cicero Creek as a result of advances in the design of Phase II (Des. No. 1600597). Since Phase II requires improvements to 276th Street east of the bridge over Little Cicero Creek to construct a roundabout and realign 276th Street, it was logical to include the improvements east of the bridge to Gwinn Road under Phase II. The proposed work along this portion of 276th Street and Gwinn Road includes resurfacing the existing 276th Street pavement, reconstructing a portion of Gwinn Road to provide vertical stopping sight distance, and reconstructing the intersection of 276th Street and Gwinn Road to provide intersection sight distance.

The preferred alternative (Option B) for this project (Phase II) involves realigning and extending a portion of 276th Street to connect to SR 19 to the east via 281st Street. The majority of the alignment for this project is on new terrain; however, a portion of the alignment will follow the existing 281st Street. The project includes realigning 276th Street beginning approximately 0.6 mile west of Gwinn Road; the new alignment will then head in a northeasterly direction on new terrain for approximately 0.9 mile to the 281st Street/Gwinn Road intersection, then head east for approximately 0.5 mile along the existing 281st Street alignment to the intersection with Whetston Road, the new alignment will then head east from the 281st Street/Whetston Road intersection on new terrain for approximately 0.5 mile and terminate at the 281st Street/SR 19 Intersection (Appendix B, pages B4 to B6). The project will consist of one 12-foot wide travel lane and one 4-foot wide usable (3-foot paved) shoulder in each direction. To minimize impacts to the residence located in the southwest quadrant of the 281st Street/SR 19 Intersection, the roadway will consist of one 12-foot travel lane in each direction bordered by curb with a 2-foot offset on the south side and a 4-foot wide usable (3-foot paved) shoulder on the north side of the roadway (from the at-grade railroad crossing east to SR 19). To avoid impacts to the farm located north and south of 281st Street, and approximately 0.2 mile west of the 281st/SR 19 Intersection, the roadway will be shifted north.

Following the release of this CE document for public involvement in August 2017, the preferred alignment described above was modified (shifted) in two locations (Appendix B, page B3). The first shift is along the west leg of the project through cultivated fields where it makes a large curve to the north and east. The preferred alignment at this location has been shifted approximately 280 feet west of the original alignment to avoid impacts to a center-pivot irrigation system on the Beck's Superior Hybrids property. The other shift is near the east end of the project where the alignment curves north,

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approximately 0.28 mile west of SR 19. The preferred roadway alignment at this location has been shifted approximately 50 feet south of the original alignment to minimize impacts to a stand of walnut trees (Appendix B, page B3). The modifications to the preferred alignment resulted in a slight change to the permanent and temporary right-of-way requirements, which necessitated re-coordination with the Natural Resources Conservation Service (NRCS) regarding changes to farmland impacts, re-opening the Section 106 review process, and reassessing the results of the noise impact analysis. Please refer to the *Right-of-Way, Farmland, Cultural Resources, and Noise* sections of this document for further details regarding these topics. Unless specifically mentioned in this document, the modifications to the preferred alignment did not result in significant impacts to other resources when compared to the original alignment.

The western project terminus will include constructing a single lane roundabout that will accommodate the expected truck traffic generated by the expansion of Beck's Superior Hybrids. It is possible that a 0.57-acre detention pond may be constructed in the northwest quadrant of the single lane roundabout to accommodate roadside drainage. The construction of the potential detention pond was requested by Beck's Superior Hybrids; however, a final decision on construction of the pond has yet to be made by the project sponsor, Hamilton County. The at-grade railroad crossing located approximately 0.1 mile west of the 281st Street/SR 19 Intersection will be improved with gates and signals. New signage will also be installed. Roadside ditches will be constructed on both sides of the roadway to accommodate the drainage of the new roadway alignment and will outlet at various non-jurisdictional locations. A 48-inch diameter corrugated metal pipe (CMP) structure located approximately 290 feet west of the 281st Street/SR 19 Intersection will be replaced with a 9-foot span by 5-foot rise by 60-foot long reinforced concrete box (RCB) structure. Replacement of this structure will impact an unnamed tributary to Little Cicero Creek (UNT 1), also known as H.A. McMullen Ditch (Legal Drain 6), a likely jurisdictional waterway. Three additional RCB structures, two of similar size as the one mentioned above and one larger, will be installed along the new terrain alignment to convey roadside drainage at the surface above and adjacent to existing Hamilton County regulated (legal) drain clay tiles. Two of the existing legal drain tiles along the proposed alignment will be replaced with reinforced concrete pipe (RCP) of similar size or larger. Please refer to the *Streams, Rivers, Watercourses & Jurisdictional Ditches* section of this document for further details of stream impacts. The project will also install and/or replace several small storm water drain pipes; however, these are not associated with jurisdictional waters. The termini for Phase II are logical because the western terminus begins at the eastern limits of Phase I and the eastern terminus ends at SR 19, which is a major thoroughfare.

Approximately 27.1 acres of permanent right-of-way and 1.02 acres of temporary right-of-way will be required. All permanent right-of-way required from Beck's Superior Hybrids will be donated to Hamilton County specifically for this project (approximately 15.11 acres). Relocations of residences or businesses are not anticipated. One hay shed was observed within the proposed roadway alignment during the November 11, 2016 and March 24, 2017 field checks conducted by RQAW (Appendix B, page B19). The hay shed is located approximately 520 feet west of SR 19 and is visible on the 2016 aerial photograph of the area (Appendix B, page B6); however, the hay shed has since been relocated outside the project area by the property owner and will not be impacted by the project.

Portions of the project impacting 276th Street and 281st Street will be constructed in phases with detours that allow adjacent property owners and vehicular traffic to access SR 19. Construction of the new terrain alignment will not involve any road closures (Appendix B, pages B31 to B36). Please refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. The estimated project cost is \$6,200,000 (fiscal year (FY) 2019), which also includes construction funding (\$450,000) for the original eastern portion of Phase I now being constructed under Phase II. The estimated project cost also incorporates the modifications to the preferred roadway alignment mentioned above. The project is currently scheduled for construction in the summer of FY 2019. Please refer to Appendix B for maps depicting the project area (pages B1 to B6), photographs of the project area (pages B7 to B23), and the Preliminary Design Plans (pages B24 to B68).

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The project will satisfy the project's Purpose and Need by providing a structurally sufficient and efficient route between 276th Street and SR 19 that will accommodate the expected increase in large truck traffic volume associated with Beck's Superior Hybrids, as well as alleviate large truck traffic on the nearby narrow local routes. The project will also improve the deteriorating condition of the existing 276th Street pavement from east of Little Cicero Creek to Gwinn Road. Stream and wetland impacts were noted during project development. The project will result in approximately 530 linear feet of total stream impacts and 0.027 acre (rounded to 0.03 acre) of wetland impacts within the proposed right-of-way. A US Army Corps of Engineers (USACE) Regional General Section 404 Permit and Indiana Department of Environmental Management (IDEM) Section 401 Water Quality Certification will be needed due to these impacts. The project will also cross six Hamilton County legal drains. A Hamilton County Regulated Drain Crossing Permit will be required for each of the legal drains crossed within the project area. The project will result in a "No Adverse Effect" Section 106 finding. No other concerns were noted during project development that are expected to present any environmental, constructability or engineering issues.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Do Nothing Alternative: This alternative would not involve any improvements to 276th Street. This alternative would require no additional permanent or temporary right-of-way, not involve any cost, and would not result in any impacts to the surrounding environment. The Do Nothing Alternative would not improve the deteriorating condition of the existing 276th Street roadway and would not provide an efficient route between 276th Street and SR 19 for the expected increase in large truck traffic for the area. This alternative does not meet the purpose and need of the project and was therefore dismissed from further consideration.

276th Street Alignment Option A: This alternative would start at Devaney Road and run east on the existing alignment of 276th Street. The western terminus of this alternative would begin within the eastern portion of Phase I, which is currently under construction. This alternative was developed because Phase I and Phase II of the 276th Street extension project were planned concurrently. The alignment for this alternative would curve north at Webster Pit Road (E. 63rd Street), cross Little Cicero Creek, and continue north along the existing alignment of Webster Pit Road. The alignment would then curve eastward and continue on a new terrain alignment extending east to the existing intersection of Gwinn Road and 281st Street. The alignment would then continue east along the existing alignment of 281st Street to the existing intersection of Whetston Road and 281st Street. After the intersection with Whetston Road, the alignment would continue east on new terrain, crossing the existing railroad and intersecting the existing alignment of 281st Street (Railroad Road). The alignment would then continue east along the existing alignment of 281st Street (Railroad Road) until it intersects with SR 19. This alternative would require more right-of-way than the preferred alternative, require approximately seven building removals, three residential relocations, impact Little Cicero Creek, and impact a delineated wetland (Wetland A) located in the northwest quadrant of the 281st Street/Whetston Road intersection, resulting in higher costs. This alternative would also begin within the eastern portion of Phase I, which is currently under construction. This alternative meets the purpose and need of the project; however, due to increased costs as a result of the impacts mentioned above, and the western terminus of this alternative beginning in an area currently under construction, this alternative was dismissed from further consideration.

276th Street Alignment Option C: This alternative would start at Devaney Road and run east on the existing alignment of 276th Street to the existing intersection with Gwinn Road. The western terminus of this alternative would begin within the eastern portion of Phase I, which is currently under construction. This alternative was developed because Phase I and Phase II were planned concurrently. After the intersection with Gwinn Road, the alignment would continue east on new terrain then curve north until it intersects with Whetston Road at 279th Street. After the intersection with Whetston Road at 279th Street, the alignment would curve northeast on new terrain towards the existing railroad. The alignment would cross the

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railroad and continue east on the existing alignment of 281st Street (Railroad Road) until it intersects with SR 19. This alternative would avoid the delineated wetland (Wetland A) located in the northwest quadrant of the 281st Street/Whetston Road intersection. However, this alternative would require more right-of-way than the preferred alternative and would require approximately six building removals and two residential relocations, resulting in higher costs. This alternative meets the purpose and need of the project; however, due to increased costs as a result of the impacts mentioned above, and the western terminus of this alternative beginning in an area currently under construction, this alternative was dismissed from further consideration.

Wetland Avoidance Alternative: This alternative is similar to that of the preferred alternative, except that it would include measures to avoid the delineated wetland (Wetland A) located in the northwest quadrant of the 281st Street/Whetston Road Intersection. This alternative would include realigning the proposed roadway along 281st Street to the south of the existing intersection with Whetston Road in order to avoid impacts to the wetland. However, realignment of 281st Street to the south would likely result in having to relocate the residential property located in the southwest quadrant of the intersection, resulting in higher costs. This alternative meets the purpose and need of the project; however, due to increased costs and likely need for the relocation of a residential property, this alternative was dismissed from further consideration.

No other alternatives were considered.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

- It would not correct existing capacity deficiencies;
 - It would not correct existing safety hazards;
 - It would not correct the existing roadway geometric deficiencies;
 - It would not correct existing deteriorated conditions and maintenance problems; or
 - It would result in serious impacts to the motoring public and general welfare of the economy.
- Other (Describe)

X
X

ROADWAY CHARACTER:

276th Street

Functional Classification:	Local Agency Collector				
Current ADT:	1,320	VPD (2018)	Design Year ADT:	1,720	VPD (2038)
Design Hour Volume (DHV):	172	Truck Percentage (%)	15		
Designed Speed (mph):	40	Legal Speed (mph):	40		

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	Paved asphalt travel lanes		Paved asphalt travel lanes	
Pavement Width:	19-20	ft.	24	ft.
Shoulder Width:	0-4	ft.	4	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	0	ft.	0	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

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281st Street/Railroad Street*

Functional Classification: Rural Local Route
 Current ADT: N/A VPD Design Year ADT: N/A VPD
 Design Hour Volume (DHV): N/A Truck Percentage (%) N/A
 Designed Speed (mph): 40 Legal Speed (mph): 40

	Existing	Proposed
Number of Lanes:	2	2
Type of Lanes:	Travel	Travel
Pavement Width:	19-20 ft.	24 ft.
Shoulder Width:	0 ft.	4 ft.
Median Width:	0 ft.	0 ft.
Sidewalk Width:	0 ft.	0 ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

***Traffic data for 281st Street/Railroad Street is not available.**
 If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): Structure No. 16 Sufficiency Rating: N/A
 (Rating, Source of Information)

	Existing	Proposed
Bridge Type:	N/A	Reinforced concrete box: 16 ft. x 4 ft. x 65 ft.
Number of Spans:	N/A	1
Weight Restrictions:	N/A ton	N/A ton
Height Restrictions:	N/A ft.	N/A ft.
Curb to Curb Width:	N/A ft.	N/A ft.
Outside to Outside Width:	N/A ft.	N/A ft.
Shoulder Width:	N/A ft.	N/A ft.
Length of Channel Work:	N/A	N/A ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks: The project will not involve any existing bridges. Several small structures and storm water drain pipes will be installed and/or replaced as part of the project to convey roadside drainage (Appendix B, pages B37 to B44). The new storm water drain pipes, up to 24 inches in diameter, will be installed at various locations beneath the new roadway alignment and along the roadside and will outlet at various locations not associated with jurisdictional waters.

Four reinforced concrete box (RCB) culverts will also be installed along the new terrain roadway alignment. A separate discussion of each of these structures is provided in the sections below. According to their early coordination response letter, dated December 9, 2016, the Hamilton County Surveyor's Office indicated that the project will affect two Hamilton County regulated drains in six locations and that a crossing permit will be required for each crossing (Appendix C, pages C28 to C30). As discussed in the *Project Description* section of this document, the preferred alignment was modified (shifted in two locations) following the release of this

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CE document for public involvement in August 2017. The changes to the preferred alignment will not affect the number of Hamilton County regulated drains crossed by the project. Coordination between the Hamilton County Surveyor's Office and the project designer is ongoing as the design plans are be further refined.

Structure No. 16 will be a 65-foot long RCB with a 16-foot span and 4-foot rise (Appendix B, page B38). The RCB will be installed over Waltz, Warman, Booth and Dickover Legal Drain (Legal Drain 1), located approximately 2,500 feet west of Gwinn Road. Legal Drain 1 is conveyed via a clay tile below the ground surface at this location, which will be replaced with approximately 100 linear feet of 12-inch diameter RCP. The new RCB will span the new concrete pipe segment of Legal Drain 1 and will convey roadside drainage at the ground surface. Because Legal Drain 1 is conveyed via clay tile below the surface, installation of this RCB will not impact a stream channel. However, approximately 100 linear feet of Legal Drain 1 will be impacted to replace the existing clay tile with the 12-inch diameter RCP. Please refer to the *Streams, Rivers, Watercourses & Jurisdictional Ditches* section of this document for further details of stream impacts.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A
If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

Structure/NBI Number(s): Structure No. 22 Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Corrugated metal pipe: 24 in. x 56 ft.		Reinforced concrete box: 9 ft. x 4 ft. x 125 ft.
Number of Spans:	N/A		1
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	N/A
Curb to Curb Width:	N/A	ft.	N/A
Outside to Outside Width:	N/A	ft.	N/A
Shoulder Width:	N/A	ft.	N/A
Length of Channel Work:			N/A

Describe bridges and structures; provide specific location information for small structures.

Remarks: An existing 24-inch diameter by 56-foot long CMP is located on 281st Street, approximately 200 feet west of Whetston Road (Appendix B, page B15). The existing CMP conveys roadside drainage at the surface and is situated above and immediately adjacent to the existing clay tile of H.A. McMullen Ditch 2 – Main Arm (Legal Drain 3), also identified as UNT 2 (UNT2/Legal Drain 3). The existing CMP will be replaced with a 9-foot span by 4-foot rise by 125-foot long RCB (Structure No. 22) in the same location. The existing clay tile of UNT 2/Legal Drain 3 within the project area will be replaced with approximately 301 linear feet of 24-inch diameter RCP (Appendix B, page B42). Because UNT 2/Legal Drain 3 is conveyed via clay tile below the surface, installation of the new RCB will not impact a stream channel. However, approximately 301 linear feet of UNT 2/Legal Drain 3 will be impacted to replace the existing clay tile with the 24-inch diameter RCP. Please refer to the *Streams, Rivers, Watercourses & Jurisdictional Ditches* section of this document for further details of stream impacts.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A

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Structure/NBI Number(s): Structure No. 23 Sufficiency Rating: N/A
 (Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Corrugated metal pipe: 68 in. x 43 in. x 40 ft.		Reinforced concrete box: 7 ft. x 4 ft. x 75 ft.
Number of Spans:	1		1
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	N/A
Curb to Curb Width:	N/A	ft.	N/A
Outside to Outside Width:	N/A	ft.	N/A
Shoulder Width:	N/A	ft.	N/A
Length of Channel Work:			N/A

Describe bridges and structures; provide specific location information for small structures.

Remarks: An existing 68-inch span by 43-inch rise by 40-foot long CMP is located on Whetston Road, approximately 100 feet north of the existing intersection with 281st Street. The existing CMP conveys roadside drainage at the surface and is situated above and immediately adjacent to the existing clay tile of UNT 2/Legal Drain 3. The existing CMP will be replaced with a 7-foot span by 4-foot rise by 75-foot long RCB (Structure No. 23) in the same location. The existing clay tile of UNT 2/Legal Drain 3 within the project area will be replaced with approximately 301 linear feet of 24-inch diameter RCP (Appendix B, page B42). Because UNT 2/Legal Drain 3 is conveyed via clay tile below the surface, installation of the new RCB will not impact a stream channel. However, approximately 301 linear feet of UNT 2/Legal Drain 3 will be impacted to replace the existing clay tile with the 24-inch diameter RCP. Please refer to the *Streams, Rivers, Watercourses & Jurisdictional Ditches* section of this document for further details of stream impacts.

Will the structure be rehabilitated or replaced as part of the project? Yes No N/A

Structure/NBI Number(s): Structure No. 33 Sufficiency Rating: N/A
 (Rating, Source of Information)

	Existing		Proposed
Bridge Type:	Corrugated metal pipe: 48 in. x 40 ft.		Reinforced concrete box: 9 ft. x 5 ft. x 60 ft.
Number of Spans:	1		1
Weight Restrictions:	N/A	ton	N/A
Height Restrictions:	N/A	ft.	N/A
Curb to Curb Width:	N/A	ft.	N/A
Outside to Outside Width:	N/A	ft.	N/A
Shoulder Width:	N/A	ft.	N/A
Length of Channel Work:			110

Describe bridges and structures; provide specific location information for small structures.

Remarks: An existing 48-inch diameter by 40-foot long CMP is located approximately 290 feet west of the 281st Street/SR 19 Intersection (Appendix B, pages B20 and B21). The existing CMP conveys an unnamed tributary to Little Cicero Creek (UNT 1), also known as H.A. McMullen Ditch 1 – Open Drain (Legal Drain 6). The existing CMP will

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be removed and replaced with a 9-foot span by 5-foot rise by 60-foot long RCB (Structure No. 33) (Appendix B, page B44). Because UNT 1/Legal Drain 6 is conveyed via open channel, the removal of the existing CMP and installation of the new RCB will result in approximately 129 linear feet of impact to the channel. Realignment of the existing stream channel will not occur. Please refer to the *Streams, Rivers, Watercourses & Jurisdictional Ditches* section of this document for further details of stream impacts.

Will the structure be rehabilitated or replaced as part of the project? **Yes** **No** **N/A**

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is a temporary roadway proposed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for access by local traffic and so posted.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made for through-traffic dependent businesses.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Provisions will be made to accommodate any local special events or festivals.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Will the proposed MOT substantially change the environmental consequences of the action?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is there substantial controversy associated with the proposed method for MOT	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

The proposed project will be constructed in phases. Phase I of the maintenance of traffic (MOT) will involve closing 276th Street during construction and utilizing a detour route. The detour route will involve Devaney Road, 266th Street, Gwinn Road, and 274th Street for a total length of approximately 3.25 miles. Access to Beck's Superior Hybrids and residential properties will be maintained during construction. Phase II of the MOT will involve constructing the new terrain alignment portion of the project and will not involve any roadway closures. Phase III will involve closing 281st Street/Railroad Street during construction and utilizing a detour route. The detour route will involve Gwinn Road, 286th Street, SR 19, 274th Street, and 276th Street, for a total length of approximately 4.75 miles (Appendix B, pages B31 to B36). Access to residential properties will be maintained during construction.

The MOT may pose delays and temporary inconveniences to traveling motorists, including school buses and emergency services; however, all inconveniences will cease upon project completion. Hamilton County will coordinate with school corporations and emergency units at least two weeks prior to construction so they are aware of the project. Access to all properties affected by the project will be maintained throughout construction.

One business, Beck's Superior Hybrids, is within the project area. The proposed expansion of Beck's Superior Hybrids is expected to increase truck traffic and cause existing pavement conditions on 276th Street to further deteriorate. The project will benefit the business and surrounding residential properties by providing a structurally sufficient and efficient route from 276th Street to SR 19 via 281st Street to accommodate the expected increase in truck traffic volume associated with Beck's Superior Hybrids. The new alignment will also reduce the volume of large trucks using the nearby narrow local roads. Beck's Superior Hybrids may experience temporary inconveniences during construction of the project; however, they are aware of the anticipated inconvenience and support the project.

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Per the Fairs and Festivals website (www.fairsandfestivals.net) (accessed on April 2, 2018 by RQAW), two festivals were noted within 10 miles for zip codes 46031 and 46030. The project is not expected to impact these events because the events are nine miles away and there are several adjacent roads next to the project area that fair or festival goers can utilize. Beck's Superior Hybrids also hosts the "Becknology Days" festival every August. Coordination with Beck's Superior Hybrids will occur prior to construction and provisions will be made during construction to accommodate the "Becknology Days" festival.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 530,000 (2017) Right-of-Way: \$ 660,000 (2018) Construction: \$ 5,010,000 (2019)

Anticipated Start Date of Construction: Summer of FY 2019

Date project incorporated into STIP July 3, 2017 (Appendix H, page H1)

Is the project in an MPO Area? **Yes** **No**

If yes,

Name of MPO Indianapolis Metropolitan Planning Organization (IMPO)

Location of Project in TIP <https://mitip.indympo.org/>

Date of incorporation by reference into the STIP July 3, 2017 (Appendix H, page H2)

RIGHT OF WAY:

Land Use Impacts	Amount (acres)	
	Permanent	Temporary
Residential	0.64	0.23
Commercial (Beck's Superior Hybrids)	2.92	0.57
Agricultural	22.70	0.21
Forest	0.81	0.01
Wetlands	0.03	0
Other:	0	0
TOTAL	27.1	1.02

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks: Adjacent land use is largely agricultural with commercial and residential in a rural setting. The existing right-of-way width along 276th Street is edge of pavement. The existing right-of-way width along 281st Street is also edge of pavement. The approximate right-of-way width on new alignment varies between 95 and 115 feet, with the width expanding at intersecting roads (SR 19, Whetston Road, Gwinn Road and an access road associated with Beck's Superior Hybrids). Approximately 27.1 acres of permanent and 1.02 acres of

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temporary right-of-way will be needed for the proposed project (Appendix B, pages B4 to B6). Of the required 27.1 acres of permanent right-of-way, approximately 0.64 acres will be from residential land, 2.92 acres will be from commercial land (donated by Beck’s Superior Hybrids), 22.70 acres will be from agricultural land (12.19 acres donated by Beck’s Superior Hybrids), 0.81 acre will be from forested land and 0.027 acre (rounded to 0.03 acre) will be from a delineated wetland (Wetland A). A total of 15.11 acres of permanent right-of-way will be required from Beck’s Superior Hybrids, all of which will be donated to Hamilton County specifically for the proposed project. Of the required 1.02 acres of temporary right-of-way, approximately 0.23 acre will be from residential land, 0.57 acre will be from commercial land (donated by Beck’s Superior Hybrids), 0.21 acre will be from agricultural land, and 0.01 will be from forested land. The temporary right-of-way is needed for land grading and drainage improvements.

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	X	X	
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			

Remarks: RQAW conducted a desktop review of USGS topographic maps, aerial photographs and published Geographic Information Systems (GIS) data from IndianaMap on November 11, 2016, in order to identify any waterways located within the immediate vicinity of the project area. Two streams are mapped within and near the project area. Little Cicero Creek is mapped approximately 140 feet west of the western project limits along 276th Street, which is outside the limits of the project. The stream is impaired with *Escherichia coli* (E. coli). Workers who will be in or near water with E. coli should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. An unnamed tributary (UNT) to Cicero Creek (UNT 1) is mapped within the eastern portion of the project area along 281st Street/Railroad Street (Appendix E, page E8; and Appendix F, page F5).

Field checks of the project area were conducted by an RQAW ecologist on November 11, 2016 and March 24, 2017. Four UNTs to Cicero Creek, identified as UNT 1, UNT 2, UNT 3, and UNT 4 were observed exhibiting ordinary high water mark (OHWM) characteristics within the vicinity of the project area during the field checks (Appendix B, pages B4 to B6; and Appendix F, page F5). UNT 1 and UNT 2 are also considered legal drains, which are discussed below. No other streams or waterways exhibiting OHWM characteristics were observed within or near the project area during the field checks.

There are also six legal drains present within the project area. These legal drains are conveyed through a series of clay tiles below the ground surface and cross the project area in six locations. The six legal drain crossing locations are identified as Waltz, Warman, Booth and Dickover Drain (Legal Drain 1), H.A. McMullen

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Drain Ditch 2 – Arm 1 (Legal Drain 2), H.A. McMullen Ditch 2 – Main Arm (Legal Drain 3, also identified as UNT 2), H.A. McMullen Ditch 2 – Arm 2 (Legal Drain 4), H.A. McMullen Ditch 2 – Arm 3 (Legal Drain 5), and H.A. McMullen Ditch 1 – Open Drain (Legal Drain 6, also identified as UNT 1) (Appendix B, pages B4 to B6; and Appendix F, pages F5 and F11).

A *Waters of the US Determination/Wetland Delineation Report* was prepared for the project by RQAW on May 24, 2017 and will be sent to the USACE during the permitting process (Appendix F, pages F1 through F25). The following summarizes the findings of the report in regard to streams within the project area.

UNT of Cicero Creek (UNT 1)/H.A. McMullen Ditch 1 – Open Drain (Legal Drain 6): This stream flows from south to north under 281st Street and empties into UNT 2 approximately 400 feet north of the project area (Appendix B, pages B4 and B6; and Appendix F, pages F5 and F11). The Qualitative Habitat Evaluation Index (QHEI) score was 39, which indicates “good” water quality (Appendix F, pages F16 to F17). This stream exhibited a defined bed and bank and ordinary high water mark (OHWM) characteristics of 4.4 feet wide by 4 inches deep. Based on these criteria, this stream is likely to be considered a Waters of the U.S. (i.e. jurisdictional waterway). The upstream drainage area is 0.19 square mile. UNT 1/Legal Drain 6 is not listed as a Federal Wild and Scenic River; State Natural, Scenic and Recreational River; or as a IDNR Outstanding River. Approximately 129 linear feet (0.01 acre) of total stream impacts are anticipated to occur below the OHWM in order to replace the existing 48-inch diameter CMP structure with a 9-foot span by 5-foot rise by 60-foot long RCB structure (Structure No. 33).

UNT 2/H.A. McMullen Ditch 2 – Main Arm (Legal Drain 3): UNT 2/Legal Drain 3 is an encapsulated tile drain within the project area and becomes an open channel stream approximately 300 feet north of the project area. UNT 2/Legal Drain 3 flows from southwest to northeast and empties into Cicero Creek, approximately 2,200 feet east of the eastern limits of the project (Appendix B, pages B4 and B6; and Appendix F, pages F5 and F11). Within the project area, UNT 2/Legal Drain 3 is conveyed by a 20-inch diameter clay tile situated below the ground surface and runs immediately adjacent to two existing CMPs. No qualitative evaluation was assessed for UNT 2/Legal Drain 3 due to the stream being an encapsulated legal drain within the project area. This stream exhibited a defined bed and bank and OHWM characteristics within the open channel portion north of the project area. Based on these criteria, this stream is likely to be considered a Waters of the U.S.

Approximately 301 linear feet of the existing clay tile conveying UNT 2/Legal Drain 3 through the project area will be replaced with 24-inch diameter RCP (Appendix B, page B42). The replacement of the existing clay tile will result in approximately 301 linear feet of impacts to UNT 2/Legal Drain 3; however, this action will not result in any new impacts to UNT 2/Legal Drain 3 since the portion of the stream within the project area is already encapsulated. Impacts to the open channel portion of UNT 2/Legal Drain 3, north of the project area, will not occur because it is located outside the limits of the project.

As stated above, UNT2/Legal Drain 3 runs below and immediately adjacent to two existing CMPs. One CMP is located on 281st Street, approximately 200 feet west of Whetston Road, and conveys surface drainage. The existing 24-inch diameter by 56-foot long CMP at this location will be replaced with a 9-foot span by 4-foot rise by 125-foot long RCB culvert (Structure No. 22) in the same location. The other CMP is located on Whetston Road, approximately 100 feet north of 281st Street, and also conveys surface drainage. The existing 68-inch span by 43-inch rise by 40-foot long CMP at this location will be replaced with a 7-foot span by 4-foot rise by 75-foot long RCB (Structure No. 23) in the same location (Appendix B, page B42). Neither of these culverts are associated with any jurisdictional stream feature that exhibited an OHWM or defined bed and bank. Because UNT 2/Legal Drain 3 is conveyed via drain tile below the surface, replacement of the CMPs will not impact a stream channel.

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UNT 3: This stream is an open channel located approximately 160 feet north of the project limits (Appendix B, pages B4 and B6; and Appendix F, page F5). UNT 3 flows from south to north and empties into UNT 2/Legal Drain 3 approximately 300 feet north of the project. UNT 3 exhibited a defined bed and bank and OHWM characteristics of 4.3 feet wide and 3 inches deep. Based on these criteria, this stream is likely to be considered a Waters of the U.S.; however, impacts to UNT 3 will not occur since it is located outside the limits of the project.

UNT 4: This stream is an open channel located approximately 100 feet north of the project limits (Appendix B, pages B4 and B6; and Appendix F, page F5). UNT 4 flows from south to north and empties into UNT 3 approximately 185 feet north of the project. This stream exhibited a defined bed and bank and OHWM characteristics of 0.83 feet wide by 1 inch deep. Based on these criteria, this stream is likely to be considered a Waters of the U.S.; however, impacts to UNT 4 will not occur since it is located outside the limits of the project.

Waltz, Warman, Booth and Dickover legal drain (Legal Drain 1): Legal Drain 1 flows from north to south through the project area and empties into Little Cicero Creek approximately 4,080 feet south of 276th Street (Appendix B, pages B4 and B5; and Appendix F, pages F5 and F11). Legal Drain 1 is conveyed by a 12-inch diameter clay tile below the ground surface and crosses the proposed new roadway alignment approximately 2,500 feet west of Gwinn Road. Since this legal drain is completely encapsulated, no qualitative evaluation was taken. Legal Drain 1 is likely considered a Waters of the U.S. due to its connection to Little Cicero Creek. Approximately 100 linear feet of the existing clay tile conveying Legal Drain 1 through the project area will be replaced with 12-inch diameter RCP (Appendix B, page B38). The replacement of the existing clay tile will result in approximately 100 linear feet of impacts to of Legal Drain 1; however, this action will not result in any new impacts to Legal Drain 1 since the portion of the stream within the project area is already encapsulated.

Additionally, a 16-foot span by 4-foot rise by 65-foot long RCB culvert (Structure No. 16) will be installed above the new 24-inch diameter concrete pipe segment of Legal Drain 1 and will convey roadside drainage at the ground surface (Appendix B, page B38). The new RCB structure is not associated with any jurisdictional stream feature that exhibits an OHWM or defined bed and bank. Because Legal Drain 1 is conveyed by a tile drain below the surface, installation of the RCB will not impact a stream channel.

Legal Drain 1 also crosses 276th Street within the portion of Phase I now included in Phase II, approximately 850 feet west of Gwinn Road. The legal drain will not be impacted at this location because the work in this area will be limited to the existing 276th Street pavement.

H.A. McMullen Drain Ditch 2 – Arm 1 (Legal Drain 2): Legal Drain 2 flows from north to south through the project area and empties into UNT 2/Legal Drain 3 approximately 720 feet south of the project (Appendix B, pages B4 and B5; and Appendix F, pages F5 and F11). Legal Drain 2 is conveyed by an 8-inch diameter clay tile below the ground surface and begins on the south side of 281st Street, approximately 700 feet east of Gwinn Road. Since this legal drain is completely encapsulated, no qualitative evaluation was taken. Legal Drain 2 is likely considered a Waters of the U.S. due to its connection with UNT 2/Legal Drain 3. The proposed new roadway alignment will be constructed along the north side of the existing 281st Street roadway. If the clay tile is damaged during construction, then it will be replaced with a RCP under the roadway. Coordination between the project designer and the Hamilton County Surveyor’s Office will occur to determine the dimensions of the RCP, in the event replacement is needed. If replacement of the clay tile is necessary, it would not result in any new impacts to Legal Drain 2 since it is already encapsulated.

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H.A. McMullen Ditch 2 – Arm 2 (Legal Drain 4): Legal Drain 4 flows from south to north through the project area and empties into UNT 2/Legal Drain 3 approximately 60 feet north of existing 281st Street (Appendix B, pages B4 and B6; and Appendix F, pages F5 and F11). Legal Drain 4 is conveyed by a 4-inch diameter clay tile below the ground surface and is located along the west side of Whetston Road. Since this legal drain is completely encapsulated, no qualitative evaluation was taken. Legal Drain 4 is likely considered a Waters of the U.S. due to its connection with UNT 2/Legal Drain 3. The existing clay tile will likely need to be replaced with an RCP. Coordination between the project designer and the Hamilton County Surveyor’s Office will occur to determine the dimensions of the RCP. Replacement of the clay tile will not result in any new impacts to Legal Drain 4 since it is already encapsulated.

H.A. McMullen Ditch 2 – Arm 3 (Legal Drain 5): Legal Drain 5 flows from south to north through the project area and empties into UNT 2/Legal Drain 3 approximately 215 feet north of the project (Appendix B, pages B4 and B6; and Appendix F, pages F5 and F11). Legal Drain 5 is conveyed by an 8-inch diameter clay tile below the ground surface and crosses the proposed new roadway alignment approximately 380 feet east of Whetston Road. The existing clay tile will likely need to be replaced with a RCP. Coordination between the project designer and the Hamilton County Surveyor’s Office will occur to determine the dimensions of the RCP. Replacement of the clay tile will not result in any new impacts to Legal Drain 5 since it is already encapsulated.

Approximately 530 linear feet of total stream impacts are anticipated to occur to Legal Drain 1, UNT 2/Legal Drain 3, and UNT 1/Legal Drain 6. Of these impacts, approximately 70 linear feet (0.007 acre) of new impacts will occur below the OHWM of UNT 1/Legal Drain 6. Stream mitigation is required when new impacts meet or exceed 300 linear feet and/or 0.1 acre below the OHWM (impacts outside of what is currently encapsulated). Because new stream impacts will not meet or exceed the 300 linear feet mitigation threshold, stream mitigation will not be required. Legal Drain 1 and UNT 2/Legal Drain 3 are currently encapsulated by clay tiles below the ground surface; therefore, replacement of the clay tiles with RCPs will not result in any new impacts and will not count towards the stream mitigation threshold.

The other legal drains within the project area mentioned above are currently encapsulated by existing clay tiles below the ground surface, and thus do not exhibit defined bed and bank or OHWM characteristics. Since these legal drains are encapsulated, replacement of the clay tiles with RCPs, if determined necessary, would not result in any new impacts to the legal drains, and thus would not count towards the stream mitigation threshold. Please see the *Permits* section at the end of this document for a discussion of the required permits for the project.

Early coordination letters were sent to the USACE, Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife, Hamilton County Surveyor’s Office, and IDEM on November 22, 2016 (Appendix C, pages C1 to C3). The U.S. Fish and Wildlife Service (USFWS) was consulted on March 1, 2017. The automatic generated response letter from IDEM was received on November 22, 2016 (Appendix C, pages C4 to C11). The USACE did not respond to the early coordination letter.

The Hamilton County Surveyor’s Office responded to early coordination efforts in a letter dated December 9, 2016 (Appendix C, pages C28 to C30). In their response letter, the Hamilton County Surveyor’s Office indicated that the project will affect two Hamilton County regulated drains in six locations and that a crossing permit will be required for each crossing. The affected regulated drain tiles include the Waltz, Warman Booth and Dickover regulated drain (Legal Drain 1) and the Open Drain, Ditch 2 Arm 1, Ditch 2 Arm 2, Ditch 2 Arm 3, and Ditch 2 Main Arm of the H.A. McMullen regulated drain (Legal Drains 2 through 6). The Hamilton County

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Surveyor's Office also stated that the buried tile regulated drains will need to be replaced under 276th Street as part of the project. The Hamilton County standards for regulated drains require that reinforced concrete pipe be utilized for the replacement under the road, and a box structure will be required to be placed on each connection between the old drain and the new reinforced concrete pipe. The Hamilton County Surveyor's Office further states that numerous private tiles may also be encountered as part of this project. The Hamilton County Surveyor's Office states that all tiles must be provided a positive outlet and cannot be cut off. Coordination between the Hamilton County Surveyor's Office and the project designer is ongoing as the design plans are further refined. The proposed project will comply with the requirements provided by the Hamilton County Surveyor's Office and will be implemented in the final design plans.

The IDNR Division of Fish and Wildlife responded to early coordination efforts on March 6, 2017, with recommendations to avoid, minimize, or compensate for impacts to fish, wildlife and botanical resources. Applicable recommendations provided by IDNR Division of Fish and Wildlife regarding stream impacts include minimizing and containing inchannel disturbance and implementing erosion and sediment control to prevent sediment from entering streams during construction (Appendix C, pages C15 to C16). The applicable recommendations provided by the IDNR Division of Fish and Wildlife can be found in the *Environmental Commitments* section at the end of this document. Please note that the recommendations provided by the IDNR Division of Fish and Wildlife may become requirements of any permit issued.

The USFWS responded to early coordination efforts via e-mail on March 1, 2017, with recommended measures to minimize adverse impacts to fish and wildlife resources. Applicable recommendations provided by the USFWS regarding stream impacts include working restrictions within the inundated part of the stream channel (in perennial and larger intermittent streams) during the fish spawning season (April 1 through June 30), restricting below low-water work, minimizing channel work, extending riprap used for bank stabilization below low-water elevation, and implementing erosion and sediment control measures (Appendix C, pages C18 to C20). The relevant measures provided by the USFWS can be found in the *Environmental Commitments* section at the end of this document.

Other Surface Waters

- Reservoirs
- Lakes
- Farm Ponds
- Detention Basins
- Storm Water Management Facilities
- Other: _____

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Reservoirs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm Ponds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detention Basins	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Storm Water Management Facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

RQAW conducted a desktop review of USGS topographic maps, aerial photographs and published Geographic Information Systems (GIS) data from IndianaMap on November 22, 2016, in order to identify any water resources located within the immediate vicinity of the project area. No other surface waters are mapped within or adjacent to the project area (Appendix E, page E8). No other surface waters were identified in or near the project area during the field checks conducted by an RQAW ecologist on November 11, 2016, and March 24, 2017. Per the approved CE-4 for Phase I (Des. No. 1383334), no other surface waters were documented within or near the original eastern portion of Phase I now included in Phase II. The project will not impact any existing surface waters.

The project may include the construction of a 0.57-acre detention pond in the northwest quadrant of the single lane roundabout located at the western terminus of the project to accommodate roadside drainage

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(Appendix B, page B5). The construction of the potential detention pond was requested by Beck's Superior Hybrids; however, a final decision on construction of the pond has yet to be made by the project sponsor, Hamilton County.

Presence **Impacts**

Yes No

Wetlands

Total wetland area: 0.027 acre(s) Total wetland area impacted: 0.027 acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.)

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
A	Palustrine Emergent	0.027	0.027	Wetland A is located in the northwest quadrant of the 281 st Street/Whetston Road Intersection.

	<u>Documentation</u>	<u>ES Approval Dates</u>
Wetlands (Mark all that apply)		
Wetland Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/> N/A / LPA Project
Wetland Delineation	<input checked="" type="checkbox"/>	<input type="checkbox"/> N/A / LPA Project
USACE Isolated Waters Determination	<input type="checkbox"/>	<input type="checkbox"/>
Mitigation Plan	<input type="checkbox"/>	<input type="checkbox"/>

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks: RQAW conducted a desktop review of USGS topographic maps, aerial photographs and published Geographic Information Systems (GIS) data from IndianaMap on November 11, 2016, in order to identify any wetland areas located within the immediate vicinity of the project area. The closest National Wetlands Inventory (NWI) wetland is mapped approximately 150 feet northwest of the southwestern project limits (Appendix B, page B4; Appendix E, page E8; and Appendix F, page F28). No NWI wetlands are mapped within the project area. Per the approved CE-4 for Phase I (Des. No. 1383334), no wetlands were documented within or near the original eastern portion of Phase I now included in Phase II.

According to the Soil Survey Geographic (SSURGO) Database of Hamilton County, Brookston silty clay loam, 0 to 2 percent slopes (Br), Crosby silt loam, 0 to 2 percent slopes (CrA), Miami silt loam, 2 to 6 percent slopes (MmB2), Miami silt loam, 6 to 12 percent slopes (MmC2), and Patton silty clay loam, 0 to 2 percent slopes (Pn) are mapped within the project area (Appendix F, pages F5 to F9). Brookston silty clay loam and Patton silty clay loam are classified as poorly drained hydric soils.

Field checks of the project area were conducted by an RQAW ecologist on November 11, 2016, and March 24, 2017 to evaluate the presence of wetlands in the immediate vicinity of the project. One wetland (Wetland

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A) was identified and delineated in the northwest quadrant of the 281st Street/Whetston Road Intersection (Appendix F, page F10). A *Waters of the US Determination/Wetland Delineation Report* was prepared for the project by RQAW on May 24, 2017 and will be sent to the USACE during the permitting process (Appendix F, pages F1 through F25). The following summarizes the findings of the report in regard to wetlands.

Wetland A (0.027 acre in size): This palustrine emergent wetland is located in the northwest quadrant of the 281st Street/Whetston Intersection (Appendix B, page B4; and Appendix F, page F10). This wetland has developed in a swale above the encapsulated portion of UNT 2/Legal Drain 3. Two data points (A1 and A2) were taken to identify the boundary of Wetland A (Appendix F, pages F12 to F15). Data point A1 exhibited hydrophytic vegetation, hydric soil, and wetland hydrology, which meet the three criteria to be classified as a wetland per the USACE Wetland Delineation Manual. Data point A2 was taken approximately 15 feet northwest of data point A1 within the adjacent upland area. This data point did not meet the three criteria to be considered a wetland. The wetland delineation was performed in accordance with the *Corps of Engineers Wetland Delineation Manual* (1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0* (2010). Wetland A met all three of the wetland criteria set forth by the USACE and is likely to be considered a *Waters of the United States* due to its connectivity to UNT 2/Legal Drain 3. Approximately 0.027 acre of Wetland A exists within the proposed right-of-way limits of the project and will be permanently impacted (rounded up to 0.03 acre for right-of-way impacts). Impacts will include excavation and land grading activities in order to construct the 281st Street extension, reconstruct the 281st Street/Whetston Road Intersection, and replace two CMPs with two RCBS (Structure No. 22 and Structure No. 23).

The Do Nothing Alternative proposes that no work be completed. This alternative would avoid wetland impacts; however, it would not satisfy the purpose and need for the project. The Wetland Avoidance Alternative would include realigning the proposed roadway along 281st Street to the south of the existing intersection with Whetston Road in order to avoid impacts to the wetland. However, realignment of 281st Street to the south would likely result in having to relocate the residential property located in the southwest quadrant of the intersection, resulting in higher costs. This alternative meets the purpose and need of the project; however, due to increased costs and likely need for the relocation of a residential property, this alternative was dismissed from further consideration.

Mitigation is required when permanent impacts to wetlands meet or exceed 0.1 acre. Approximately 0.027 acre of wetland impacts are anticipated to occur within the proposed permanent right-of-way limits of the project. Because impacts will not meet the 0.1 acre mitigation threshold, wetland mitigation will not be required. Wetland boundaries will be identified as "Do Not Disturb" on the final design plans. This is listed as a firm (required) commitment at the end of this document. Wetland boundaries will be identified in the field prior to construction to avoid indirect impacts. Orange fencing and signage will be placed to form a boundary between the impacted wetland area and the non-impacted wetland area.

Per early coordination efforts, the automatic generated response letter from IDEM was received on November 22, 2016 (Appendix C, pages C4 to C11). The IDNR Division of Fish and Wildlife responded to early coordination efforts on March 6, 2017, with recommendations to avoid, minimize, or compensate for impacts to fish, wildlife and botanical resources. (Appendix C, pages C15 to C16). The IDNR Division of Fish and Wildlife did not provide any recommendations related to wetland impacts in their early coordination response letter.

The USFWS responded to early coordination efforts via e-mail on March 1, 2017, with recommended measures to minimize adverse impacts to fish and wildlife resources (Appendix C, pages C18 to C20). The USFWS did not provide any measures related to wetland impacts in their early coordination response e-mail.

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	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks: Adjacent land use is largely agricultural with commercial and residential in a rural setting. Per site visits conducted on November 11, 2016, and March 24, 2017, by an RQAW ecologist, dominant vegetation observed included row crops, tall fescue (*Schedonorus arundinaceus*), and black walnut (*Juglans nigra*). Although no animals were observed, it can be assumed that certain common animals are likely present within the project area (e.g. squirrels, raccoons, birds, etc.).

Approximately 27.1 acres will be permanently impacted by the proposed project. Of this, approximately 0.64 acre will be from residential land, 0.03 acre will be from delineated Wetland A, 0.81 acre will be from forested land, 2.92 acres will be from commercial land (donated by Beck's Superior Hybrids) and 22.7 acres will be from agricultural land (12.19 acres donated by Beck's Superior Hybrids). Several trees are located within the new alignment between Whetston Road and SR 19. Up to approximately 0.81 acre of trees will be cleared for the project. The trees expected to be cleared are part of a stand of black walnut (*Juglans nigra*) and generally contain trees ranging from four to six inches in diameter-at-breast-height (dbh). These trees are suitable for Indiana bat and northern long-eared bat roosting habitat. Per the approved CE-4 for Phase I (Des. No. 1383334), no impacts to unique or high quality terrestrial habitat were documented within the original eastern portion of Phase I now included in Phase II.

Per early coordination efforts, the automatic generated response letter from IDEM was received on November 22, 2016 (Appendix C, pages C4 to C11). The IDNR Division of Fish and Wildlife responded to early coordination efforts on March 6, 2017, with recommendations to avoid, minimize, or compensate for impacts to fish, wildlife and botanical resources. Applicable recommendations provided by IDNR Division of Fish and Wildlife regarding terrestrial habitat impacts include avoiding impacts to the wooded area west of the railroad crossing, mitigating impacts to non-wetland forest, revegetating disturbed areas, minimizing and containing brush and tree clearing, and implementing erosion and sediment control measures. (Appendix C, pages C15 to C16). The applicable recommendations provided by the IDNR Division of Fish and Wildlife can be found in the *Environmental Commitments* section at the end of this document. Please note that the recommendations provided by the IDNR Division of Fish and Wildlife may become requirements of any permit issued.

The USFWS responded to early coordination efforts via e-mail on March 1, 2017, with recommended measures to minimize adverse impacts to fish and wildlife resources. Applicable recommendations provided by the USFWS regarding terrestrial habitat impacts include minimizing vegetation clearing, implementing temporary erosion and sediment control measures, and revegetating all disturbed soils upon completion. (Appendix C, pages C18 to C20). The relevant measures provided by the USFWS can be found in the *Environmental Commitments* section at the end of this document.

The project will not impact any core forest and will not have significant impacts on wildlife communities. The project will have minimal impacts to ecological resources because the project is located in an area heavily farmed with minimal to low quality habitat present.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

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Karst

	Yes	No
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Are karst features located within or adjacent to the footprint of the proposed project?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If yes, will the project impact any of these karst features?	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: The project is located in Hamilton County, which is outside the designated karst area of the state, as identified in the October 13, 1993 Memorandum of Understanding (MOU) between INDOT, IDNR, IDEM and USFWS. No karst features are mapped, or known to be, within the project area (Appendix B, page B2; Appendix E, page E8). Impacts to karst features are not expected.

The Indiana Geological Survey (IGS) did not note any karst concerns in their early coordination response questionnaire dated November 30, 2016 (Appendix C, page C27). The project is not anticipated to impact any karst features.

Threatened or Endangered Species

	Presence	Impacts	
		Yes	No
Within the known range of any federal species	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Any critical habitat identified within project area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Federal species found in project area (based upon informal consultation)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
State species found in project area (based upon consultation with IDNR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is Section 7 formal consultation required for this action? **Yes** **No**

Remarks: Per review of the USFWS County Distribution of Federally-Listed Threatened, Endangered, Proposed, and Candidate Species as published on the USFWS website (<https://www.fws.gov/midwest/Endangered/lists/indiana-cty.html>) on May 17, 2017, by RQAW, Hamilton County is within the range of the federally endangered Indiana bat (*Myotis sodalis*), federally endangered rusty patched bumble bee (*Bombus affinis*), federally threatened northern long-eared bat (*Myotis septentrionalis*), and the federally protected bald eagle (*Haliaeetus leucocephalus*). Field checks of the project area were conducted by an RQAW ecologist on November 11, 2016 and March 24, 2017. A stand of black walnut (*Juglans nigra*) trees, ranging from four to six inches dbh, are located within the new alignment between Whetston Road and SR 19. These trees are suitable for Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) roosting habitat. Up to approximately 0.81 acre of trees will be cleared for the project.

Per the IDNR response letter, it was noted that the little spectaclecase (*Villosa lienosa*), a state species of special concern, is documented in Cicero Creek within a half mile east of the project area. However, the IDNR Division of Fish and Wildlife does not foresee any impacts to the mussel as a result of the project (Appendix C, pages C15 to C16).

Per the USFWS response e-mail, the project is within the range of the Indiana bat and northern long-eared bat and there is suitable summer habitat for both species present throughout the project area and the surrounding area, including wooded areas within the project boundary. Per the USFWS, the project will not eliminate enough habitat to affect these species, but to avoid incidental take from removal of an occupied roost, it is recommended that tree-clearing be avoided during the period of April 1 through September 30. If

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this measure is implemented, the USFWS concurs the project is not likely to adversely affect the Indiana bat or the northern long-eared bat (Appendix C, pages C18 to C20).

The rusty patched bumble bee (*Bombus affinis*) was listed as federally endangered by the USFWS on March 21, 2017. Since the rusty patched bumble bee (*Bombus affinis*) was listed as a federally endangered species after the early coordination phase of the project, RQAW consulted the USFWS Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) on May 17, 2017, to determine if this species has the potential to occur within the project area. The project information was entered into the IPaC website and an Official Species List was generated, which indicates whether any species listed or proposed to be listed as federally threatened or endangered may be present in the project area. The rusty patched bumble bee (*Bombus affinis*) was not included in the Official Species List (Appendix I, pages I36 to I41); therefore, the proposed project is not likely to affect this species and additional coordination with the USFWS is not needed.

The requirements of Section 7 of the Endangered Species Act have been fulfilled. See all relevant measures in *Environmental Commitments*.

SECTION B – OTHER RESOURCES

Drinking Water Resources

- Wellhead Protection Area
- Public Water System(s)
- Residential Well(s)
- Source Water Protection Area(s)
- Sole Source Aquifer (SSA)

	Presence	Impacts	
		Yes	No
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Residential Well(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Source Water Protection Area(s)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?	<input type="checkbox"/>	<input type="checkbox"/>
Is the FHWA/EPA SSA MOU Applicable?	<input type="checkbox"/>	<input type="checkbox"/>
Initial Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>
Detailed Groundwater Assessment Required?	<input type="checkbox"/>	<input type="checkbox"/>

Remarks:

The proposed project is located in Hamilton County; therefore, the project is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Agreement (MOA) is not applicable to this project, and a detailed groundwater assessment is not required.

In a letter dated December 2, 2016, the IDEM Ground Water Section stated the project area is not within a Wellhead Protection Area (WHPA); however, the project is located within a Source Water Assessment Area (Appendix C, pages C12 to C13). Citizens Energy Group was e-mailed project details on February 22, 2017, and asked to provide comments. Citizens Energy Group responded on February 22, 2017, and stated that, "utilizing best management practices will help to keep all environmental impact on-site per normal specs." Citizens Energy Group also requested IDEM Office of Emergency Response and themselves to be notified if any environmental impact enters a ditch or stream (especially Little Cicero Creek) (Appendix C, page C14). Best Management Practices are common stipulations of IDEM's Rule 5 Permit which will be required.

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According to the IDNR Water Wells Enhanced Web Viewer website (<http://www.in.gov/dnr/water/6604.htm>) accessed on January 19, 2017, by RQAW, two unconsolidated water wells are mapped near the project limits. One water well is mapped near the 281st Street/Whetston Road Intersection and one water well is mapped near 281st Street and the railroad junction. Impacts to private or public water wells are not expected. If any residential or public wells are encountered, they will be re-drilled as part of the right-of-way agreement with the property owner. If any identified well needs to be backfilled, it will be performed according to 312 IAC 13-10. This is listed in the *Environmental Commitments* section at the end of this document.

Flood Plains	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks: According to the available Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM), approximately 70 feet of the west end of the project area along 276th Street is located within the mapped 100-year floodplain of Little Cicero Creek (Appendix B, pages B4 and B5; and Appendix F, pages F26 to F27). Work within the mapped floodplain will involve incidental construction in order to tie into the existing 276th Street pavement. This will result in a transverse encroachment on the floodplain; however, no drainage structures will be constructed, replaced, or modified within this area. This project qualifies as a Category 1 project according to the five categories of projects established by INDOT for impacts to floodplains. Therefore, the following statement from the 2013 *INDOT CE Manual* applies: "Although this project involves work within the horizontal limits of the 100-year floodplain, no work is being performed below the 100-year flood elevation and as a result this project does not encroach upon the base floodplain."

The IDNR responded to early coordination efforts via a letter dated March 1, 2017, and stated that formal approval by the IDNR is required (i.e. a Construction in a Floodway Permit will be needed) (Appendix C, pages C15 to C16). However, no work is being performed below the 100-year flood elevation, and as a result this project does not encroach upon the base floodplain. Therefore, a Construction in a Floodway Permit will not be needed.

Farmland	<u>Presence</u>	<u>Impacts</u>	
		Yes	No
Agricultural Lands	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* 151

**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: An early coordination letter was sent to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) on November 22, 2016. The NRCS responded to the early coordination letter on December 6, 2016, stating that the proposed project will cause a conversion of prime farmland (Appendix C, pages C21 to C22). However, the preferred alignment was later modified (shifted in two locations) to avoid impacts to a center-pivot irrigation system on the Beck's Superior Hybrids property and minimize impacts to a stand of walnut trees (Appendix B, page B3). The change in the preferred alignment resulted in a slight

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increase in impacts to agricultural land, thus re-coordination with the NRCS occurred on March 27, 2018. The project will impact approximately 22.7 acres of agricultural land. According to the NRCS re-coordination response letter, dated April 4, 2018, the proposed project will cause a conversion of prime farmland (Appendix C, pages C23 to C24). A total score of 151 was calculated for the NRCS-CPA-106 Form. As is required by the Farmland Protection Policy Act, the NRCS has been coordinated with and the Form NRCS-CPA-106 has been completed. Since this project received a total point value of less than 160 points, this site will receive no further consideration for farmland protection. No other alternatives other than those already discussed in this document will be considered without a re-evaluation of the project's potential impacts upon farmland. This project will not have a significant impact to farmland. The completed Form NRCS-CPA-106 was e-mailed back to the NRCS on April 10, 2018, by RQAW.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance				X

**Eligible and/or Listed
Resource Present**

Results of Research

Archaeology	
NRHP Buildings/Site(s)	X
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

**Documentation
Prepared**

Documentation (mark all that apply)

		ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report	X	February 24, 2017	March 29, 2017
Archaeological Records Check/ Review	X	February 17, 2017 & March 8, 2018	March 29, 2017 & April 10, 2018
Archaeological Phase Ia Survey Report	X	February 17, 2017 & March 8, 2018	March 29, 2017 & April 10, 2018
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery APE, Eligibility and Effect Determination	X	April 21, 2017 & February 8, 2018	May 19, 2017 & April 10, 2018
800.11 Documentation	X	April 21, 2017	May 19, 2017

Memorandum of Agreement (MOA) **MOA Signature Dates** (List all signatories)

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Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks:

As a result of Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and CFR Part 800 (Revised January, 2001), federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects and or districts. This project is receiving funds from the FHWA which is designated the lead Federal agency in this Section 106 undertaking.

As discussed below, the Section 106 process for this project was initially completed on May 19, 2017 with the Indiana State Historic Preservation Officer's (SHPO) concurrence of the Section 106 effect finding of "No Adverse Effect". However, following the release of this CE document for public involvement in August 2017, the preferred alignment was modified (shifted) in two locations. The first shift is along the west leg of the project through cultivated fields where it makes a large curve to the north and east. The preferred alignment at this location has been shifted approximately 280 feet west of the original alignment to avoid impacts to a center-pivot irrigation system on the Beck's Superior Hybrids property. The other shift is near the east end of the project where the alignment curves north, west of SR 19. The preferred roadway alignment at this location has been shifted approximately 50 feet south of the original alignment to minimize impacts to a stand of walnut trees (Appendix B, page B3). These modifications in the preferred alignment prompted the need to reopen the Section 106 process and is further discussed below.

Area of Potential Effect (APE): The APE is the area that includes all above-ground historic properties that could be affected, either directly or indirectly, by the project. The APE for this project is an irregular polygon that generally encompasses those areas adjacent to the proposed work where ground-disturbing activity may occur, areas within a viewshed of the proposed work, and areas where other non-visual direct or indirect effects such as audible impacts may occur. The APE boundary was established using guidance in the INDOT Cultural Resources Manual. The APE is more narrow (less than 0.25 mile) where the project occurs on existing roadway. The APE expands where new roadway will be constructed. Depending on screening vegetation, topography, and structures that limit views, the APE varies from less than 0.2 mile (1,000 feet) to over 0.6 mile from the proposed alignment (Appendix D, page D54).

Although modifications to the preferred alignment were made after the APE was established, RQAW's historian who meets the *Secretary of the Interior's Professional Qualifications Standards* for Section 106 reviewed the APE and recommended that it is sufficient to account for the additional effects of the alignment changes. RQAW notified INDOT Cultural Resources Office (CRO) of the project changes and APE recommendation in an email dated, February 2, 2018. In an email dated, February 8, 2018, INDOT CRO agreed that an expansion of the APE is not necessary as it covers the alignment shift (Appendix D, page D54). Therefore, the APE was not expanded.

Coordination with Consulting Parties: Early coordination was initiated with potential consulting parties on February 27, 2017. A letter was sent from RQAW inviting organizations and individuals to be consulting parties (Appendix D, pages D21 to 24). A copy of the Historic Property Report (HPR) was provided. In addition, a letter was sent from INDOT CRO inviting Tribal Historic Preservation Officers (THPO) to be consulting parties (Appendix D, pages D27 to D28). A copy of the HPR and archaeology report were provided. The following is a list of organizations, individuals, and THPOs that were sent letters (Appendix D, pages D28 to D19). Those who indicated they wished to be consulting parties are in bold. Note: INDOT, FHWA and Indiana SHPO are automatic consulting parties.

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Re-coordination: Re-coordination with all the consulting parties listed in the table below was completed due to the modifications to the preferred alignment. An additional information letter detailing the project changes was sent to the consulting parties on March 9, 2018 (Appendix D, pages D52 to D53). The letter requested concurrence from the consulting parties that the initial “No Adverse Effect” Section 106 finding remains valid. A copy of the Addendum Phase 1a Archaeological Field Reconnaissance Survey was also provided with the re-coordination letter to the Indiana SHPO and THPOs. The Indiana Landmarks Central Regional Office responded to the re-coordination efforts on April 5, 2018, stating that they concur that the initial “No Adverse Effect” Section 106 finding remains valid (Appendix D, page D51). None of the other consulting parties responded to the re-coordination efforts.

Section 106 Consulting Parties	Date of Response
1. Indiana Landmarks Central Regional Office	March 28, 2017 & April 5, 2018
2. Hamilton County Historical Society/Hamilton County Museum of History	No response
3. Hamilton County Historian	No response
4. Indianapolis Metropolitan Planning Organization	No response
5. Delaware Nation of Oklahoma	No Response
6. Miami Tribe of Oklahoma	March 3, 2017
7. Peoria Tribe of Indians of Oklahoma	No Response
8. Eastern Shawnee Tribe of Oklahoma	February 27, 2017
9. Delaware Tribes of Indians, Oklahoma	March 20, 2017

Archaeology: A Phase 1a Archaeological Field Reconnaissance Survey was completed by qualified professionals from Cultural Resource Analysts (CRA) on February 20, 2017 (Appendix D, pages D43 to D45). The survey resulted in the documentation of seven previously unrecorded archaeological sites (12H1796–12H1802). Sites 12H1797, 12H1798, 12H1800 and 12H1801 have poor archaeological integrity and limited potential to provide important information about the history or prehistory of the region. These sites are recommended not eligible for inclusion in the National Register of Historic Places (NRHP). Sites 12H1796, 12H1799 and 12H1802 likely extend beyond the boundaries of the survey area and their NRHP eligibility could not be fully assessed by the investigation. However, the portions of Sites 12H1796, 12H1799, and 12H1802 within the project area demonstrated poor integrity and have little potential to yield significant data about the history or prehistory of the region. Therefore, no further work was recommended for the portions of Sites 12H1796, 12H1799, and 12H1802 located within the survey area. Archaeological clearance was recommended for the proposed project.

The report describing these findings was sent to the INDOT CRO on January 31, 2017, and was approved, with minor revisions requested, by INDOT CRO on February 17, 2017 (Appendix D, page D31). The report was sent to the Indiana SHPO on February 27, 2017, and the Indiana SHPO concurred with the findings of the report on March 29, 2017 (Appendix D, pages D38 to D39).

Due to the modifications to the preferred alignment, an Addendum Phase 1a Archaeological Field Reconnaissance Survey, dated February 19, 2018, was completed by qualified professionals from CRA for the additional soil disturbance areas of the project (Appendix D, pages D61 to D62). The additional archaeological survey resulted in the documentation of one previously recorded archaeological site (12H1799) and three additional previously unrecorded archaeological sites (12H1821, 12H1822, 12H1823). Site 12H1799, which extended beyond the initial 2017 archaeological survey area, was re-identified within the additional archaeological survey area. Artifacts observed at Site 12H1799, and Sites 12H1821–12H1823 were recovered

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from the ground surface and the plow zone, and the depositional context suggests no potential for intact archaeological deposits. Because these sites have poor archaeological integrity, they are not recommended eligible for inclusion in the NRHP and no further work is recommended.

The addendum report describing these findings was sent to the INDOT CRO on March 2, 2018, and was approved by INDOT CRO on March 8, 2018 (Appendix D, page D56). The report was sent to the Indiana SHPO on March 9, 2018, and the Indiana SHPO concurred with the findings of the report on April 10, 2018 (Appendix D, pages D49 to D50).

Historic Properties: Please note that a Section 106 review was completed for the 276th Street Road Rehabilitation Project Phase I (Des. No. 1383334) in 2015. The HPR (Boot, February 11, 2015) recommended two resources within the current APE as eligible for the National Register: (1) Kauffman Farm (Indiana Historic Sites and Structures Inventory (IHSSI) Number 057-020-05022) and (2) Waltz Farmhouse (IHSSI Number 057-020-0009) (Appendix D, page D54). The Indiana SHPO and INDOT CRO addressed these sites in the current project (Phase II) as well. See Appendix D for the Indiana SHPO concurrence letter dated May 19, 2017 (pages D1 to D2) and the 800.11(e) document signed by INDOT, on behalf of the FHWA, on April 21, 2017 (pages D5 to D6).

The APE for the current Phase II (Des. Number 1600597) project was also investigated for the existence of any historic properties and/or structures by a qualified professional from RQAW on November 30, 2016. No additional properties listed on or eligible for listing on the NRHP were identified within the APE (Appendix D, pages D41 to D42). The HPR describing these findings was sent to INDOT CRO on January 31, 2017, and was approved by INDOT CRO on February 24, 2017 (Appendix D, page D30). The report was sent to consulting parties, including the Indiana SHPO, on February 27, 2017. The Indiana SHPO concurred with the findings of the report on March 29, 2017 (Appendix D, pages D38 to D39). In their concurrence letter, dated March 29, 2017, the Indiana SHPO also commented on a stone railroad culvert (RQAW #3) that was identified within the APE and recommended ineligible for listing on the NRHP by RQAW's qualified professional (Appendix D, page D54). In their concurrence letter, the Indiana SHPO stated that for Section 106 on another project, a similar stone railroad culvert on the same railroad line was determined eligible for inclusion in the NRHP. Furthermore, the SHPO stated that if new right-of-way and road construction for the proposed project were to come closer to this railroad culvert than what is currently proposed, then the Indiana SHPO would like to analyze the railroad culvert's integrity to evaluate its eligibility. However, the SHPO stated that, as it stands now, it does not appear that the railroad culvert would suffer any direct effects or adverse proximity effects by the project. Therefore, the Indiana SHPO did not challenge the proposed determination of ineligibility of the railroad culvert for the NRHP (Appendix D, pages D38 to D39).

Although modifications to the preferred alignment were made after the HPR was completed, RQAW's historian who meets the Secretary of the Interior's Professional Qualifications Standards for Section 106 reviewed the APE and recommended that it is sufficient to account for the additional effects of the alignment changes. RQAW notified INDOT CRO of the project changes and APE recommendation in an email dated, February 2, 2018. In an email dated, February 8, 2018, INDOT CRO agreed that an expansion of the APE is not necessary as it covers the alignment shift (Appendix D, page D58). Therefore, the APE was not expanded and no additional above-ground historic surveys were conducted.

Documentation, Findings: The 800.11(e) document was sent to INDOT CRO on March 30, 2017, and was signed by INDOT, on behalf of FHWA, on April 21, 2017 (Appendix D, page D6). The 800.11(e) document was sent to consulting parties, including the Indiana SHPO, on April 25, 2017. The Indiana SHPO concurred with the "No Adverse Effect" Section 106 finding on May 19, 2017, and Indiana Landmarks concurred with the "No

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Wildlife & Waterfowl Refuges

- National Wildlife Refuge
- National Natural Landmark
- State Wildlife Area
- State Nature Preserve

Presence

Use

Yes	No

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA Approval date

--

Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

X

Use

Yes	No
	X

Evaluations Prepared

- Programmatic Section 4(f)*
- “De minimis” Impact*
- Individual Section 4(f)

FHWA Approval date

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*FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.

Discuss Programmatic Section 4(f) and “de minimis” Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, “de minimis” and Individual Section 4(f) evaluations please refer to the “Procedural Manual for the Preparation of Environmental Studies”. Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

Section 4(f) of the Department of Transportation Act of 1966, 49 USC 303(c) was established to protect publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites against direct or constructive use impacts from transportation projects. Per review of infrastructure shapefiles from IndianaMap, USGS topographic map and site visits conducted on November 11, 2016, and March 24, 2017, by RQAW, four Section 4(f) resources are identified as located within the project limits: two potential trails, one farm (Kauffman Farm) and one farmhouse (Waltz Farmhouse). Kauffman Farm and Waltz Farmhouse are recommended eligible for the NRHP. There are no other historical Section 4f resources or other types of Section 4f resources in or near the project area. See the Infrastructure map in the *Red Flag Investigation* in Appendix E, page E7 and the APE map showing the location of the historic resources in Appendix D, page D54.

Two Proposed Trails: The Infrastructure map in the *Red Flag Investigation* shows two proposed trails identified by IndianaMap data. One proposed trail is mapped adjacent to SR 19 from 234th Street north to Arcadia; the other proposed trail is mapped following the Norfolk and Western Railroad from Carmel north to the county line (Appendix E, page E7). Per the North Hamilton County Trail Master Plan Draft Plan Map, only one proposed trail is within the project limits. This is the trail that would follow along SR 19 (Appendix I, pages I45 and I46).

Per the FHWA Section 4(f) Policy Paper (July 20, 2012), “the key is whether the planned facility is presently publicly owned, presently formally-designated for Section 4(f) purposes and presently significant. When this

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is the case, Section 4(f) would apply.” The land that will be required for this proposed trail is currently privately owned; thus, it does not meet one of the eligibility criteria to be considered a 4(f) resource at this time.

Both the trails are either documented in Hamilton County’s 2007 Thoroughfare Plan or the North Hamilton County Trail Master Plan. To determine “significance,” coordination was conducted with the Official with Jurisdiction (OWJ) over trails within Hamilton County. The OWJ is the official(s) of an agency or agencies that owns and/or administers the property in question and who are empowered to represent the agency on matters related to the property. For this project, the OWJ is Hamilton County. In a letter dated March 22, 2017, the OWJ stated there are currently no plans or funding for these two planned trails (Appendix I, pages I42 to I44). Because the trails do not have significance (i.e. they are not currently planned or funded for development), Section 4(f) does not apply for these trails.

Kauffman Farm (IHSSI Number 057-020-05022): The farm was surveyed in 2014 as part of the 276th Street Rehabilitation Project (INDOT Des. Number 1383334) and determined eligible for the NRHP. The proposed undertaking will not encroach upon the Kauffman Farm. No temporary or permanent right-of-way will be acquired from within the historic resource boundary of this resource. The project will have no adverse effect on this resource as the farm is more than 1,300 feet southeast of the proposed construction limits along Gwinn Road where the pavement is proposed to be milled and resurfaced. The Kauffman Farm is approximately 0.75 mile south of any proposed new construction or reconstruction at 281st Street. It is anticipated for the project to be visible to the Kauffman Farm. However, this undertaking will not convert property from the Kauffman Farm, a Section 4(f) historic property, to a transportation use. INDOT has determined the appropriate Section 106 finding is “No Adverse Effect”; therefore, no Section 4(f) evaluation is required for the Kauffman Farm (Appendix D, page D6). The Indiana SHPO concurred with the “No Adverse Effect” Section 106 finding in a letter dated May 19, 2017 (Appendix D, pages D1 to D2).

Although changes to the preferred alignment were made after the Section 106 process was completed, the “No Adverse Effect” Section 106 remains valid. Therefore, as stated above, no Section 4(f) evaluation is needed for the Kauffman Farm.

Waltz Farmhouse (IHSSI Number 057-020-0009): The farmhouse was surveyed in 2014 as part of the 276th Street Rehabilitation Project and determined eligible for the NRHP. The proposed undertaking will not encroach upon the Waltz Farmhouse. No temporary or permanent right-of-way will be acquired from within the historic resource boundary of this resource. The project will have no adverse effect on this resource as the house is more than 975 feet south of the proposed construction limits along 281st Street where the roadway is proposed to be widened and reconstructed. Furthermore, a new roadway is proposed east of Gwinn Road to intersect at 281st Street. Therefore, it is anticipated for the project to be visible to the Waltz Farmhouse. However, this undertaking will not convert property from the Waltz Farmhouse, a Section 4(f) historic property, to a transportation use. INDOT has determined the appropriate Section 106 finding is “No Adverse Effect”; therefore, no Section 4(f) evaluation is required for the Waltz Farmhouse (Appendix D, page D6). The Indiana SHPO concurred with the “No Adverse Effect” Section 106 finding in a letter dated May 19, 2017 (Appendix D, pages D1 to D2).

Although changes to the preferred alignment were made after the Section 106 process was completed, the “No Adverse Effect” Section 106 remains valid. Therefore, as stated above, no Section 4(f) evaluation is needed for the Waltz Farmhouse. Impacts to other types of Section 4(f) resources will not occur because of the shift in the preferred roadway alignment. There will not be impacts to Section 4(f) resources as a result of the project.

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Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks: Section 6(f) properties include lands that were purchased with or improved using funds from the Land and Water Conservation Fund (LWCF). The National Park Service (NPS) LWCF website (<http://waso-lwcf.nrc.nps.gov/public/index.cfm>) was consulted on January 19, 2017, by RQAW (Appendix I, page I1). Because no lands purchased with funds from the LWCF are mapped within or near the project area, early coordination was not conducted with the IDNR Division of Outdoor Recreation. Per site visits conducted on November 11, 2016, and March 24, 2017 by RQAW, and review of the Red Flag Investigation infrastructure layer (Appendix E, page E7), no readily apparent Section 6(f) resources were observed. The project will not involve any properties acquired with or improved by the LWCF.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes

No

If YES, then:

Is the project in the most current MPO TIP?

Is the project exempt from conformity?

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

Is a hot spot analysis required (CO/PM)?

Level of MSAT Analysis required?

Level 1a Level 1b Level 2 Level 3 Level 4 Level 5

Remarks: Hamilton County is currently in attainment for all criteria pollutants. Because the project is in attainment for carbon monoxide (CO) and particulate matter (PM_{2.5}), a hot spot analysis is not required.

This type of project is not exempt under the Clean Air Act (CAA) conformity rule under 40 CFR 93.126, Table 2; however, the proposed project will not have a meaningful impact on traffic volumes or vehicle mix. As such, a Mobile Source Air Toxics (MSAT) analysis is not required.

The purpose of this project is to provide a structurally sufficient and efficient route between 276th Street and SR 19 to accommodate the expected increase in large truck traffic volume associated with Beck's Superior Hybrids, as well as alleviate large truck traffic on the nearby narrow local routes, by realigning and extending a portion of 276th Street to connect to SR 19 to the east via 281st Street. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special mobile source air toxic (MSAT) concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative.

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Moreover, Environmental Protection Agency (EPA) regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA’s MOVES2014 model forecasts a combined reduction of over 90 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, October 12, 2016). This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

Funding for right-of-way (FY 2018) and construction (FY 2019) for the project are listed in INDOT’s *Statewide Transportation Improvement Program (STIP)* for fiscal years 2018-2021 (Appendix H, page H1), while funding for engineering (FY 2017) is listed in INDOT’s STIP for fiscal years 2016-2019. The estimated project cost also incorporates the modifications to the preferred roadway alignment discussed in the *Project Description (Preferred Alternative)* section of this document. Construction funding for this project (Phase II) also includes construction funds for the portion of Phase I extending from the east side of the bridge over Little Cicero Creek east to Gwinn Road. The project (including construction funds for Phase I) is listed in the *Indianapolis Regional Transportation Improvement Program (IRTIP)* for fiscal years 2018-2021 (<https://mitip.indympo.org/>) (Appendix H, page H2).

SECTION F - NOISE

Noise	Yes	No
Is a noise analysis required in accordance with FHWA regulations and INDOT’s traffic noise policy?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	No	Yes/ Date
ES Review of Noise Analysis		May 25, 2017

Remarks: The extension and realignment of 276th Street on new terrain is considered a Type I project. Therefore, in accordance with 23 CFR 772 (as amended) and the INDOT Traffic Noise Analysis Procedure (INDOT 2011), a noise analysis was required. A Highway Noise Analysis was completed by Lochmueller Group on May 6, 2017 (Appendix I, pages I6 to I34).

Ambient highway traffic noise was monitored at five locations and utilized to attempt validation of the Traffic Noise Model (TNM) 2.5 that was developed for the study analysis. The existing condition model could not be validated at all of the ambient monitoring sites because roadway traffic is not the predominant source of noise in this rural area. A total of 23 receptors were included in the existing condition model and consist of 21 Category B residential dwellings, one Category E location (offices at Beck’s Superior Hybrids, Inc.), and one Category F location (Beck’s Superior Hybrids, Inc. maintenance facility). Using 2017 base condition traffic data from the *276th Street Extension Phase II – Traffic Forecast and Roundabout Capacity Analysis* (EMCS, Inc. 2017), the existing condition TNM 2.5 model results indicate that one residential property along SR 19 (28040 SR 19) currently experiences traffic based hourly equivalent sound levels (L_{eq}(h)) that approach the Category B Noise Abatement Criteria (NAC) threshold of 67 A-weighted decibels (dBA).

The proposed roadway extension and roundabout were modeled using TNM 2.5 and 2038 peak hour traffic volumes derived from the *Traffic Forecast and Roundabout Capacity Analysis* (EMCS, Inc. 2017) to predict the L_{eq}(h) levels for the project design year. The analysis predicted that Category B impacts

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(approaching or greater than the 67 dBA NAC threshold) can be expected at the 28040 SR 19 residence. However, this impact is more a function of traffic on SR 19 than future traffic on the proposed 276th Street extension. A second residence located at the southwest corner of Whetston Road and 281st Street (28090 Whetston Road) is predicted to have a 2038 design year $L_{eq}(h)$ traffic based sound level of 60.5 dBA, which is 19.7 dBA above its 2017 base year level of 40.8 dBA, and therefore represents a substantial increase impact. No Category E impacts (approaching or greater than the 72 dBA NAC threshold) are predicted at the offices of the Beck's Superior Hybrids facility.

Installation of a noise barrier wall as an abatement measure at the 28090 Whetston Road residence was disregarded as feasible because the proposed Whetston Road intersection would prevent placement of a barrier to the east of the residence along the south side of the 276th Street Extension (existing 281st Street), and a partial barrier (half width) would be ineffective at reducing design year $L_{eq}(h)$ levels by 5 dBA. Additionally, such a barrier this close to the intersection would compromise sight distance between the new 276th Street extension roadway and Whetston Road. As such, barrier wall abatement at this location is not feasible.

Based on the studies thus far accomplished, Hamilton County has not identified any locations where noise abatement is likely. Noise abatement at the two residences and offices at Beck's Superior Hybrids, Inc. is based upon preliminary design costs and design criteria. Noise abatement has not been found to be feasible based on the inability to achieve a 5 dBA reduction with a partial width barrier along the proposed 276th Street alignment at the Whetston Road intersection. A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is feasible and reasonable, the abatement measures might be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement process.

INDOT ES reviewed the Highway Noise Analysis and found it to be technically sufficient and has been completed in accordance with federal guidelines and state policy in an e-mail dated May 25, 2017 (Appendix I, page I35). Because this project is sponsored by a Local Public Agency (LPA), INDOT ES is not required to approve the Highway Noise Analysis.

Subsequent to INDOT's review of the Highway Noise Analysis, refinements to the preferred alignment were made in order to avoid impacts to a center-pivot irrigation system on the Beck's Superior Hybrids property and minimize impacts to a stand of walnut trees (Appendix B, page B3). The change in the preferred alignment did not result in additional noise impacts and did not change the recommendations of the noise analysis.

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

- Will the proposed action comply with the local/regional development patterns for the area?
- Will the proposed action result in substantial impacts to community cohesion?
- Will the proposed action result in substantial impacts to local tax base or property values?
- Will construction activities impact community events (festivals, fairs, etc.)?
- Does the community have an approved transition plan?
If No, are steps being made to advance the community's transition plan?
- Does the project comply with the transition plan? (explain in the remarks box)

Yes	No
X	
	X
	X
	X
X	
	X

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Remarks: The proposed project will comply with the local/regional development patterns for the area. The project is not anticipated to result in substantial impacts to community cohesion, because it will not change access to properties within the area or divide existing communities. The proposed project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, the project will have minimal or no negative impacts to the community or local economy.

According to the Fairs and Festivals website (www.fairsandfestivals.net) (accessed on April 2, 2018 by RQAW), two festivals were noted within 10 miles for zip codes 46031 and 46030. The project is not expected to impact these events because they are nine miles away and there are several adjacent roads next to the project area that fair or festival goers can utilize. Beck's Superior Hybrids also hosts the "Becknology Days" festival every August. Coordination with Beck's Superior Hybrids will occur prior to construction and provisions will be made during construction to accommodate the "Becknology Days" festival.

The proposed project will be constructed in phases. Portions of the project impacting 276th Street and 281st Street will be constructed in phases with detours that allow adjacent property owners and vehicular traffic to access SR 19. Construction of the new terrain alignment will not involve any road closures. Please refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. The MOT for this project is not anticipated to impact access to community events.

Per coordination with the Hamilton County Americans with Disabilities Act (ADA) Coordinator, Hamilton County has an approved ADA Transition Plan. The plan was approved on February 22, 2013, and can be viewed here: <http://www.hamiltoncounty.in.gov/DocumentCenter/Home/View/4183>. There are no ADA facilities included within the existing or proposed right of way, thus compliance with the approved ADA Transition Plan is not necessary.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks: In general, indirect impacts are caused by an action (project) and are later in time or farther removed in distance, but are still reasonably foreseeable. Cumulative impacts are impacts on the environment, which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.

The project will not add capacity to the existing roadway network or provide additional access to any currently undeveloped area. Currently, motorists and large trucks (semi-trucks) can access SR 19 from 276th Street via local routes; however, the local routes are not adequate to maintain large truck traffic. The project will realign and extend 276th Street on new terrain to provide a more direct route to SR 19 to accommodate the expected increase in large truck traffic volume associated with Beck's Superior Hybrids, as well as alleviate large truck traffic on the nearby narrow local routes. While most of the land surrounding the project consists of agricultural land, most of the agricultural land is already owned by a commercial business, Beck's Superior Hybrids. Therefore, the project is not expected to increase development in the area or result in substantial indirect or cumulative impacts.

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Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

There are no health and educational facilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities present within the project area. There are several utilities present within the project area (electric, telephone, gas, cable, etc.), some of which will be temporarily impacted for relocation. However, the project will not result in substantial impacts to utilities. Utility coordination has been initiated for the project. Portions of the project impacting 276th Street and 281st Street will be constructed in phases with detours that allow adjacent property owners and vehicular traffic to access SR 19. Construction of the new terrain alignment will not involve any road closures. Please refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. The MOT will likely be an inconvenience to traveling motorists, but it will not be a significant, long term disruption to them or schools and/or emergency response providers. The project is anticipated to create only minor delays for emergency responders or school bus routes. Two weeks prior to construction, Hamilton County will coordinate with school corporations and emergency units. Access to properties will be maintained throughout construction.

Per early coordination with the INDOT Office of Aviation, INDOT noted the Sheridan Airport is located five nautical miles of the project area. INDOT Office of Aviation noted that if the project involves the construction of a temporary or permanent structure exceeding a height of 200 feet above ground level, an Indiana Tall Structure Permit and or Noise Sensitive Permit will be required (Appendix C, page C26).

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

Will the project result in adversely high or disproportionate impacts to EJ populations?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

According to the INDOT Categorical Exclusion Manual (July 2013), an Environmental Justice (EJ) analysis is required for any project requiring two or more relocations or more than 0.5 acre of permanent right-of-way. No relocations of any residences or businesses are proposed for this project. The project will require more than 0.5 acre of permanent right-of-way (27.1 acres). Therefore, an EJ analysis was conducted for the project (Appendix I, pages I2 to I5).

Potential EJ impacts are detected by locating minority populations and low-income populations in and near the project area, calculating their percentage in the area relative to a reference population to determine if, in fact, populations of EJ concern do exist and determining whether any impacts will be disproportionately high and adverse. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is Hamilton County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 1102.1. An AC has a population of concern for EJ if the population is equal to or greater than 50% low-income or minority, or if the low-income population or minority population is equal to or greater than 125% of the population in the COC. A review of American Community Survey (ACS) 5-year estimates data (2010-2014) was completed. The data was obtained from the U.S. Census Bureau's American FactFinder webpage (<http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>) on October 13, 2016, by RQAW (Appendix I, pages I4 to I5).

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An analysis of the data retrieved from the American FactFinder website revealed that the minority population of the AC is 3.3% and of the COC is 14.5%. The minority population of the AC is below 50% of the total population and is below 125% of the COC (18.2%). Therefore, there are no minority populations of EJ concern present within the AC.

<i>EJ Analysis for Race</i>		
	AC	COC
	AC: Census Tract 1102.1	Hamilton County
Total Population:	4,245	289,722
Not Hispanic or Latino: White Alone:	4,105	247,571
Percent Non-White:	3.3%	14.5%
125% of COC:	-	18.2%
EJ Population of Concern?	No	

An analysis of the data retrieved from the American FactFinder website revealed that the low income population of the AC is 9% and of the COC is 4.8%. Although the low income population of the AC is below 50% of the total population, it is greater than 125% of the COC (6%). Therefore, low income populations of EJ concern are present within the AC.

<i>EJ Analysis for Low Income</i>		
	AC	COC
	AC: Census Tract 1102.1	Hamilton County
Total Population:	4,174	287,847
Income in the Past 12 Months Below Poverty Level:	375	13,901
Percent Poverty:	9.0%	4.8%
125% of COC:	-	6.0%
EJ Population of Concern?	Yes	

The proposed project will require the acquisition of approximately 27.1 acres of permanent right-of-way for the realignment and extension of 276th Street to SR 19. Land use within the proposed permanent ROW consists of approximately 0.64 acre of residential property, 2.92 acres of commercial property (donated by Beck's Superior Hybrids), 22.7 acres of agricultural land (12.19 acres donated by Beck's Superior Hybrids), 0.81 acre of forested land, and 0.03 acre of delineated wetland (Wetland A). The project will also require the acquisition of approximately 1.02 acres of temporary right-of-way (strip right-of-way). Land use within the proposed temporary ROW consists of approximately 0.23 acre of residential land, 0.57 acre of commercial land (donated by Beck's Superior Hybrids), 0.21 acre of agricultural land, and 0.01 of forested land. The proposed project will not require relocations of any residences or businesses.

Overall, the negative impacts to property owners within the project area will be minimal and consist primarily of short-term construction impacts and the loss of agricultural land due to right-of-way requirements. There will not be any relocations of businesses or residences. One hay shed was observed within the proposed roadway alignment during the November 11, 2016 and March 24, 2017 field checks conducted by RQAW (Appendix B, page B19). The hay shed is located approximately 520 feet west of SR 19 and is visible on the 2016 aerial photograph of the area (Appendix B, page B6); however, the hay shed has since been relocated outside the project area by the property owner and will not be impacted by the project. The right-of-way to be acquired will not substantially diminish the existing use of the affected property owners. Portions of the project impacting 276th Street and 281st Street will be constructed in phases with detours that allow adjacent

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property owners and vehicular traffic to access SR 19. Construction of the new terrain alignment will not involve any road closures. Please refer to the *Maintenance of Traffic (MOT) During Construction* section of this document for further details on the proposed MOT. Access to all existing residences and Beck's Superior Hybrids will be maintained at all times during construction. No permanent impacts to community cohesion are anticipated.

Overall, impacts from the project to any EJ community in this area will be beneficial by providing a structurally sufficient and direct route from 276th Street to SR 19 via 281st Street to accommodate the expected increase in truck traffic volume associated with Beck's Superior Hybrids, as well as alleviating large truck traffic on the nearby narrow local routes. It is expected that the project will not have a disproportionately high and adverse environmental or health impact to low-income or minority populations of EJ concern when compared to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?
 Is a Business Information Survey (BIS) required?
 Is a Conceptual Stage Relocation Study (CSRS) required?
 Has utility relocation coordination been initiated for this project?

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses or farms will take place. One hay shed was observed within the proposed roadway alignment during the November 11, 2016 and March 24, 2017 field checks conducted by RQAW (Appendix B, page B19). The hay shed is located approximately 520 feet west of SR 19 and is visible on the 2016 aerial photograph of the area (Appendix B, page B6); however, the hay shed has since been relocated outside the project area by the property owner and will not be impacted by the project. Several utilities are present within the project area (electric, telephone, gas, cable, etc.), some of which will be temporarily impacted for relocation. Utility coordination has been initiated for the project.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation	<input checked="" type="checkbox"/>
Phase I Environmental Site Assessment (Phase I ESA)	<input type="checkbox"/>
Phase II Environmental Site Assessment (Phase II ESA)	<input type="checkbox"/>
Design/Specifications for Remediation required?	<input type="checkbox"/>

Documentation

	No	Yes/ Date
ES Review of Investigations	<input type="checkbox"/>	January 30, 2017

Include a summary of findings for each investigation.

Remarks: A Red Flag Investigation was completed for a 0.5-mile buffer on November 22, 2016, by RQAW; this was done to identify any potential environmental concerns located within the project vicinity. Little Cicero Creek is listed as impaired with *Escherichia coli* (E. coli). Workers who will be in or near water with E. coli should take care to wear appropriate personal protective equipment (PPE), observe proper hygiene procedures, including regular hand washing, and limit personal exposure. The original eastern portion of Phase I, from east of the

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bridge over Little Cicero Creek to Gwinn Road, was also covered in the Red Flag Investigation that was completed for Phase I, which was approved as part of the CE-4 on February 24, 2016. No other concerns, other than what is discussed below, were documented within the vicinity of the original eastern portion of Phase I.

One leaking underground storage tank (LUST) associated with Beck's Superior Hybrids was identified within the 0.5-mile buffer. This LUST site was also documented in the Red Flag Investigation completed for Phase I. The LUST is mapped approximately 80 feet north of the project area along 276th Street (original eastern portion of Phase I), and approximately 0.37 mile west of Gwinn Road. Work along 276th Street from east of the bridge of Little Cicero Creek to Gwinn Road will only require milling the existing pavement and resurfacing the roadway with a hot mixed asphalt (HMA) overlay. No road reconstruction or widening activities will take place in this area. Per the Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC), records indicate that a *No Further Action* was issued by IDEM for Beck's Superior Hybrids on January 21, 2003. Therefore, the LUST site is not expected to impact or be impacted by this portion of the project. In addition, Beck's Superior Hybrids was registered as a Conditionally Exempt Small Quantity Generator in 2013, and four underground storage tanks (USTs) are currently in use at the site. No record of possible releases was noted in a review of the VFC. The *Red Flag Investigation* was approved by INDOT on January 30, 2017 (Appendix E, pages E1 through E12). Further investigation of the project area, such as a Phase I Environmental Site Assessment (ESA), is not warranted.

Subsequent to INDOT's approval of the Red Flag Investigation, refinements to the preferred alignment were made in order to avoid impacts to a center-pivot irrigation system on the Beck's Superior Hybrids property and minimize impacts to a stand of walnut trees (Appendix B, page B3). The modification in the preferred alignment prompted a reassessment of the available Red Flag Investigation GIS layers, which was completed on March 5, 2018 by RQAW. The reassessment found no additional hazardous material concerns within 0.5-mile of the project area.

If a spill occurs or contaminated soils or water are encountered during construction, appropriate personal protective equipment (PPE) should be used. Contaminated materials will need to be properly handled by trained personnel and disposed in accordance with current regulations. IDEM should be notified through the spill line at (888) 233-7745 within 24 hours of discovery of a release from a UST system and within 2 (two) hours of discovery of a spill.

Field visits were conducted on November 11, 2016, and March 24, 2017, by RQAW. One above ground storage tank associated with Beck's Superior Hybrids was observed approximately 700 feet east/southeast of the proposed construction limits; however, the contents of the above ground storage tank could not be determined (Appendix E, page E13). No other potential hazardous material concerns were observed during the field checks.

Per early coordination with IDNR Division of Oil and Gas, the IDNR noted one oil/gas well approximately 36 feet west of the 276th Street/Gwinn Road Intersection. This oil/gas well was also documented in the Red Flag Investigation for Phase I. The project will only involve resurfacing work in this area. However, because exact locations of oil and gas wells are not always known, the IDNR typically recommends that contractors be observant for metal pipes standing on end. If metal pipes are observed, the IDNR Division of Oil and Gas will be notified (Appendix C, page C17).

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SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

IDEM

Section 401 WQC	<input checked="" type="checkbox"/>
Isolated Wetlands determination	<input type="checkbox"/>
Rule 5	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

Remarks:

An IDEM Rule 5 Permit will be needed because at least one acre of land will be disturbed.

An USACE Regional General Section 404 Permit and IDEM Section 401 Water Quality Certification Permit will be needed for impacts to three streams and one wetland (Wetland A). Approximately 530 linear feet of total stream impacts are anticipated to occur to Legal Drain 1, UNT 2/Legal Drain 3, and UNT 1/Legal Drain 6. Of these impacts, approximately 100 linear feet will occur to Legal Drain 1, approximately 301 linear feet will occur to UNT 2/Legal Drain 3, and approximately 129 linear feet will occur to UNT 1/Legal Drain 6. Stream mitigation is required when new impacts meet or exceed 300 linear feet and/or 0.1 acre below the OHWM (impacts outside of what is currently encapsulated). Legal Drain 1 and UNT 2/Legal Drain 3 are currently encapsulated by clay tiles below the ground surface; therefore, replacement of the clay tiles with RCPs will not result in any new impacts and will not count towards the stream mitigation threshold. Of the 129 linear feet (0.01 acre) of impacts to UNT 1/Legal Drain 6, approximately 40 linear feet is currently encapsulated by the existing CMP, resulting in approximately 70 linear feet (0.007 acre) of new impacts below the OHWM of UNT 1/Legal Drain 6. The total area of permanent wetland impacts within right-of-way limits will be approximately 0.027 acre (rounded to 0.03 acre). Because new stream impacts will not exceed the 300 linear feet/0.1 acre threshold, and permanent wetland impacts will not exceed the 0.1 acre threshold, stream and wetland mitigation will not be required.

The IDNR responded to early coordination efforts via a letter dated March 1, 2017, and stated that formal approval by the IDNR is required (i.e. a Construction in a Floodway Permit will be needed) (Appendix C, pages C15 to C16). Approximately 70 feet of the west end of the project area along 276th Street is located within the mapped 100-year floodplain of Little Cicero Creek. Work within the mapped floodplain will involve

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incidental construction in order to tie into the existing 276th Street pavement. Although this project involves work within the horizontal limits of the 100-year floodplain, no work is being performed below the 100-year flood elevation and as a result this project does not encroach upon the base floodplain. Therefore, a Construction in a Floodway Permit will not be needed.

The project will cross six legal drains: Waltz, Warman, Booth and Dickover Drain (Legal Drain 1), H.A. McMullen Drain Ditch 2 – Arm 1 (Legal Drain 2), H.A. McMullen Ditch 2 – Main Arm (Legal Drain 3), H.A. McMullen Ditch 2 – Arm 2 (Legal Drain 4), H.A. McMullen Ditch 2 – Arm 3 (Legal Drain 5), and H.A. McMullen Ditch 1 – Open Drain (Legal Drain 6/UNT 1). A Hamilton County Regulated Drain Crossing Permit will be required for each of the legal drains crossed within the project area (Appendix C, pages C28 to C30). Legal Drain 1 also crosses 276th Street within the portion of Phase I now included in Phase II, approximately 850 feet west of Gwinn Road. The legal drain will not be impacted at this location because the work in this area will be limited to the existing 276th Street pavement; therefore, a Hamilton County Regulated Drain Crossing Permit will not be required at this location. The project sponsor is responsible for obtaining the Hamilton County Regulated Drain Crossing Permits and following all permit requirements and conditions.

If the project scope changes, INDOT Environmental Services will be contacted immediately. It is the responsibility of the project sponsor to identify and obtain all permits required for this project.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery be reported to the Indiana Department of Natural Resources (IDNR) within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 CFR Part 800. (IDNR SHPO)
2. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services (ES) will be contacted immediately. (INDOT ES)
3. If a spill occurs or contaminated soils or water are encountered during construction, appropriate personal protective equipment (PPE) should be used. Contaminated materials will need to be properly handled by trained personnel and disposed in accordance with current regulations. IDEM should be notified through the spill line at (888) 233-7745 within 24 hours of discovery of a release from a UST system and within 2 (two) hours of discovery of a spill. (INDOT Hazardous Materials Unit)
4. If residential wells are encountered, they will be re-drilled as part of the right-of-way agreement with the property owner. If any identified well needs to be backfilled, it will be performed according to 312 IAC 13-10. (INDOT ES)
5. Wetland boundaries will be identified as "Do Not Disturb" on the final design plans. (INDOT ES)
6. Wetland boundaries will be identified in the field prior to construction to avoid indirect impacts. Orange fencing and signage will be placed to form a boundary between the impacted wetland area and the non-impacted wetland area. (INDOT ES)
7. Hamilton County is responsible for contacting school districts and emergency services two weeks prior to construction. (Hamilton County)

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8. Beck's Superior Hybrids hosts the "Becknology Days" festival every August. Coordination with Beck's Superior Hybrids will occur prior to construction and provisions will be made during construction to accommodate the "Becknology Days" festival. (Hamilton County)
9. The project sponsor is responsible for obtaining the Hamilton County Regulated Drain Crossing Permits and following all permit requirements and conditions. (Hamilton County)
10. If any Hamilton County Legal Drain clay tiles are damaged during construction, then they will be replaced with a reinforced concrete pipe (RCP) under the roadway. Coordination between the project designer and the Hamilton County Surveyor's Office will occur to determine the dimensions of the RCP, in the event replacement is needed. (Hamilton County)
11. The physical disturbance of the stream and riparian vegetation, especially large trees overhanging any affected water bodies should be limited to only that which is absolutely necessary to complete the project. (IDEM)
12. Reasonable precautions will be taken to minimize fugitive dust emissions from construction and demolition activities. Dirt tracked out from unpaved areas should be minimized. (IDEM)
13. The use of cutback asphalt, or asphalt emulsion containing more than 7% oil distillate, will be prohibited during the months of April through October. (IDEM)
14. Install silt fence or other erosion control measures around the perimeter of any wetlands and/or other waterbodies to remain undisturbed at the project site. (IDEM)
15. Stabilize all disturbed areas upon completion of land disturbing activities. (IDEM)
16. Sediment-laden water which otherwise would flow from the project site shall be treated by erosion and sediment control measures appropriate to minimize sedimentation. (IDEM)
17. A stable construction site access shall be provided at all points of construction traffic ingress and egress to the project site. (IDEM)
18. Public or private roadways shall be kept cleared of accumulated sediment that is a result of run-off or tracking. (IDEM)
19. While excavating, be observant for an unnaturally round hole or metal casing, or fluids (oil, saltwater) or gas in the hole. If you suspect you have encountered a well, please call the IDNR Division of Oil and Gas: Orphan/Abandoned Wells (317) 233-0933; Area Inspector (765) 618-0766; Field Specialist (317) 417-6556. (IDNR Division of Oil and Gas)
20. If the project involves the construction of a temporary or permanent structure exceeding a height of 200 feet above ground level, an Indiana Tall Structure Permit and or Noise Sensitive Permit will be required for the Sheridan Airport. (INDOT Office of Aviation)
21. If any environmental impact/contamination enters a ditch or stream (especially Little Cicero Creek), the IDEM Office of Emergency Response (317-233-7745) and Citizens Energy Group (317-213-2044) will be notified. (Citizens Energy Group)
22. Little Cicero Creek is impaired with E. coli. Workers who will be 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. (INDOT ES)
23. Avoid tree clearing between April 1 and September 30 to avoid incidental take from removal of an occupied roost tree for Indiana bats and northern long-eared bats. (USFWS)
24. If unrecorded cultural resources, including archaeological artifacts or human remains, are encountered during construction, demolition or earthmoving activities of this project, the Tribal Historic Preservation Officer for the Eastern Shawnee Tribe must be contacted. All contact with the tribe must be initiated by INDOT-CRO or the FHWA. If any accidental discovery is made, the sponsor, or designated contractor, is responsible to notify INDOT-CRO immediately. (Eastern Shawnee Tribe).
25. Communicate any changes to project plans or conditions to the Delaware Tribe of Indians as soon as practicable. If any ancestral human remains are inadvertently disturbed during the course of this project, all provisions of the FHWA/ISHPO/INDOT Memorandum of Understanding, especially those

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at Section I.J and III.C, must be observed. All contact with the tribe must be initiated by INDOT-CRO or the FHWA. If any accidental discovery is made, the sponsor, or designated contractor, is responsible to notify INDOT-CRO immediately. (Delaware Tribe of Indians)

26. If any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe of Oklahoma requests immediate consultation with the entity of jurisdiction for the location of discovery. All contact with the tribe must be initiated by INDOT-CRO or the FHWA. If any accidental discovery is made, the sponsor, or designated contractor, is responsible to notify INDOT-CRO immediately. (Miami Tribe of Oklahoma)

For Further Consideration:

1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue) and legumes as soon as possible upon completion; low endophyte tall fescue may be used in the ditch bottom and side slopes only. (IDNR Division of Fish and Wildlife)
2. Minimize and contain within the project limits in-channel disturbance and the clearing of trees and brush. (IDNR Division of Fish and Wildlife)
3. Do not cut any trees suitable for Indiana bat or northern long-eared bat roosting (greater than three inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR Division of Fish and Wildlife)
4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized. (IDNR Division of Fish and Wildlife)
5. It is recommended to avoid impacts to the wooded area west of the railroad crossing. For unavoidable impacts, a mitigation plan is recommended. IDNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at <http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf>. (IDNR Division of Fish and Wildlife)
6. Impacts to non-wetland forest of one acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. (IDNR Division of Fish and Wildlife)
7. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment should be operated below the Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
8. Restrict below low-water work to placement of piers, pilings, and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
9. Restrict channel work and vegetation clearing to the minimum necessary. (USFWS)
10. Construct new structures with a widened span and benches on one or both sides to provide for wildlife crossing, if practical. The crossing should be above normal high water, relatively flat and with natural substrate suitable for use by a wide variety of wildlife. (USFWS)
11. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
12. Implement temporary erosion and siltation control devices such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, covering exposed areas with erosion control materials, and grading slopes to retain runoff in basins. (USFWS)
13. Re-vegetate all disturbed soil areas immediately upon project completion, using native trees and

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shrubs in the riparian zone wherever feasible. (USFWS)
 14. Post DO NOT DISTURB signs at the construction zone boundaries and do not clear trees or understory vegetation outside the boundaries. (USFWS)

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Early coordination letters were sent to agencies on November 22, 2016. The USFWS was consulted on March 1, 2017. The NRCS was consulted again on March 27, 2018 due to additional impacts to agricultural land as a result of shifts in the preferred alignment. If no response was received, it was assumed the agency did not feel the project would result in substantial impacts. See an example of the early coordination letter and agencies' responses in Appendix C, pages C1 through C30. The following agencies/individuals were contacted during early coordination:

Agency	Date of Response(s)
1. INDOT Department of Aviation (electronic submission)	November 29, 2016
2. US Department of Housing and Urban Development (electronic submission)	No response received
3. IDNR Division of Fish and Wildlife (electronic submission)	March 6, 2017
4. Indiana Geological Survey (electronic submission)	November 30, 2016
5. INDOT Office of Public Involvement (electronic submission)	January 3, 2017
6. US Fish and Wildlife Service (electronic submission)	March 1, 2017
7. IDEM (electronic submission)	November 22, 2016
8. US Army Corps of Engineers	No response received
9. National Park Service, Midwest Regional Office	No response received
10. Natural Resources Conservation Service	December 6, 2016 & April 4, 2018
11. IDNR Division of Oil and Gas	November 30, 2016
12. IDEM Groundwater Section	December 2, 2016
13. Indianapolis Metropolitan Planning Organization	No response received
14. Hamilton County Commissioner Members	No response received
15. Hamilton County Council Members	No response received
16. Hamilton County Engineer	No response received
17. Hamilton County Highway Surveyor	November 7, 2016
18. Hamilton County Surveyor	December 9, 2016
19. Hamilton County Planning Commission	No response received
20. Citizens Energy Group	February 22, 2017