

Indiana Department of Transportation

County Montgomery Route SR 59 Des. No. 1593272 & 1701591

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

Road No./County:	State Route (SR) 59/Montgomery County
Designation Number:	1593272 & 1701591
Project Description/Termini:	Pavement rehabilitation and bridge replacement project in the Town of Waveland, Montgomery County, Indiana. The project limits extend from County Road (CR) 1150 South to SR 47, for a total project length of approximately 1.0 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 checked="" 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 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 _____
 ESM Signature _____ Date _____ ES Signature _____ Date _____

 FHWA Signature _____ Date _____

Release for Public Involvement

N/A _____ REB _____ 7-14-2020
 ESM Initials _____ Date _____ ES Initials _____ Date _____

Certification of Public Involvement _____
 Office of Public Involvement _____ Date _____

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

INDOT ESD/District
 Env. Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA Preparer: Cameron Fraser / 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

*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 letters were mailed to potentially affected property owners near the project area on August 13, 2018, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area (Appendix G, page G-1). To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Adverse Effect" was published in The Paper of Montgomery County on April 1, 2020 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on May 1, 2020. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-71 to D-72. No public comments were received. The project will meet the minimum requirements described in the current Indiana Department of Transportation (INDOT) Public Involvement Manual which requires the project sponsor to offer the public an opportunity to submit comment and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds Yes No Will the project involve substantial controversy concerning community and/or natural resource impacts?

Remarks: Currently, there is no substantial public controversy concerning impacts to the community or to natural resources.

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

Sponsor of the Project: INDOT INDOT District: Crawfordsville Local Name of the Facility: SR 59, locally known as CR 800 West (north/south), Main Street (east/west), and Cross Street (north/south)

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

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

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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 deteriorated condition of the existing SR 59 roadway pavement (Des. No. 1593272) and Structure Number 059-54-05061 A, which carries SR 59 over Little Raccoon Creek (Des. No. 1701591).

Per the INDOT Mini Scope Report, dated January 3, 2017 (Appendix I, pages I-10 to I-12), and the Engineering Assessment report (Appendix I, pages I-10 to I-12), completed by RQAW and approved by INDOT on June 25, 2019, the existing asphalt for this section of SR 59 is severely age hardened with extensive wheel path cracking. In some locations the existing asphalt is too thin, resulting in poor structural capacity. The curbing conditions are poor with some of the curbs cracking and falling apart to the point they are no longer visible. The existing sidewalks are in poor condition, missing in various sections, and do not meet Americans with Disabilities Act (ADA) standards. The existing drainage system is substandard as sediment has built up throughout the roadway and onto the sidewalks.

Per the INDOT Bridge Inspection Report, dated November 14, 2019, the superstructure and substructure of Structure Number 059-54-05061 A, each received Condition Ratings of 5 out of 9 which indicates "Fair" condition. This is due to the box beams exhibiting cracking and leaching. There are deep spalls with exposed rebar, wide cracks, white efflorescence, and some isolated section loss in the substructure units (Appendix I, pages I-1 to I-9).

The purpose of the project is to improve the structural capacity of the pavement for this section of SR 59, and improve the Condition Ratings of the superstructure and substructure of Structure Number 059-54-05061 A to a 7 ("good condition") or better to allow for continued vehicular use along this section of SR 59. Another desirable outcome is to improve the substandard drainage system and pedestrian facilities within the project area.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Montgomery Municipality: Town of Waveland

Limits of Proposed Work: The project limits extend along SR 59 from CR 1150 South to SR 47, for a total project length of approximately 1.0 mile.

Total Work Length: 1.0 Mile(s) Total Work Area: 8.5 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required? Yes No
If yes, when did the FHWA grant a conditional approval for this project? Date: [checkmark]

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.

The INDOT Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a pavement rehabilitation (Des. No. 1593272) and a bridge replacement (Des. No. 1701591) project in the Town of Waveland, Montgomery County, Indiana. Specifically, the project is in Brown Township, Sections 25, 35 and 36 of Township 17 North and Range 6 West of the Alamo and Bellmore U.S. Geological Survey (USGS) Quadrangles (Appendix B, page B-2). The project limits extend along SR 59 from CR 1150 South to SR 47, for a total project length of approximately 1.0 mile.

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Structure Number 059-54-05061 A, which carries SR 59 over Little Raccoon Creek, is located within the limits of the road rehabilitation project. The replacement of this structure will occur approximately 0.07 mile south of SR 47. The termini for the road rehabilitation and bridge replacement project are logical because the southern terminus terminates at the approach work for the CR 1150 intersection and the northern terminus terminates at the approach work for the SR 47 intersection (Appendix B, pages B-19 to B-37).

Existing Conditions: This section of SR 59 is classified as a Major Collector. SR 59 runs north/south and east/west through the Town of Waveland and is known locally as CR 800 West (north/south), Main Street (east/west), and Cross Street (north/south). Within the project area, SR 59 consists of two 11 foot wide travel lanes (one in each direction) with outside shoulders that vary from 0 to 2 feet wide. Sidewalks of varying widths (4 feet to 12 feet) are present throughout a majority of the project area along Main Street and Cross Street. Stormwater drainage within the project area is conveyed by open ditches, drive culverts, and a storm sewer system, which discharges into an unnamed tributary (UNT) of Little Raccoon Creek to the south and Little Raccoon Creek to the north. The travel lanes are not separated by a median.

Structure Number 059-54-05061 A is located just south of SR 47 and carries SR 59 over Little Raccoon Creek. The existing structure is a three-span prestressed concrete box beam bridge, approximately 97 feet in length with an out-to-out width of approximately 32.2 feet. Adjacent land use consists of primarily residential and commercial properties. The existing right-of-way along SR 59 varies from approximately 20 feet to 30 feet from the roadway centerline (Appendix B, pages B-3 to B-18).

Preferred Alternative: The project will include milling, resurfacing, and widening SR 59 from CR 1150 to the Main Street and Cross Street intersection, and from north of the bridge over Little Raccoon Creek (Structure Number 059-54-05061 A) to SR 47. The first 700 feet of the project along SR 59 (CR 800 West), will involve widening the pavement to include the addition of 2 foot wide paved (3 foot wide usable) shoulders to provide lateral stability for the pavement. Drainage through this section of the project will be conveyed by open ditches, drive culverts, and new storm sewer system, which will discharge into the UNT of Little Raccoon Creek. No sidewalks are present within this section of the project area and the construction and sidewalks for this section is not anticipated. Approximately 280 feet along the west side of this section will receive a curb and gutter instead of an open ditch.

On SR 59 (Main Street), the pavement will be widened approximately 2 feet to allow for the installation of a storm sewer system with adequate curb offset. The pavement on SR 59 will be widened approximately 8 feet in areas where there is existing gravel for on-street parking. The existing 11 foot wide travel lanes, on-street parking, and curb and gutter on SR 59 (Cross Street) from the intersection of Main Street and Cross Street north to the bridge over Little Raccoon Creek will be replaced due to the needed grade raise at the bridge replacement, and due to the thinner existing pavement depth within the downtown area of Waveland. The curbs and storm sewer system will be replaced within the downtown area and added to the roadway between the downtown area and the bridge to improve drainage to Little Raccoon Creek.

All existing sidewalks, beginning approximately 0.48 mile west of the Main Street and Cross Street intersection and ending approximately 0.06 mile south of the bridge replacement, will be reconstructed along SR 59 to meet Public Right-of-Way Accessibility Guidelines (PROWAG) and ADA standards. The sidewalks along each side of SR 59 (Main Street and Cross Street) will be reconstructed. The reconstructed sidewalks will be 5 to 6 feet in width.

The project will replace Structure Number 059-54-05061 A with a three-span continuous reinforced concrete slab bridge. The new bridge will have a total length of 103.5 feet and an overall width of 36.33 feet (approximately 4 feet wider than the existing). Riprap drainage turnouts will be added at each quadrant of the bridge. Riprap will also be placed below the bridge along the spillslopes. North of Structure Number 059-54-05061 A, the approach pavement will be widened approximately 8 feet to ensure adequate guardrail offset. The north approach to SR 47 will also include milling and a Hot Mix Asphalt (HMA) overlay.

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The project will also include milling and resurfacing the existing pavement of Old SR 59, located southwest of the SR 47 and SR 59 (Cross Street) intersection. A temporary haul road will be constructed from the end of Old SR 59 to the northwest quadrant of the existing bridge to provide access for bridge construction activities. Another temporary haul road will be constructed in the southwest quadrant of the bridge along the west side of SR 59 (Cross Street) for construction access. Both temporary haul roads will be removed after construction activities, and the surrounding area will be restored to its previous state prior to construction.

Several driveway drainage pipes, ranging from 12 inches to 30 inches in diameter, are present within the project area along the east and west sides of SR 59 (CR 800 West) and will be replaced in-kind. These drainage pipes convey storm water and are not associated with jurisdictional waters.

Excavation associated with pavement widening, curbs, sidewalks, curb ramps, and drain inlets installation will reach a maximum depth of approximately 2 feet below ground surface (bgs). Excavation associated with storm sewer trunk line installation activities and the replacement of the existing bridge will reach a maximum depth of approximately 12 feet bgs.

Approximately 1.10 acres of permanent right-of-way and 0.35 acre of temporary right-of-way will be needed for this project. The maximum proposed right-of-way width will be approximately 50 feet from the roadway centerline for both the road work and the bridge work, with a majority of the road work requiring approximately 30 feet of right-of-way from the roadway centerline (Appendix B, pages B-19 to B-37).

No residences or businesses will be relocated as part of this project. The maintenance of traffic (MOT) will involve a detour utilizing SR 47, SR 234, US 231, and SR 236, for an added travel length of approximately 18 miles. Once developed, the Town of Waveland will coordinate the pedestrian MOT plan with the residents of Waveland. SR 59 is to remain open during the annual Parke County Covered Bridge Festival held each October. Access to all properties will be maintained during construction. Refer to the *MOT During Construction* section of this document for further details on the proposed MOT plan. The estimated project cost is \$7,951,626 (fiscal year [FY] 2022) with construction anticipated to take place during late Winter/early Spring of 2022. Note the estimated cost listed in the INDOT STIP encompasses both the road construction (Des. No. 1593272) and the bridge construction (Des. No. 1701591), under the lead Des. No. 1593272 and contract number R-39363.

The preferred alternative satisfies the purpose and need of the project by improving the structural capacity of the pavement for this section of SR 59, and providing a structure with superstructure and substructure Condition Ratings of 7 ("good condition") or better to provide continued vehicular use along this section of SR 59.

OTHER ALTERNATIVES CONSIDERED:

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

Two other alternatives were considered for Des. No. 1593272:

Do Nothing Alternative: This alternative would not involve any improvements to the existing roadway. This alternative would not involve any immediate cost or result in any environmental impacts. If no improvements are made to the existing roadway, the roadway would continue to deteriorate resulting in higher costs for future reconstruction. This alternative was dismissed because it would not address the purpose and need of the project by improving the overall the structural capacity of the pavement for this section of SR 59.

Partial 3R Minor Structural Overlay: This alternative would involve treating the pavement with a 4 inch mill and overlay throughout the limits of the project. This alternative would also include reconstructing the deteriorated and substandard

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pedestrian facilities throughout the Town of Waveland. However, this option does not include addressing the gravel on-street parallel parking or the existing drainage through the corridor. This alternative would likely result in less cost and fewer environmental impacts; however, this alternative would not restore the structural capacity of the pavement where the asphalt thickness is minimal. Therefore, this alternative does not meet the purpose and need of the project and was not considered further.

Three other alternatives were considered for Des. No. 1701591:

Do Nothing Alternative: This alternative would not involve any improvements to the existing structure (Structure Number 059-54-05061 A). This alternative would not involve any immediate cost or result in any environmental impacts. If no improvements are made to the existing structure, the structure would continue to deteriorate. This alternative was dismissed because it would not address the purpose and need of the project by improving the overall Condition Rating of the superstructure and substructure to a 7 ("good condition") or better to provide continued vehicular crossing at this location on SR 59.

Prestressed Concrete I-Beam Bridge: This alternative would involve replacing the existing structure with a three-span prestressed concrete I-beam structure. The large scale of construction activities for this alternative would significantly increase construction cost as a result of increased approach roadway work necessary based on grade change. The large scale of construction activities would likely result in increased environmental impacts. This alternative does meet the purpose and need of the project; however, it was discarded due to the increased construction footprint, environmental impacts, and associated cost.

Steel Girder Bridge: This alternative would involve replacing the existing structure with three-span rolled steel girder bridge. Due to the depth-to-span ratio needed for this alternative, lateral bracing would be required, thereby increasing the weight and cost of this alternative significantly. This alternative would likely result in environmental impacts similar to preferred alternative. This alternative does meet the purpose and need of the project; however, it was discarded due to the added weight and higher cost of steel fabrication required for the lateral bracing.

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)

✓

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ROADWAY CHARACTER:

SR 59

Functional Classification: Major Collector
 Current ADT: 1,970 VPD (2018) Design Year ADT: 2,045 VPD (2042)
 Design Hour Volume (DHV): 197.3 Truck Percentage (%) 10.77
 Designed Speed (mph): 30 to 40 Legal Speed (mph): 30 to 40

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	two 11-foot wide travel lanes		Two 11-foot wide travel lanes	
Pavement Width:	26	ft.	26-38 (varies)	ft.
Shoulder Width:	0-2 (varies)	ft.	2 paved (3 usable)	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	4-12 (varies)	ft.	5-6 (varies)	ft.

Setting: Urban Suburban Rural
 Topography: Level Rolling Hilly

DESIGN CRITERIA FOR BRIDGES:

Structure/NBI Number(s): 059-54-05061 A Sufficiency Rating: 62.7 (INDOT Culvert Inspection Report, dated November 14, 2019) (Appendix I, pages I-1 to I-9)
 (Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Three-span prestressed concrete box beam, 32.20 feet wide by 97 feet long		Three-span continuous reinforced concrete slab, 36.33 feet wide by 103.50 feet long	
Number of Spans:	3		3	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	26.2	ft.	33.33	ft.
Outside to Outside Width:	32.20	ft.	36.33	ft.
Shoulder Width:	2	ft.	5.67	ft.
Length of Channel Work:	N/A		105	

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

Remarks: Structure Number 059-54-05061 A is located just south of SR 47 and carries SR 59 over Little Raccoon Creek. The existing structure is a three-span prestressed concrete box beam bridge, approximately 97 feet in length with an out-to-out width of approximately 32.2 feet. The project will remove and replace Structure Number 059-54-05061 A with a three-span continuous reinforced concrete slab bridge. The new bridge would have a total length of 103.5 feet and overall width of 36.33 feet (approximately 4 feet wider than the existing). Riprap drainage turnouts would be added at each quadrant of the bridge. Also, riprap would be placed below the

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bridge along the spillslopes. North of Structure Number 059-54-05061 A, the approach pavement would be widened approximately 8 feet to ensure adequate guardrail offset. The north approach for SR 47 will also include milling and HMA overlay (Appendix B, pages B-33 to B-37). Removing and replacing the bridge will permanently impact approximately 105 linear feet (0.06 acre) of Little Racoon Creek below the ordinary high water mark (OHWM).

Several driveway drainage pipes, ranging from 12 inches to 30 inches in diameter, are present within the project area along the east and west sides of SR 59 (CR 800 West) and will be replaced in-kind. These drainage pipes convey storm water and are not associated with jurisdictional waters (Appendix B, pages B-19 to B-37).

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 MOT will involve a full closure of SR 59 with a detour utilizing SR 47, SR 234, US 231, and SR 236, for an added travel length of approximately 18 miles. Once developed, the Town of Waveland will coordinate the pedestrian MOT plan with the residents of Waveland. SR 59 is to remain open during the Parke County Covered Bridge Festival, which occurs annually each October. Access to all properties will be maintained during construction (Appendix B, page B-24).

The detour and pedestrian MOT plan will pose a temporary inconvenience to traveling motorists and pedestrians (including school buses and emergency services); however, no significant delays are anticipated, and all inconveniences will cease upon project completion.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: \$ 365,000 (2018) Right-of-Way: \$ 103,000 (2020) Construction: \$ 7,483,626 (2022)

Anticipated Start Date of Construction: Late winter/early spring 2022

Date project incorporated into STIP July 2, 2019 (Appendix H, page H-1)

Is the project in an MPO Area? Yes No
 If yes,

Name of MPO N/A

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Location of Project in TIP The project area is not located within a Metropolitan Planning Organization (MPO); as such, it is not listed within an MPO Transportation Improvement Program (TIP).

Date of incorporation by reference into the STIP N/A

RIGHT OF WAY:

Amount (acres)		
Land Use Impacts	Permanent	Temporary
Residential	0.72	0.27
Commercial	0.26	0.08
Agricultural	0	0
Forest	0.06	0
Wetlands	0	0
Other: Vacant Land & Religious Facility	0.06	0.002
TOTAL	1.10	0.352

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: The existing right-of-way width along SR 59 varies from approximately 20 feet to 30 feet from the roadway centerline. Land use within the existing right-of-way consists of primarily residential and commercial properties (Appendix B, pages B-3 to B-18). The maximum proposed right-of-way width will be approximately 50 feet from the roadway centerline for both the road work and the bridge work, with a majority of the road work requiring approximately 30 feet of right-of-way from the roadway centerline (Appendix B, pages B-19 to B-37).

The project requires approximately 1.10 acres of permanent right-of-way, consisting of approximately 0.72 acre of residential land, approximately 0.26 acre of commercial land, approximately 0.06 acre of forested land, approximately 0.04 acre of vacant land (previously commercial), and approximately 0.02 acre of vacant land owned by the town of Waveland. The project will also require approximately 0.352 acre of temporary right-of-way, consisting of approximately 0.27 acre of residential land, approximately 0.08 acre of commercial land, and approximately 0.002 acre of land from the Waveland Christian Church.

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

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

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SECTION A – ECOLOGICAL RESOURCES

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

Remarks: Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), USGS topographic map (Appendix B, page B-2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page E-8), five stream segments are located within 0.5 mile of the project area. Two stream segments, associated with Little Raccoon Creek and a UNT to Little Raccoon Creek, are within the project area.

A *Waters of the U.S. Determination Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on November 18, 2019 (Appendix F, pages F-1 to F-12). It was determined that one stream, Little Raccoon Creek, is located within the project area and is likely to be considered jurisdictional (i.e. a Waters of the United States). The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Per the field visit, and as described in the *Waters of the U.S. Determination Report*, two roadside ditches (RSD 1 and RSD 2) were identified within the project area (Appendix B, pages B-3 to B-18). RSD 1 is located near the south end of the project and carries storm water to the UNT to Little Raccoon Creek immediately south of the project area (south of CR 1150). RSD 2 is located near the north end of the project and carries water to Little Raccoon Creek in the northern portion of the project area (at the bridge). The roadside ditches did not exhibit OHWM characteristics and are not captured streams. Therefore, the roadside ditches are not likely to be considered jurisdictional (i.e. a Waters of the United States).

Little Raccoon Creek is a perennial stream that flows in an east to west direction under SR 59. Little Raccoon Creek has a drainage area of 7.161 square miles and a gradient of 13.6 feet per mile (Appendix F, page F-8). This stream exhibited average quality due to the presence of riffles and pools, and presence of overhanging vegetation. This stream has OHWM characteristics of 27.5 feet in width and 10 inches in depth. Little Raccoon Creek drains into Big Raccoon Creek, which flows into Raccoon Lake. Raccoon Lake then drains into the Wabash River, a Traditionally Navigable Waterway (TNW). Based on these criteria, this stream is likely to be considered jurisdictional (i.e. a Waters of the United States). Little Raccoon Creek is not listed as a Federal Wild and Scenic River or on the National Rivers Inventory. Little Raccoon Creek is also not listed as a State Natural, Scenic and Recreational River or as an Outstanding River for Indiana.

Work below the OHWM includes removing and replacing the existing bridge (Structure Number 059-54-05061 A) and replacing the existing pier piles to a depth of approximately 2 feet below the existing ground. Removing and replacing the existing bridge will permanently impact approximately 105 linear feet (0.06 acre) of Little Raccoon Creek below the OHWM. Because stream impacts will not exceed 300 linear feet, stream mitigation will not be required. A USACE Section 404 Regional General Permit (RGP) and Indiana Department of Environmental Management (IDEM) Section 401 Water Quality Certification Permit will be required due to stream impacts.

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Early coordination letters were sent to the US Coast Guard, USACE, Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife, and IDEM on March 5, 2020 (Appendix C, pages C-1 to C-5). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on March 5, 2020; however, the response did not contain project specific comments (Appendix C, pages C-6 to C-15). The US Coast Guard responded to the early coordination efforts on March 12, 2020, stating that there is no role for the US Coast Guard with this project (Appendix C, page C-25).

The IDNR Division of Fish and Wildlife responded to early coordination efforts on April 3, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages C-16 to C-19). Recommendations regarding streams generally include implementing erosion and sediment control measures and stream bank stabilization measures, not working within the stream channel from April 1 through June 30, and proper use of riprap. All applicable IDNR Division of Fish and Wildlife recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) 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>

Remarks: Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), USGS topographic map (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8) five lakes are located within 0.5 mile of the project area. The nearest lake is mapped 0.11 mile north of the project area. No other surface waters are present within the project area; therefore, no impacts are expected.

A *Waters of the U.S. Determination Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on November 18, 2019 (Appendix F, pages F-1 to F-12). It was determined that other surface waters are not located within the project area.

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on March 5, 2020 (Appendix C, pages C-1 to C-5). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on March 5, 2020; however, the response did not contain project specific comments (Appendix C, pages C-6 to C-15).

The IDNR Division of Fish and Wildlife responded to early coordination efforts on April 3, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages C-16 to C-19). The letter did not contain any specific recommendations regarding other surface waters.

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Presence

Impacts
Yes No

Wetlands

Total wetland area: 0 acre(s) Total wetland area impacted: 0 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
N/A	N/A	N/A	N/A	N/A

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination	<input checked="" type="checkbox"/>
Wetland Delineation	<input type="checkbox"/>
USACE Isolated Waters Determination	<input type="checkbox"/>
Mitigation Plan	<input type="checkbox"/>

November 18, 2019

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: Per a review of the National Wetlands Inventory (NWI) online mapper (<https://www.fws.gov/wetlands/data/mapper.html>) on May 13, 2020 by RQAW, the USGS topographic map (Appendix B, page B-2), and the water resources map in the RFI report (Appendix E, page E-8), nine NWI wetlands are located within 0.5 mile of the project area. The nearest NWI wetland is mapped approximately 0.01 mile east of the project area.

A *Waters of the U.S. Determination Report* was completed by RQAW and was approved by the INDOT Ecology and Waterway Permitting Office on November 18, 2019 (Appendix F, pages F-1 to F-12). It was determined that wetlands are not located within the project area.

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on March 5, 2020 (Appendix C, pages C-1 to C-5). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on March 5, 2020; however, the response did not contain project specific comments (Appendix C, pages C-6 to C-15).

The IDNR Division of Fish and Wildlife responded to early coordination efforts on April 3, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages C-16 to C-19). Recommendations regarding wetlands generally include implementing erosion and sediment control measures. However, these recommendations do not apply since wetlands are not located within or adjacent to the project area. All applicable IDNR Division of Fish and Wildlife recommendations are included in the *Environmental Commitments* section of this CE document.

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Presence

Impacts

Terrestrial Habitat

Unique or High Quality Habitat

✓

Yes
✓

No

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

Remarks:

Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, and an aerial photograph of the project area (Appendix B, page B-3), terrestrial habitat within the project area consists of maintained roadside grass, wooded lots, and riparian habitat. The dominant tree species within the project area included sugar maple (*Acer saccharum*), black walnut (*Juglans nigra*), pin oak (*Quercus palustris*), and white pine (*Pinus strobus*). Dominant herbaceous vegetation included bush honeysuckle (*Lonicera maackii*), Kentucky bluegrass (*Poa pratensis*) and tall fescue (*Schedonorus arundinaceus*). Although no animals were observed during the field visit, it is assumed that certain common animals are likely present within the project area (e.g. squirrels, raccoons, birds, etc.).

The total area of land disturbance is approximately 8.49 acres. Trees greater than three inches in diameter-at-breast-height (dbh) are located within the construction limits. Approximately 0.53 acre of tree clearing will be required in various locations along SR 59, and approximately 0.35 acre of tree clearing will occur along the east and west sides of the bridge (Structure Number 059-54-05061 A), for a total of 0.88 acre of tree clearing. An IDNR Construction in a Floodway Permit will be needed. Over 0.10 acre of tree clearing will occur within the floodway of Little Raccoon Creek; therefore, mitigation is anticipated. Tree clearing is necessary along the roadway to provide clearance for road widening and the construction of sidewalks. Tree clearing is necessary on both sides of the bridge to install the haul roads and provide access for bridge replacement activities. Avoidance alternatives would not be practicable because the trees are present within the construction limits and would inhibit construction activities associated with the pavement widening, sidewalk construction, and bridge construction.

Early coordination letters were sent to the USACE, IDNR Division of Fish and Wildlife, and IDEM on March 5, 2020 (Appendix C, pages C-1 to C-5). The USACE did not respond to the early coordination letter. An automated response was received from IDEM on March 5, 2020; however, the response did not contain project specific comments (Appendix C, pages C-6 to C-15).

The IDNR Division of Fish and Wildlife responded to early coordination efforts on April 3, 2020 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources (Appendix C, pages C-16 to C-19). Recommendations regarding terrestrial habitat generally include revegetating disturbed areas, minimizing tree and brush clearing, and mitigating impacts to non-wetland forest at appropriate ratios. All applicable IDNR Division of Fish and Wildlife recommendations are included in the *Environmental Commitments* section of this CE document.

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.

Karst

Is the proposed project located within or adjacent to the potential Karst Area of Indiana?

Are karst features located within or adjacent to the footprint of the proposed project?

Yes

No
✓
✓

If yes, will the project impact any of these karst features?

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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)

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Remarks: Per a desktop review, the project is located outside the designated karst region of Indiana, as outlined in the October 13, 1993 Memorandum of Understanding (MOU). Per the USGS topographic map (Appendix B, page B-2) and the water resources map in the RFI report (Appendix E, page E-8), there are no karst features identified within or adjacent to the project area.

Early coordination was conducted with the Indiana Geological Survey (IGS) on March 5, 2020 (Appendix C, pages C-1 to C-5). In their early coordination response, the IGS did not indicate that karst features exist within the project area (Appendix C, pages C-22 to C-24). Therefore, impacts to karst features are not expected. The IGS stated the 0.5 mile search radius is located within an area with moderate liquefaction potential, high potential for bedrock resources, and low potential for sand and gravel resources. This information was conveyed to the project designer on May 21, 2020. Impacts are not expected.

	<u>Presence</u>	<u>Impacts</u>	
Threatened or Endangered Species		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?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Remarks: Per a desktop review and the RFI report completed by RQAW and approved on November 27, 2019 (Appendix E, pages E-1 to E-11), the IDNR Montgomery County Endangered, Threatened and Rare (ETR) Species List has been checked (Appendix E, pages E-10 to E-11). The highlighted species on the list reflect the federal and state identified ETR species located within Montgomery County. Per the IDNR Division of Fish and Wildlife early coordination response letter dated April 3, 2020, the Natural Heritage Program's database has been checked, and to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity (Appendix C, pages C-16 to C-19).

The IDNR Division of Fish and Wildlife early coordination response letter recommends the new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (Appendix C, pages C-16 to C-19).

Per the INDOT Bridge Inspection Report, dated November 14, 2019 (Appendix I, pages I-1 to I-9), bats were not seen or heard under the structure (Structure Number 059-54-05061 A). Bats or evidence of bats were not observed during the field visit conducted by RQAW on June 26, 2019.

Project information was submitted through the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website (<https://ecos.fws.gov/ipac/>) on February 19, 2020 by RQAW and an official species list was generated for the road rehabilitation project (Des. No. 1593272) and bridge replacement project (Des. No. 1701591) (Appendix C, pages C-31 to C-42). Per the official species list, the project area is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). Per the official species list, no additional species were found within the project area.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad

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Administration (FRA), Federal Transit Administration (FTA), and the USFWS. An effect determination key was completed for the road rehabilitation project (Des. No. 1593272) and bridge replacement project (Des. No. 1701591) on February 19, 2020 by RQAW; based on the responses provided, it was determined the project *May Affect, Not Likely to Adversely Affect* the Indiana bat and northern long-eared bat. The INDOT Crawfordsville District reviewed and verified the effect finding and requested USFWS review of the finding on February 20, 2020 (Appendix C, pages C-43 to C-71). No response was received from the USFWS within the 14-day review period; therefore, it was concluded the USFWS concurs with the finding. Avoidance and Minimization Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document.

The project does not qualify for the *USFWS Interim Policy for the Review of Highway Transportation Projects in Indiana* dated May 29, 2013, because tree clearing is over the 0.5 acre threshold. Therefore, an early coordination letter was sent to the USFWS on March 5, 2020 (Appendix C, pages C-1 to C-5). The USFWS responded to the early coordination letter on March 12, 2020, stating that based on a review of the information provided, the U.S. Fish and Wildlife Service has no objection to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below (Appendix C, pages C-29 to C-30).

Recommendations regarding threatened or endangered species generally include time of year tree clearing restriction, implementing erosion and sediment control measures and stream bank stabilization measures, not working within the stream channel from April 1 through June 30, and proper use of riprap. All applicable USFWS recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) document.

The RFI report was approved on November 27, 2019 (Appendix E, pages E-1 to E-11). Project information was submitted through the USFWS IPaC website (<https://ecos.fws.gov/ipac/>) on February 19, 2020 by RQAW and an official species list was generated (Appendix C, pages C-31 to C-42). The project area is outside a High Potential Zone for the rusty patched bumble bee (*Bombus affinis*) (Appendix E, page E-5). Impacts are not expected.

This precludes the need for further consultation on this project under Section 7 of the Endangered Species Act of 1973, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, the USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Drinking Water Resources			
Wellhead Protection Area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Public Water System(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Residential Well(s)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Source Water Protection Area(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sole Source Aquifer (SSA)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If a SSA is present, answer the following:			
	<u>Yes</u>	<u>No</u>	
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"/>	

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Detailed Groundwater Assessment Required?

Remarks: The project is located within Montgomery County which is not located within the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA) Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable and a detailed groundwater assessment is not needed. Impacts are not expected.

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (<http://www.in.gov/idem/cleanwater/pages/wellhead/>) was accessed on March 13, 2020 by RQAW. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

Per review of the IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>), accessed on March 13, 2020 by RQAW, eight water wells are located within 0.5 mile of the project area. Two water wells, one unconsolidated and one unspecified, are located adjacent to the east of the project area, along Cross Street. Per the IDNR Enhanced Water Well Viewer, the locations of the water wells are estimated. The unspecified water well has a static water level of 25 feet. The adjacent unconsolidated water well has no other information (e.g. static water level) available. Per coordination with the designer, the two wells may be affected by the project. Should it be determined during the right-of-way phase that these wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

Per a desktop review of the INDOT Municipal Separate Storm Sewer Systems (MS4) website (<https://entapps.indot.in.gov/MS4/>), accessed on March 13, 2020 by RQAW, and the RFI report (Appendix E, pages E-1 to E-11), the project area is not within an Urbanized Area Boundary. Impacts are not expected.

Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and coordination with the designer, this project is located where there is a public water system. Indiana American Water (INAW) has a water main along SR 59, approximately 5.5 feet bgs, that may be impacted by this project. Excavation activities associated with the installation of storm sewer trunk line may reach a depth of approximately 6 feet bgs. Utility coordination is ongoing; however, any impacts would be temporary and affected property owners would be notified prior to any disruptions.

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 checked="" type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Remarks: Per a review of the IDNR Indiana Floodway Information Portal website (<https://dnrmmaps.dnr.in.gov/appsphp/fdms/>), accessed on May 13, 2020 by RQAW, the project area is located within a regulatory floodplain. Early coordination was sent to the Local Floodplain Administrator on March 5, 2020 (Appendix C, pages C-1 to C-5). The Local Floodplain Administrator did not respond to the early coordination letter.

This project qualifies as a Category 4 per the current INDOT CE Manual, which states If no substantial impacts are predicted then the following comment will be included:

"No homes are located within the base floodplain within 1,000 feet upstream and one home is located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity

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such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans."

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

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

**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: Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and the early coordination response from the Natural Resources Conservation Service (NRCS) on March 17, 2020 (Appendix C, page C-21), the project will not cause a conversion of prime farmland. As such, there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply. Impacts are not expected.

SECTION C – CULTURAL RESOURCES

Minor Projects PA Clearance	<u>Category</u>	<u>Type</u>	<u>INDOT Approval Dates</u>	<u>N/A</u>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Eligible and/or Listed
Resource Present**

Results of Research

Archaeology	<input type="checkbox"/>
NRHP Buildings/Site(s)	<input checked="" type="checkbox"/>
NRHP District(s)	<input checked="" type="checkbox"/>
NRHP Bridge(s)	<input type="checkbox"/>

Project Effect

No Historic Properties Affected No Adverse Effect Adverse Effect

**Documentation
Prepared**

Documentation (mark all that apply)

	<u>ES/FHWA Approval Date(s)</u>	<u>SHPO Approval Date(s)</u>
Historic Properties Short Report	<input type="checkbox"/>	<input type="checkbox"/>
Historic Property Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Archaeological Records Check/ Review	<input type="checkbox"/>	<input type="checkbox"/>
Archaeological Phase Ia Survey Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Archaeological Phase Ic Survey Report	<input type="checkbox"/>	<input type="checkbox"/>

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Archaeological Phase II Investigation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Archaeological Phase III Data Recovery	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
APE, Eligibility and Effect Determination	<input checked="" type="checkbox"/>	3/30/2020	4/27/2020
800.11 Documentation	<input checked="" type="checkbox"/>	3/30/2020	4/27/2020

MOA Signature Dates (List all signatories)

Memorandum of Agreement (MOA)

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:

Because this is a federal aid highway project, a Section 106 evaluation is required as mandated by the National Historic Preservation Act of 1966, as amended (54 USC § 306108) and as governed by the process established by 36 CFR Part 800.

Area of Potential Effect (APE):
 The APE is the area in which the proposed project may cause alterations in the character or use of historic resources. The Area of Potential Effects (APE) for this project is an irregular polygon. Most of the APE extends one property deep along the project area (approximately 120 feet from either side of the roadway). It is wider (approximately 200 feet from the roadway) where more open views to the project are available at the intersection of SR 47 and SR 59 (Appendix D, pages D-22 and D-23).

Coordination with Consulting Parties:
 Early coordination was initiated with potential consulting parties by RQAW on August 13, 2019, with a mailed and e-mailed letter inviting organizations and individuals to be consulting parties (Appendix D, pages D-28 through D-33). Early coordination was initiated with tribal contacts by the INDOT Cultural Resources Office (CRO) on August 13, 2019 (Appendix D, pages D-34 and D-35). A subsequent letter, dated October 25, 2019, was sent to those organizations that wished to be a consulting party (Appendix D, pages D-43 to D-48). A weblink to the Historic Property Report (HPR) was also provided. The following is a list of organizations and individuals that were sent early coordination letters. Those who indicated they wished to be consulting parties are in bold. [Note: The Indiana State Historic Preservation Officer (SHPO) is an automatic consulting party. The FHWA is the federal agency undertaking the project with INDOT acting on behalf of the FHWA]. Please refer to Appendix D, page D-26 for the list of organizations invited to be consulting parties, and Appendix D, pages D-28 to D-64 for consulting party correspondence.

During a phone call between the Little Raccoon Regional Waste District (LRRWD) Board President and RQAW's historian on October 8, 2019, the LRRWD Board President, stated that they received a copy of the Section 106 Consulting Party letter dated August 13, 2019, from the Town of Waveland and wished to be added as a consulting party (Appendix D, page D-42).

In an email dated September 11, 2019, the Indiana Landmarks Western Field Office offered no objection to the project. The Indiana Landmarks Western Field Office wishes only to be notified if changes are made to the project (Appendix D, page D-37).

In a letter dated September 12, 2019, the Indiana SHPO staff recommended no other consulting parties be invited. However, they did advise inviting owners of potentially historic property if right-of-way is likely taken from that property. The Waveland Christian Church was subsequently invited to participate as a consulting party (Appendix D, pages D-38 and D-39).

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Section 106 Consulting Parties	Date of Response(s)
1. Indiana Landmarks, West Regional Office	September 11, 2019 (D-37) November 19, 2019 (D-49)
2. Montgomery County Cultural Foundation	No response received
3. Montgomery County Historical Society	No response received
4. Montgomery County Historian	No response received
5. Montgomery County Commissioners	No response received
6. Montgomery County Highway Director	No response received
7. Property Owner of George Seybold House at 111 E. Main Street	No response received
8. Waveland Council President	No response received
9. Waveland Post Office	No response received
10. Eastern Shawnee Tribe of Oklahoma	No response received
11. Miami Tribe of Oklahoma	September 9, 2019 (D-36)
12. Peoria Tribe of Indians of Oklahoma	No response received
13. Pokagon Band of Potawatomi Indians	No response received
14. Forest County Potawatomi Community	September 12, 2019 (D-40 to D-41)
15. Little Raccoon Regional Waste District	October 8, 2019 (D-42)
16. Waveland Christian Church	No response received

Archaeology:

An archaeology report (Phase Ia Archaeological Reconnaissance) was completed by Cultural Resource Analysts, INC. (CRA) on July 16, 2019 (Curran, July 16, 2019) (Appendix D, pages D-68 to D-69). The archaeological reconnaissance identified one previously unrecorded archaeological site (12My722). The archaeologist noted that the site extends outside of the survey area and its National Register of Historic Places (NRHP) eligibility could not be fully assessed. Additionally, the site demonstrates poor integrity and has little potential to yield significant data about the history of the region. Further investigation was not recommended. In a letter dated November 25, 2019, the Indiana SHPO concurred with the archaeology report (Appendix D, pages D-50 and D-51).

In a letter dated September 9, 2019, the Miami Tribe of Oklahoma stated that they object to projects that will disturb or destroy archaeological sites that are eligible for the National Register of Historic Places. Due to the project's location near the archaeological site (12My111), it is possible that human remains and/or cultural items falling under the Native American Graves Protection and Repatriation Act (NAGPRA) could be discovered during this project. They requested immediate consultation with the entity of jurisdiction if any human remains or archaeological evidence is discovered during any phase of this project (Appendix D, page D-36).

In an email dated September 12, 2019, the Forest County Potawatomi Community stated, "based on information you provided it does not appear that the proposed work will impact any historic properties of concern to the Tribe" and they are "pleased to offer a finding of no historic properties affected, with two conditions. First should the [Indiana] SHPO finding differ the Tribe reserves the right to reconsider based on new evidence. Second, in the event that human remains, or archaeological materials are exposed as a result of project activities then work must halt and the Tribe must be included in any further discussion regarding treatment and disposition of the find prior to its removal." (Appendix D, pages D-40 and D-41).

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Historic Properties:

The APE was investigated for the existence of any historic properties and/or structures by a qualified professional from RQAW on August 9, 2019. Per the field visit and associated documentary research, the historian identified one property listed in the NRHP and three properties that are recommended eligible for listing in the NRHP (Appendix D, pages D-66 to D-67). The properties are discussed below.

Recommended NRHP-Eligible: Waveland Christian Church (Indiana Historic Sites and Structures Inventory (IHSSI) # 107-025-47016): The church is recommended eligible for the NRHP under Criterion C. The Late Gothic Revival church, although altered, is the only example of local architect, W. F. Sharpe's implementation of the Polychrome subtype in a small church building in Montgomery County (Appendix D, page D-10). The property is located at 212 West Main Street, in the northeast quadrant of the Main Street/Jackson Street intersection (Appendix D, page D-23). Please see the *Documentation, Findings* discussion below for impacts to the property.

Recommended NRHP-Eligible: Waveland Post Office (RQAW # 6): The Waveland Post Office is recommended eligible for the NRHP under Criterion A for conveying significance to the federal government's presence in Waveland and southwest Montgomery County through the United States Postal Service's operations. It is also recommended eligible under Criterion C because it embodies distinctive characteristics of Federal Modernism and is a good example of a Thousand Series post office. The Waveland Post Office contributes to the historic character of the community as not many mid-twentieth-century structures are constructed in Waveland (Appendix D, page D-10). The property is located at 103 West Main Street, in the southeast quadrant of the Main Street/High Street intersection (Appendix D, page D-23). Please see the *Documentation, Findings* discussion below for impacts to the property.

NRHP-Listed: George Seybold House (NR-1682): The property was listed on the NRHP in 2002 for significance under Criterion C in the area of architecture. The house is an outstanding example of late-nineteenth century Stick style architecture although with alterations such as replacement windows and a contemporary metal roof (Appendix D, page D-10). The property is located at 111 East Main Street, in the southeast quadrant of the Main Street/Cross Street intersection (Appendix D, page D-23). Please see the *Documentation, Findings* discussion below for impacts to the property.

Recommended NRHP-Eligible: Waveland Commercial Historic District (IHSSI # 107-025-46001 – 46020): The historic district is recommended NRHP-eligible under Criteria A and C. Although a handful of buildings have been demolished and the extant buildings altered, it retains sufficient integrity to portray significance in late nineteenth century Italianate architecture (Appendix D, pages D-10 to D-11). The Waveland Commercial Historic District is located along both sides of Cross between Howard and Green Streets and includes the Waveland (Carnegie) Library (Appendix D, page D-23). Please see the *Documentation, Findings* discussion below for impacts to the district.

The HPR (Boot, 2019) describing these findings was sent to INDOT CRO on September 11, 2019 and was approved by INDOT CRO on October 24, 2019 (Appendix D, page D-66 to D-67). The HPR was sent to consulting parties, including the Indiana SHPO, on October 25, 2019. In a letter dated November 25, 2019, the Indiana SHPO concurred with the identification of the NRHP-listed property and the recommendations for the three NRHP-eligible properties. However, the SHPO indicated that the three concrete steps from the public sidewalk to SR 59/Main Street appear as though they could date from 1959 and could have been built specifically for this post office building, even though they may be within the SR 59 right-of-way (Appendix D, pages D-50 to D-51). In a letter dated November 19, 2019, the Indiana Landmarks also concurred with the recommendations of the HPR (Appendix D, page D-49).

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In response to the Indiana SHPO letter, dated November 25, 2019, requesting professional evaluation of the project's anticipated effect on the historic resources, an effects letter was completed by the Qualified Professional (QP) staff at RQAW Corporation. Note that the effects letter expanded the boundaries of the Waveland Post Office historic boundary to include the three concrete steps from the public sidewalk to SR 59/Main Street per the Indiana SHPO staff's request. On January 28, 2020, a hard copy of the effects letter was mailed to the Indiana SHPO while other consulting parties were informed via email that the letter could be viewed electronically. The letter identified potential effects to the historic resources and requested comments from consulting parties in response (Appendix D, pages D-52 to D-60).

In a letter dated March 2, 2020, the Indiana SHPO staff provided thanks for expanding the historic property boundary of the Waveland Post Office and commented on the effects letter. Additionally, the Indiana SHPO staff stated, "we do not think that the integrity of any of the characteristics that qualify any of the historic properties for inclusion in the National Register of Historic Places will be diminished by this project." (Appendix D, pages D-63 and D-64).

Documentation, Findings:

Waveland Christian Church (IHSSI # 107-025-47016): Impacts within the historic resource boundary of the Waveland Christian Church will include a new 5-foot wide sidewalk to the south edge of the existing sidewalk, resulting in an approximately 10-foot wide sidewalk. The new proposed sidewalk will be located between the existing sidewalk and the north edge of a new curb and gutter. Additionally, the existing crushed stone parking area will be paved. No unusual or historic features, such as brick or stone sidewalks or curbing, that might be impacted by the project were observed adjacent to or within this historic property. Permanent right-of-way is not anticipated from the property. However, approximately 0.002 acre of temporary right-of-way is anticipated for maneuvering and other related activities during construction only. The reconstructed driveway will remain within the existing right-of-way area. The alterations adjacent to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Christian Church for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The existing sidewalk will be retained, the roadway lane widths will be perpetuated, and the existing crushed stone area will be paved for parking and additional sidewalk. As a result, the project is anticipated to have "No Adverse Effect" to the Waveland Christian Church (Appendix D, page D-11 to D-12).

Waveland Post Office (RQAW # 6): Impacts within the historic resource boundary of the Waveland Post Office will include replacement of the curb (outside the historic resource boundary) and some of the sidewalk (within the historic property boundary). The existing sidewalk and concrete steps between the sidewalk and the curb will not be altered except for the bottom step. The depth (run) of the bottom step will be lengthened approximately 1.5 feet to tie into the proposed back of curb. This will perpetuate the stairs leading from the on-street parking area along Main Street to the post office front entrance. The concrete and railings from the period of significance (circa 1960) and the circa 2012 concrete ramp and railing in front of the post office will remain unaltered as well. Therefore, the integrity of concrete steps and sidewalk from the period of construction will continue to portray historic significance. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the Waveland Post Office. The alterations to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Post Office at 103 W. Main Street for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. As a result, the project is anticipated to have "No Adverse Effect" to the Waveland Post Office (Appendix D, page D-12).

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George Seybold House (NR-1682): Impacts adjacent to the historic resource boundary of the George Seybold House will include replacing curbs at the Main Street/Cross Street intersection and the approaches leading up to it. The proposed curb along Cross Street will be located approximately seven feet west of the existing (and proposed) front edge of sidewalk. Thus, the roadway pavement will tie into the existing road pavement and the buffer lawn will be perpetuated along Cross Street. The proposed curb along Main Street will be located approximately 11 feet north of the existing (and proposed) front edge of sidewalk. Along the south side of Main Street, the existing crushed stone area between the proposed curb and existing sidewalk will be converted to a buffer lawn adjacent to the approach. to the existing right-of-way. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the George Seybold House. The alterations adjacent to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the George Seybold House for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. As a result, the project is anticipated to have No Adverse Effect to the George Seybold House (Appendix D, page D-13).

Waveland Commercial Historic District (IHSSI # 107-025-46001 – 46020): Impacts within the historic resource boundary of the Waveland Commercial Historic District will include replacement of the curb and gutters, sidewalks, and Americans with Disabilities Act (ADA) curb ramps along SR 59/Cross Street between Howard and Green streets. As indicated in the historic property report, the Waveland Commercial Historic District retains some unusual contributing and non-contributing features. The contributing features include the limestone steps in front of the Masonic Hall (IHSSI # 107-025-46014). The limestone steps will be retained in place and the concrete sidewalk poured around them, just as the existing sidewalk does. The non-contributing features include: the replacement awning with steel posts in front of the commercial building at 224 Cross Street (IHSSI # 107-025-046013), a concrete sidewalk step along the west side of Cross Street and adjacent to the awning in front of the building at 224 Cross Street, a large concrete sidewalk ramp at the southeast corner of Cross and Green Street, and a cistern located below the Cross Street and alley intersection. These non-contributing features will be removed, replaced, or modified as part of the curb ramps, sidewalks, and pavement replacement. No other unusual or historic features, such as brick or stone sidewalks or curbing, that might be impacted by the project were observed adjacent to or within this property. Due to the significant grade change at the northwest corner of the Union Block (IHSSI # 107-025-46020), curb bump outs are proposed along Green Street in the south quadrants of the Cross Street and Green Street intersection to achieve ADA standards for the curb ramps and sidewalks while maintaining a consistent curb line along Cross Street within the Waveland Commercial Historic District. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the Waveland Commercial Historic District. The alterations within the historic resource boundary and nearby visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Commercial Historic District for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The contributing historic features including the buildings and limestone steps and the overall appearance and feeling of the Waveland Commercial Historic District will be retained. As a result, the project is anticipated to have "No Adverse Effect" to the Waveland Commercial Historic District (Appendix D, pages D-13 to D-14).

The 800.11(e) documentation for the "No Adverse Effect" was sent to INDOT CRO on March 4, 2020, and was signed by INDOT CRO, on behalf of FHWA, on March 30, 2020 (Appendix D, pages D-1 to D-4). The 800.11(e) documentation was sent to consulting parties, including the Indiana SHPO, on March 31, 2020. The Indiana

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SHPO concurred with the "No Adverse Effect" Section 106 finding on April 27, 2020 (Appendix D, pages D-73 to D-74).

Public Involvement:

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Adverse Effect", was advertised in *The Paper* of Montgomery County on April 1, 2020, offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period expired 30 days later on May 1, 2020. No public comments were received. The text of the public notice and the affidavit of publication appear in Appendix D, pages D-71 to D-72. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

- Publicly owned park
- Publicly owned recreation area
- Other (school, state/national forest, bikeway, etc.)

Presence

✓
✓

Use

Yes	No
	✓
	✓

Evaluations Prepared

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

FHWA Approval date

--

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

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Historic Properties

- Sites eligible and/or listed on the NRHP

Presence

✓

Use

Yes	No
	✓

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).

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife and waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on June 26, 2019 by RQAW, the aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-11), there are six Section 4(f) resources (two recreational facilities and four historic resources) located within the 0.5 mile search radius. Four Section 4(f) resources are located within or adjacent to the project area.

The Waveland Christian Church (IHSSI # 107-025-47016) is located adjacent to the project area, in the northeast quadrant of the Main Street/Jackson Street intersection (Appendix D, page D-23). The church is recommended eligible for the NRHP under Criterion C. The Late Gothic Revival church, although altered, is the only example of local architect, W. F. Sharpe's implementation of the Polychrome subtype in a small church building in Montgomery County (Appendix D, page D-10).

Impacts within the historic resource boundary of the Waveland Christian Church will include a new 5-foot wide sidewalk to the south edge of the existing sidewalk, resulting in an approximately 10-foot wide sidewalk. The new proposed sidewalk will be located between the existing sidewalk and the north edge of a new curb and gutter. Additionally, the existing crushed stone parking area will be paved. No unusual or historic features, such as brick or stone sidewalks or curbing, that might be impacted by the project were observed adjacent to or within this historic property. Permanent right-of-way is not anticipated from the property. However, approximately 0.002 acre of temporary right-of-way is anticipated for maneuvering and other related activities during construction only. The reconstructed driveway will remain within the existing right-of-way area. The alterations adjacent to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Christian Church for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The existing sidewalk will be retained, the roadway lane widths will be perpetuated, and the existing crushed stone area will be paved for parking and additional sidewalk (Appendix D, pages D-11 to D-12).

This undertaking will temporarily occupy land from the Waveland Christian Church, a Section 4(f) historic property. INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect". FHWA believes that the temporary occupancy will not constitute a Section 4(f) use because all of the conditions listed in 23 CFR 774.13(d) are satisfied:

1. Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
2. Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;

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3. There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
4. The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
5. There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

The temporary occupancy will not constitute a Section 4(f) use for the Waveland Christian Church because all of the conditions listed in 23 CFR 774.13(d) are satisfied (Appendix D, page D-4). The Indiana SHPO concurred that the above criteria for temporary occupancy have been met in a letter dated April 27, 2020 (Appendix D, pages D-73 and D-74).

Waveland Post Office (RQAW # 6) is located at 103 West Main Street, in the southeast quadrant of the Main Street/High Street intersection (Appendix D, page D-23). The Waveland Post Office is recommended eligible for the NRHP under Criterion A for conveying significance to the federal government's presence in Waveland and southwest Montgomery County through the United States Postal Service's operations. It is also recommended eligible under Criterion C because it embodies distinctive characteristics of Federal Modernism and is a good example of a Thousand Series post office. The Waveland Post Office contributes to the historic character of the community as not many mid-twentieth-century structures are constructed in Waveland (Appendix D, page D-10).

Impacts within the historic resource boundary of the Waveland Post Office will include replacement of the curb (outside the historic resource boundary) and some of the sidewalk (within the historic property boundary). The existing sidewalk and concrete steps between the sidewalk and the curb will not be altered except for the bottom step. The depth (run) of the bottom step will be lengthened approximately 1.5 feet to tie into the proposed back of curb. This will perpetuate the stairs leading from the on-street parking area along Main Street to the post office front entrance. The concrete and railings from the period of significance (circa 1960) and the circa 2012 concrete ramp and railing in front of the post office will remain unaltered as well. Therefore, the integrity of concrete steps and sidewalk from the period of construction will continue to portray historic significance. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the Waveland Post Office. The alterations to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Post Office at 103 W. Main Street for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (Appendix D, page D-12).

This undertaking will not convert property from Waveland Post Office, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore, no Section 4(f) evaluation is required for Waveland Post Office.

George Seybold House (NR-1682) is located at 111 East Main Street, in the southeast quadrant of the Main Street/Cross Street intersection (Appendix D, page D-23). The property was listed on the NRHP in 2002 for significance under Criterion C in the area of architecture. The house is an outstanding example of late-nineteenth century Stick style architecture although with alterations such as replacement windows and a contemporary metal roof (Appendix D, page D-10).

Impacts adjacent to the historic resource boundary of the George Seybold House will include replacing curbs at the Main Street/Cross Street intersection and the approaches leading up to it. The proposed curb along

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Cross Street will be located approximately seven feet west of the existing (and proposed) front edge of sidewalk. Thus, the roadway pavement will tie into the existing road pavement and the buffer lawn will be perpetuated along Cross Street. The proposed curb along Main Street will be located approximately 11 feet north of the existing (and proposed) front edge of sidewalk. Along the south side of Main Street, the existing crushed stone area between the proposed curb and existing sidewalk will be converted to a buffer lawn adjacent to the approach. to the existing right-of-way. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the George Seybold House. The alterations adjacent to the historic resource boundary and neighboring visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the George Seybold House for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association (Appendix D, page D-13).

This undertaking will not convert property from George Seybold House, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore, no Section 4(f) evaluation is required for George Seybold House.

Waveland Commercial Historic District (IHSSI # 107-025-46001 – 46020) is located along both sides of Cross between Howard and Green Streets and includes the Waveland (Carnegie) Library (Appendix D, page D-23). The historic district is recommended NRHP-eligible under Criteria A and C. Although a handful of buildings have been demolished and the extant buildings altered, it retains sufficient integrity to portray significance in late nineteenth century Italianate architecture (Appendix D, pages D-10 to D-11).

Impacts within the historic resource boundary of the Waveland Commercial Historic District will include replacement of the curb and gutters, sidewalks, and ADA curb ramps along SR 59/Cross Street between Howard and Green streets. As indicated in the historic property report, the Waveland Commercial Historic District retains some unusual contributing and non-contributing features. The contributing features include the limestone steps in front of the Masonic Hall (IHSSI # 107-025-46014). The limestone steps will be retained in place and the concrete sidewalk poured around them, just as the existing sidewalk does. The non-contributing features include: the replacement awning with steel posts in front of the commercial building at 224 Cross Street (IHSSI # 107-025-046013), a concrete sidewalk step along the west side of Cross Street and adjacent to the awning in front of the building at 224 Cross Street, a large concrete sidewalk ramp at the southeast corner of Cross and Green Street, and a cistern located below the Cross Street and alley intersection. These non-contributing features will be removed, replaced, or modified as part of the curb ramps, sidewalks, and pavement replacement. No other unusual or historic features, such as brick or stone sidewalks or curbing, that might be impacted by the project were observed adjacent to or within this property. Due to the significant grade change at the northwest corner of the Union Block (IHSSI # 107-025-46020), curb bump outs are proposed along Green Street in the south quadrants of the Cross Street and Green Street intersection to achieve ADA standards for the curb ramps and sidewalks while maintaining a consistent curb line along Cross Street within the Waveland Commercial Historic District. All work will occur within the existing right-of-way. Temporary or permanent right-of-way will not be required from the Waveland Commercial Historic District. The alterations within the historic resource boundary and nearby visible changes (as described above) are not anticipated to reduce the significance or impact any of the characteristics that qualify the Waveland Commercial Historic District for the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The contributing historic features including the buildings and limestone steps and the overall appearance and feeling of the Waveland Commercial Historic District will be retained (Appendix D, pages D-13 to D-14).

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This undertaking will not convert property from Waveland Commercial Historic District, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore, no Section 4(f) evaluation is required for Waveland Commercial Historic District.

The two recreational facilities, Waveland Town Park, located approximately 0.07 mile east of the project area, and the Waveland Baseball/Softball Diamonds, located approximately 0.34 mile east of the project area, are not within or adjacent to the project area (Appendix E, page E-7). The project will not use either of these potential Section 4(f) resources by taking permanent right of way and will not alter the environment in such a way as to constitute constructive use of these resources. Therefore, no use is expected.

Section 6(f) Involvement Presence Use

Section 6(f) Property

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

Remarks: The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

Per review of the LWCF website at <https://www.lwcfcoalition.com/tools>, accessed on September 26, 2019 by RQAW, twelve LWCF properties are located in Montgomery County (Appendix I, page I-18). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

	Yes	No
Is the project in an air quality non-attainment or maintenance area?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If YES, then:		
Is the project in the most current MPO TIP?	<input type="checkbox"/>	<input type="checkbox"/>
Is the project exempt from conformity?	<input type="checkbox"/>	<input type="checkbox"/>
If the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?	<input type="checkbox"/>	<input type="checkbox"/>
Is a hot spot analysis required (CO/PM)?	<input type="checkbox"/>	<input type="checkbox"/>

Level of MSAT Analysis required?

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

Remarks: The project is included in the FY 2020 to 2024 INDOT State Transportation Improvement Program (STIP) (Appendix H, page H-1). Please note the estimated cost listed in the INDOT STIP encompasses both the road rehabilitation (Des. No. 1593272) and the bridge replacement (Des. No. 1701591), under the lead Des. No. 1593272 and contract number R-39363. The project area is not located within an MPO; as such, it is not listed in the MPO TIP.

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The project is in Montgomery County which is currently in attainment for all criteria pollutants per the IDEM Office of Air Quality website (<https://www.in.gov/idem/airquality/files/nonattainmentcountylist.pdf>), accessed on May 13, 2020 by RQAW. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

The project is of a type qualifying as a CE (Group 1) under 23 CFR 771.117(c), or exempt under the Clean Air Act conformity rule under 40 CFR 93.126, and as such, a Mobile Source Air Toxics analysis is not required.

SECTION F - NOISE

Noise

Yes **No**

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

	No	Yes/ Date
ES Review of Noise Analysis	N/A	N/A

Remarks: This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal 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
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<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"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

Remarks:

The 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.

There are approximately twelve businesses within the project area. Local traffic will have continuous access to residences and businesses during construction. Access to all properties will be maintained during construction.

Per the Fairs and Festivals website (www.fairsandfestivals.net), accessed on May 13, 2020 by RQAW, no fair or festival is currently scheduled within a 10 mile radius of zip codes 47989 (project area). However, SR 59 will remain open during the annual Parke County Covered Bridge Festival, which occurs annually each October. Any future fairs/festivals that may be planned are unlikely to be impacted by the project since fair or festival goers can utilize the detour route (SR 47, SR 234, US 231, and SR 236) during construction. Access to all properties will be maintained during construction.

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Per the Montgomery County, Indiana government website (<https://www.montgomerycounty.in.gov/departments/division.php?structureid=1884>), accessed on May 13, 2020 by RQAW, Montgomery County has an approved ADA Transition Plan, dated October 12, 2015. The project will comply with the ADA Transition Plan by reconstructing pedestrian facilities to meet public right-of way accessibility guidelines (PROWAG) standards.

Yes No

Indirect and Cumulative Impacts

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

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect 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 or person undertakes such actions.

Due to the scope of the project and limited impacts, it is not expected to result in any substantial indirect or cumulative impacts. The improvement of the roadway and bridge will allow for continued vehicular use along SR 59; however, the project is not expected to increase development in the area beyond what is already planned. The project will not add capacity to the existing roadway network or provide additional access to any currently undeveloped area.

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.*

Remarks: Per a desktop review, a field visit conducted on June 26, 2019 by RQAW, an aerial photograph of the project area (Appendix B, page B-3), and the infrastructure discussion in the RFI report (Appendix E, pages E-1 to E-11), there is one religious facility, two recreational facilities, one post office, one memorial/gathering space, and one public library located within the 0.5 mile search radius. There are no hospitals, schools, trails, or managed lands located within the 0.5 mile search radius.

Note that the RFI report identified three recreational facilities, one mapped and two unmapped; however, upon further review of online records (<https://indianaeconomicdigest.com/>), the recreational facility associated with Waveland Elementary School is no longer open to the public, due to the school's closure.

Two public facilities are located adjacent to the project area. The Waveland Christian Church is located adjacent to the project area, in the northeast quadrant of the Main Street/Jackson Street intersection. Approximately 0.002 acre of temporary right-of-way is anticipated for maneuvering and other related activities during construction only. Access to this property will be maintained during construction. Refer to the *Section 4(f) Resources* section of this document for further details on the Waveland Christian Church.

The Waveland Post Office is located adjacent to the project area, in the southeast quadrant of the project area. No temporary or permanent right-of way is required from this property. Access to this property will be maintained during construction. Therefore, no impacts are expected.

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Per the RFI report, the nearest recreational facility, Waveland Town Park, is located approximately 0.07 mile east of the project area (Appendix E, pages E-1 to E-11). The Waveland Baseball/Softball Diamonds is located approximately 0.34 mile east of the project area. Access to the two recreational facilities will remain open during construction, as these facilities are located outside of the project area. Therefore, no impacts are expected.

Per review of Google Maps, the Waveland Public Library is located approximately 0.02 mile east of the project area in the southeast quadrant of the Cross Street/Green Street intersection. The Waveland Public Library is located within the Waveland Commercial Historic District. Refer to the *Section 4(f) Resources* section of this document for further details on the Waveland Commercial Historic District. Access to the Waveland Public Library will remain open during construction, as these facilities are located outside of the project area. Therefore, no impacts are expected.

Per the RFI report, one public airport, Shades State Park, is located within 3.8 miles (20,000 feet) of the project area (Appendix E, page E-2). Per the INDOT Office of Aviation early coordination response letter, dated March 9, 2020, there are no issues with surrounding airspace or airports. This is due to the project meeting the required glideslope requirements to the nearest public-use facility (Appendix C, page C-20). No impact is expected.

Per review of Google Maps, there appears to be one emergency service facility located within the 0.5 mile search radius. The Waveland Fire department station is located approximately 0.02 mile west of the project area, in the northeast quadrant of the Main Street/Howard Street intersection. Access to this property will remain open during construction, as this facility is located outside of the project area. Therefore, no impacts are expected.

During the June 26, 2019 field visit, the Waveland Veterans Memorial, managed by Waveland Strong, was observed adjacent to the west of the project area, in the northeast quadrant of the SR 59 and Green Street intersection. After a follow-up to the early coordination letter on May 13, 2020, a representative of Waveland Strong responded to the early coordination letter on May 14, 2020. Waveland Strong did not express any concerns regarding the project. According to the response, Waveland Strong is a privately-run not-for-profit group that owns and maintains the parcel of land containing the Veteran War Memorial (Appendix C, pages C-26 to C-27). A small amount of permanent right-of-way will be required from this property for work along the adjacent sidewalk. The proposed right-of-way will extend to the existing retaining wall, located along the east side of the property. No temporary right-of way is required from this property. Access to this property will be maintained during construction.

Several utilities are located within the project area including electric, telephone, and sanitary facilities. These utilities may require relocation and would be temporarily impacted. Utility coordination has been initiated.

Early coordination letters were sent to the Waveland Christian Church, Waveland Strong, and the INDOT Office of Aviation on March 5, 2020 (Appendix C, pages C-1 to C-5). The Waveland Christian Church did not respond to the early coordination letter.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limits access.

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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 type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>

Remarks:

Under FHWA Order 6640.23A, FHWA and INDOT as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT CE Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 1.10 acre of permanent right-of-way. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority populations and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is Montgomery County. Montgomery County was chosen as the COC because the project limits extend beyond the Town of Waveland corporate limits. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Brown Township.

An AC has a population of concern for EJ if the population is more than 50% low-income or minority or if the low-income or minority population is 125% of the COC. American Community Survey 5-year estimates data (2013 through 2017) was obtained from the U.S. Census Bureau website (<https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>) on March 18, 2020 by RQAW. The data collected for low-income and minority populations within the AC are summarized in the table below.

Table: Low-income and Minority Data (American Community Survey, 2013 through 2017)		
	COC: Montgomery County	AC 1 (Brown Township)
Percent Low-income	10.2%	5.7%
125% of COC	12.7%	AC < 125% of COC
EJ Population of Concern		No
Percent Minority	7.8%	3.5%
125% of COC	9.7%	AC < 125% of COC
EJ Population of Concern		No

AC 1 has a percent low-income of 5.7% which is below 50% and is below the 125% COC threshold (12.7%). Therefore, there are no low-income populations of EJ concern. AC 1 has a percent minority of 3.5% which is below 50% and is below the 125% COC threshold (9.7%). Therefore, there are no minority populations of EJ concern. The census data sheets, map, and calculations can be found in Appendix I, pages I-13 to I-17. No further EJ analysis is warranted.

An early coordination letter was sent to the U.S. Department of Housing and Urban Development (USHUD) on March 5, 2020 (Appendix C, pages C-1 to C-5). The USHUD did not respond to the early coordination letter.

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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 because of this project. Several utilities are located within the project area including electric, telephone, and sanitary facilities. These Utilities may require relocation and would be temporarily impacted. Utility coordination has been initiated.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation
 Phase I Environmental Site Assessment (Phase I ESA)
 Phase II Environmental Site Assessment (Phase II ESA)
 Design/Specifications for Remediation required?

Documentation

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

No Yes/ Date

ES Review of Investigations		November 27, 2019
------------------------------------	--	-------------------

Include a summary of findings for each investigation.

Remarks: Per a review of geographic information system (GIS) and available public records, an RFI report was prepared by RQAW and was approved by INDOT Site Assessment & Management on November 27, 2019. Five hazardous material concern sites, three Underground Storage Tank (UST) sites, one Leaking Underground Storage (LUST) site, and one National Pollutant Discharge Elimination System (NPDES) site, are located within 0.5 mile of the project area (Appendix E, pages E-1 to E-11).

One unmapped UST site, a former gas station (Main Street and Howard Street (SR 59), incorrectly stored in the IDEM Virtual File Cabinet (VFC) under the Agency Identification (AI) # 44396), appears to be located adjacent to the project area in the southeast quadrant of Howard Street and Cross Street (SR 59). The site appears to be the location of a parking lot for a commercial business, according to Google Earth. The site was formally a gas station and has not been in service since approximately 1988. The document, found in the IDEM VFC, states that during an inspection on June 8, 1998, tanks were seen sitting above ground and on site with the excavation pit filled. The report also states that it appeared the waste oil tanks are still in place and that Resource Recovery pumped the tanks out in 1995. No other investigation has ever been conducted on this property. A Phase II Environmental Site Assessment is recommended (Appendix E, page E-6).

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)
 Nationwide Permit (NWP)
 Regional General Permit (RGP)

<input type="checkbox"/>
<input type="checkbox"/>
<input checked="" type="checkbox"/>

This is page 32 of 36 Project name: SR 59 Pavement Rehabilitation and Bridge Replacement Project Date: July 2, 2020

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County Montgomery Route SR 59 Des. No. 1593272 & 1701591

	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"/>
IDNR	Construction in a Floodway	<input checked="" type="checkbox"/>
	Navigable Waterway Permit	<input type="checkbox"/>
	Lake Preservation Permit	<input type="checkbox"/>
	Other	<input type="checkbox"/>
	Mitigation Required	<input checked="" type="checkbox"/>
	US Coast Guard Section 9 Bridge Permit	<input type="checkbox"/>
	Others (Please discuss in the remarks box below)	<input type="checkbox"/>

Remarks: A USACE Section 404 RGP and IDEM Section 401 Water Quality Certification Permit will be required due to stream impacts. The project will impact approximately 105 linear feet (0.06 acre) of Little Raccoon Creek. Mitigation will not be required since impacts will not exceed 300 linear feet.

The total area of land disturbance is approximately 8.49 acres. Because the project will result in one acre or more of land disturbance, an IDEM Rule 5 Notice of Intent will be required.

Per the IDNR Division of Fish and Wildlife early coordination response letter, dated April 3, 2020, the project will require formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Over 0.10 acre of tree clearing will occur within the floodway; therefore, mitigation is anticipated.

Applicable recommendations provided by the IDNR Division of Fish and Wildlife and the USFWS are included in the *Environmental Commitments* section of this CE document. If a permit is found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations. It is the responsibility of the project sponsor to identify and obtain all required permits.

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 the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division and the INDOT District Environmental Section will be contacted immediately. (INDOT Crawfordsville District Environmental Section)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limits access. (INDOT Crawfordsville District Environmental Section)
3. SR 59 is to remain open during the annual Parke County Covered Bridge Festival held each October. (INDOT Crawfordsville District Environmental Section)

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4. Should it be determined during the right-of-way phase that these wells are affected, a cost to cure will likely be included in the appraisal to restore the wells. (INDOT Crawfordsville District Environmental Section)
5. A Phase II Environmental Site Assessment (ESA) will be completed for the underground storage tank (UST) site (former gas station) located at Main Street and Howard Street (SR 59). The UST site appears to be located adjacent to the project area in the southeast quadrant of Howard Street and Cross Street (SR 59). Coordination with INDOT SAM should occur to assist with developing the scope of work plan for the Phase II ESA. The Phase II ESA will be completed prior to letting. (INDOT Site Assessment & Management)
6. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
7. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
8. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
9. Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS)
10. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
11. Tree Removal AMM 4: Do not remove documented Indiana bat or Northern Long Eared Bat (NLEB) roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)

For Further Consideration:

1. Do not cut any trees suitable for Indiana bat or northern long-eared bat roosting (greater than 5 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)
2. If tree removal is needed, the Division of Fish & Wildlife recommends avoiding removing urban trees to the greatest extent possible and replacing trees that must be removed. (IDNR Division of Fish and Wildlife)
3. Do not construct any temporary runarounds or causeways. (IDNR Division of Fish and Wildlife)
4. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR Division of Fish and Wildlife)
5. If box or pipe culverts are used, the bottoms should be buried a minimum of 6 inch (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark. (IDNR Division of Fish and Wildlife)

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- 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. Impacts to non-wetland forest under one acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10 inch dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). (IDNR Division of Fish and Wildlife)
- 7. The Division of Fish and Wildlife recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain urban runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers flood problems from one section of the basin to another section. A more sustainable approach aims to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.), recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.), and reusing runoff for irrigation elsewhere in the basin. (IDNR Division of Fish and Wildlife)
- 8. The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR Division of Fish and Wildlife)
- 9. Riprap or other hard bank stabilization materials should be used only at the toe of the side slopes up to the ordinary high water mark with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed elevation. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream. (IDNR Division of Fish and Wildlife)
- 10. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
- 11. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
- 12. Avoid all work within the inundated part of the stream channel 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 shall be operated below the ordinary high water mark during this time unless the machinery is within the caissons or on the cofferdams. (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 March 5, 2020 (Appendix C, pages C-1 to C-5). If a response was not received, it was assumed the agency did not feel the project would result in substantial impacts. See

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all responding agency correspondence in Appendix C, pages C-6 to C-71. The following agencies/individuals were contacted during early coordination:

Agency	Date of Response(s)
1. INDOT Crawfordsville District (electronic coordination)	No response received
2. Federal Highway Administration (electronic coordination)	No response received
3. Natural Resources Conservation Service (electronic coordination)	March 17, 2020
4. Indiana Geological Survey (electronic submission)	March 5, 2020
5. IDNR Division of Fish and Wildlife (electronic coordination)	April 3, 2020
6. IDEM (electronic submission)	March 5, 2020
7. INDOT Aviation (electronic coordination)	March 9, 2020
8. INDOT Office of Public Involvement (electronic coordination)	March 5, 2020
9. U.S. Department of Housing and Urban Development (electronic coordination)	No response received
10. U.S. Army Corps of Engineers, Louisville District (electronic coordination)	No response received
11. Eighth Coast Guard District, Bridge Program Section	March 12, 2020
12. U.S. Fish and Wildlife Services (electronic coordination)	March 12, 2020
13. National Park Service, Midwest Regional Office	No response received
14. Waveland Strong President	May 14, 2020
15. Montgomery County Council	No response received
16. Montgomery County Board of Commissioners	No response received
17. Montgomery County Surveyor's Office	No response received
18. Montgomery County Highway Department	No response received
19. Local Floodplain Administrator	No response received
20. Waveland Town Council Members	No response received
21. Montgomery County Community Foundation Board of Directors	No response received
22. Waveland Christian Church Director	No response received

Designation (Des.) Number 1593272 & 1701591

SR 59 Rehabilitation Project – Montgomery County, Indiana

Appendix A: INDOT Supporting Documentation

Categorical Exclusion Level Thresholds	A-1
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Appendix B: Graphics

General Location Map	B-1
USGS Topographic Map	B-2
2016 Aerial Photo Location Map	B-3
Photographs	B-4
Preliminary Plan Sheets (Road)	B-19
Preliminary Plan Sheets (Bridge)	B-33

Appendix C: Early Coordination

Sample Early Coordination Letter Sent to Resource Agencies (graphics omitted)	C-1
Indiana Department of Environmental Management (IDEM) Roadway Construction Response Letter	C-6
Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife Division of Fish and Wildlife Response Letter	C-16
Indiana Department of Transportation (INDOT) Office of Aviation Response E-mail	C-20
Natural Resources Conservation Service (NRCS) Response Letter	C-21
Indiana Geological Survey Electronic Response	C-22
United States Coast Guard Response E-mail	C-25
Waveland Strong Response E-mail	C-26
U.S. Fish and Wildlife Service (USFWS) INDOT District Coordination E-mails	C-28
USFWS Response E-mail	C-29
Information for Planning and Consultation (IPaC) Species List Letter (1593272)	C-31
IPaC Species List Letter (1701591)	C-37
IPaC Concurrence Verification Letter (1593272)	C-43
IPaC Concurrence Verification Letter (1701591)	C-57

Appendix D: Cultural Resources

800.11 (e) Documentation (<i>some graphics omitted</i>)	D-1
Affidavit and Public Notice	D-71
State Historic Preservation Officer (SHPO) 800.11 (e) Concurrence Letter	D-73

Appendix E: Red Flag Investigation

Red Flag Investigation	E-1
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Appendix F: Water Resources

Waters of the U.S. Report	F-1
Waters of the U.S. Report Approval Email	F-12

Appendix G: Public Involvement

Sample Notice of Entry for Survey or Investigation Letter	G-1
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SR 59 Rehabilitation Project – Montgomery County, Indiana

Appendix H: Air Quality

2020-2024 Statewide Transportation Improvement Program (STIP) (relevant pages)..... H-1

Appendix I: Additional Studies

INDOT Bridge Inspection I-1

Engineers Mini Scope Report I-10

Environmental Justice Study I-13

Land Water Conservation Fund Listing I-18

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Des. Numbers 1593272 & 1701591
Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4 ¹
Section 106	Falls within guidelines of Minor Projects PA	“No Historic Properties Affected”	“No Adverse Effect”	-	“Adverse Effect” Or Historic Bridge involvement ²
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way³	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	“No Effect”, “Not likely to Adversely Affect” (Without AMMs ⁴ or with AMMs required for all projects ⁵)	“Not likely to Adversely Affect” (With any other AMMs)	-	“Likely to Adversely Affect”	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	“No Effect”, “Not likely to Adversely Affect”	-	-	“Likely to Adversely Affect”
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential ⁶
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes ⁷
Approval Level <ul style="list-style-type: none"> • District Env. Supervisor • Env. Services Division • FHWA 	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

¹Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.

²Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.

³Permanent and/or temporary right-of-way.

⁴AMMs = Avoidance and Mitigation Measures.

⁵AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User’s Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as “required for all projects”.

⁶Potential for causing a disproportionately high and adverse impact.

⁷Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.

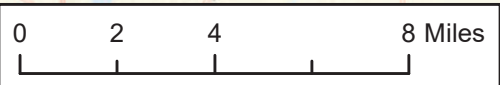
*Substantial public or agency controversy may require a higher-level NEPA document.

Categorical Exclusion
Appendix B
Graphics

General Location
 SR 59 Pavement Rehabilitation and Bridge Replacement
 Des. Nos.:1593272 & 1701591
 Montgomery County, Indiana



Project Area



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

RQAW
 ENVIRONMENTAL
 8770 North Street; Suite 110
 Fishers, IN 46038

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

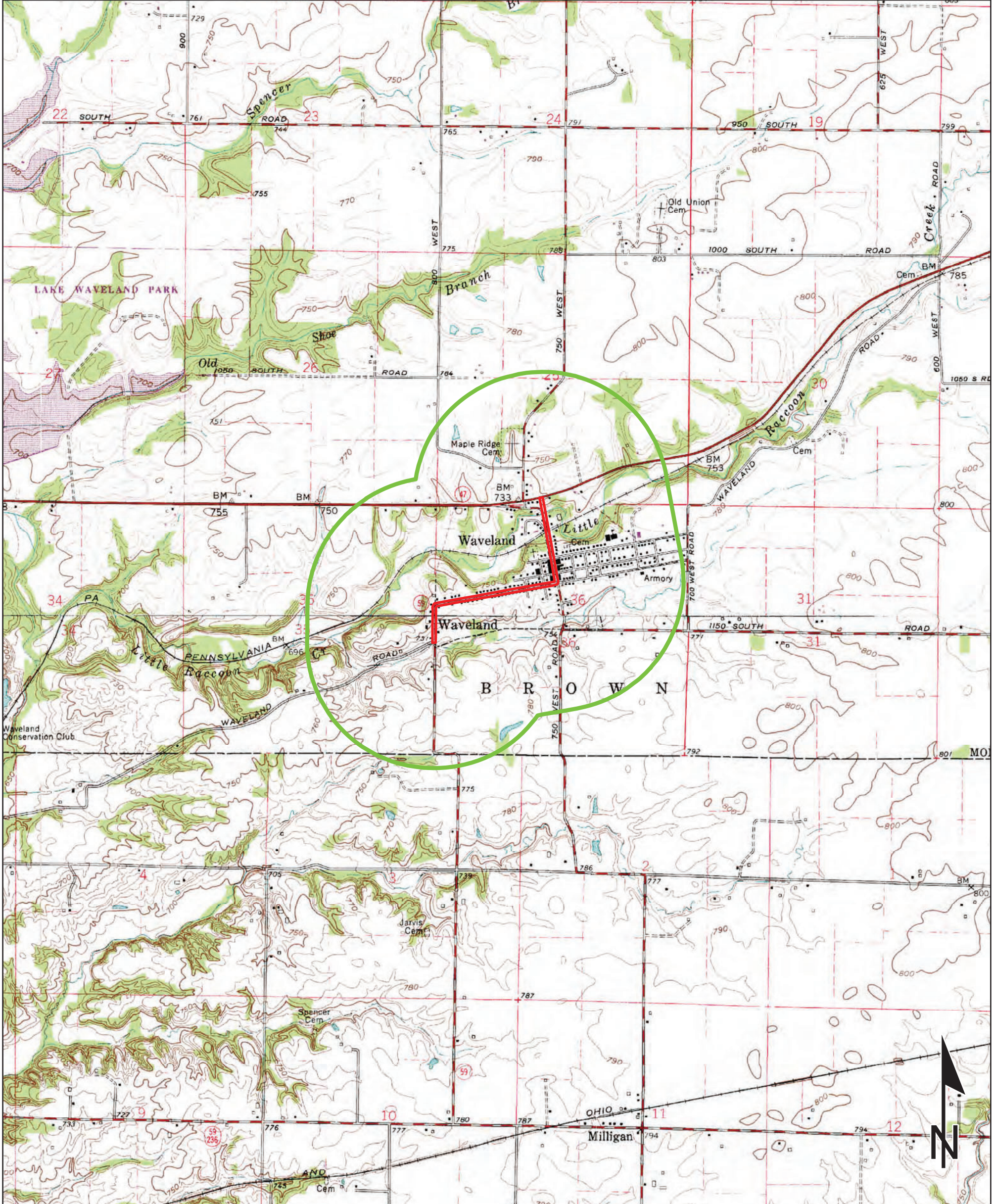
Map Datum: NAD 83
 Map Projection: UTM Zone 16 North



Red Flag Investigation - Site Location

SR 59, from CR 1150 South to SR 47

Des. Nos. 1593272 & 1701591, Pavement Rehabilitation & Bridge Replacement
Waveland, Montgomery County, Indiana



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

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

**BELLMORE & ALAMO
 QUADRANGLES
 INDIANA
 7.5 MINUTE SERIES
 (TOPOGRAPHIC)**

Photo Location Map
 SR 59 Waveland Pavement Rehabilitation and Bridge Replacement Project
 Des. Nos. 1593272 & 1701591
 Montgomery County, Indiana



Map Datum: NAD 83
 Map Projection: UTM Zone 16 North
 This map is intended to serve as an aid in graphic representation only.
 This information is not warranted for accuracy or other purposes.
 Data obtained from the State of Indiana GIO Library.
 Orthophotography obtained from Indiana Map Framework Data.

Legend

- Photo Location
- Permanent Right of Way
- Temporary Right of Way
- Roadside Ditch
- Stream
- Construction Limits

State of Indiana

	<h2 style="margin: 0;">Photo Location Map</h2>	Location: Waveland Township: Brown County: Montgomery



1. From the SR 59 and CR 1150 intersection looking south at SR 59 and adjacent landscape



2. From the SR 59 and CR 1150 intersection looking north at SR 59 and adjacent landscape



3. From approximately 0.05 mile north of the SR 59 and CR 1150 intersection looking north at SR 59 (roadside ditch (RSD) 1 shown right)



4. From approximately 0.12 mile north of the SR 59 and CR 1150 intersection looking north at SR 59 and adjacent landscape



5. From approximately 0.49 mile west of the SR 59 (Main Street) and Cross Street intersection looking east at SR 59 and sidewalk



6. From approximately 0.43 mile west of the SR 59 (Main Street) and Cross Street intersection looking west at SR 59 and sidewalk



7. From approximately 0.43 mile west of the SR 59 (Main Street) and Cross Street intersection looking east at SR 59 and sidewalk



8. From approximately 0.27 mile west of the SR 59 (Main Street) and Cross Street intersection looking west at SR 59 and adjacent landscape



9. From approximately 0.43 mile west of the SR 59 (Main Street) and Cross Street intersection looking east at SR 59 and sidewalk



10. From approximately 0.05 mile west of the SR 59 (Main Street) and Cross Street intersection looking west at SR 59 and street scape



11. From the SR 59 (Main Street) and Cross Street intersection looking west at SR 59 and adjacent landscape



12. From the SR 59 (Cross Street) and Green Street intersection looking south at SR 59 and sidewalk



13. From the SR 59 (Cross Street) and Green Street intersection looking north at SR 59 and sidewalk



14. From the SR 59 (Cross Street) and Green Street intersection looking north at sidewalk and adjacent memorial



15. From approximately 0.05 mile north of the SR 59 (Cross Street) and Green Street intersection looking south at SR 59 and sidewalk



16. From just south of Structure No. 059-54-05061 looking south at SR 59 (Cross Street) and adjacent landscape



17. From just south of Structure No. 059-54-05061 looking north at SR 59 (Cross Street) and structure number 059-54-05061



18. From on top Structure No. 059-54-05061 looking east at Little Raccoon Creek (upstream)



19. From on top Structure No. 059-54-05061 looking west at Little Raccoon Creek (downstream)



20. From Little Raccoon Creek looking east at Structure No. 059-54-05061 (upstream)



21. From underneath Structure No. 059-54-05061 looking west at Little Raccoon Creek (downstream)



22. From southwest quadrant of Structure No. 059-54-05061 looking northeast at Structure No. 059-54-05061



23. From northwest quadrant of Structure No. 059-54-05061 looking north at roadside ditch and SR 59



24. From the SR 59 (Cross Street) and SR 47 intersection looking north at gas station



25. From the SR 59 (Cross Street) and SR 47 intersection looking south at SR 59 and adjacent land scape



26. From approximately 0.05 mile west of the SR 47 and SR 59 intersection looking south at Old SR 59 and residential property



27. From old SR 59 looking west at commercial property



28. From Old SR 59 looking north at agricultural/residential area



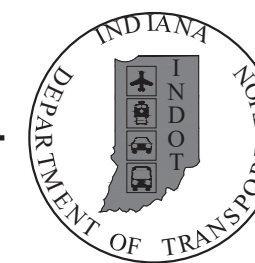
29. From Old SR 59 looking east at roadway and residential area



30. From Old SR 59 looking west at roadway/residential area

PROJECT	DESIGNATION
1593272	1593272
CONTRACT	BRIDGE FILE
RS-39363	

INDIANA DEPARTMENT OF TRANSPORTATION



ROAD PLANS STATE ROAD 59

PROJECT NO. 1593272 P.E.
1593272 R/W
1593272 CONST.

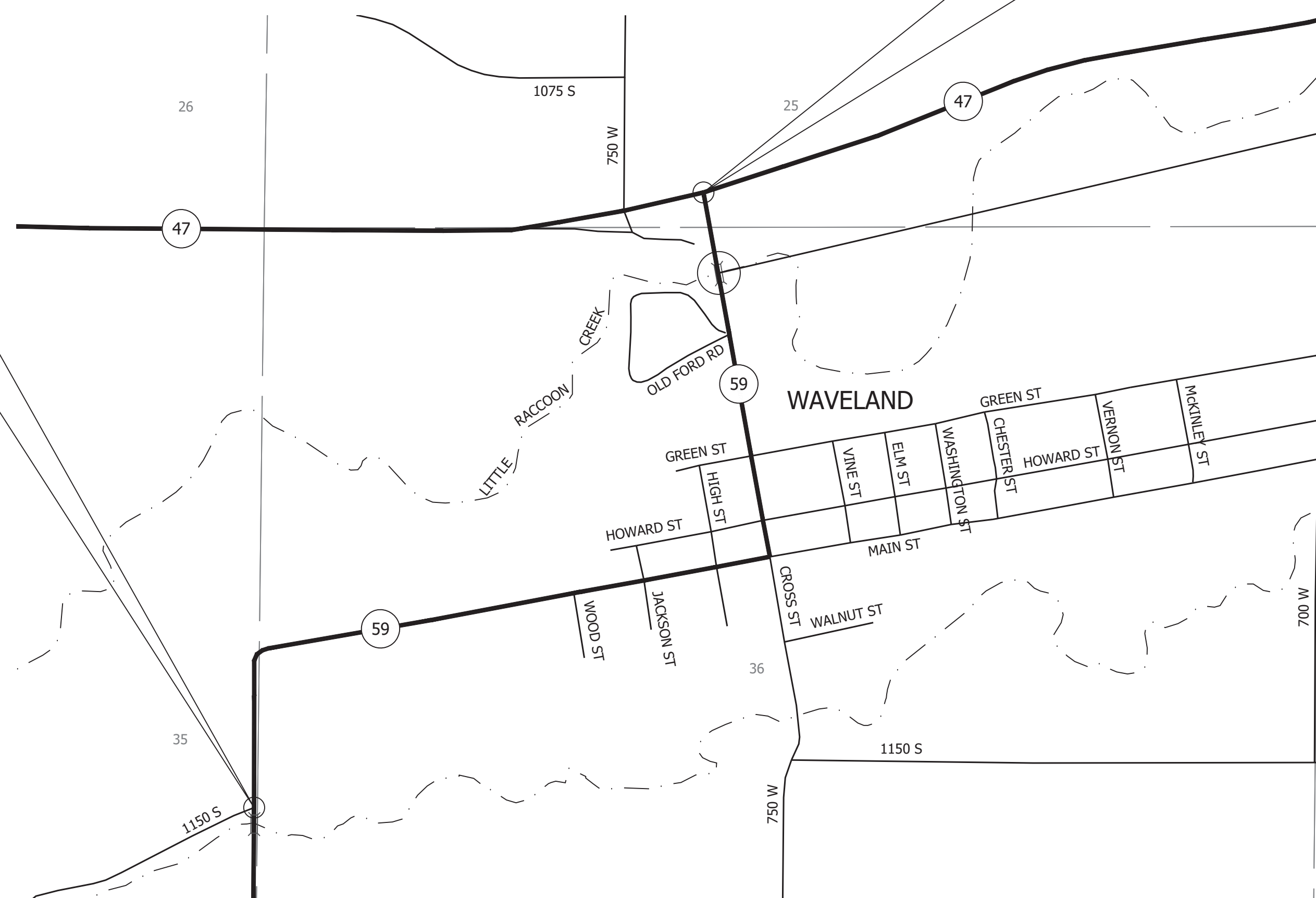
STATE ROAD 59 REHABILITATION BEGINNING AT A POINT WITH THE INTERSECTION OF COUNTY ROAD 1150 SOUTH EXTENDING NORTHWARD THROUGH THE TOWN OF WAVELAND TO THE INTERSECTION OF STATE ROAD 59 AND STATE ROAD 47 IN SECTIONS 35, 36, & 25, TOWNSHIP 17 NORTH, RANGE 6 WEST IN BROWN TOWNSHIP, ALL IN MONTGOMERY COUNTY, INDIANA.

Gross Length: 0.98 MI.
Net Length: 0.95 MI.
Maximum Grade: 9.07 %

END PROJECT NO.
STA.98+30, LINE "C"

BEGIN PROJECT NO.
STA. 48+00.00, LINE "C"

Structure 059-54-10327
SR 59 over Little Raccoon Creek
Sta. 96+01.54 Line "C"
DES# 1701591

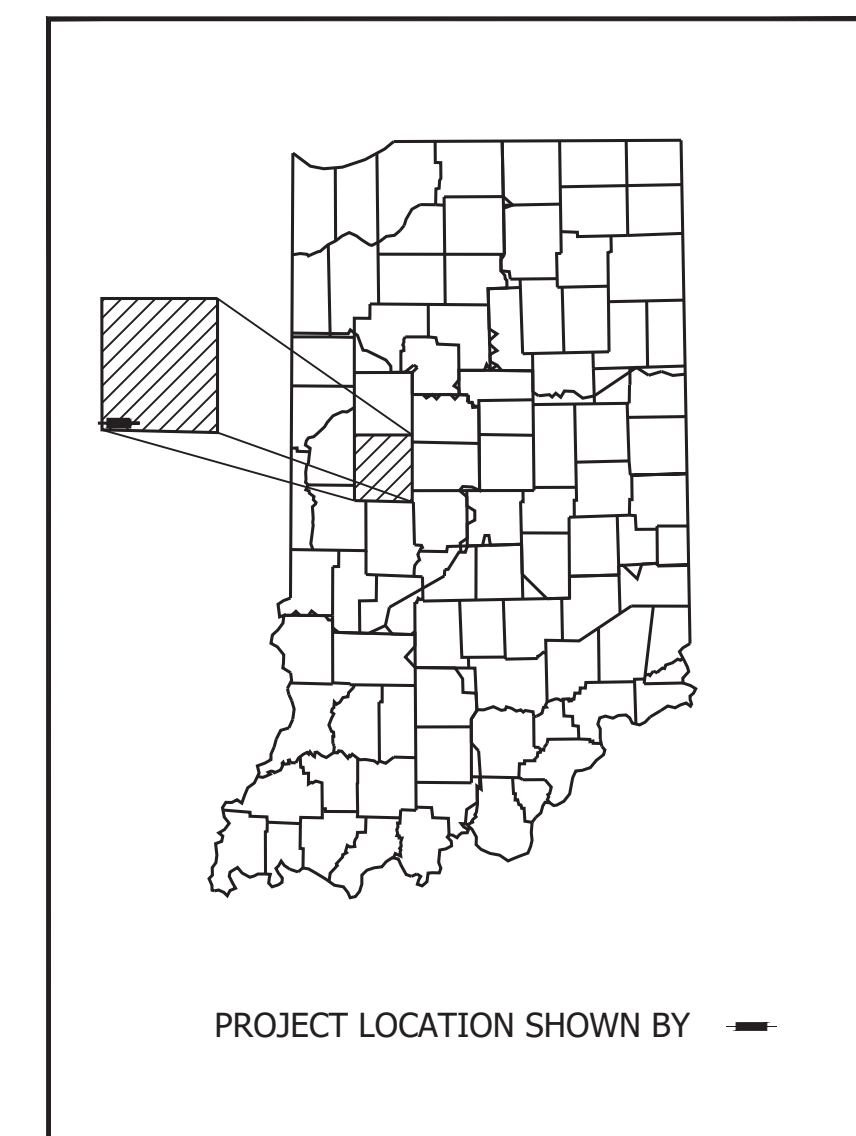


MONTGOMERY COUNTY

TRAFFIC DATA		LINE "C"	
A.A.D.T.	(2018)	1,970	V.P.D.
A.A.D.T.	(2042)	2,045	V.P.D.
D.H.V.	(2042)	197.3	V.P.H.
DIRECTIONAL DISTRIBUTION		9.50 %	A.A.D.T.
TRUCKS		10.77 %	D.H.V.

DESIGN DATA		STA. 48+00 TO 54+00 LINE "C"	
DESIGN SPEED		40	M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION		STATE COLLECTOR	
RURAL/URBAN		RURAL	
TERRAIN		LEVEL	
ACCESS CONTROL		NONE	

DESIGN DATA		STA. 54+00 TO 98+30 LINE "C"	
DESIGN SPEED		30	M.P.H.
PROJECT DESIGN CRITERIA		3R (NON-FREEWAY)	
FUNCTIONAL CLASSIFICATION		STATE COLLECTOR	
RURAL/URBAN		URBAN (INTERMEDIATE)	
TERRAIN		LEVEL	
ACCESS CONTROL		NONE	



BEGIN: LATITUDE: 39° 52' 25" N LONGITUDE: 87° 03' 14" W

END: LATITUDE: 39° 52' 55" N LONGITUDE: 87° 02' 45" W



SCALE: 1" = 500'

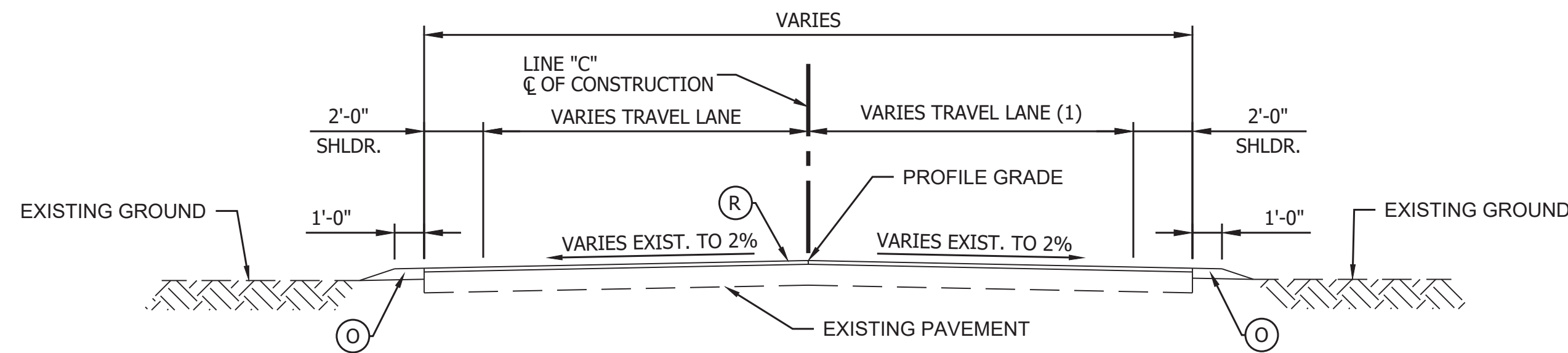
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS.

PRINT DATE: 5/14/20 PLOT SCALE: 1:1 EDIT DATE: 7/12/11 7:25 AM EDITED BY: MMURRAY DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\01 TITLE\817-TITLE.DWG

8770 NORTH ST., STE. 110
FISHERS, IN 46038
P: 317.588.1798
F: 317.588.1799
WWW.RQAW.COM

PLANS PREPARED BY:	RQAW Corporation, Inc.	317-815-7200
		PHONE NUMBER
CERTIFIED BY:		DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

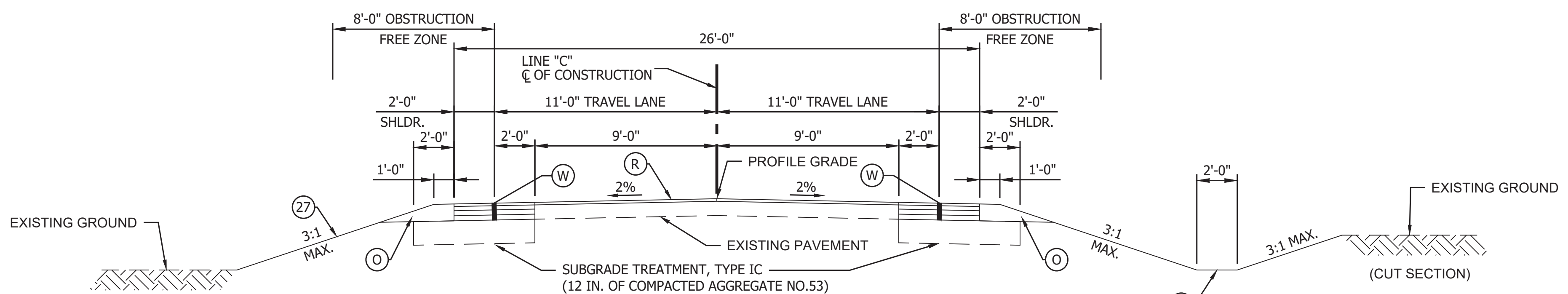
	BRIDGE FILE
	DESIGNATION
	1593272
SURVEY BOOK	SHEET
	1 of 94
CONTRACT	PROJECT
RS-39363	1593272



PROPOSED INCIDENTAL SECTION

STA. 47+35.82 TO STA. 48+00.00 "C"

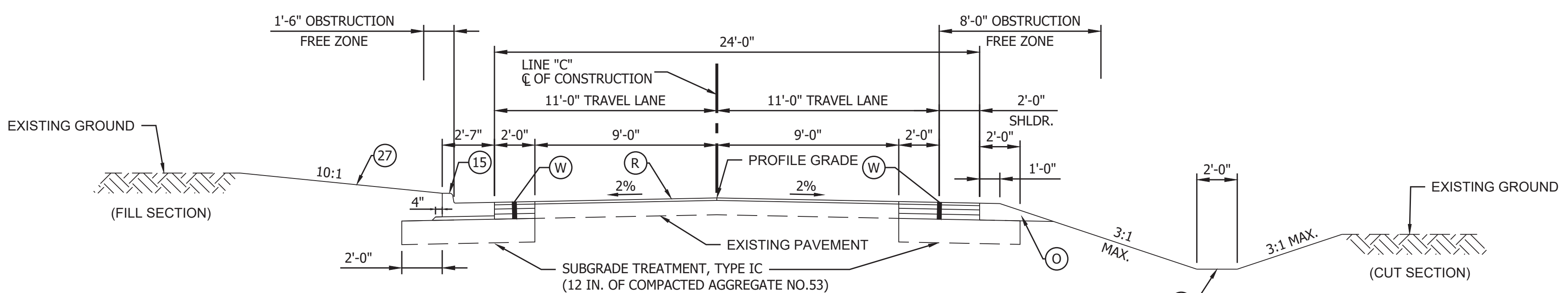
(1) WIDENING REQUIRED - STA. 47+35+82 TO STA. 48+00.00 "C"



PROPOSED TANGENT SECTION

STA. 48+00.00 TO STA. 50+48.27 "C"

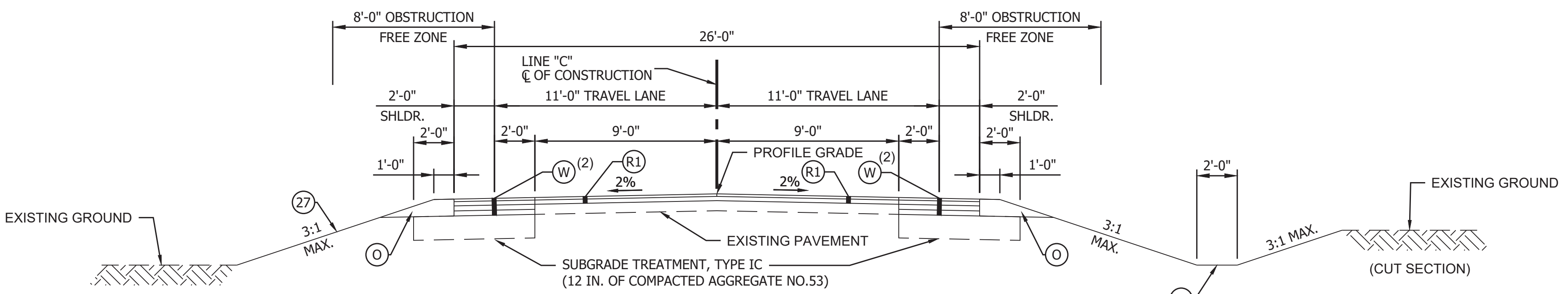
(1) WIDENING REQUIRED - STA. 47+35+82 TO STA. 48+00.00 "C"



PROPOSED TANGENT SECTION

STA. 50+48.27 TO STA. 53+29.19 "C"

(2) WIDENING REQUIRED - VARIES (4' MIN.) FROM STA. 97+25 TO STA. 98+30 "C" SEE CONSTRUCTION DETAILS



PROPOSED TANGENT SECTION

STA. 53+29.19 TO STA. 55+77.86 "C"

STA. 97+25 TO STA. 98+30 "C"

- NOTES
- Tack coat to be placed between HMA layers.
 - Joint Adhesive to be installed at all longitudinal joints in the surface and intermediate layers.
 - Liquid asphalt sealant to be placed centered on the longitudinal joints.

LEGEND		
(15) Combined Concrete Curb & Gutter	(K) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 12.5 mm 275 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 19.0 mm 880 lb/SYS QC/QA HMA Pavement, 2, 64, Base 25.0 mm	(R) Milling, Asphalt Removal 220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm 220 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 12.5 mm
(26) Sodding, Nursery	(O) Compacted Agg. No. 53	(W) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 9.5 mm 440 lb/SYS QC/QA HMA Intermediate, Type C Variable (Min. 660) lb/SYS QC/QA HMA Base, Type C Match Adjacent Pavement Depth
(27) Seed Mixture, U	(R) Milling, Asphalt 2.0"	
(F) Concrete Sidewalk, 4"	(R) 220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm	

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: Y.Z.	DRAWN: Y.Z.	
CHECKED: J.R.S.	CHECKED: J.R.S.	

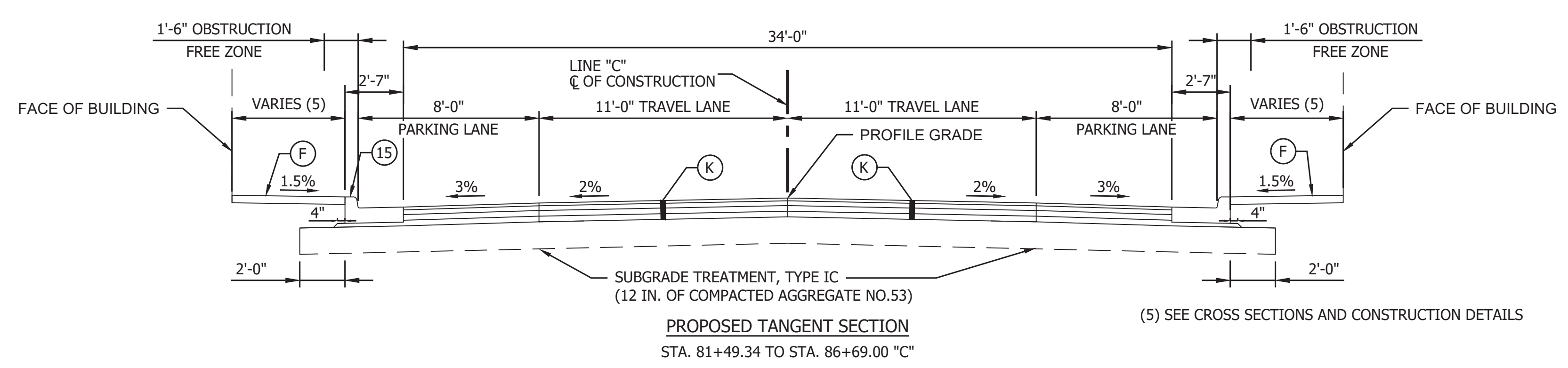
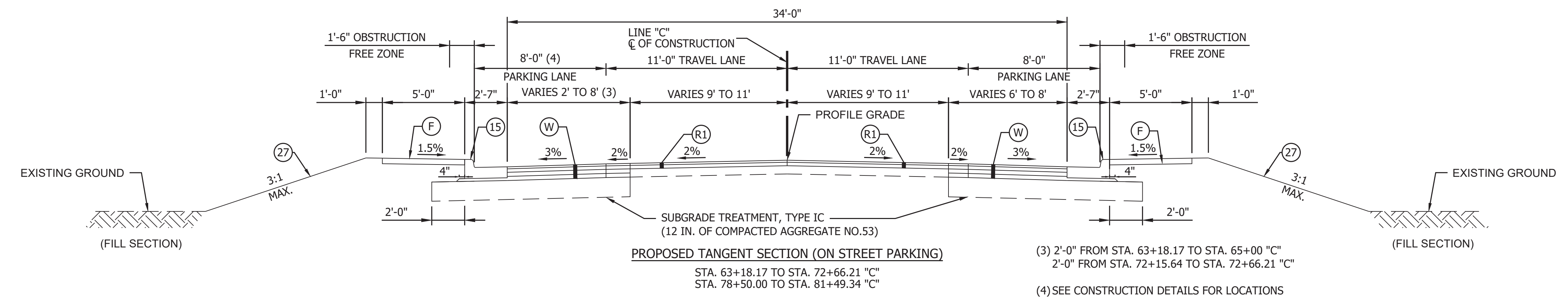
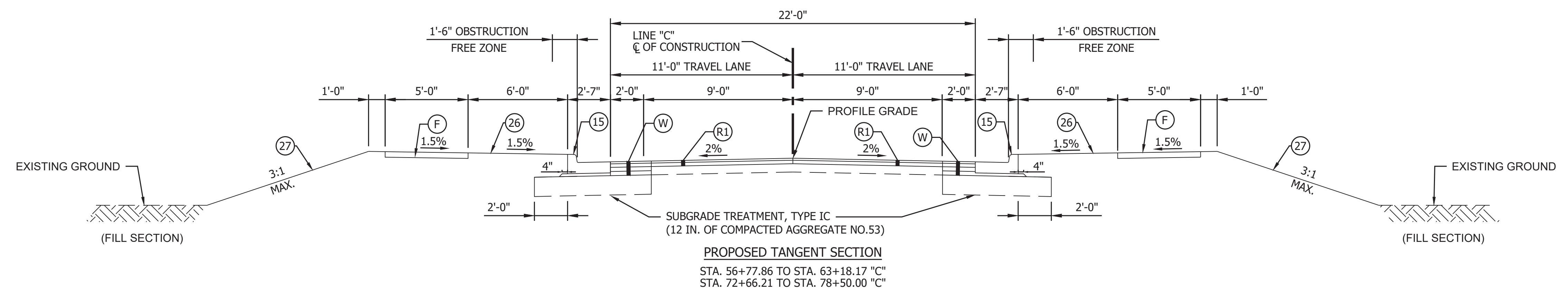
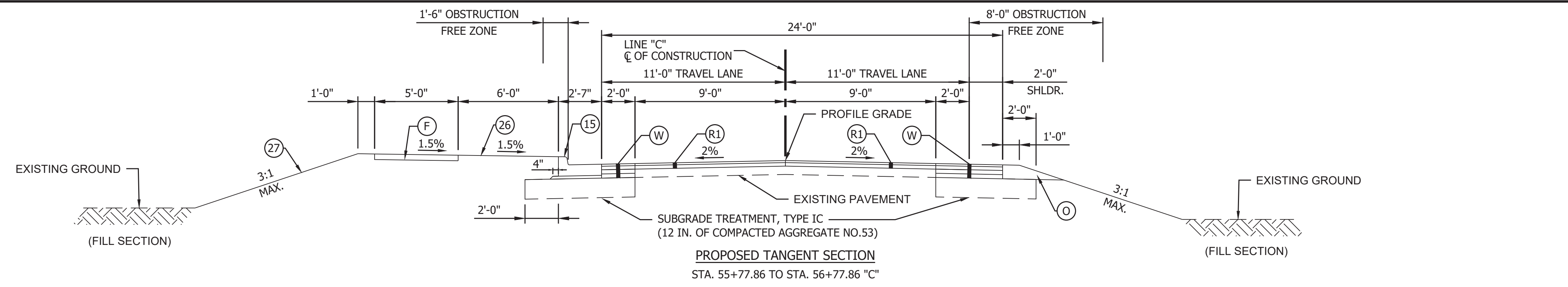
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

S.R. 59

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	
VERTICAL SCALE	DESIGNATION
N/A	1593272
SURVEY BOOK	SHEET
	3 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 5/14/20
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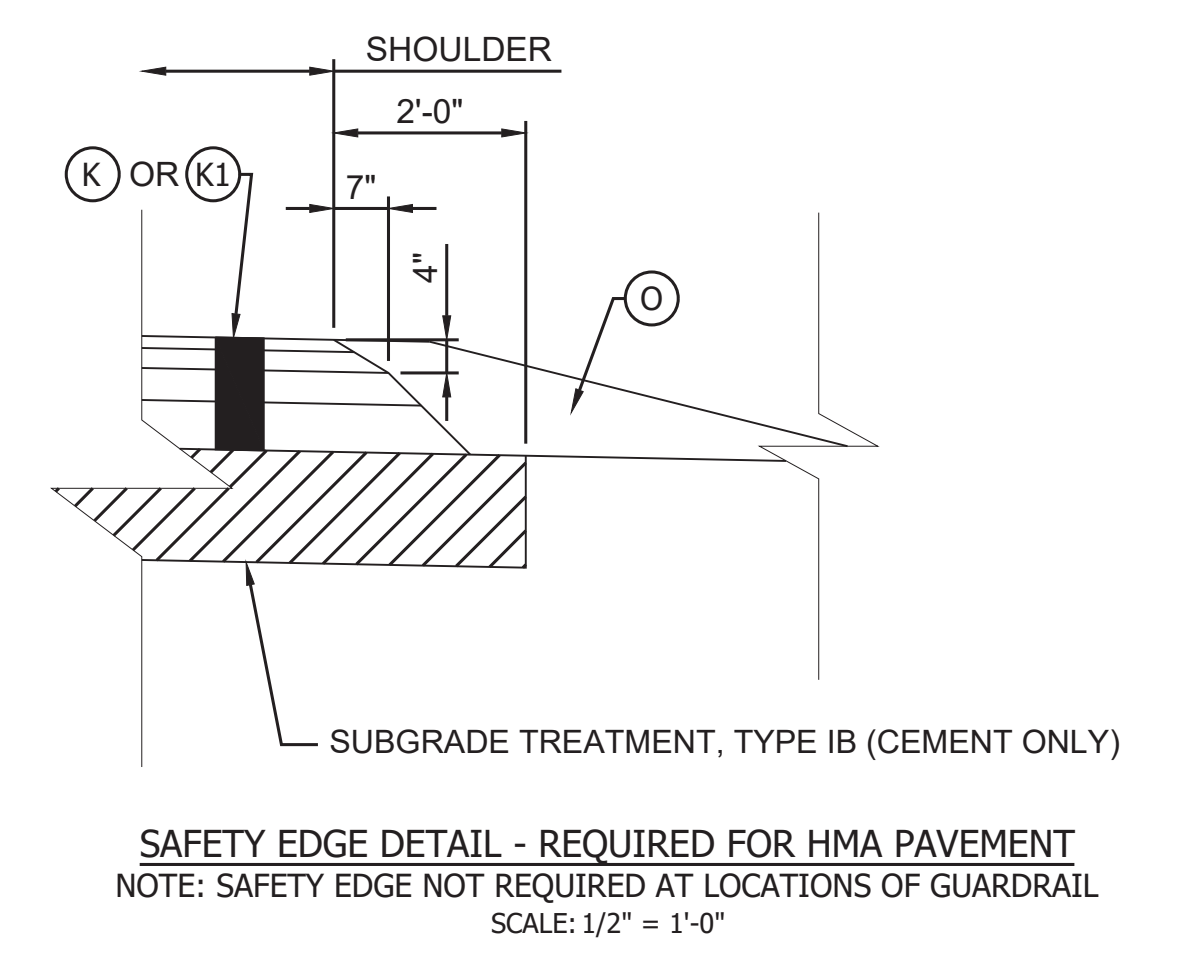
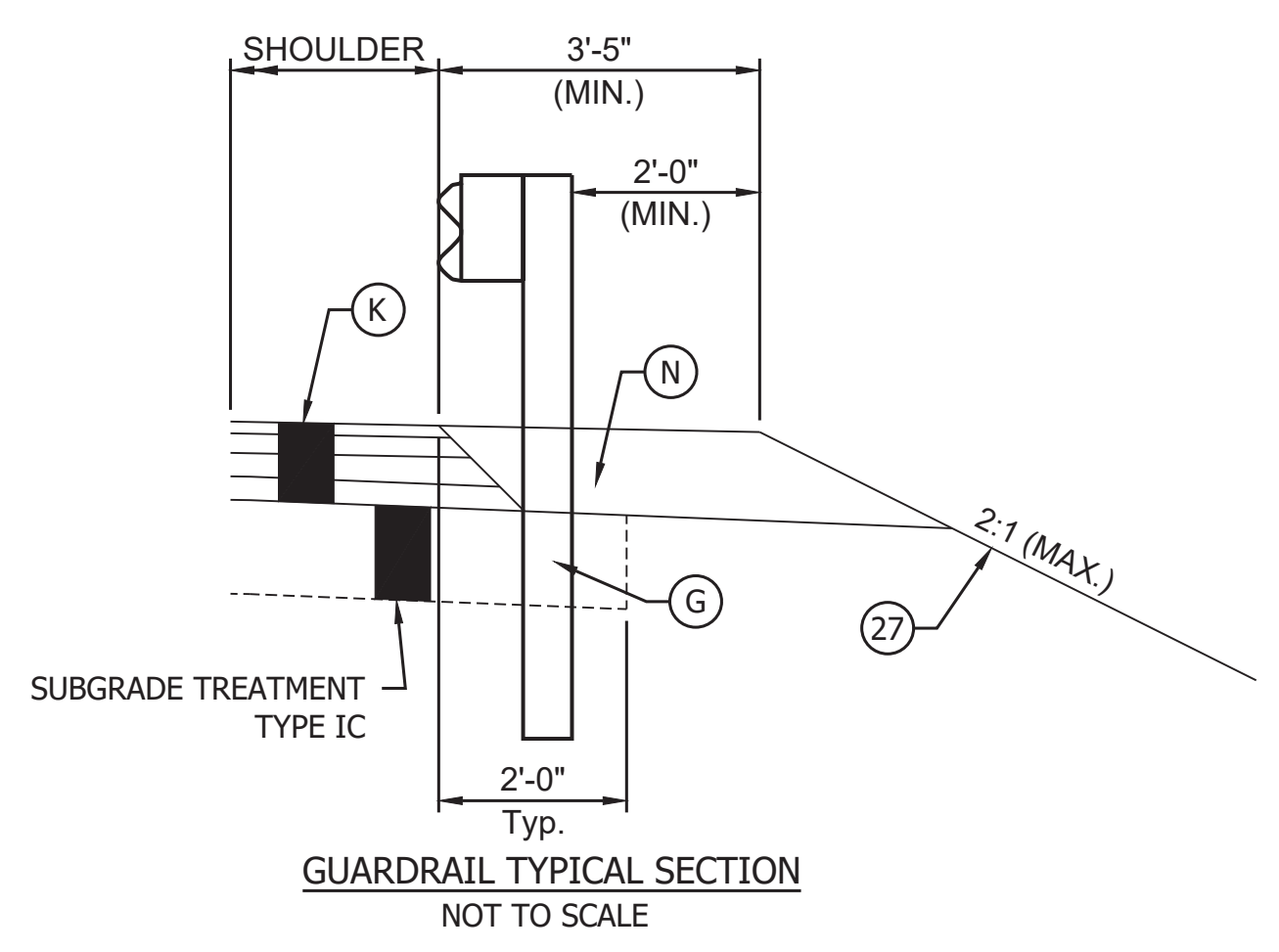
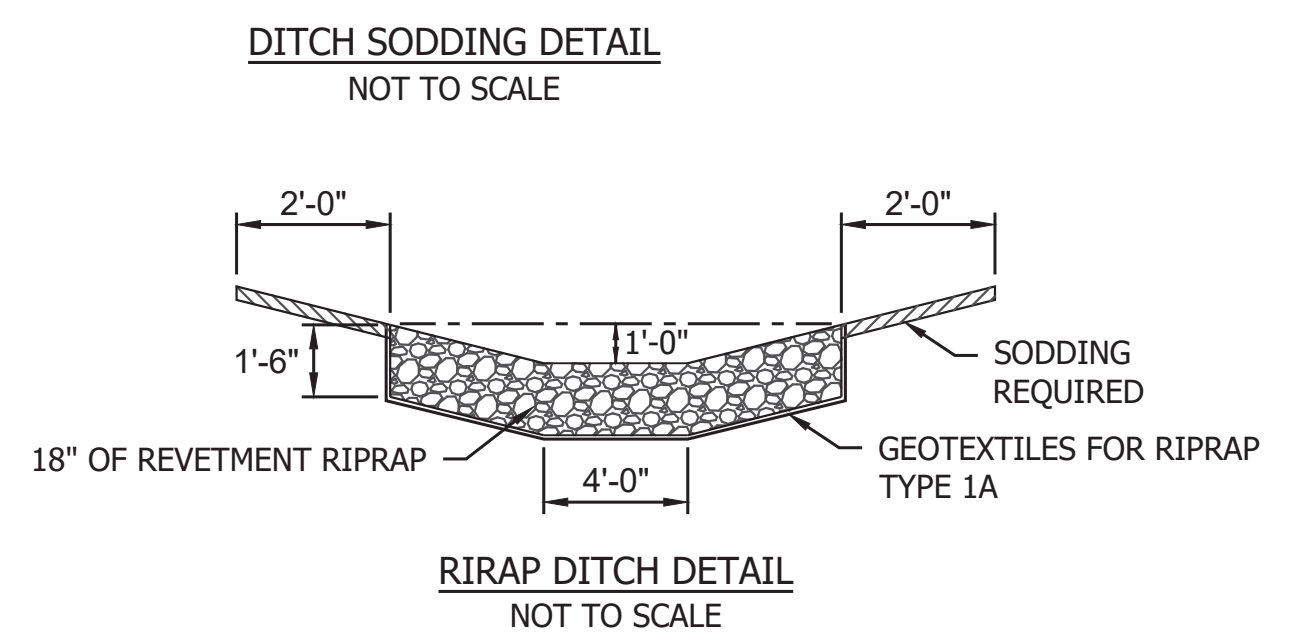
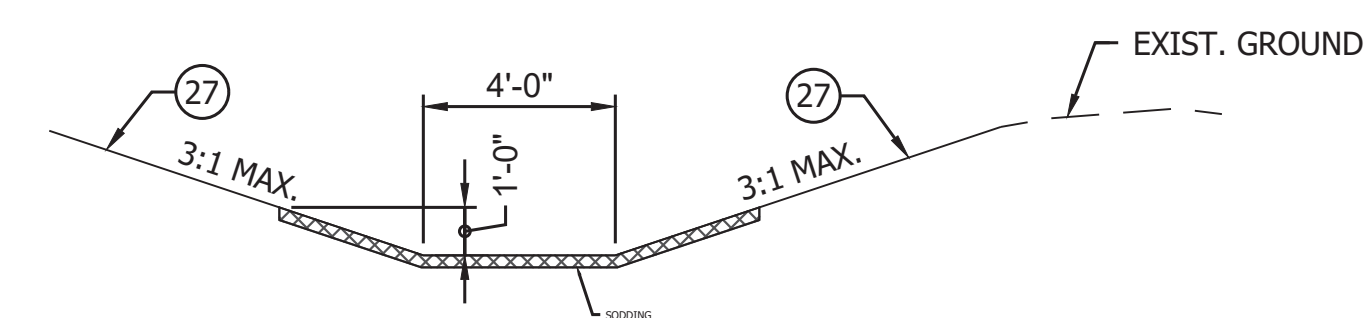
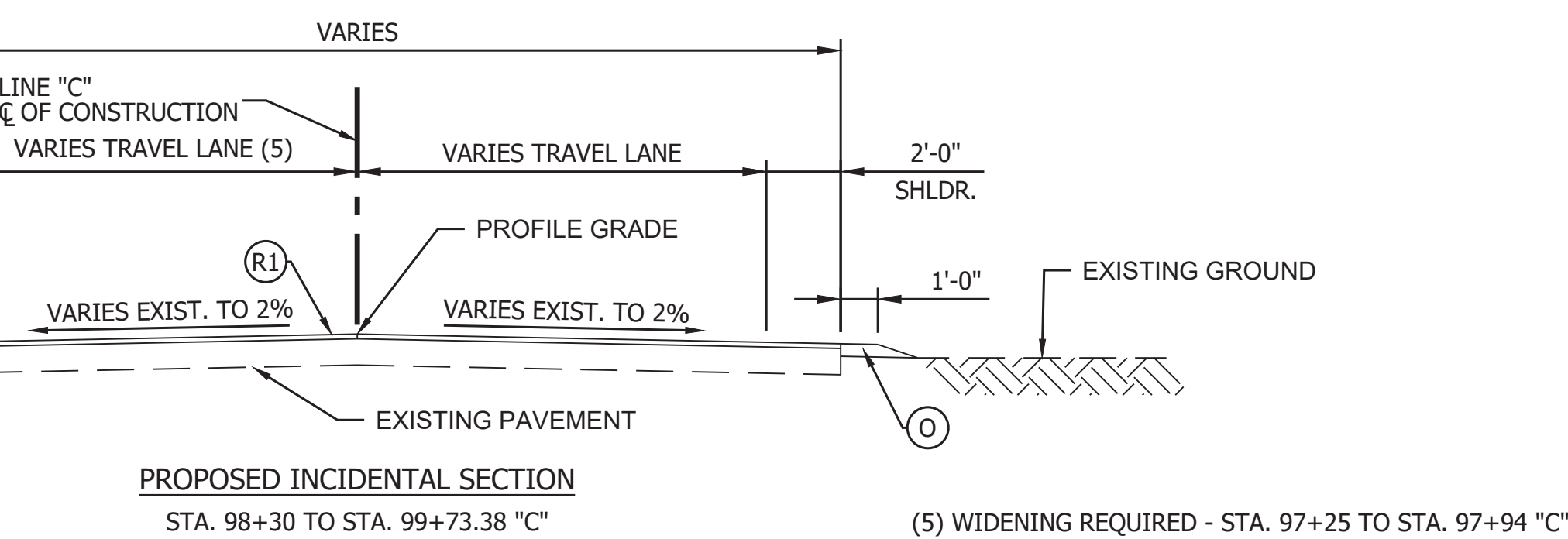
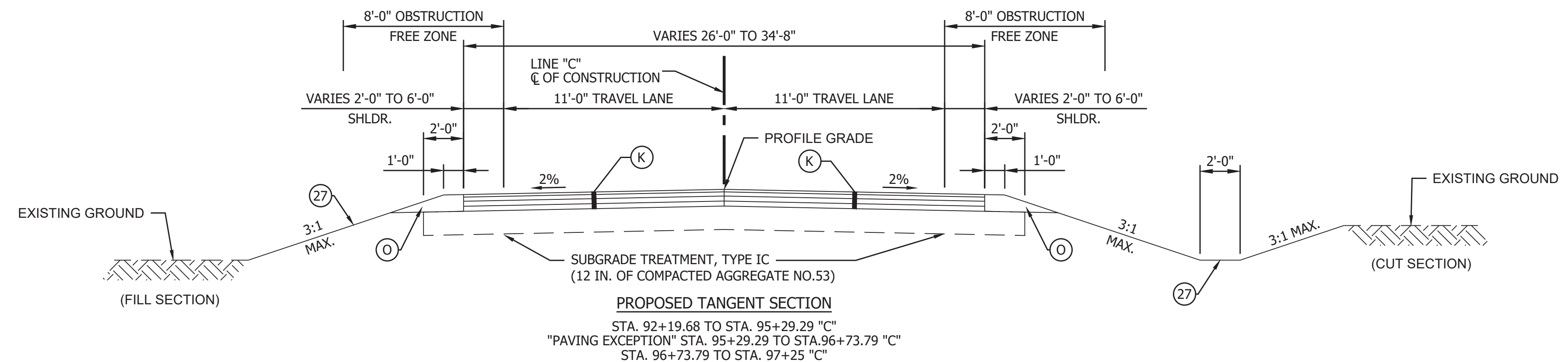
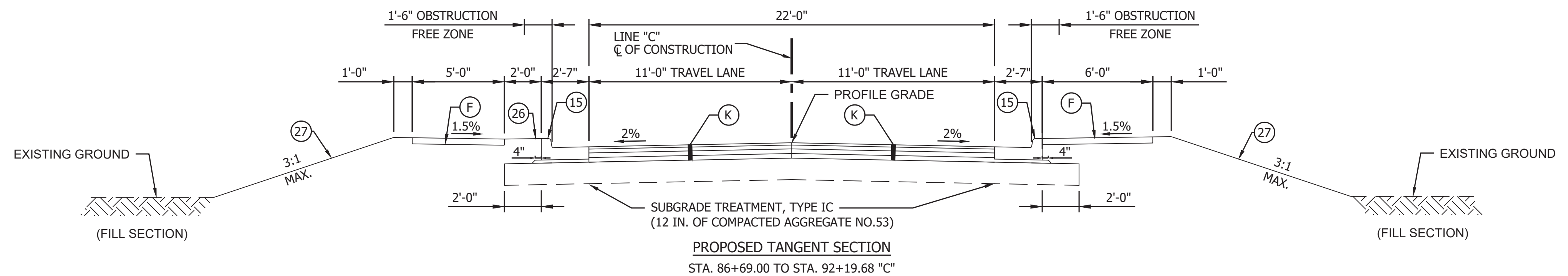
LEGEND	
(15) Combined Concrete Curb & Gutter	(K) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 12.5 mm
(26) Sodding, Nursery	(R) Milling, Asphalt 2.0"
(27) Seed Mixture, U	(W) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 9.5 mm
(F) Concrete Sidewalk, 4"	(O) Compacted Agg. No. 53
	(R1) 220 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 12.5 mm
	(K) 440 lb/SYS QC/QA HMA Intermediate, Type C
	(K) Variable (Min. 660) lb/SYS QC/QA HMA Base, Type C
	(K) Match Adjacent Pavement Depth

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: Y.Z.	DRAWN: Y.Z.	
CHECKED: J.R.S.	CHECKED: J.R.S.	

INDIANA DEPARTMENT OF TRANSPORTATION	
TYPICAL CROSS SECTIONS S.R. 59	

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	
VERTICAL SCALE	DESIGNATION
N/A	1593272
SURVEY BOOK	SHEET
	4 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 5/14/20
 PLOT SCALE: 1:1
 EDIT DATE: 12/10/19 - 10:41 AM
 EDITED BY: CAMPHIAN
 DRAWING FILE: P:\18-500-061-SR-59-WAVELEND\ACAD\03-TYPICAL\RD-TYPICALS-SR-59.DWG



LEGEND	
(15) Combined Concrete Curb & Gutter	(K) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 12.5 mm
(26) Sodding, Nursery	275 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 19.0 mm
(27) Seed Mixture, U	880 lb/SYS QC/QA HMA Pavement, 2, 64, Base 25.0 mm
(F) Concrete Sidewalk, 4"	(O) Compacted Agg. No. 53
	(R) Milling, Asphalt 2.0"
	220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm
	(R1) Milling, Asphalt Removal
	220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm
	220 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 12.5 mm
	(W) 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 9.5 mm
	440 lb/SYS QC/QA HMA Intermediate, Type C
	Variable (Min. 660) lb/SYS QC/QA HMA Base, Type C
	Match Adjacent Pavement Depth

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: Y.Z.	DRAWN: Y.Z.	
CHECKED: J.R.S.	CHECKED: J.R.S.	

INDIANA DEPARTMENT OF TRANSPORTATION

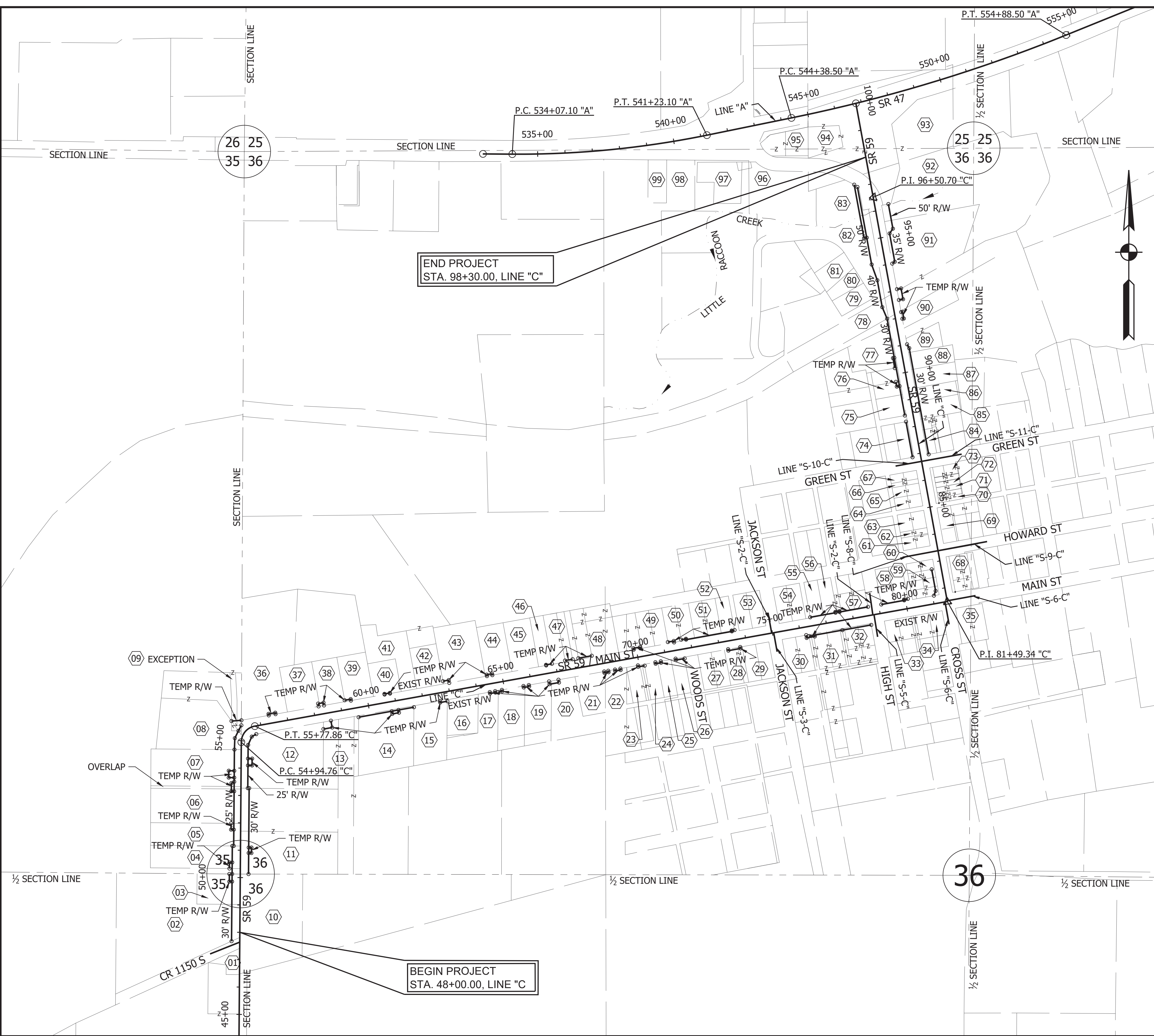
TYPICAL CROSS SECTIONS

S.R. 59

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	
VERTICAL SCALE	DESIGNATION
N/A	1593272
SURVEY BOOK	SHEET
	5 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 5/14/20
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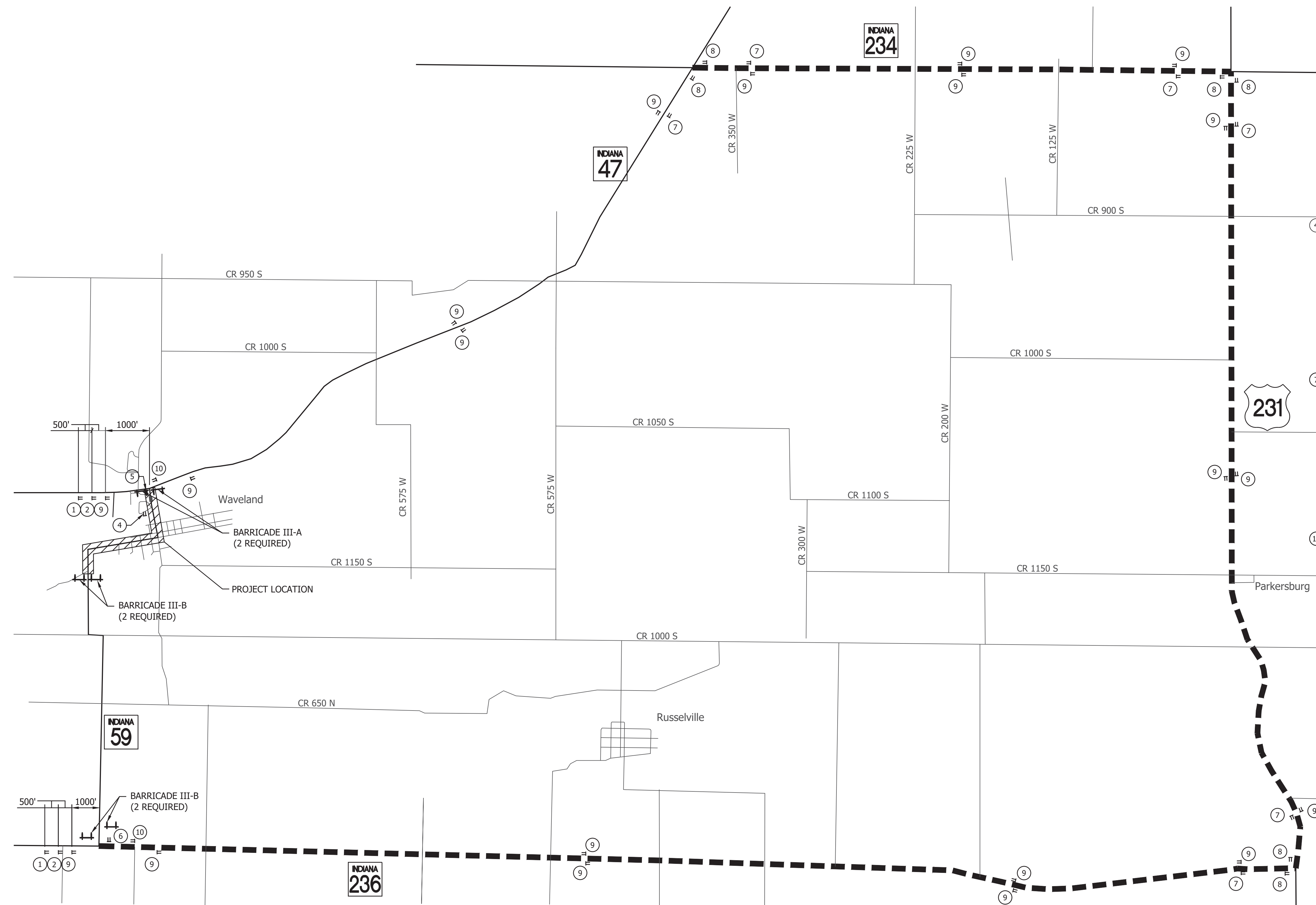
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INDEX NO.	OWNER	INDEX NO.	OWNER
01	LITTLE RACCOON REGIONAL WASTE DISTRICT	52	JAMISON L. CLARK
02	STEPHEN D. & CHARLOTTE J. THOMAS	53	RICHARD A. & DEANNA S. YOUNG
03	STEPHEN D. & CHARLOTTE J. THOMAS	54	WAVELAND CHRISTIAN CHURCH
04	CLYDIA MAE KENNEDY (50%) MELISSA J. KELLER (25%) CHARLES B. DAVIS (25%)	55	DERREK W. McCLURE
05	BRADLEY & SHERRY TROYER	56	WAVELAND OUTDOOR POWER, LLC
06	JOHN A. HOLT	57	HEATHER I. NOWAK
07	STEPHANIE R. CLINE	58	KEITH W. SIMS
08	RICHARD & PENNY K. PETRY	59	SHANE JONES
09	HIRAM & GARALDINE K. KING	60	CAMILLO GONZALEZ
10	CARL & ROBIN J. NORMAN	61	SISTER'S FLOWERS & GIFTS
11	CARL W. & ELIZABETH JANE STEINER	62	NORTH SALEM STATE BANK
12	LENORA JEAN SWANK (LIFE ESTATE) & VICTORIA LENORA STITES	63	NORTH SALEM STATE BANK
13	DONALD B. HAYES & NEIL C. HAYES	64	NORTH SALEM STATE BANK
14	BRETT KING	65	ALLEN E. & MIA D. RITCHINGS
15	ARTHUR R. & CAROL A. FRANCE	66	RACHEL MARIE SMITH
16	DAVID A. & BARBARA R. HARGIS	67	RUSSELL R. NELSON, JR. & ELLISHA DIAZ
17	JENNIFER L. WARREN	68	CARL W. MORGAN & NORTH SALEM STATE BANK, TRUSTEE OF THE LARRY D. SERVIES REVOCABLE LIVING TRUST
18	AMADO OCAMPO RAMOS	69	CAMILLO GONZALEZ
19	INOCENCIO GONZALEZ	70	JEREMY POTTER
20	RITA A. HARTMAN	71	CHARLOTTE K. NEW
21	EPLINIO TREVINO DIAS	72	THOMAS & ROXIE ANTCHAK CONTRACT OF SALE TO CAMILLO GONZALEZ
22	MARY E. LIPPMAN	73	STEVEN W. & STACEY L. PADDOCK
23	SHERRY L. TROYER	74	BROWN TOWNSHIP IMPROVEMENT COMMITTEE, WAVELAND VETERAN & WAR MEMORIAL PROJECT
24	JUDITH PORTER	75	VICTOR PEVLAR & NATALIE DRAKE
25	BEVERLY CHAPLAIN & RITA HARTMAN	76	IVAN LEROY, JR. & MARY C. BROWN
26	RALPH J. & BRENDA JONES	77	IVAN L. & MARY C. BROWN
27	BRADLEY TROYER	78	DAVID E. & RITA D. FULLENWIDER
28	SHANE J. JONES	79	SHAWN MICHAEL & MERCEDES BLANTON
29	CRYSTAL K. YORK	80	LEROY & RITA K. BLANTON
30	HAROLD E., SR. & WYNONA W. STARNES	81	FRED R. CALVERT
31	HAROLD E., SR. & WYNONA W. STARNES	82	EDWIN E. CUNNINGHAM
32	FOERSTER, TIMOTHY D. & KATHLEEN	83	CHARLES SCOTT DANIELS
33	MARTIN & SHANNON WITTE	84	TOWN OF WAVELAND
34	RICHARD L. & MARY E. LIPPMAN	85	SHERRI K. FARFAN
35	DAWN M. CORWIN	86	LISA M. CAUDILL
36	JESSE L. & FATIMA A. COLLINS	87	RONALD D. & HOLLY A. ORAM
37	MELISSA D. BROWN	88	BRENDA JONES
38	BRENDA L. ALLEN	89	BRENDA JONES CONTRACT OF SALE TO TYLER & CHRISTY ROARK
39	BRETT K. & CHRISTINA L. PRITCHETT	90	HSD OF CENTRAL INDIANA LLC
40	RHONDA J. OWENS	91	RAMSAY FARMS
41	BRETT K. & CHRISTINA L. PRITCHETT	92	EDWIN E. CUNNINGHAM
42	RUTH R. JOHNSON	93	DAVID & DEANNA PHILPOT
43	GORDON M. ARTS	94	STATE OF INDIANA
44	CAROL A. BRUNETTE	95	HIGH POINT OIL CO.
45	SHERRI L. TROYER	96	MICHAEL B. DICKSON
46	ZACHARY T. RICE & ADRIANA REWERTS	97	J R PELYCAN PROPERTY LLC
47	MICHAEL L. & MICAH L. CHURCH	98	MARK & APRIL (H/W) WHITECOTTON
48	LARRY D. SERVIES REVOCABLE LIVING TRUST	99	MARK E WHITECOTTON
49	JAMES D. & JAMIE A. PAUL		
50	MILDRED E. HANNAH & CECIL STEWART		
51	CONNIE & ROGER IRELAN		

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION		HORIZONTAL SCALE	BRIDGE FILE
			VERTICAL SCALE	DESIGNATION
DESIGNED: <u>YZ</u>	DRAWN: <u>MRM</u>	PLAT NO. 1	SURVEY BOOK	SHEET
CHECKED: <u>JRS</u>	CHECKED: <u>JRS</u>		6	of
			CONTRACT	PROJECT
			RS-39363	1593272

PRINT DATE: 5/14/20
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 EDIT DATE: 7/12/11 8:40 AM
 EDITED BY: MMURRAY
 DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\05 NOT\DETOUR2.DWG



LEGEND:

 1 XW20-3 (48"x48")	 2 XW20-2 (48"x48")
 4 R11-2 (48"x30")	 5 R11-3 AND (60"x30") XM4-10 (L) (48"x18")
 7 M5-1 (R) or (L) (21"x15")	 8 M6-1 (L) or (R) (21"x15")
 10 M6-3 (21"x15")	 9 M6-3 (21"x15")

SEPARATE PAY ITEMS

MAINTAINING TRAFFIC	1 LSUM
CONSTRUCTION SIGN, TYPE A	5 EACH
ROAD CLOSURE SIGN ASSEMBLY	2 EACH
DETOUR ROUTE MARKER ASSEMBLY	35 EACH
STANDARD BARRICADE TYPE III-A	48 LFT.
STANDARD BARRICADE, TYPE III-B	24 LFT.

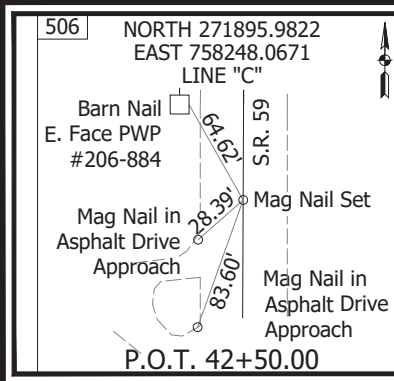
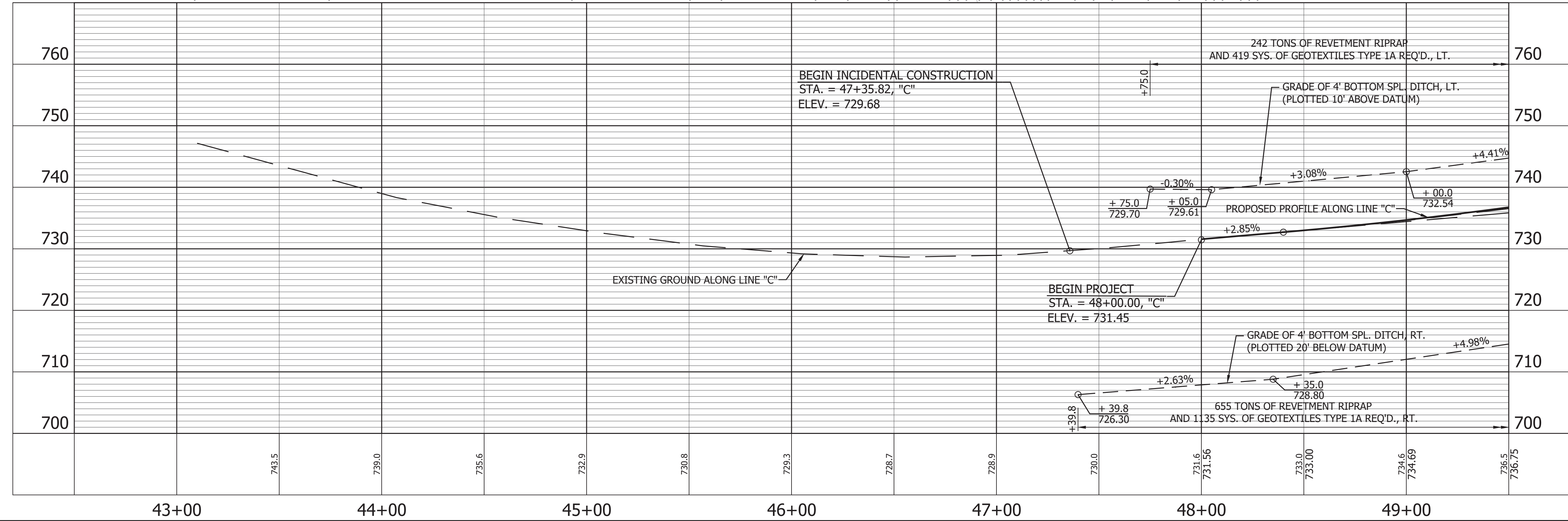
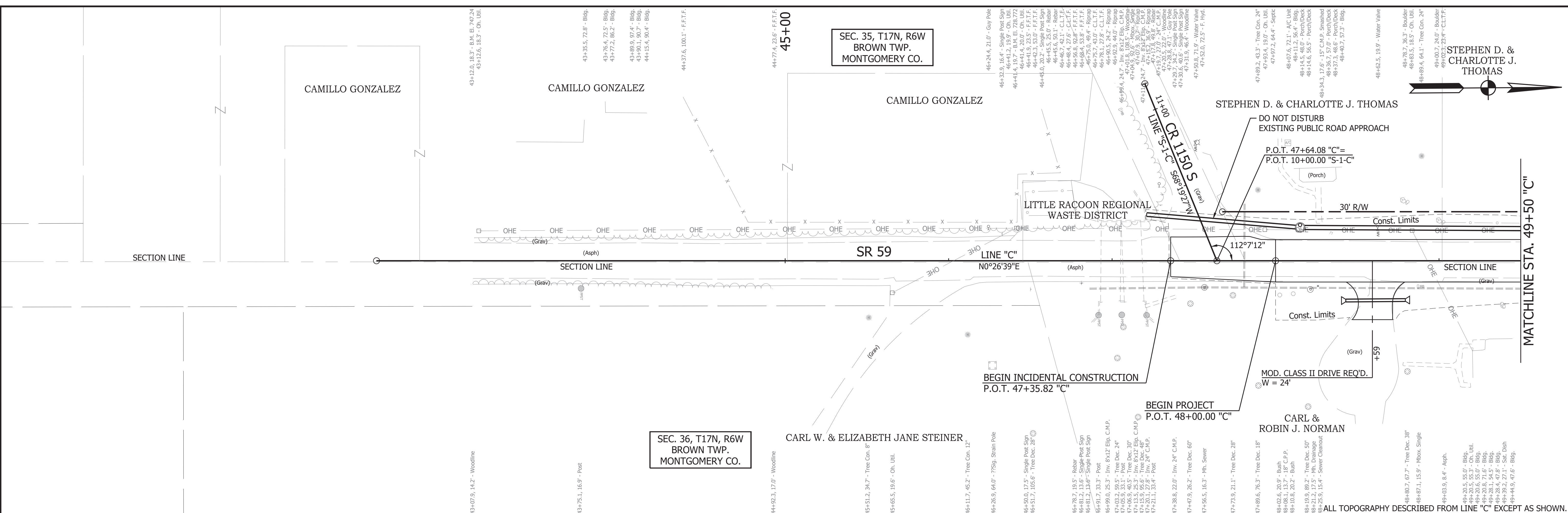
LEGEND

Construction Sign w/ Type "A" Light
 Barricade Type III (12 LFT)

FOR INFORMATION ONLY

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE BRIDGE FILE
	DESIGNED: <u>YZ</u> DRAWN: <u>MM</u>	DETOUR ROUTE	VERTICAL SCALE DESIGNATION 1593272
	CHECKED: <u>JS</u> CHECKED: <u>JS</u>		SURVEY BOOK SHEET 7 of 94
			CONTRACT PROJECT RS-39363 1593272

PRINT DATE: 5/14/20 PLOT SCALE: 1:1 EDIT DATE: 2/29/20 - 12:45 PM DESIGNED BY: JSTOCKS DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\06 PLAN\PROF\PLAN AND PROFILES - SR59 WAVELAND 30 SCALE.DWG



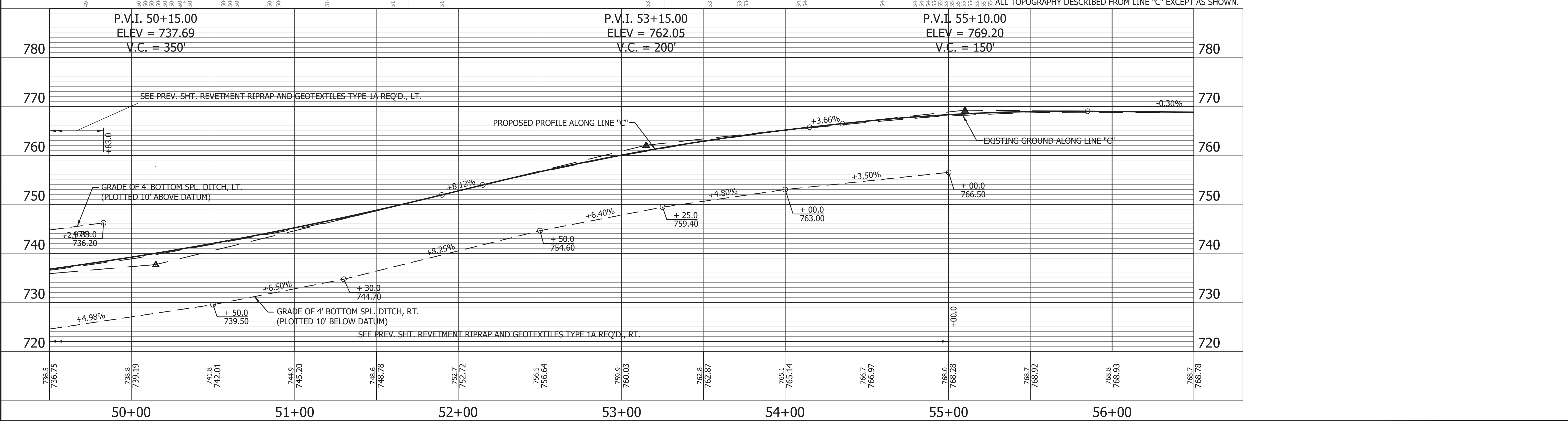
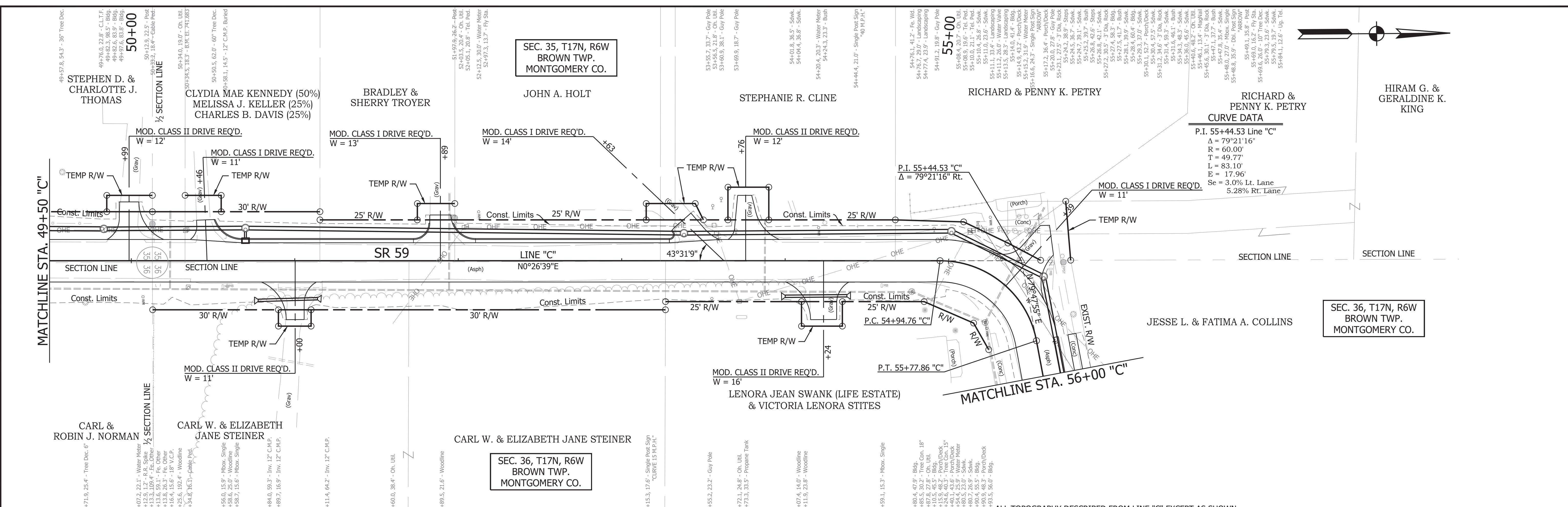
506	NORTH 271895.9822 EAST 736248.0671 LINE "C"
Barn Nail	□
E. Face PWP	#206-884
Mag Nail in Asphalt Drive Approach	○
Mag Nail Set	●
Mag Nail in Asphalt Drive Approach	○
P.O.T. 42+50.00	

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: YZ	DRAWN: MRM	
CHECKED: JRS	CHECKED: JRS	

INDIANA DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
STA. 42+50.00 TO 49+50.00 LINE "C"

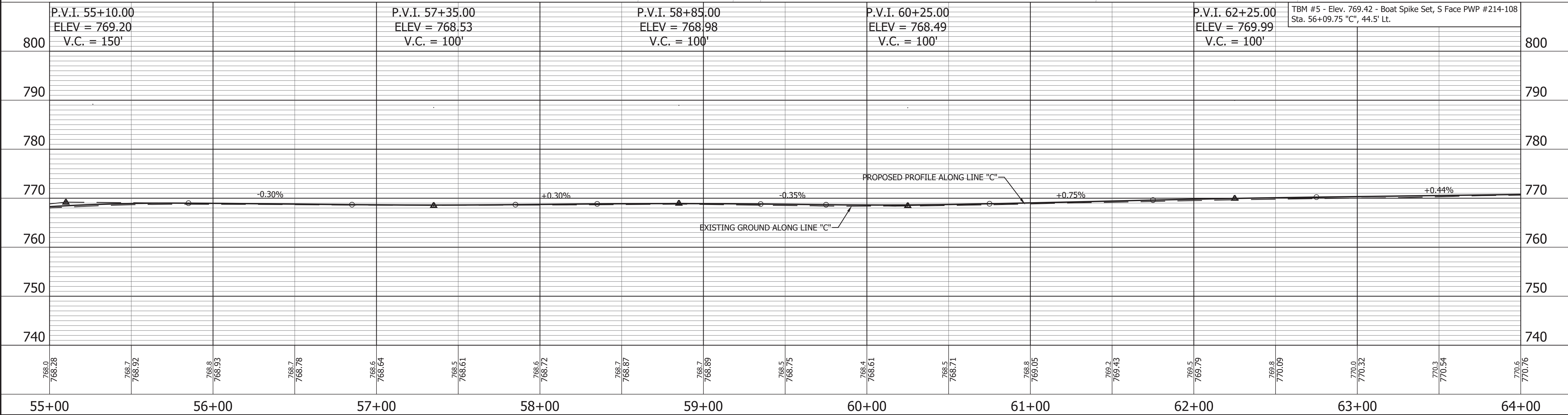
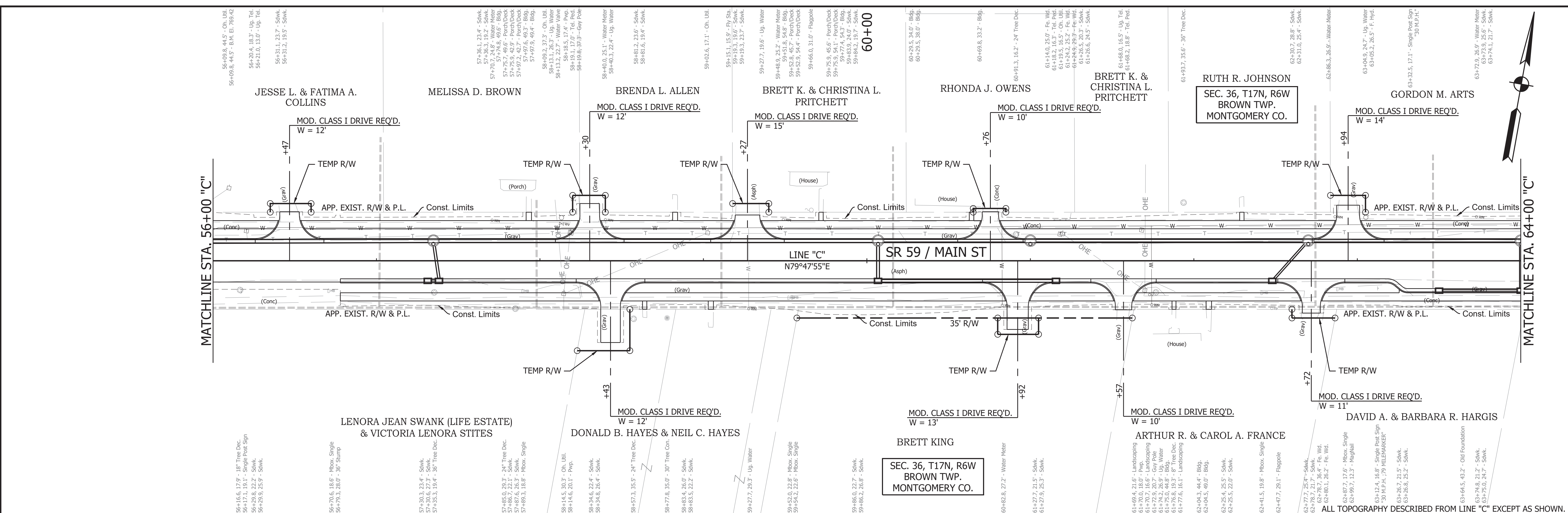
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SURVEY BOOK	SHEET
	8 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 01/04/20 PLOT SCALE: 1:1 EDIT DATE: 2/28/20 - 12:45 PM EDITED BY: JSTOCKS DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\06 PLAN\PROF.PLAN AND PROFILES - SR59 WAVELAND 30 SCALE.DWG



<p>RECOMMENDED FOR APPROVAL _____</p> <p>DESIGNED: <u>YZ</u> DRAWN: <u>MRM</u></p> <p>CHECKED: <u>JRS</u> CHECKED: <u>JRS</u></p>	<p>INDIANA DEPARTMENT OF TRANSPORTATION</p> <p>PLAN AND PROFILE</p> <p>STA. 49+50.00 TO 56+50.01 LINE "C"</p>	<p>HORIZONTAL SCALE</p> <p>1" = 30'</p> <p>VERTICAL SCALE</p> <p>1" = 10'</p>	<p>BRIDGE FILE</p> <p>DESIGNATION</p> <p>1593272</p> <p>SHEET</p> <p>9 of 94</p> <p>PROJECT</p> <p>1593272</p>
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PRINT DATE: 5/14/20
 PLOT SCALE: 1:1
 EDIT DATE: 2/29/20 - 12:45 PM
 EDITED BY: JSTOCKS
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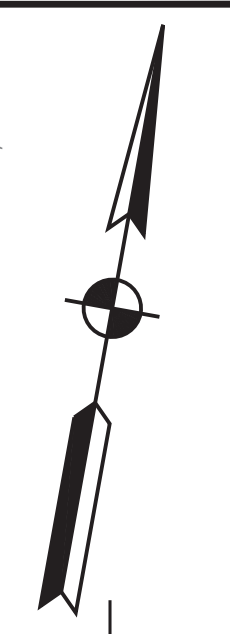
511 NORTH 273309.4748
 EAST 738919.3941
 LINE "C"
 Center of Top Nut
 Face PWP
 #233-642
 82.46
 108.74
 S.R. 59
 Boat Spike N.
 Face PWP
 #203-707
 P.O.T. 62+00.00

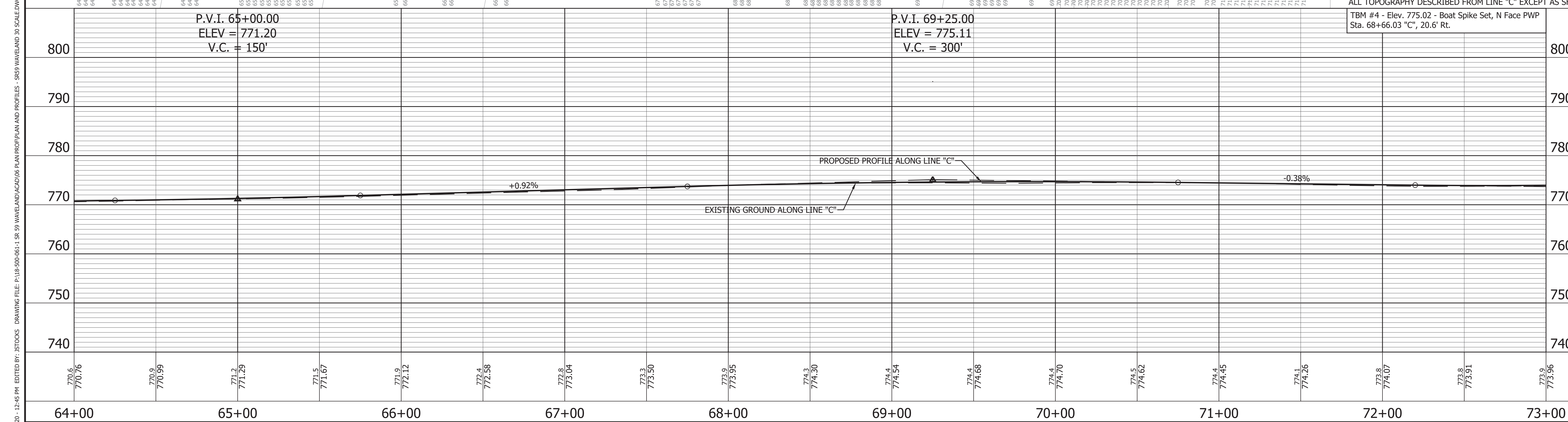
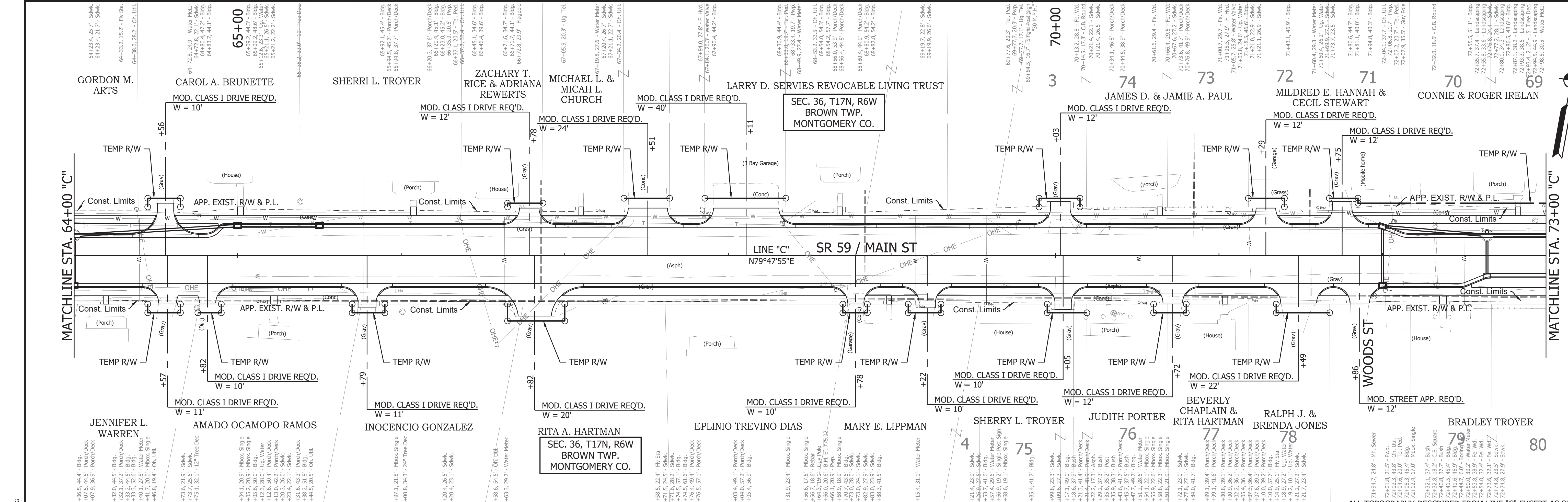
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: YZ	DRAWN: MRM	
CHECKED: JRS	CHECKED: JRS	

INDIANA
DEPARTMENT OF TRANSPORTATION
PLAN AND PROFILE
STA. 55+00.00 TO 64+00.00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
1"=10'	1593272
SURVEY BOOK	SHEET
	10 of 94
CONTRACT	PROJECT
RS-39363	1593272

ALL TOPOGRAPHY DESCRIBED FROM LINE "C" EXCEPT AS SHOWN. TBM #5 - Elev. 769.42 - Boat Spike Set, S Face PWP #214-108 Sta. 56+09.75 "C", 44.5' Lt.	
--	--





512 NORTH 273415.7399
EAST 739509.9089
LINE "C"

Mag Nail W.
Face PWP
#215-667

69.14' - 28.73' - S.R. 59
69.20'

Boat Spike N.
Face PWP

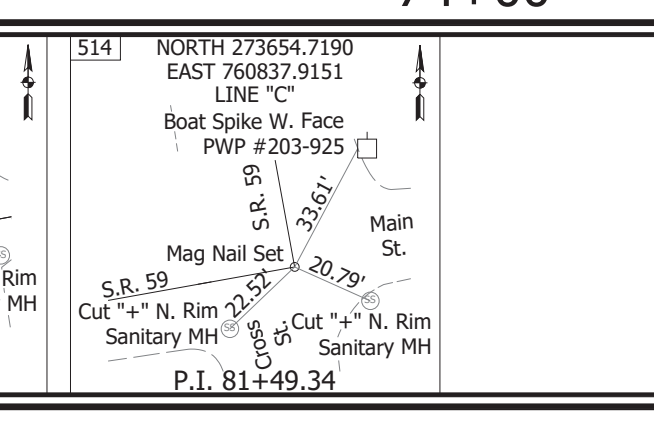
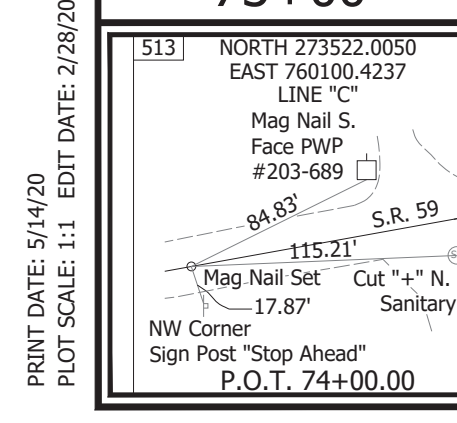
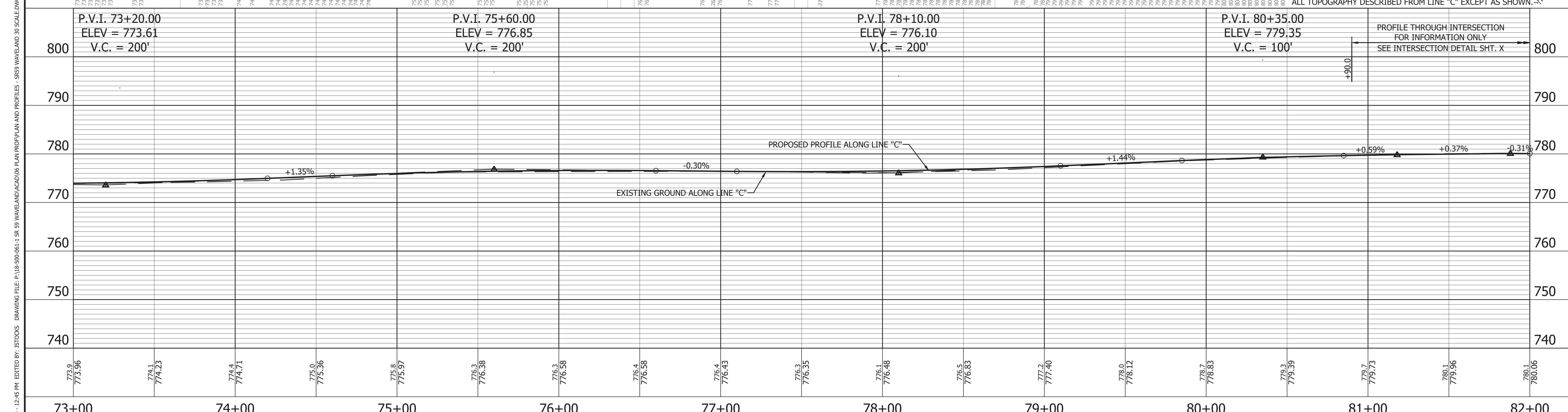
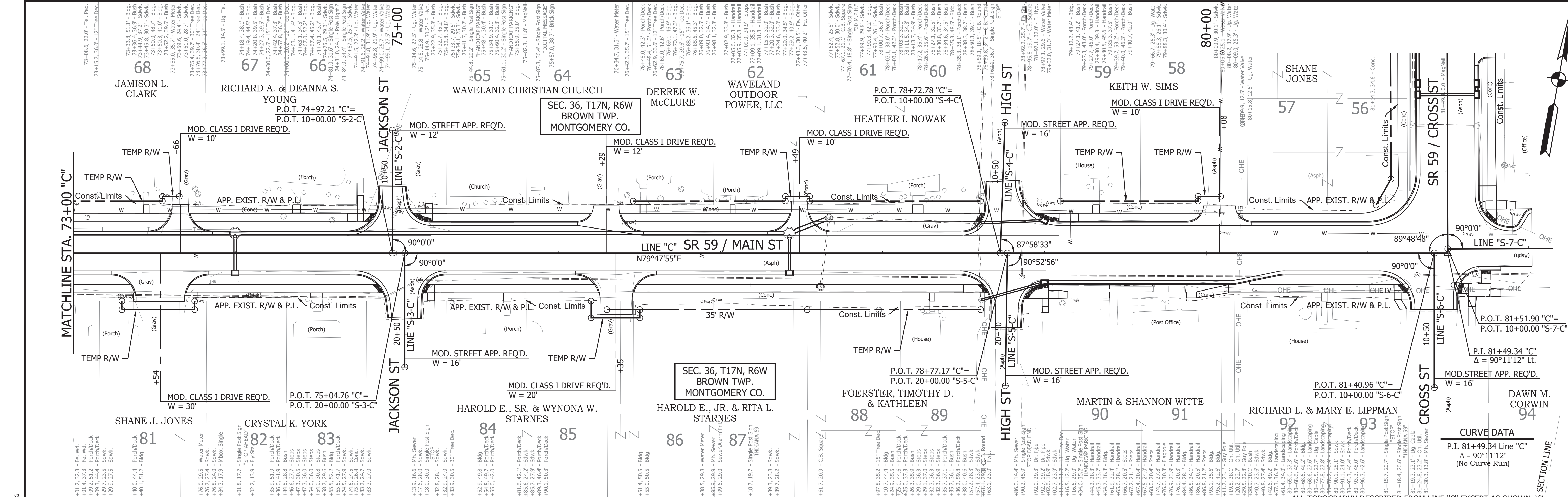
P.O.T. 68+00.00

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: YZ	DRAWN: MRM	
CHECKED: JRS	CHECKED: JRS	

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 64+00.00 TO 73+00.00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
1"=10'	1593272
SURVEY BOOK	SHEET
	11 of 94
CONTRACT	PROJECT
RS-39363	1593272



DESIGNED: YZ	DRAWN: MRM
CHECKED: JRS	CHECKED: JRS

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER _____ DATE _____

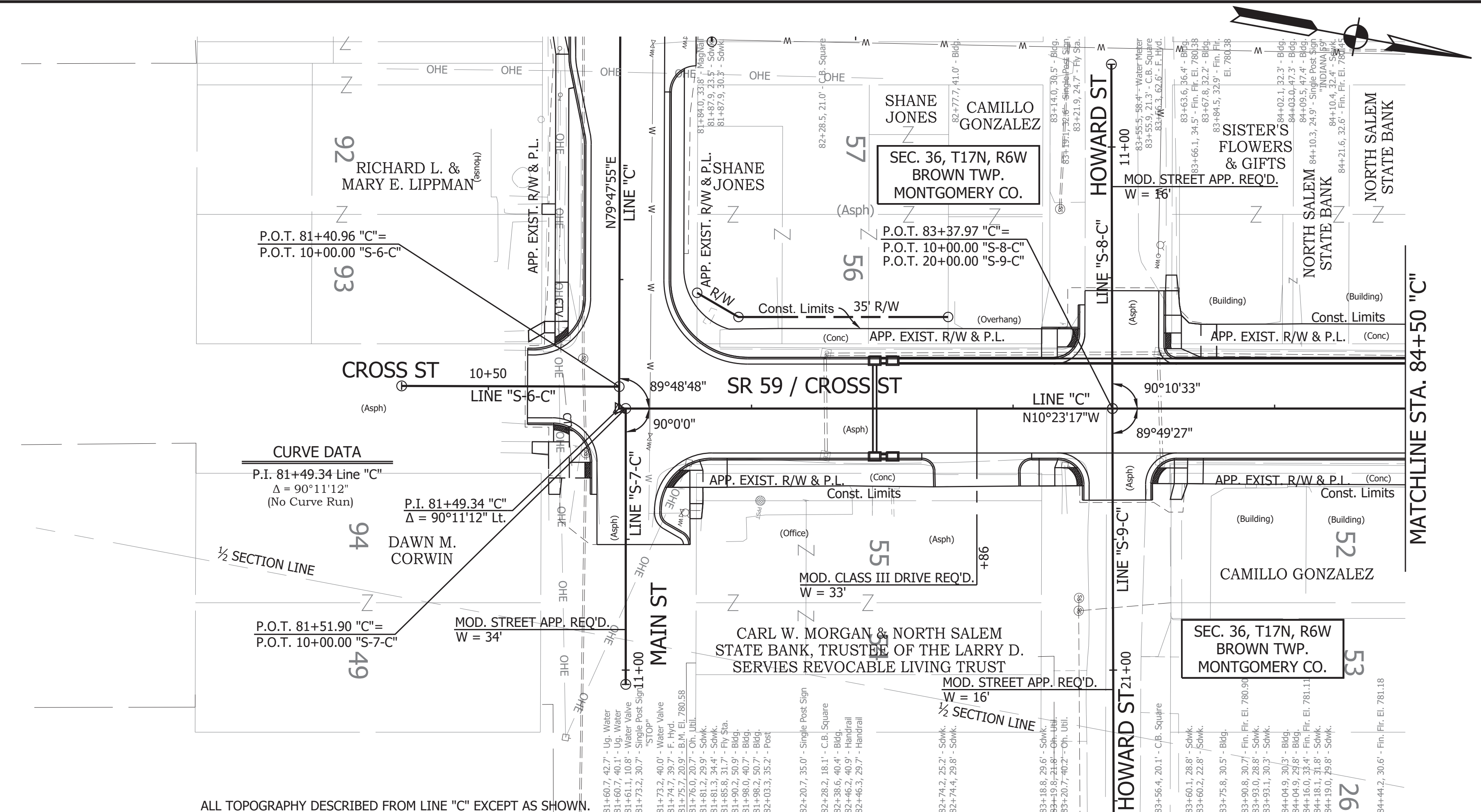
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE

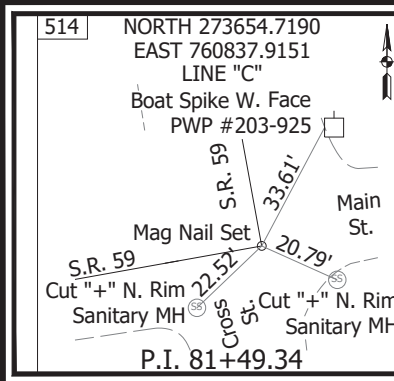
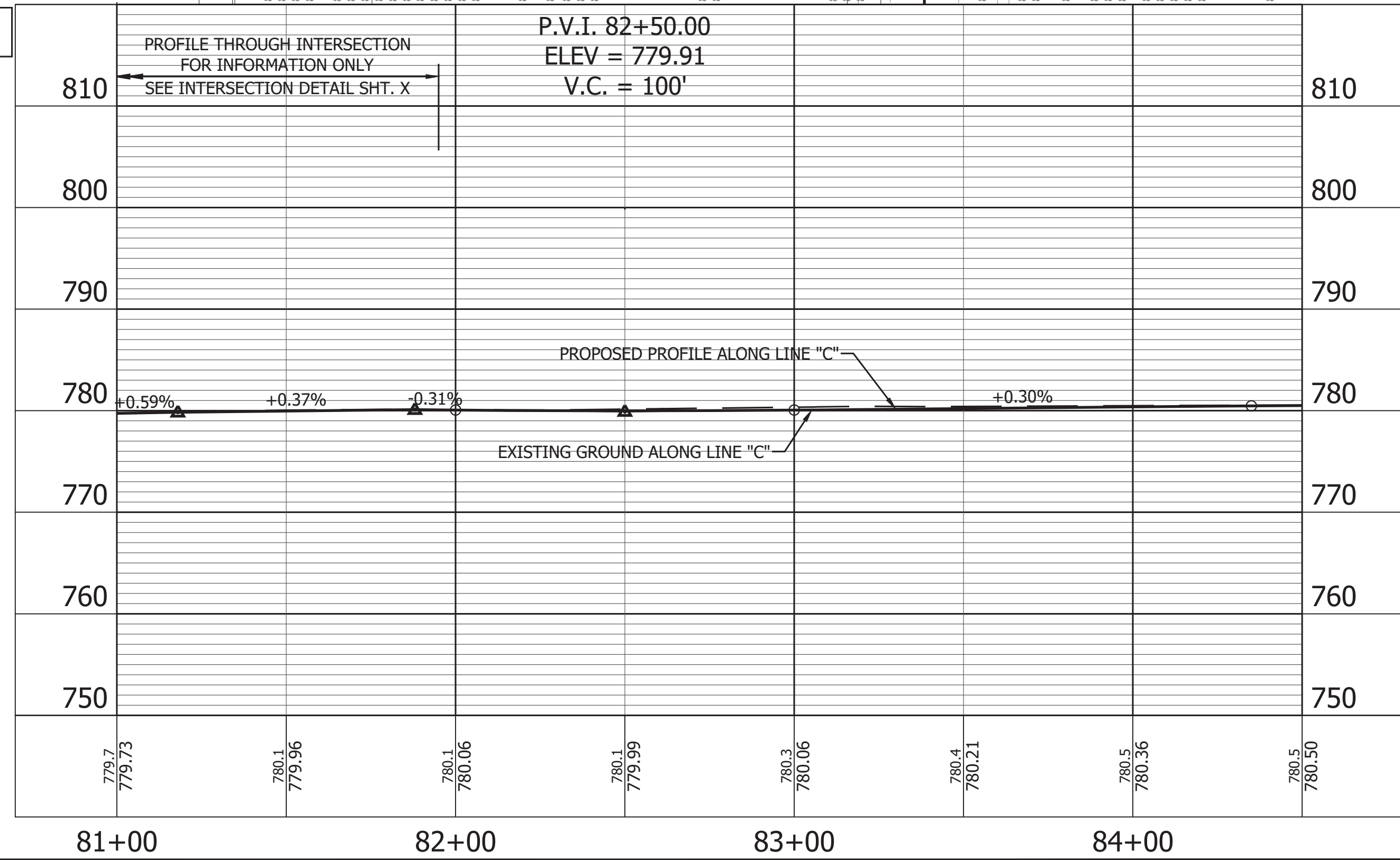
STA. 73+00.00 TO 82+00.00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
1"=10'	1593272
SURVEY BOOK	SHEET
	12 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 5/14/20 PLOT SCALE: 1:1 EDIT DATE: 2/28/20 12:45 PM EDITED BY: JSTOCKS DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\06 PLAN\PROPLAN AND PROFILES - S659 WAVELAND 30 SCALE.DWG



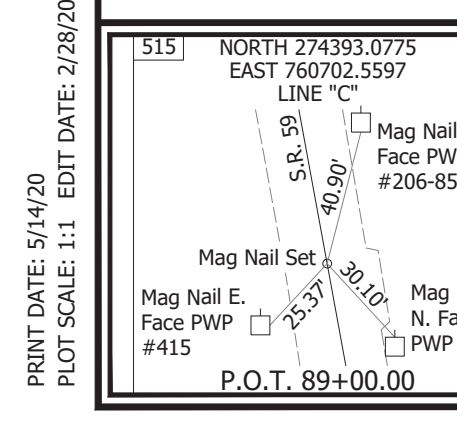
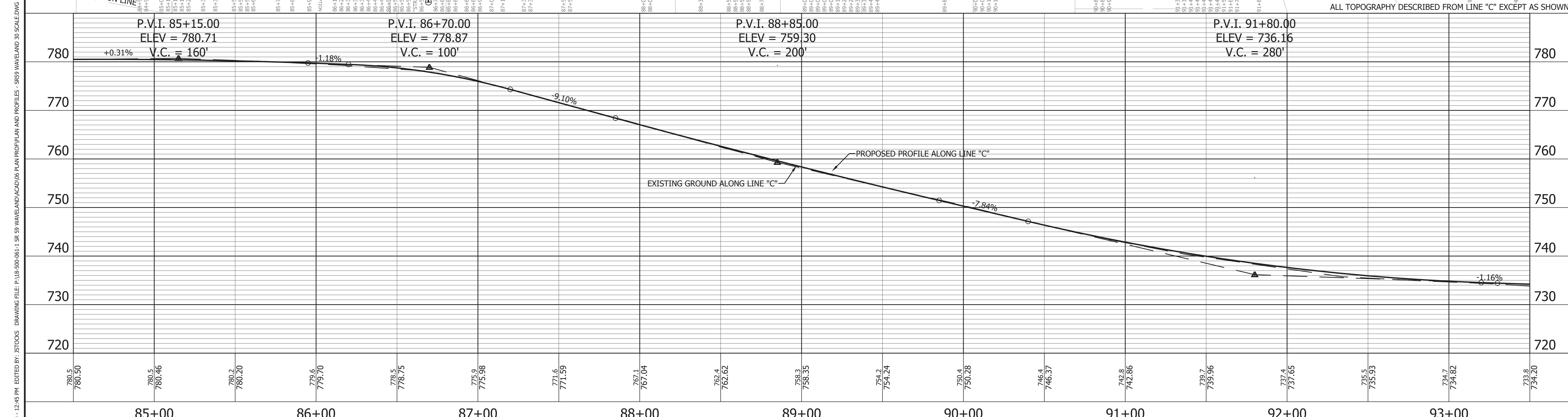
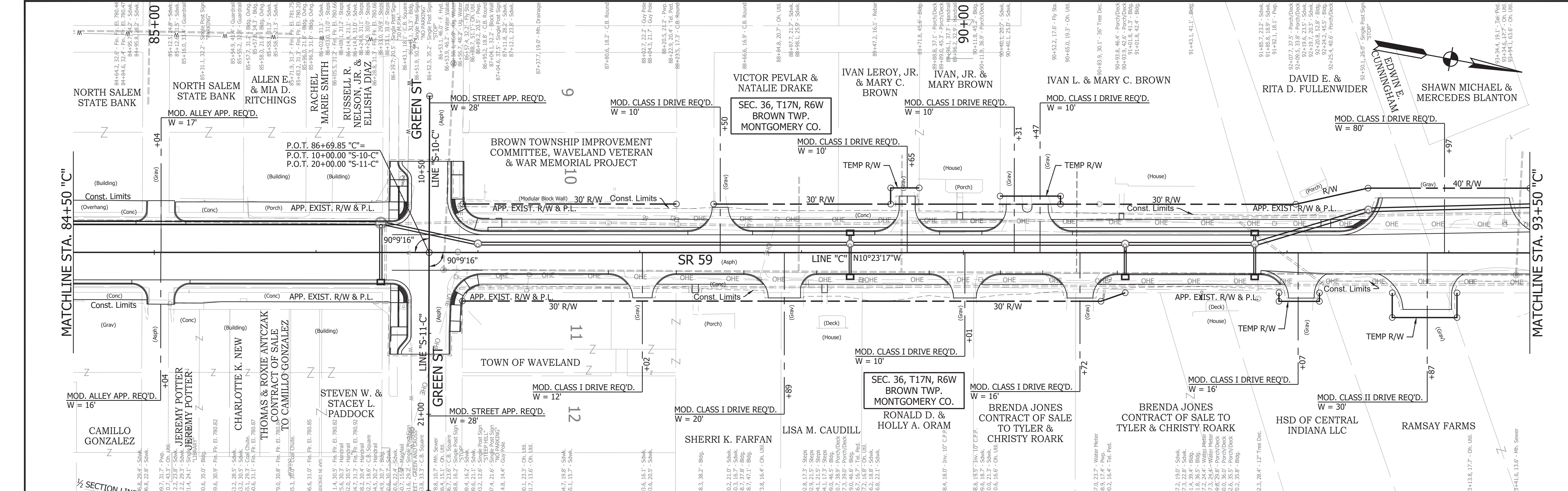
ALL TOPOGRAPHY DESCRIBED FROM LINE "C" EXCEPT AS SHOWN.
 TBM #3 - Elev. 780.58 - Boat Spike Set, W Face PWP #203-925
 Sta. 81+75.67 "C", 20.9' Rt.



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: YZ	DRAWN: MRM	
CHECKED: JRS	CHECKED: JRS	

INDIANA
 DEPARTMENT OF TRANSPORTATION
 PLAN AND PROFILE
 STA. 81+00.00 TO 84+50.00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
1"=10'	1593272
SURVEY BOOK	SHEET
	13 of 94
CONTRACT	PROJECT
RS-39363	1593272



780.5 780.50	780.5 780.46	780.2 780.20	779.6 779.70	778.5 778.75	775.9 775.98	771.6 771.59	767.1 767.04	763.4 762.62	758.3 758.35	754.2 754.24	750.4 750.28	746.4 746.37	742.8 742.86	739.7 739.96	737.4 737.65	735.5 735.93	734.7 734.82	733.8 734.20
85+00	86+00	87+00	88+00	89+00	90+00	91+00	92+00	93+00										

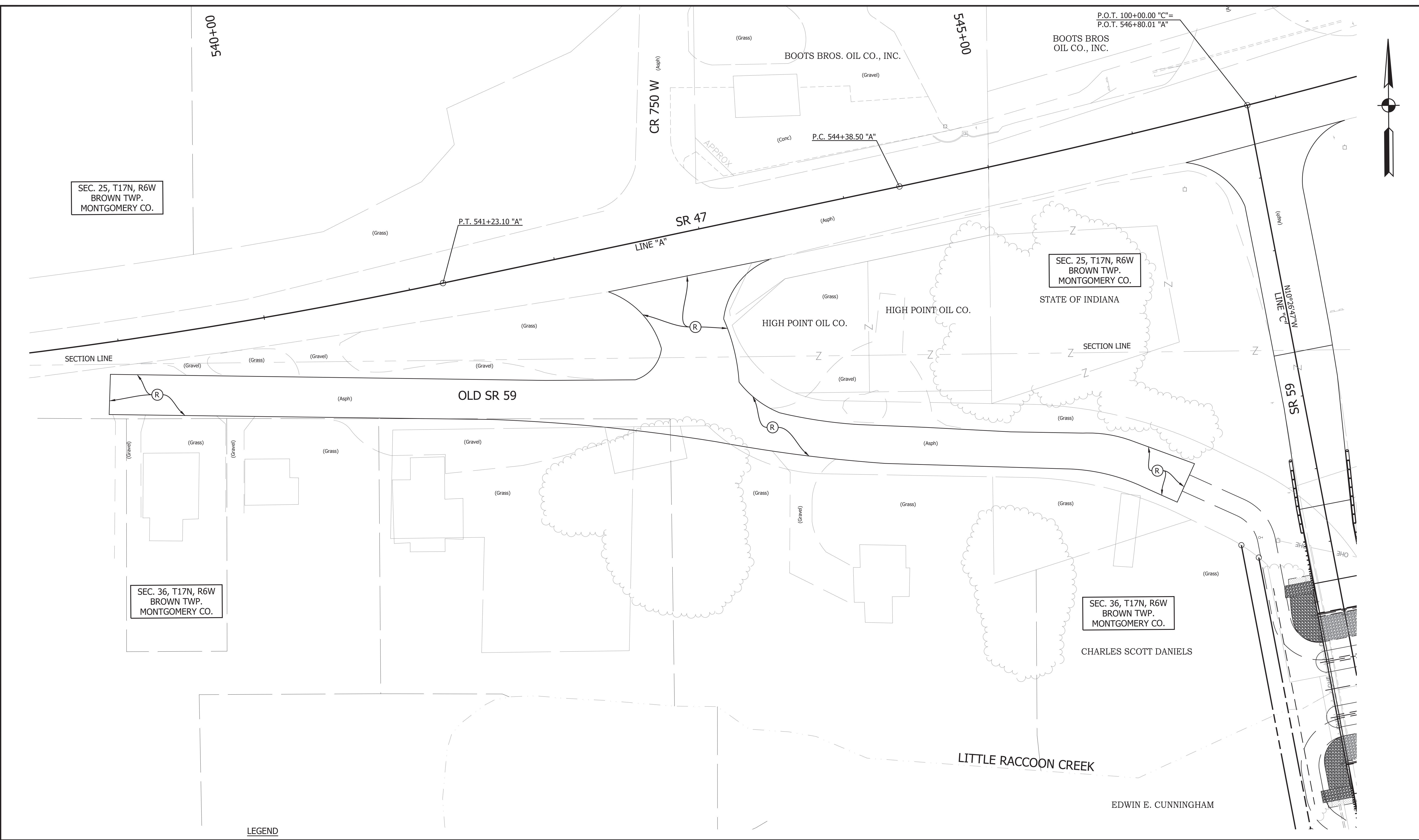
RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: YZ	DRAWN: MRM	
CHECKED: JRS	CHECKED: JRS	

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
STA. 84+50.00 TO 93+50.00 LINE "C"

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
1"=10'	1593272
SURVEY BOOK	SHEET
	14 of 94
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 9/14/20
 PLOT SCALE: 1:1
 DRAWING FILE: P:\18-500-06-1\SR 59 WAVELAND\ACAD\07 CONST\DTL\CD - OLD_SR59 WAVELAND 30 SCALE.DWG
 EDITED BY: MMURRAY
 4:35 PM



SEC. 25, T17N, R6W
BROWN TWP.
MONTGOMERY CO.

SEC. 25, T17N, R6W
BROWN TWP.
MONTGOMERY CO.

SEC. 36, T17N, R6W
BROWN TWP.
MONTGOMERY CO.

SEC. 36, T17N, R6W
BROWN TWP.
MONTGOMERY CO.

LEGEND

(15)	Combined Concrete Curb & Gutter	(K)	165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 12.5 mm 275 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 19.0 mm 880 lb/SYS QC/QA HMA Pavement, 2, 64, Base 25.0 mm	(R1)	Milling, Asphalt Removal 220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm 220 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 12.5 mm
(26)	Sodding, Nursery	(D)	Compacted Agg. No. 53	(W)	165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 9.5 mm 440 lb/SYS QC/QA HMA Intermediate, Type C Variable (Min. 660) lb/SYS QC/QA HMA Base, Type C Match Adjacent Pavement Depth
(27)	Seed Mixture, U	(R)	Milling, Asphalt 2.0"		
(C)	PCCP For Approaches	(X)	Sidewalk Curb Ramp		
(D)	HMA For Approaches				
(F)	Concrete Sidewalk, 4"				

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: <u>YZ</u>	DRAWN: <u>MRM</u>	
CHECKED: <u>JRS</u>	CHECKED: <u>JRS</u>	

INDIANA
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
OLD STATE ROAD 59

HORIZONTAL SCALE	BRIDGE FILE
1"=30'	
VERTICAL SCALE	DESIGNATION
	1593272
SURVEY BOOK	SHEET
	28 of 94
CONTRACT	PROJECT
RS-39363	1593272

PROJECT	DESIGNATION
1593272	1701591
CONTRACT	BRIDGE FILE
RS-39363	059-54-10327

INDIANA DEPARTMENT OF TRANSPORTATION



NOTE TO REVIEWER:
TRAFFIC DATA SHOWN IS PRELIMINARY AND
BASED ON NEARBY PROJECT ON SR59

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
059-54-10327	CONTINUOUS REINFORCED CONCRETE SLAB	3 SPANS: 32'-0", 38'-0", 32'-0" SKEW: SQUARE	LITTLE RACCOON CREEK	96+01.54 LINE "C"

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
1593272	SR 59 RECONSTRUCTION AND RESURFACE (LEAD DES)
1701591	SR 59 OVER LITTLE RACCOON CREEK BRIDGE REPLACEMENT

TRAFFIC DATA		
A.A.D.T. (2018)	1,111	V.P.D.
A.A.D.T. (2041)	1,350	V.P.D.
D.H.V. (2041)	145.4	V.P.H.
DIRECTIONAL DISTRIBUTION	9.50 %	A.A.D.T.
TRUCKS	10.77 %	D.H.V.

DESIGN DATA	
DESIGN SPEED	30 M.P.H
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	STATE COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

BRIDGE PLANS

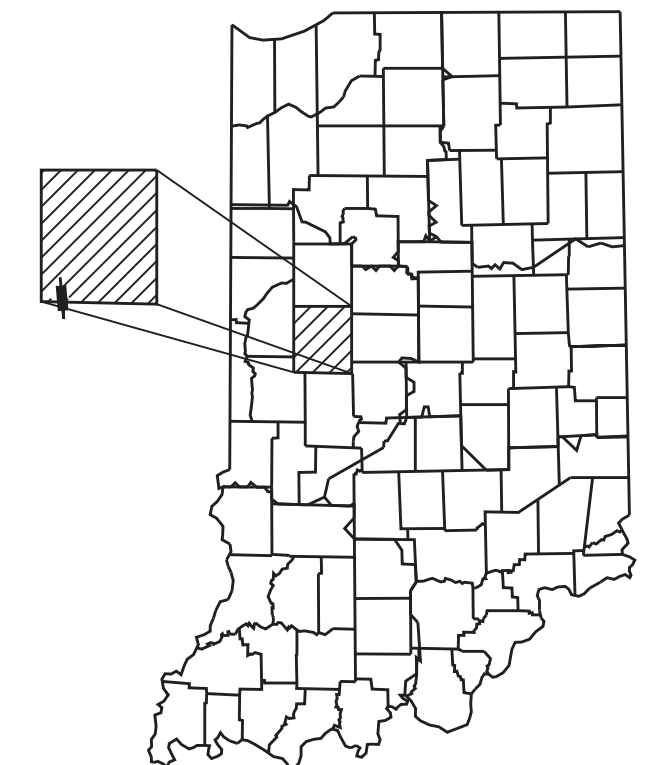
FOR SPANS OVER 20 FEET

ROUTE: SR 59 AT: RP 79+62
PROJECT NO. 1701591 P.E.

1701591 CONST.

ADDITIONAL RIGHT-OF-WAY
REQUIRED TO BE ACQUIRED UNDER
THE LEAD DES 1593272.

Bridge Replacement on SR 59 over Little Raccoon Creek
Located 0.07 Miles South of SR 47
Section 36, T-17-N, R-6-W, Brown Township, Montgomery County

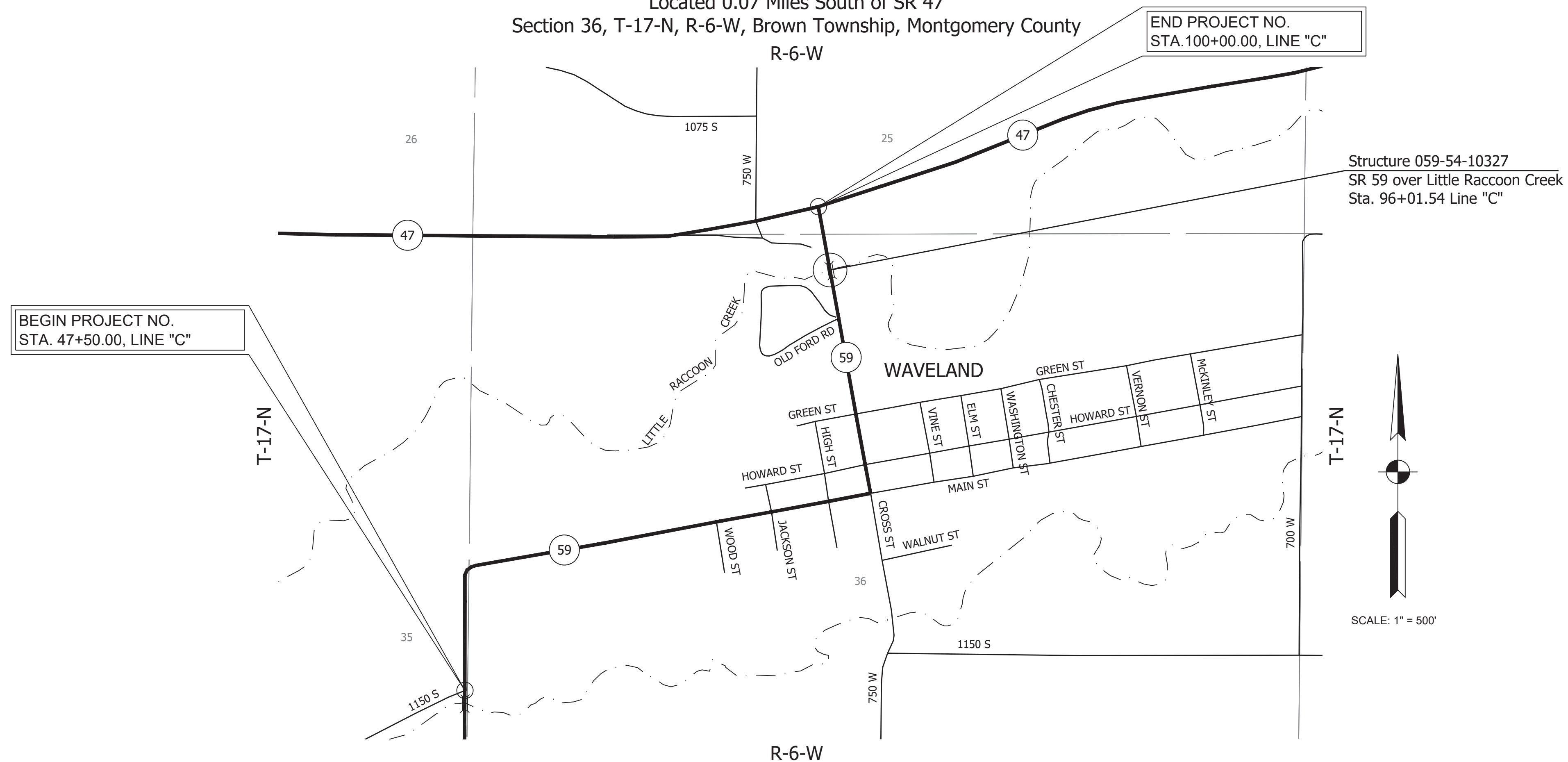


PROJECT LOCATION SHOWN BY
Montgomery County

LATITUDE: 39° 52' 51" N LONGITUDE: 87° 02' 44" W

BRIDGE LENGTH : 0.027 MI.
ROADWAY LENGTH : 0.967 MI.
TOTAL LENGTH : 0.994 MI.
MAX. GRADE: 5.400 %

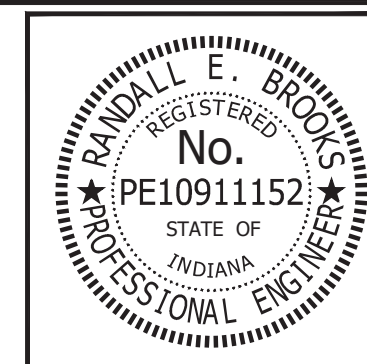
HUC: 051201081302



INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2020
TO BE USED WITH THESE PLANS



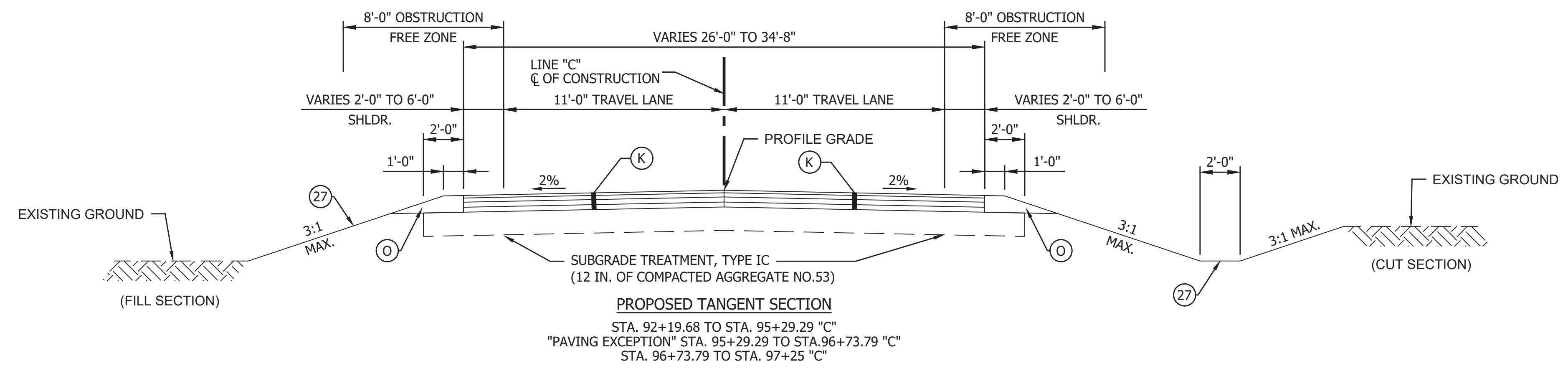
8770 NORTH ST., STE. 110
FISHERS, IN 46038
P: 317.588.1798
F: 317.588.1799
WWW.RQAW.COM



PLANS PREPARED BY:	RQAW Corporation, Inc.	317-588-1798
		PHONE NUMBER
CERTIFIED BY:	<i>Randall E. Brooks</i>	DATE
APPROVED FOR LETTING:	INDIANA DEPARTMENT OF TRANSPORTATION	DATE

BRIDGE FILE	
059-54-10327	
DESIGNATION	
1701591	
SURVEY BOOK	SHEET
1	of 16
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 6/8/20 PLOT SCALE: 1:1 EDIT DATE: 6/4/20 - 5:00 PM EDITED BY: MREISING DRAWING FILE: P:\18-500-061-1 SR 59 WAWELAND\ACAD\03 TYPICAL\RD-TYPICALS-SR-59.DWG

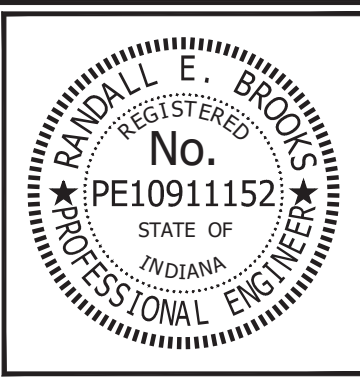


NOTE TO REVIEWER:
PAVEMENT SECTIONS SHOWN ARE ASSUMED AND
WILL BE FINALIZED IN FUTURE SUBMISSIONS

FOR INFORMATION ONLY

LEGEND	
⑮ Combined Concrete Curb & Gutter	Ⓚ 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 12.5 mm
⑯ Sodding, Nursery	Ⓚ 275 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 19.0 mm
⑰ Seed Mixture, U	Ⓚ 880 lb/SYS QC/QA HMA Pavement, 2, 64, Base 25.0 mm
Ⓛ Concrete Sidewalk, 4"	Ⓞ Compacted Agg. No. 53
	Ⓡ Milling, Asphalt 2.0"
	Ⓡ 220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm

Ⓡ Milling, Asphalt Removal	Ⓚ 220 lb/SYS QC/QA HMA 3, 70, Surface 12.5 mm
	Ⓚ 220 lb/SYS QC/QA HMA Pavement, 3, 70, Intermediate 12.5 mm
Ⓞ 165 lb/SYS QC/QA HMA Pavement, 3, 70, Surface 9.5 mm	
	Ⓚ 440 lb/SYS QC/QA HMA Intermediate, Type C
	Ⓚ Variable (Min. 660) lb/SYS QC/QA HMA Base, Type C
	Match Adjacent Pavement Depth



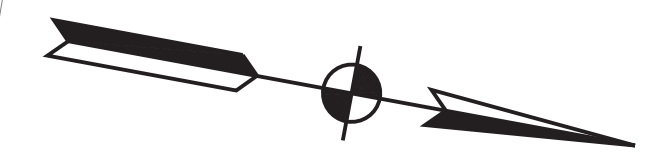
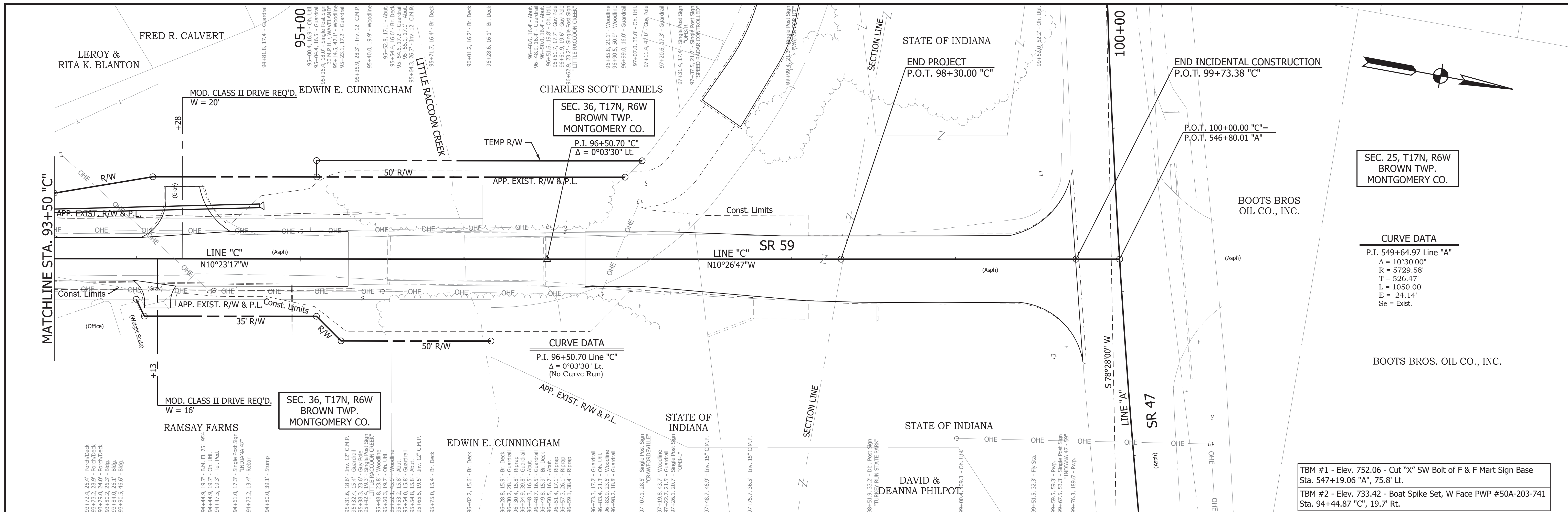
RECOMMENDED FOR APPROVAL	<i>Randall E. Brooks</i>	DESIGN ENGINEER	DATE
DESIGNED: Y.Z.	DRAWN: Y.Z.		
CHECKED: J.R.S.	CHECKED: J.R.S.		

INDIANA DEPARTMENT OF TRANSPORTATION

PROPOSED TYPICAL CROSS SECTIONS
S.R. 59

HORIZONTAL SCALE	BRIDGE FILE
1/4"=1'-0"	059-54-10327
VERTICAL SCALE	DESIGNATION
N/A	1701591
SURVEY BOOK	SHEET
	3 of 16
CONTRACT	PROJECT
RS-39363	1593272

PRINT DATE: 6/8/20 PLOT SCALE: 1:1 EDIT DATE: 5/26/20 5:44 PM EDITED BY: MREISING DRAWING FILE: P:\18-500-061-1 SR 59 WAVELAND\ACAD\06 PLAN\PROF\PLAN AND PROFILES - SR59 WAVELAND 30 SCALE.DWG

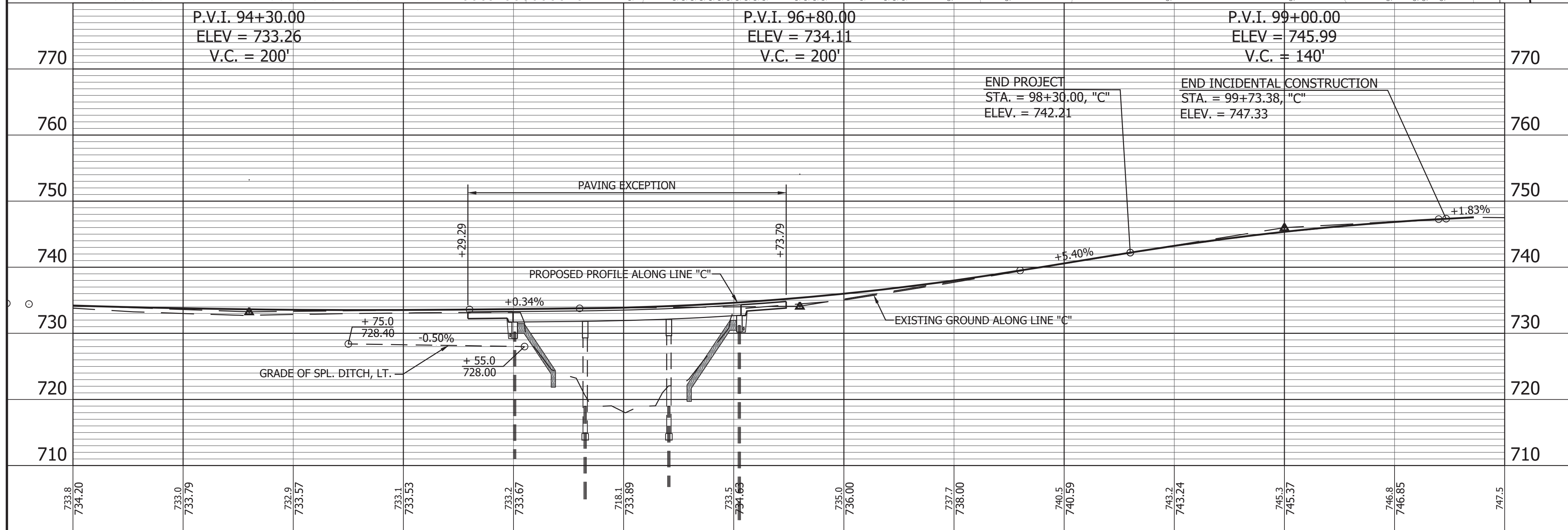


SEC. 25, T17N, R6W
BROWN TWP.
MONTGOMERY CO.

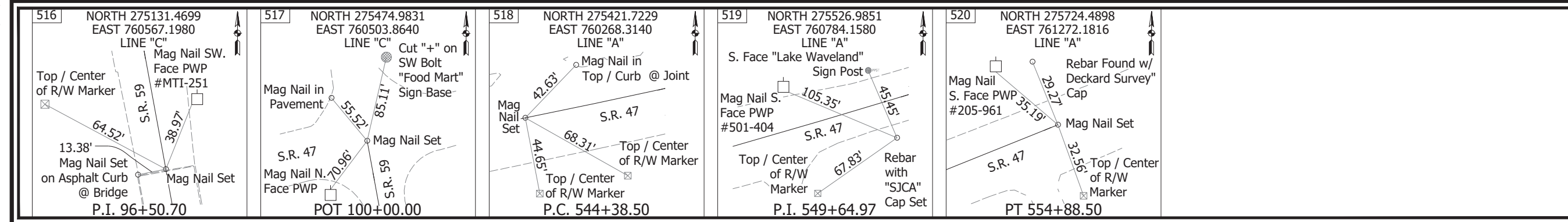
CURVE DATA
P.I. 549+64.97 Line "A"
Δ = 10°30'00"
R = 5729.58'
T = 526.47'
L = 1050.00'
E = 24.14'
Se = Exist.

BOOTS BROS. OIL CO., INC.

TBM #1 - Elev. 752.06 - Cut "X" SW Bolt of F & F Mart Sign Base
Sta. 547+19.06 "A", 75.8' Lt.
TBM #2 - Elev. 733.42 - Boat Spike Set, W Face PWP #50A-203-741
Sta. 94+44.87 "C", 19.7' Rt.



FOR INFORMATION ONLY

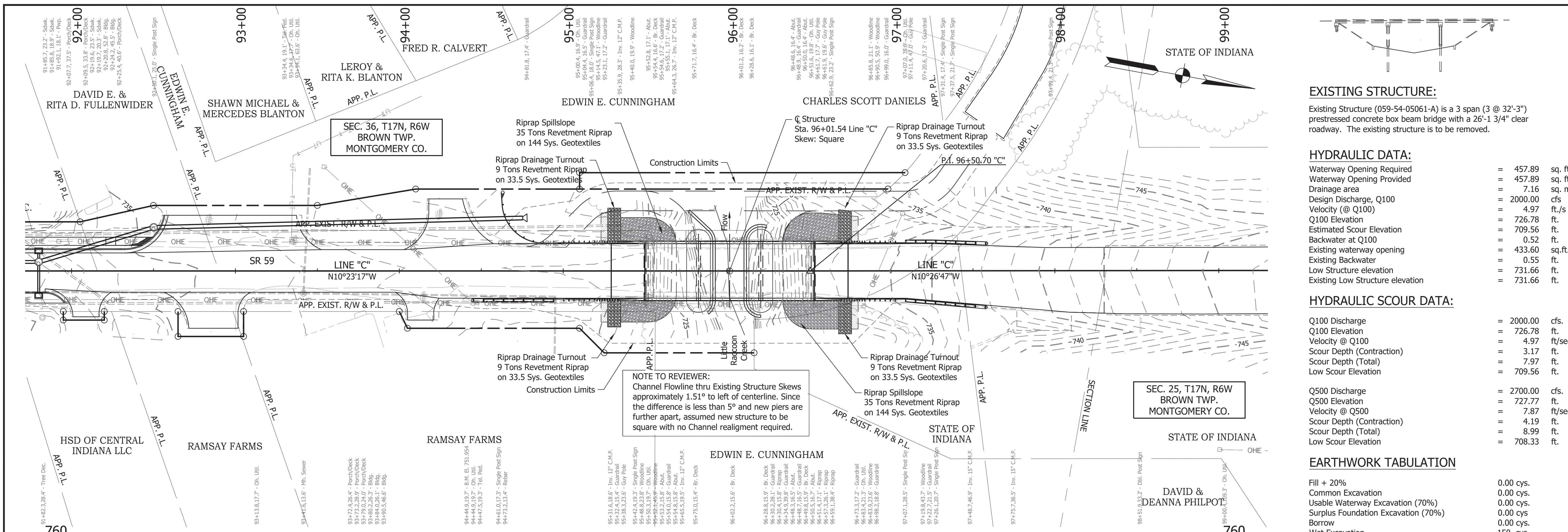


RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: JPT	DRAWN: DRD	
CHECKED: JOD	CHECKED: JOD	

**INDIANA
DEPARTMENT OF TRANSPORTATION**

**PLAN AND PROFILE
STA. 93+50.00 TO 100+00.00 LINE "C"**

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	059-54-10327
VERTICAL SCALE	DESIGNATION
1" = 10'	1701591
SURVEY BOOK	SHEET
	6 of 16
CONTRACT	PROJECT
RS-39363	1593272



EXISTING STRUCTURE:
 Existing Structure (059-54-05061-A) is a 3 span (3 @ 32'-3") prestressed concrete box beam bridge with a 26'-1 3/4" clear roadway. The existing structure is to be removed.

HYDRAULIC DATA:

Waterway Opening Required	=	457.89	sq. ft.
Waterway Opening Provided	=	457.89	sq. ft.
Drainage area	=	7.16	sq. mi.
Design Discharge, Q100	=	2000.00	cfs
Velocity (@ Q100)	=	4.97	ft./s
Q100 Elevation	=	726.78	ft.
Estimated Scour Elevation	=	709.56	ft.
Backwater at Q100	=	0.52	ft.
Existing waterway opening	=	433.60	sq.ft.
Existing Backwater	=	0.55	ft.
Low Structure elevation	=	731.66	ft.
Existing Low Structure elevation	=	731.66	ft.

HYDRAULIC SCOUR DATA:

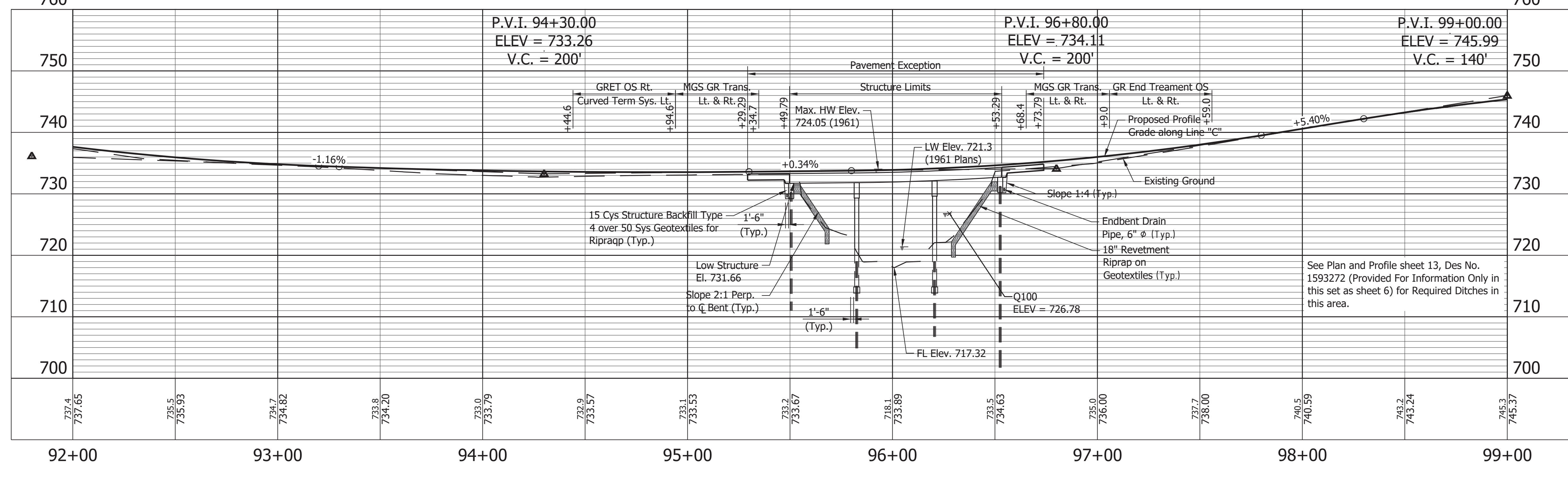
Q100 Discharge	=	2000.00	cfs.
Q100 Elevation	=	726.78	ft.
Velocity @ Q100	=	4.97	ft/sec
Scour Depth (Contraction)	=	3.17	ft.
Scour Depth (Total)	=	7.97	ft.
Low Scour Elevation	=	709.56	ft.

Q500 Discharge	=	2700.00	cfs.
Q500 Elevation	=	727.77	ft.
Velocity @ Q500	=	7.87	ft/sec
Scour Depth (Contraction)	=	4.19	ft.
Scour Depth (Total)	=	8.99	ft.
Low Scour Elevation	=	708.33	ft.

EARTHWORK TABULATION

Fill + 20%	=	0.00	cys.
Common Excavation	=	0.00	cys.
Usable Waterway Excavation (70%)	=	0.00	cys.
Surplus Foundation Excavation (70%)	=	0.00	cys.
Borrow	=	0.00	cys.
Wet Excavation	=	150	cys.
Total Waterway Excavation	=	0.00	cys.
Excavation Unclassified	=	0.00	cys.
Benching (Estimated)	=	0.00	cys.

NOTE TO REVIEWER:
 Channel Flowline thru Existing Structure Skews approximately 1.51° to left of centerline. Since the difference is less than 5° and new piers are further apart, assumed new structure to be square with no Channel realignment required.

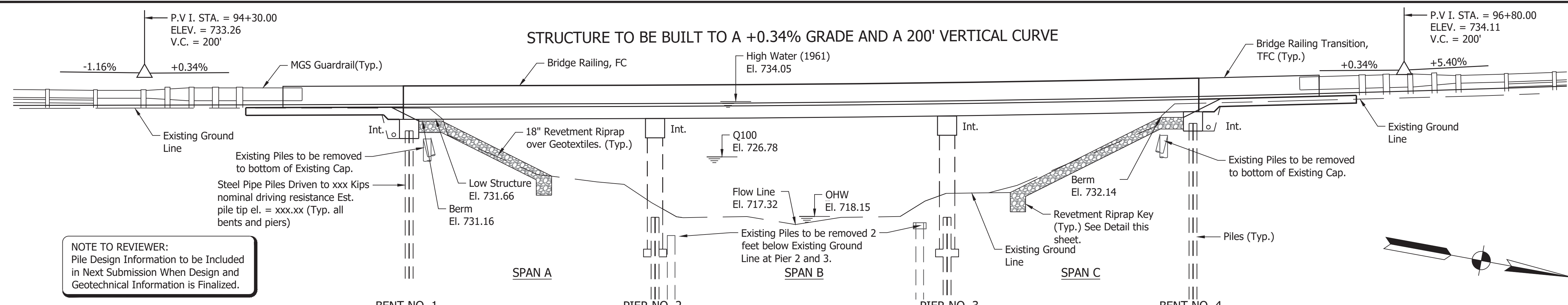


NOTES TO REVIEWER:
 Quantities shown are preliminary and will be finalized in future submittals.
 Earthwork tabulations included in Des 1593272

TBM #1 - Elev. 752.06 - Cut "X" SW Bolt of F & F Mart Sign Base Sta. 547+19.06 "A", 75.8' Lt.
 TBM #2 - Elev. 733.42 - Boat Spike Set, W Face PWP #50A-203-741 Sta. 94+44.87 "C", 19.7' Rt.

CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
 3 SPANS: 32'-0", 38'-0", 32'-0"
 SKEW: SQUARE
 CLEAR ROADWAY: 33'-4"
 S.R. 59 OVER LITTLE RACCOON CREEK
 MONTGOMERY COUNTY

516 NORTH 275131.4699 EAST 760567.1980 LINE "C" Top/Center of R/W Marker Face PWP #MTI-251 Mag Nail SW cut "x" on SW Bolt "Food Mart" Sign Base P.I. 96+50.70	517 NORTH 275474.9831 EAST 760503.8640 LINE "C" Mag Nail in Pavement cut "x" on SW Bolt "Food Mart" Sign Base POT 100+00.00	518 NORTH 275421.7229 EAST 760268.3140 LINE "A" Top/Center of R/W Marker S.R. 47 P.C. 544+38.50	519 NORTH 275526.9851 EAST 760784.1580 LINE "A" S. Face "Lake Waveland" Sign Post Face PWP #205-961 #501-404 S.R. 47 Top / Center of R/W Marker Rebar with "SICA" Cap Set P.I. 549+64.97	520 NORTH 275724.4898 EAST 761272.1816 LINE "A" Mag Nail S. Face PWP #205-961 Mag Nail Set Rebar Found w/ Deckard Survey Cap Mag Nail Set Top / Center of R/W Marker PT 554+88.50	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE _____ DESIGNED: DOH DRAWN: MJR CHECKED: REB CHECKED: DOH	INDIANA DEPARTMENT OF TRANSPORTATION LAYOUT	<table border="1"> <tr><td>HORIZONTAL SCALE</td><td>AS SHOWN</td><td>BRIDGE FILE</td><td>059-54-10327</td></tr> <tr><td>VERTICAL SCALE</td><td>AS SHOWN</td><td>DESIGNATION</td><td>1701591</td></tr> <tr><td>DRAWING</td><td>C1 of C2</td><td>SHEET</td><td>8 of 16</td></tr> <tr><td>CONTRACT</td><td>RS-39363</td><td>PROJECT</td><td>1593272</td></tr> </table>	HORIZONTAL SCALE	AS SHOWN	BRIDGE FILE	059-54-10327	VERTICAL SCALE	AS SHOWN	DESIGNATION	1701591	DRAWING	C1 of C2	SHEET	8 of 16	CONTRACT	RS-39363	PROJECT	1593272
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VERTICAL SCALE	AS SHOWN	DESIGNATION	1701591																				
DRAWING	C1 of C2	SHEET	8 of 16																				
CONTRACT	RS-39363	PROJECT	1593272																				



GENERAL NOTES:
Plans for the existing structure are on file at the Indiana Department of Transportation as bridge files: 059-54-05061 & 059-54-05061A and are available upon request.

Reinforcing steel covering shall be 2 1/2" in top of approach slab, 1" in bottom of approach slab and 2" all other locations.

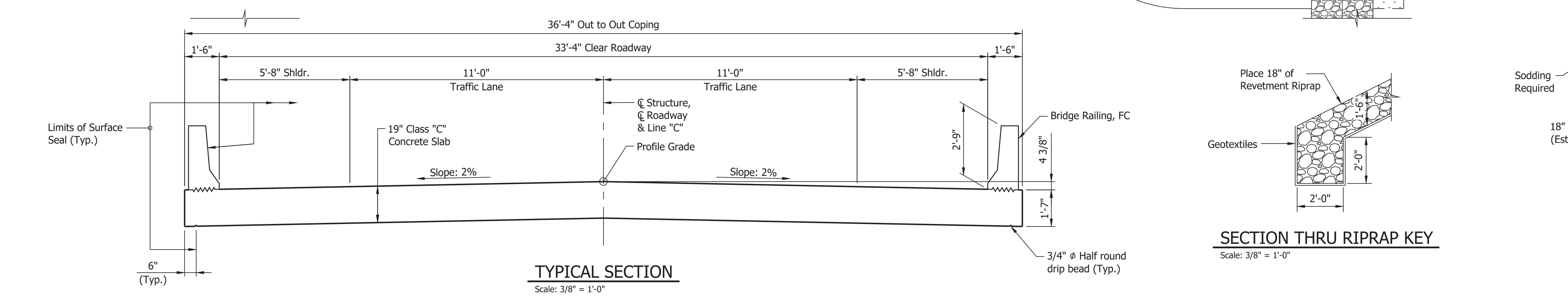
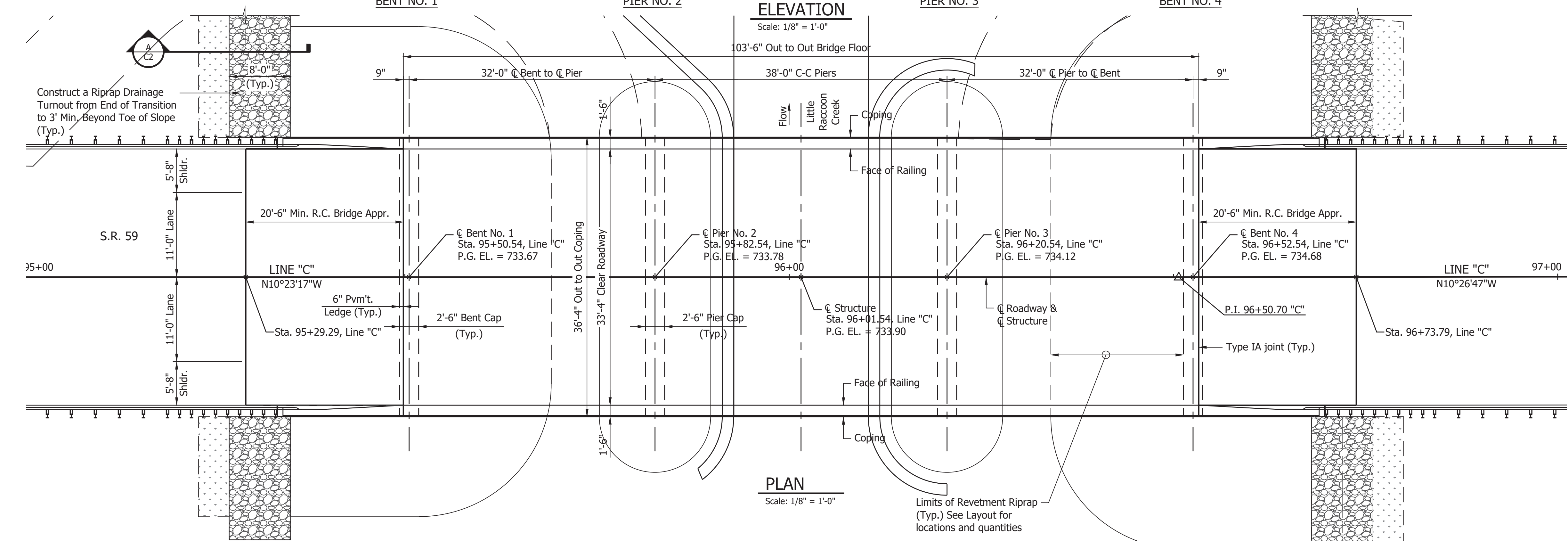
Surface seal all exposed surfaces of the deck, railing, transitions, approach slabs, coping and underside of the coping to the drip bead (Typ.)

DESIGN DATA:
LIVE LOADS: Designed for HL-93 loading in accordance with the 2017 AASHTO LRFD Bridge Design Specifications, Eighth Edition and all Subsequent Interims.
DEAD LOAD: Actual weight plus 35 psf for future wearing surface.
FLOOR SLAB: Designed with a 18 1/2" structural depth plus 1/2" sacrificial wearing surface.

DESIGN STRESSES:
CONCRETE:
Class "A" f_c = 3,500 psi
Class "B" f_c = 3,000 psi
Class "C" f_c = 4,000 psi
REINFORCING STEEL: Grade 60 F_y = 60,000 psi
WIND LOAD: Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1

SEISMIC DATA:
Seismic Performance Zone TBD
Acceleration Coefficient TBD
Seismic Soil Profile Type TBD

NOTE TO REVIEWER:
Seismic Information to be Provided at Next Submission When Geotechnical Information is Finalized.



CONTINUOUS REINFORCED CONCRETE SLAB BRIDGE
3 SPANS: 32'-0", 38'-0", 32'-0"
SKEW: SQUARE, CLEAR ROADWAY: 33'-4"
SR59 OVER LITTLE RACCOON CREEK
MONTGOMERY COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	DESIGNED: DOH DRAWN: DRD CHECKED: JOD CHECKED: JOD	INDIANA DEPARTMENT OF TRANSPORTATION GENERAL PLAN	HORIZONTAL SCALE	BRIDGE FILE
			AS SHOWN	059-54-10327
			VERTICAL SCALE	DESIGNATION
			AS SHOWN	1701591
		DRAWING SHEET C2 of C2 9 of 16 CONTRACT PROJECT RS-39363 1593272		

Categorical Exclusion
Appendix C
Early Coordination

March 5, 2020

«Agency_1»
«Agency_2»
«Address_1»
«Address_2»
«City», «State» «Zip»

Example Letter

Re: Agencies Early Coordination
Designation (Des.) Number(s) 1593272 and 1701591
Pavement Rehabilitation and Bridge Project
State Road 59, from County Road 1150 South to State Road 47
Montgomery County, Indiana

Dear «Position»,

The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a pavement rehabilitation and bridge replacement project in Montgomery County, Indiana (Des. Number(s) 1593272 and 1701591). The FHWA is providing funding and is designated as the lead Federal agency. This letter is part of the early coordination phase of the environmental review process; we are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above Des. Numbers and description in your reply** and we will incorporate your comments into the formal environmental study.

The project is located on State Road (SR) 59, from County Road (CR) 1150 South to SR 47, in the Town of Waveland, Montgomery County, Indiana. The project is within Brown Township, Alamo and Bellmore U.S. Geological Survey (USGS) Topographic Quadrangles, in Sections 25, 35 and 36, Township 17 North, Range 6 West. Please refer to attached project area maps.

This section of SR 59 is classified as a Major Collector. SR 59 runs north/south and east/west through the Town of Waveland and is known locally as Main Street (east/west) and Cross Street (north/south). Within the project area, SR 59 consists of two 11 foot wide travel lanes, one in each direction, with 2 foot wide outside shoulders. Sidewalks of varying widths (4 feet to 12 feet) are present throughout the majority of the project area along Main Street and Cross Street. The travel lanes are not separated by a median. Structure Number 059-54-05061 A is located just south of SR 47 and carries SR 59 over Little Raccoon Creek. The existing structure is a 3-span prestressed concrete box beam bridge, approximately 97 feet in length with an out-to-out width of approximately 32.2 feet. Adjacent land use consists of primarily residential and commercial properties. The existing right-of-way varies from approximately 20 feet to 35 feet from the roadway centerline.

The need for the project is due to the deteriorated condition of the existing SR 59 roadway pavement and Structure Number 059-54-05061 A. Per the INDOT Engineer's Mini Scope Report, dated January 3, 2017,

the existing pavement has an International Roughness Index (IRI) rating of 210 out of 95 or less, which indicates “Poor Condition”. The Engineering Assessment report, completed by RQAW and approved by INDOT on June 25, 2019, states that the existing asphalt is severely age hardened with extensive wheel path cracking. The curbing conditions are poor with some of the curbs cracking and falling apart to the point they are no longer visible. The existing sidewalks are in moderate condition with some minor cracking. The existing drainage system is substandard as sediment has built up throughout the roadway and onto the sidewalks.

Per the INDOT Bridge Inspection Report, dated November 14, 2019, the superstructure and substructure of Structure Number 059-54-05061 A each received Condition Ratings of 5 out of 9 which indicates “Fair” condition. This is due to the box beams exhibiting cracking with leaching and spalling with exposed rebar strands. There are deep spalls with exposed rebar, wide cracks, white efflorescence and some isolated section loss in the substructure units.

The purpose of the project is to improve the IRI pavement rating for this section of SR 59 to 70 (“Good Condition”) and improve the Condition Ratings of the superstructure and substructure of Structure Number 059-54-05061 A to 7 (“good condition”) or higher to allow for continued vehicular use within the project area. Another desirable outcome is to improve the substandard drainage system and pedestrian facilities within the project area.

The current proposed project on SR 59 would extend from CR 1150 South to SR 47, for a total project length of approximately 1.0 mile. The project would include milling, resurfacing, and widening SR 59 from the beginning of the project to the Main Street and Cross Street intersection, and from north of the bridge over Little Racoon Creek (Structure Number 059-54-05061 A) to SR 47. The first 600 feet of the project would involve widening the pavement to include the addition of 2 foot wide paved (3 feet usable) shoulders to provide lateral stability for the pavement. Drainage through this section of the project would be conveyed by open ditches and drive culverts. Approximately 300 feet along the west side of this section would receive a curb and gutter instead of an open ditch. On SR 59 (Main Street), the pavement would be widened approximately 2 feet to allow for the installation of a storm sewer system with adequate curb offset. The pavement on SR 59 will be widened approximately 8 feet in areas where there is existing gravel for on-street parking.

The existing 11 foot wide travel lanes, on-street parking, curb and gutter, and adjacent sidewalk on SR 59 from the intersection of Main Street and Cross Street to the bridge over Little Racoon Creek would be replaced due to the needed grade raise at the bridge replacement, and due to the thinner existing pavement depth within the downtown area of Waveland. Curbs would be replaced within the downtown area and added to the roadway between the downtown area and the bridge to resolve the drainage problems.

The current proposed project would also remove and replace Structure Number 059-54-05061 A with a three-span continuous reinforced concrete slab bridge. The new bridge would have a total length of 103 feet 6 inches and overall width of 36 feet 4 inches (approximately 4 feet wider than the existing). Riprap drainage turnouts would be added at each quadrant of the bridge. Also, riprap would be placed below

the bridge along the spillslopes. The approach pavement would be widened approximately 8 feet to ensure adequate guardrail offset. The SR 47 approach would only involve milling and Hot Mix Asphalt (HMA) overlay. North of Structure Number 059-54-05061 A, the pavement would be widened to ensure adequate guardrail offset is provided as well as milling and HMA overlay. The approach to the intersection would include only milling and HMA overlay.

The current proposed project would also include milling and resurfacing the existing pavement of Old SR 59, located southwest of the SR 47 and SR 59 (Cross Street) intersection. A temporary haul road would be constructed from the end of Old SR 59 to the existing bridge to provide access for bridge construction activities. Another temporary haul road would be constructed in the southwest quadrant of the bridge along the west side of SR 59 (Cross Street). Both temporary haul roads would be removed after construction activities, and the surrounding area would be restored to its previous state.

Approximately 1.10 acres of permanent and 0.35 acre of temporary right-of-way would be needed. The proposed right-of-way width would be approximately 30 feet from the roadway centerline. Construction is anticipated to begin in late Winter/early Spring 2022. The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236. A pedestrian MOT plan is being developed and will be coordinated with the residents of Waveland. SR 59 is to remain open during the annual Parke County Covered Bridge Festival. Access to all properties would be maintained during construction. Refer to attached preliminary design plans.

To identify potential environmental concerns within the project vicinity, a Red Flag Investigation was performed for a 0.5 mile radius of the project area by RQAW. The Red Flag Investigation noted the following:

- One unmapped religious facility, Waveland Christian Church, is located adjacent to the Main St. section of the project area. Coordination with Waveland Christian Church is occurring via this letter.
- One public airport, Shades State Park, is located within 3.8 miles (20,000 feet) of the project area; therefore, early coordination with INDOT Aviation is occurring via this letter.
- One National Wetlands Inventory (NWI)-Line segment, associated with Little Raccoon Creek, is located within the Cross St. section of the project area.
- Two stream segments, Little Raccoon Creek and unnamed tributary to Little Raccoon Creek, are located within the Cross St. section and southern limits of the project area, respectively.
- One NWI-Wetland is located approximately 0.01 mile east of the Cross St. section of the project area.
- One unmapped UST site, a former gas station (Main Street (SR 59) and Howard Street), incorrectly stored in the IDEM VFC under the AI # 44396), appears to be located adjacent to the project area in the southeast quadrant of Howard Street and Cross Street (SR 59). A Phase II Environmental Site Assessment is recommended.



RQAW performed a field visit on June 26, 2019, to identify any ecological resources present within the project area. Two streams and two roadside ditches were observed within the project area. RQAW is preparing a Waters of the U.S. Determination Report documenting these resources. During the field visit, one active gas station was observed adjacent to the northern terminus of the project area. Waveland Veterans Memorial was observed adjacent to the west of the project area, in the northeast quadrant of the SR 59 and Green Street intersection.

The project qualifies for the application of the U.S. Fish and Wildlife (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. Project information is being submitted through the USFWS Information for Planning and Consultation (IPac) separately.

RQAW is also investigating the Area of Potential Effect (APE) for archaeological and historic resources for compliance with Section 106. Coordination with the Indiana State Historic Preservation Officer (SHPO) will occur.

If we do not receive your response **within 30 calendar days** from the date of this letter, it will be assumed your agency feels there will be no adverse effects incurred because of the project. However, if you feel an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please contact Cameron Fraser of the Environmental Department at RQAW, at 317-588-1798 or at cfraser@rqaw.com, or Sara Heck, INDOT Project Manager at 765-361-5231 or at sheck@indot.in.gov. Thank you in advance for your input.

Sincerely,

A handwritten signature in black ink, appearing to read 'Cameron Fraser'. The signature is fluid and cursive.

Cameron Fraser
RQAW | Environmental Department

Appendices:

- Appendix A: Project Area Maps and Photographs
- Appendix C: Preliminary Project Plans

Cc:

- INDOT Crawfordsville District (electronic coordination)
- Federal Highway Administration (electronic coordination)
- Natural Resources Conservation Service (electronic coordination)
- Indiana Geological Survey (electronic coordination)
- IDNR Division of Fish and Wildlife (electronic coordination)
- IDEM (electronic coordination)



- IDEM Ground Water Section (electronic query)
- INDOT Office of Public Involvement (electronic coordination)
- U.S. Army Corps of Engineers, Louisville District (electronic coordination)
- U.S. Department of Housing and Urban Development (electronic coordination)
- INDOT Office of Aviation (electronic coordination)
- US Fish and Wildlife Services (electronic coordination)
- Waveland Strong President
- National Park Service, Midwest Regional Office
- Eighth Coast Guard District, Bridge Program Section
- Montgomery County Council
- Montgomery County Board of Commissioners
- Montgomery County Surveyor's Office
- Montgomery County Highway Department
- Local Floodplain Administrator
- Waveland Town Council
- Montgomery County Community Foundation Board of Directors
- Waveland Christian Church Director



Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

100 North Senate Avenue - Indianapolis, IN 46204
(800) 451-6027 - (317) 232-8603 - www.idem.IN.gov

INDOT Crawfordsville District

41 West 300 North
Crawfordsville , IN 47933
Date: 3/5/2020

RQAW

Cameron Fraser
8770 North St., Ste 110
Fishers , IN 46038

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a pavement rehabilitation and bridge replacement project in Montgomery County, Indiana (Des. Number(s) 1593272 and 1701591). The project is located on State Road (SR) 59, from County Road (CR) 1150 South to SR 47, in the Town of Waveland, Montgomery County, Indiana. The current proposed project on SR 59 would extend from CR 1150 South to SR 47, for a total project length of approximately 1.0 mile. The project would include milling, resurfacing, and widening SR 59 from the beginning of the project to the Main Street and Cross Street intersection, and from north of the bridge over Little Raccoon Creek (Structure Number 059-54-05061 A) to SR 47. The first 600 feet of the project would involve widening the pavement to include the addition of 2 foot wide paved (3 feet usable) shoulders to provide lateral stability for the pavement. Drainage through this section of the project would be conveyed by open ditches and drive culverts. Approximately 300 feet along the west side of this section would receive a curb and gutter instead of an open ditch. On SR 59 (Main Street), the pavement would be widened approximately 2 feet to allow for the installation of a storm sewer system with adequate curb offset. The pavement on SR 59 will be widened approximately 8 feet in areas where there is existing gravel for on-street parking. The existing 11 foot wide travel lanes, on-street parking, curb and gutter, and adjacent sidewalk on SR 59 from the intersection of Main Street and Cross Street to the bridge over Little Raccoon Creek would be replaced due to the needed grade raise at the bridge replacement, and due to the thinner existing pavement depth within the downtown area of Waveland. Curbs would be replaced within the downtown area and added to the roadway between the downtown area and the bridge to resolve the drainage problems. The current proposed project would also remove and replace Structure Number 059-54-05061 A with a three-span continuous reinforced concrete slab bridge. The new bridge would have a total length of 103 feet 6 inches and overall width of 36 feet 4 inches (approximately 4 feet wider than the existing). Riprap drainage turnouts would be added at each quadrant of the bridge. Also, riprap would be placed below the bridge along the spillslopes. The approach pavement would be widened approximately 8 feet to ensure adequate guardrail offset. The SR 47 approach would only involve milling and Hot Mix Asphalt (HMA) overlay. North of Structure Number 059-54-05061 A, the pavement would be widened to ensure adequate guardrail offset is provided as well as milling and HMA overlay. The approach to the intersection would include only milling and HMA overlay. The current proposed project would also include milling and resurfacing the existing pavement of Old SR 59, located southwest of the SR 47 and SR 59 (Cross Street) intersection. A temporary haul road would be constructed from the end of Old SR 59 to the existing bridge to provide access for bridge construction activities. Another temporary haul road would be constructed in the southwest quadrant of the bridge along the west side of SR 59 (Cross Street). Both temporary haul roads would be removed after construction activities, and the surrounding area would be restored to its previous state. Approximately 1.10 acres of permanent and 0.35 acre of temporary right-of-way would be needed. The proposed right-of-way width would be approximately 30 feet from the roadway centerline. Construction is anticipated to begin in late Winter/early Spring 2022. The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236. A pedestrian MOT plan is being developed and will be coordinated with the residents of Waveland. SR 59 is to remain open during the annual Parke County Covered Bridge Festival. Access to all properties would be maintained during construction. Refer to attached preliminary design plans.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

For additional information on specific roadway-related topics of interest, please visit the appropriate Web pages cited below, many of which provide contact information for persons within the various program areas who can answer questions not fully addressed in this letter. Also please be mindful that some environmental requirements may be subject to change and so each person intending to include a copy of this letter in their project documentation packet is advised to download the most recently revised version of the letter; found at: <http://www.in.gov/idem/5283.htm> (<http://www.in.gov/idem/5283.htm>).

To ensure that all environmentally-related issues are adequately addressed, IDEM recommends that you read this letter in its entirety, and consider each of the following issues as you move forward with the planning of your proposed roadway construction, reconstruction, or improvement project:

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices (<http://www.lrl.usace.army.mil/orf/default.asp>) (<http://www.lrl.usace.army.mil/orf/default.asp>) and then click on "Information" from the menu on the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on the list, and that inclusion of any particular consultant on the list does not represent an endorsement of that consultant by the USACE, or by IDEM.

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is

served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

Additional information on contacting these U.S. Army Corps of Engineers (USACE) District Offices, government agencies with jurisdiction over wetlands, and other water quality issues, can be found at <http://www.in.gov/idem/4396.htm> (<http://www.in.gov/idem/4396.htm>). IDEM recommends that impacts to wetlands and other water resources be avoided to the fullest extent.

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).
3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.
4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>) for the appropriate staff contact to further discuss your project.
5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
 - IC 14-26-2 Lakes Preservation Act 312 IAC 11
 - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
 - IC 14-28-1 Flood Control Act 310 IAC 6-1
 - IC 14-29-1 Navigable Waterways Act 312 IAC 6
 - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
 - IC 14-29-4 Construction of Channels Act No related code

For information on these Indiana (statutory) Code and Indiana Administrative Code citations, see the DNR Web site at: <http://www.in.gov/dnr/water/9451.htm> (<http://www.in.gov/dnr/water/9451.htm>) . Contact the DNR Division of Water at 317-232-4160 for further information.

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. The shade provided by the large overhanging trees helps maintain proper stream temperatures and dissolved oxygen for aquatic life.

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
 - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (<http://www.in.gov/idem/4917.htm#constreq> (<http://www.in.gov/idem/4917.htm#constreq>)), and as described in 327 IAC 15-5-6.5 (<http://www.in.gov/legislative/iac/T03270/A00150> [PDF] (<http://www.in.gov/legislative/iac/T03270/A00150.PDF>), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (<http://www.in.gov/isda/soil/contacts/map.html> (<http://www.in.gov/isda/soil/contacts/map.html>)).

Upon receipt of the construction plan, personnel of the SWCD or the Indiana Department of Environmental Management will review the plan to determine if it meets the requirements of 327 IAC 15-5. Plans that are deemed deficient will require re-submittal. If the plan is sufficient you will be notified and instructed to submit the verification to IDEM as part of the Rule 5 Notice of Intent (NOI) submittal. Once construction begins, staff of the SWCD or Indiana Department of Environmental Management will perform inspections of activities at the site for compliance with the regulation.

Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: <http://www.in.gov/idem/4900.htm> (<http://www.in.gov/idem/4900.htm>).

If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program about meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

Regardless of the size of your project, or which agency you work with to meet storm water requirements, IDEM recommends that appropriate structures and techniques be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. The use of appropriate planning and site development and appropriate storm water quality measures are recommended to prevent soil from leaving the construction site during active land disturbance and for post construction water quality concerns. Information and assistance regarding storm water related to construction activities are available from the Soil and Water Conservation District (SWCD) offices in each county or from IDEM.

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.

8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

The above-noted project should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations.

Consideration should be given to the following:

1. Regarding open burning, and disposing of organic debris generated by land clearing activities; some types of open burning are allowed (<http://www.in.gov/idem/4148.htm>) (<http://www.in.gov/idem/4148.htm>) under specific conditions. You also can seek an open burning variance from IDEM.

However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas should be minimized.

Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus *Histoplasma capsulatum*, which stems from bird or bat droppings that have accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

2. The U.S. EPA and the Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. (For a county-by-county map of predicted radon levels in Indiana, visit: <http://www.in.gov/idem/4145.htm> (<http://www.in.gov/idem/4145.htm>).

The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit:

http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf

(http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf.) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

To learn more about radon, radon risks, and ways to reduce exposure visit:

<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>

(<http://www.in.gov/isdh/regsvcs/radhealth/radon.htm>), <http://www.in.gov/idem/4145.htm>

(<http://www.in.gov/idem/4145.htm>), or <http://www.epa.gov/radon/index.html>

(<http://www.epa.gov/radon/index.html>).

3. With respect to asbestos removal: all facilities slated for renovation or demolition (except residential buildings that have (4) four or fewer dwelling units and which will not be used for commercial purposes) must be inspected by an Indiana-licensed asbestos inspector prior to the commencement of any renovation or demolition activities. If regulated asbestos-containing material (RACM) that may become airborne is found, any subsequent demolition, renovation, or asbestos removal activities must be performed in accordance with the proper notification and emission control requirements.

If no asbestos is found where a renovation activity will occur, or if the renovation involves removal of less than 260 linear feet of RACM off of pipes, less than 160 square feet of RACM off of other facility components, or less than 35 cubic feet of RACM off of all facility components, the owner or operator of the project does not need to notify IDEM before beginning the renovation activity.

For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos section at 1-888-574-8150.

However, in all cases where a demolition activity will occur (even if no asbestos is found), the owner or operator must still notify IDEM 10 working days prior to the demolition, using the form found at <http://www.in.gov/icpr/webfile/formsdiv/44593.pdf> (<http://www.in.gov/icpr/webfile/formsdiv/44593.pdf>).

Anyone submitting a renovation/demolition notification form will be billed a notification fee based upon the amount of friable asbestos containing material to be removed or demolished. Projects that involve the removal of more than 2,600 linear feet of friable asbestos containing materials on pipes, or 1,600 square feet or 400 cubic feet of friable asbestos containing material on other facility components, will be billed a fee of \$150 per project; projects below these amounts will be billed a fee of \$50 per project. All notification remitters will be billed on a quarterly basis.

For more information about IDEM policy regarding asbestos removal and disposal, visit: <http://www.in.gov/idem/4983.htm> (<http://www.in.gov/idem/4983.htm>).

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>)). New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.
7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

In order to maintain compliance with all applicable laws regarding contamination and/or proper waste disposal, IDEM recommends that:

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.

5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

FINAL REMARKS

Should you need to obtain any environmental permits in association with this proposed project, please be mindful that IC 13-15-8 requires that you notify all adjoining property owners and/or occupants within ten days your submittal of each permit application. However, if you are seeking multiple permits, you can still meet the notification requirement with a single notice if all required permit applications are submitted with the same ten day period.

Should the scope of the proposed project be expanded to the extent that a National Environmental Policy Act Environmental Assessment (EA) or Environmental Impact Statement (EIS) is required, IDEM will actively participate in any early interagency coordination review of the project.

Meanwhile, please note that this letter does not constitute a permit, license, endorsement or any other form of approval on the part of the Indiana Department of Environmental Management regarding any project for which a copy of this letter is used. Also note that is it the responsibility of the project engineer or consultant using this letter to ensure that the most current draft of this document, which is located at <http://www.in.gov/idem/5284.htm> (<http://www.in.gov/idem/5284.htm>), is used.

Signature(s) of the Applicant

I acknowledge that the following proposed roadway project will be financed in part, or in whole, by public monies.

Project Description

The Indiana Department of Transportation (INDOT) Crawfordsville District and the Federal Highway Administration (FHWA) propose to proceed with a pavement rehabilitation and bridge replacement project in Montgomery County, Indiana (Des. Number(s) 1593272 and 1701591). The project is located on State Road (SR) 59, from County Road (CR) 1150 South to SR 47, in the Town of Waveland, Montgomery County, Indiana. The current proposed project on SR 59 would extend from CR 1150 South to SR 47, for a total project length of approximately 1.0 mile. The project would include milling, resurfacing, and widening SR 59 from the beginning of the project to the Main Street and Cross Street intersection, and from north of the bridge over Little Raccoon Creek (Structure Number 059-54-05061 A) to SR 47. The first 600 feet of the project would involve widening the pavement to include the addition of 2 foot wide paved (3 feet usable) shoulders to provide lateral stability for the pavement. Drainage through this section of the project would be conveyed by open ditches and drive culverts. Approximately

300 feet along the west side of this section would receive a curb and gutter instead of an open ditch. On SR 59 (Main Street), the pavement would be widened approximately 2 feet to allow for the installation of a storm sewer system with adequate curb offset. The pavement on SR 59 will be widened approximately 8 feet in areas where there is existing gravel for on-street parking. The existing 11 foot wide travel lanes, on-street parking, curb and gutter, and adjacent sidewalk on SR 59 from the intersection of Main Street and Cross Street to the bridge over Little Racoon Creek would be replaced due to the needed grade raise at the bridge replacement, and due to the thinner existing pavement depth within the downtown area of Waveland. Curbs would be replaced within the downtown area and added to the roadway between the downtown area and the bridge to resolve the drainage problems. The current proposed project would also remove and replace Structure Number 059-54-05061 A with a three-span continuous reinforced concrete slab bridge. The new bridge would have a total length of 103 feet 6 inches and overall width of 36 feet 4 inches (approximately 4 feet wider than the existing). Riprap drainage turnouts would be added at each quadrant of the bridge. Also, riprap would be placed below the bridge along the spillslopes. The approach pavement would be widened approximately 8 feet to ensure adequate guardrail offset. The SR 47 approach would only involve milling and Hot Mix Asphalt (HMA) overlay. North of Structure Number 059-54-05061 A, the pavement would be widened to ensure adequate guardrail offset is provided as well as milling and HMA overlay. The approach to the intersection would include only milling and HMA overlay. The current proposed project would also include milling and resurfacing the existing pavement of Old SR 59, located southwest of the SR 47 and SR 59 (Cross Street) intersection. A temporary haul road would be constructed from the end of Old SR 59 to the existing bridge to provide access for bridge construction activities. Another temporary haul road would be constructed in the southwest quadrant of the bridge along the west side of SR 59 (Cross Street). Both temporary haul roads would be removed after construction activities, and the surrounding area would be restored to its previous state. Approximately 1.10 acres of permanent and 0.35 acre of temporary right-of-way would be needed. The proposed right-of-way width would be approximately 30 feet from the roadway centerline. Construction is anticipated to begin in late Winter/early Spring 2022. The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236. A pedestrian MOT plan is being developed and will be coordinated with the residents of Waveland. SR 59 is to remain open during the annual Parke County Covered Bridge Festival. Access to all properties would be maintained during construction. Refer to attached preliminary design plans.

With my signature, I do hereby affirm that I have read the letter from the Indiana Department of Environment that appears directly above. In addition, I understand that in order to complete that project in which I am interested, with a minimum of impact to the environment, I must consider all the issues addressed in the aforementioned letter, and further, that I must obtain any required permits.

Date: 5/21/2020

Signature of the INDOT

Project Engineer or Other Responsible Agent



Date: 5/21/2020

Matthew Soto

Signature of the
For Hire Consultant



Cameron Fraser

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-22301

Request Received: March 5, 2020

Requestor: RQAW Environmental
Cameron Fraser
8770 North Street, Suite 110
Fishers, IN 46038

Project: SR 59 pavement rehabilitation from CR 1150 South to SR 47, and bridge (#059-54-05061 A) replacement over Little Raccoon Creek, Waveland; Des #1593272 & 1701591

County/Site info: Montgomery

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: This proposal will require the formal approval of our agency for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the bridge exemption criteria.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity.

Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Crossing Structure:

For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the OHWM width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. Banklines should be restored within box and pipe structures to allow for wildlife passage above the ordinary highwater mark.

The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. The Division of Fish and Wildlife would like to emphasize the importance of wildlife passage issues and transportation infrastructure projects. The following is a good place to start in terms of resources to

Attachments: A - Bridge Exemption Criteria

State of Indiana
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consider in the design of stream crossing structures:
<http://www.fs.fed.us/wildlifecrossings/library/>.

The following are recommended resources for designing and constructing stream crossings for maintenance of instream habitat and aquatic organism passage:
https://www.fs.fed.us/biology/nsaec/fishxing/aop_pdfs.html;
<https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf>.

2) Bank Stabilization:

Some form of bank and/or streambed stabilization is almost always needed with the construction, repair, replacement, or modification of a stream channel or crossing structure. For streambank stabilization and erosion control, regrading to a stable slope (2:1 or shallower) and establishing native vegetation along the banks are typically the most effective techniques. A variety of methods to accomplish this include: planting plugs, whips, container stock, seeding, and live stakes. In addition to vegetation establishment, some additional level of bioengineered bank stabilization may be needed under certain circumstances (inability to regrade to a stable slope, flow velocities that exceed the limits of vegetation alone, etc.). Combining vegetation with any of the following bank stabilization methods can provide additional bank protection while not compromising benefits to fish, wildlife, and botanical resources: geotextiles (erosion control blankets and/or turf reinforcement mats that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles), vegetated geogrids or soil lifts, fiber rolls, glacial stone, or riprap. Information about bioengineering techniques can be found at <http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf>. Additionally, the following is a link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization:
<http://directives.sc.egov.usda.gov/17553.wba>.

Riprap or other hard bank stabilization materials should be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM) with the exception of areas directly under bridges for instance. The banks above the OHWM should be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. For streambed stabilization or scour protection, riprap or other stabilization materials should not be placed in the active stream channel above the existing streambed or flowline elevation unless specifically designed and installed for grade control and aquatic organism passage. This is to prevent obstructions to the movement of aquatic organisms upstream and downstream.

3) Riparian & Urban Tree Habitat:

If tree removal is needed, the Division of Fish & Wildlife recommends avoiding removing urban trees to the greatest extent possible and replacing trees that must be removed. Street trees are important to fish and wildlife resources in urban areas. Indiana's street trees also provide millions of dollars of tangible benefits to Indiana communities by their presence in the urban environment. Their shade and beauty contribute to the quality of life. They provide significant increases in real estate values, create attractive settings for commercial businesses, and improve community neighborhood appeal. Trees decrease energy consumption by providing shade and acting as windbreaks. They reduce water treatment costs and impede soil erosion by slowing the runoff of stormwater. Trees also cool the air temperature, cleanse pollutants from the air, and produce oxygen while absorbing carbon dioxide. Trees are an integral component of the urban environment. Proactively managing and maintaining a street tree population will ultimately maximize the benefits afforded by their aesthetic and ecological functions. The following links give a good overview of the benefits of a street tree program and how to select the right

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species to avoid the negative impacts of non-native invasive species such as the common and popular Bradford pear: <https://www.in.gov/dnr/forestry/3605.htm> > Community & Urban Forestry > Tree Species Lists.

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf>.

Impacts to non-wetland forest of one (1) 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. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however.

4) Street Lighting:

The need for new lighting was not mentioned in the submitted information, but could potentially be needed in certain areas. Most transportation corridor designers and municipalities are trending toward LED lighting. Certain types of LED lighting can have negative impacts on both human and wildlife health and safety. The Division of Fish and Wildlife strongly encourages visiting the International Dark-Sky Association's website to learn more about the potential negative impacts of improperly selected LED lighting systems, if applicable: <http://darksky.org/lighting/led-practical-guide/>.

5) Stormwater Management:

The Division of Fish and Wildlife recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain urban runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers flood problems from one section of the basin to another section. A more sustainable approach aims to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.), recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.), and reusing runoff for irrigation elsewhere in the basin. The following links give a good overview of traditional and sustainable stormwater management systems and their pros and cons for consideration during the design of the proposed project: <https://www.epa.gov/greeningepa/epa-facility-stormwater-management>; <https://www.epa.gov/greeningepa/stormwater-management-practices-epa-facilities>.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing

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of trees and brush.

3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds or causeways.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. Minimize the movement of resuspended bottom sediment from the immediate project area.
10. Do not deposit or allow demolition/construction materials or debris to fall or otherwise enter the waterway.
11. 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.
12. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Date: April 3, 2020

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Cameron Fraser

From: Courtade, Julian <JCourtade@indot.IN.gov>
Sent: Monday, March 9, 2020 8:14 AM
To: Cameron Fraser
Subject: RE: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Cameron –

I reviewed the Early Coordination Letter and found no issues with surrounding airspace or airports. This is due to the project meeting the required glideslope requirements to the nearest public-use facility. Please let me know if you have any questions!

Thanks,

Julian L. Courtade
Chief Airport Inspector
INDOT, Office of Aviation
IGCN Room N955
100 North Senate Avenue
Indianapolis, IN 46204
Office: (317) 232-1477
Email: jcourtade@indot.in.gov



From: Cameron Fraser <cfraser@rqaw.com>
Sent: Thursday, March 5, 2020 4:26 PM
To: Courtade, Julian <JCourtade@indot.IN.gov>
Subject: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

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

Chief Airport Inspector,

Attached, please find an early coordination letter and appendices regarding the above project. These materials are for your records, review, and comment for the environmental document.

Thank you,
Cameron

March 17, 2020

Cameron Fraser
RQAW Corporation
8770 North Street, Suite 110
Fishers, Indiana 46038

Dear Mr. Fraser:

The proposed project to rehabilitate the pavement along State Road 59 from County Road 1150 South to State Road 47 and make bridge improvements in Montgomery County, Indiana (Des No. 1593272 and 1701591), as referred to in your letter received on March 5, 2020, will not cause a conversion of prime farmland.

If you need additional information, please contact John Allen at 317-295-5859.

Sincerely,

**RICHARD
NEILSON**

JERRY RAYNOR
State Conservationist

Digitally signed by
RICHARD NEILSON
Date: 2020.03.20
06:51:21 -04'00'

Acting For





Organization and Project Information

Project ID:
Des. ID: 1593272 and 1701591
Project Title: State Road 59 Pavement Rehabilitation and Bridge Project
Name of Organization: RQAW
Requested by: Cameron Fraser

Environmental Assessment Report

1. Geological Hazards:
 - Moderate liquefaction potential
2. Mineral Resources:
 - Bedrock Resource: High Potential
 - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
 - None documented in the area

*All map layers from Indiana Map (maps.indiana.edu)

DISCLAIMER:

This document was compiled by Indiana University, Indiana Geological Survey, using data believed to be accurate; however, a degree of error is inherent in all data. This product is distributed "AS-IS" without warranties of any kind, either expressed or implied, including but not limited to warranties of suitability to a particular purpose or use. No attempt has been made in either the design or production of these data and document to define the limits or jurisdiction of any federal, state, or local government. The data used to assemble this document are intended for use only at the published scale of the source data or smaller (see the metadata links below) and are for reference purposes only. They are not to be construed as a legal document or survey instrument. A detailed on-the-ground survey and historical analysis of a single site may differ from these data and this document.

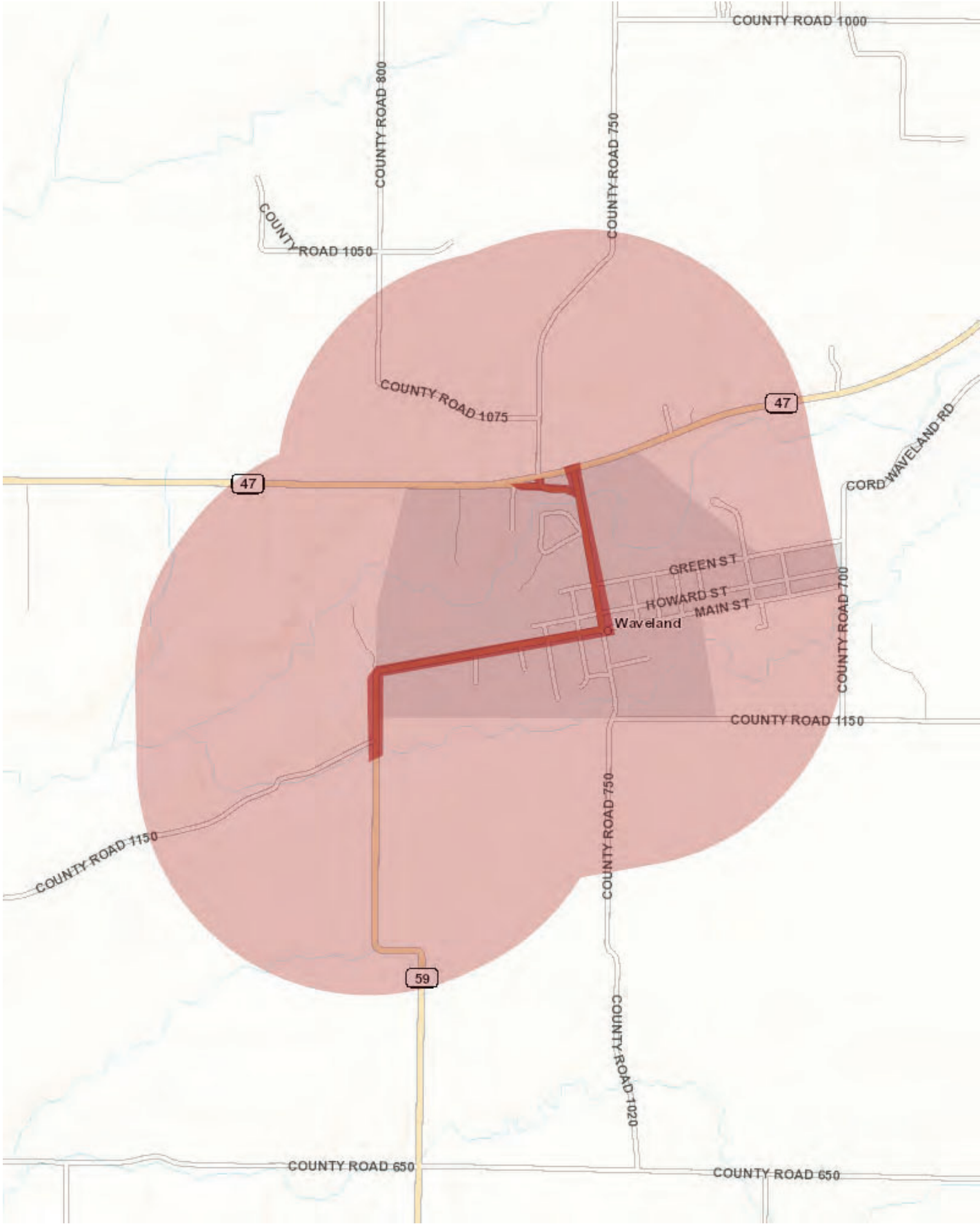
This information was furnished by Indiana Geological Survey

Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: March 05, 2020



Metadata:

- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

Cameron Fraser

From: Washburn, Eric CIV <Eric.Washburn@uscg.mil>
Sent: Thursday, March 12, 2020 1:20 PM
To: Cameron Fraser
Cc: Heck, Sara R
Subject: Designation #'s' 1593272 & 1701591

Good afternoon. Rec'd your 5 Mar 20 letter....no role for the Coast Guard.

Thanks.

Respectfully,

Eric Washburn
USCG Bridge Supervisor, Western Rivers
STL
314-269-2378

Cameron Fraser

From: Cameron Fraser
Sent: Thursday, May 14, 2020 4:32 PM
To: Troy Phillips
Subject: RE: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Hi Troy,

Thank you for getting back to me! Based on your email, it seems that Waveland Strong is a privately run not-for-profit group that *owns and maintains* the parcel of land containing the Veteran War Memorial. If this is correct, no need to respond; however, if this information is not correct, please let me know so that I can make sure it is incorporated into the environmental document accurately.

Kind Regards,

Cameron Fraser

NEPA Specialist

O: 317.588.1768

www.rqaw.com

From: Troy Phillips <troyphillips75@gmail.com>
Sent: Thursday, May 14, 2020 10:56 AM
To: Cameron Fraser <cfraser@rqaw.com>
Subject: Re: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Cameron,

The Brown Township Improvement Committee has changed to Waveland Strong. It was a group established March of 2016 as a not for profit. Waveland Strong has been doing improvements to the property and getting the work done for the veterans. We have a separate bank account for the memorial for funds and donations we receive. Since you mentioned the property is under the improvement committee that is something we need to look at and address and didn't realize.

Let me know if that helps or if you have any other questions.

Thanks,
Troy

Sent from my iPhone

On May 13, 2020, at 5:10 PM, Cameron Fraser <cfraser@rqaw.com> wrote:

Hello Mr. Phillips,

I just wanted to follow up with you regarding the previously sent Early Coordination Letter (March 5, 2020). The reason you are received this letter is because of your involvement with the Waveland Veterans Memorial property, which is located adjacent to the west of the project area. Currently it appears the property is owned by the Brown Township Improvement Committee. I would like to contact the current property owner and/or board members for the Brown Township Improvement

Committee, if possible. Can you please confirm whether you are a member of the Brown Township Improvement Committee and/or an appropriate contact for the Waveland Veterans Memorial property? If not, do you know who I can contact? Also, I would like to verify whether the Waveland Veterans Memorial property is privately owned or publicly owned. Any information you can provide would be greatly appreciated. Please let me know if you have any questions or concerns.

Thank you,

Cameron Fraser

NEPA Specialist

O: 317.588.1768

www.rqaw.com

From: Cameron Fraser

Sent: Thursday, March 5, 2020 4:33 PM

To: troyphillips75@gmail.com

Subject: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Troy Phillips,

Attached, please find an early coordination letter and appendices regarding the above project. These materials are for your records, review, and comment for the environmental document.

Thank you,

Cameron

<image001.png>

Cameron Fraser

NEPA Specialist

8770 North St., Ste. 110

Fishers, IN 46038

O: 317.588.1768

www.rqaw.com

<image003.png>

<image005.png>

<image007.png>

<image009.png>

<image010.png>

Cameron Fraser

From: McMullen, Kenneth B <KMcmullen@indot.IN.gov>
Sent: Monday, May 20, 2019 11:42 AM
To: Cameron Fraser
Subject: RE: USFWS Database Check for the SR 59 Road Rehabilitation Project located in Montgomery County (DES 1593272)

Cameron,

Des 1593272, based on the information provided, review of the USFWS database DID NOT indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Site specific MYSO and/or MYSE hibernacula, capture, or roost tree location data (e.g., geographic coordinates, GIS shapefiles or maps) will not be shared, distributed, or published without prior written consent from USFWS Bloomington Field Office. This is confidential information that can be used to update your IPaC questionnaire, but this information cannot be shared or distributed or placed within any documents.

Respectfully,

Ken McMullen, MELP, CHMM

District Environmental Section Manager/Project Manager

41 West 300 North
Crawfordsville, IN 47933

Office: (765) 361-5620

Cell: (765) 427-6521

Email: KMcmullen@indot.in.gov



From: Cameron Fraser [<mailto:cfraser@rqaw.com>]
Sent: Tuesday, May 14, 2019 11:14 AM
To: McMullen, Kenneth B <KMcmullen@indot.IN.gov>
Subject: USFWS Database Check for the SR 59 Road Rehabilitation Project located in Montgomery County (DES 1593272)

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

Good Morning Ken,

Attached, please find a topographic and a Red Flag Investigation aerial map showing the project location for a Road Rehabilitation/Bridge replacement project on SR 59 in Montgomery County, Indiana (DES 1593272). We appreciate INDOT's review of the GIS layers for the Indiana and northern long-eared bat as well as the Indiana Natural Heritage database. Please let me know if you need additional information.

Thank you,

Cameron Fraser

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Thursday, March 12, 2020 6:19 PM
To: Cameron Fraser
Subject: Re: Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Dear Mr. Fraser,

This responds to your recent letter requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (i.e. a federal transportation nexus is established). The Service has 14 days after the "Not Likely to Adversely Affect" determination letter is generated. We will review that information once it is received; if you do not receive a response within 14 days, we have no additional comments.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objection to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinitiate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,
Robin McWilliams Munson

Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.
3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. 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 shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.
7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing

Robin McWilliams Munson
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 46142
812-334-4261

Mon-Tues 8-3:30p
Wed-Thurs 8:30-3p Telework

From: Cameron Fraser <cfraser@rqaw.com>
Sent: Thursday, March 5, 2020 4:29 PM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Subject: [EXTERNAL] Agency Early Coordination Letter for the SR 59 Waveland Projects (DES 1593272 and 1701591)

Field Supervisor,

Attached, please find an early coordination letter and appendices regarding the above project. These materials are for your records, review, and comment for the environmental document.

Thank you,
Cameron



Cameron Fraser
NEPA Specialist
8770 North St., Ste. 110
Fishers, IN 46038
O: 317.588.1768
www.rqaw.com

*Best Places to Work in Indiana, 2018 & 2019
Indy Star's Top Workplaces, 2019*



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

February 19, 2020

Consultation Code: 03E12000-2020-SLI-0865

Event Code: 03E12000-2020-E-03940

Project Name: SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0865

Event Code: 03E12000-2020-E-03940

Project Name: SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)

Project Type: TRANSPORTATION

Project Description: The project limits on SR 59 begin approximately 1.0 mile south of the intersection with SR 47, at CR 1150 South, and extend north to SR 47. Specifically, the project is located in Brown Township, Bellmore and Alamo U.S. Geological Survey (USGS) Quadrangles, Township 17 North, Range 6 West, Sections 25, 35, and 36.

The proposed road rehabilitation project (Des. No. 1593272) will involve milling and resurfacing the existing pavement, replacing curbs and storm sewer drain inlets, installing new storm sewer trunk lines along SR 59 (Main St.), regrading existing drainage ditches, and replacing existing sidewalks and curb ramps, as needed, to comply with Americans with Disabilities Act (ADA) standards. The existing roadway will be widened from the beginning of the project to the SR 59 (Main St) and SR 59 (Cross St) intersection (0.64 mile), and from north of the bridge over Little Racoon Creek to SR 47 (0.05 mile); however, the approach to the SR 59 and SR 47 intersection will only require milling and overlay. Drainage through the first 600 feet of the project will be conveyed by open ditches and drive culverts.

All work will take place within 50 feet of the existing roadway surface. Approximately 0.95 acre(s) of permanent and 0.35 acre(s) of temporary right-of-way will be needed for this project. The maximum depth of excavation is not expected to exceed 12 feet below ground surface (bgs). The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236 to reroute traffic during construction activities. SR 59 is to remain open during the Parke County Covered Bridge Festival. Access to all properties would be maintained during construction.

Suitable summer habitat is located adjacent to the project area. Approximately 0.13 acres of tree clearing will be required along east side of SR 59, at the southern project area terminus. Approximately 10 trees in various locations along the project area will be cleared. The Dominant tree species to be cleared is silver maple. Tree clearing is expected to take

place during February/March of 2022.

A review of the USFWS Database by INDOT Crawfordsville District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Temporary lighting will be utilized during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in late Winter/early Spring 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.87704644816705N87.04463828292617W>



Counties: Montgomery, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none">▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

February 19, 2020

Consultation Code: 03E12000-2020-SLI-0866

Event Code: 03E12000-2020-E-03942

Project Name: SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The attached species list identifies any federally threatened, endangered, proposed and candidate species that may occur within the boundary of your proposed project or may be affected by your proposed project. The list also includes designated critical habitat if present within your proposed project area or affected by your project. This list is provided to you as the initial step of the consultation process required under section 7(c) of the Endangered Species Act, also referred to as Section 7 Consultation.

Section 7 of the Endangered Species Act of 1973 requires that actions authorized, funded, or carried out by Federal agencies not jeopardize federally threatened or endangered species or adversely modify designated critical habitat. To fulfill this mandate, Federal agencies (or their designated non-federal representative) must consult with the Service if they determine their project “may affect” listed species or critical habitat.

Under 50 CFR 402.12(e) (the regulations that implement Section 7 of the Endangered Species Act) the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally. You may verify the list by visiting the ECOS-IPaC website <http://ecos.fws.gov/ipac/> at regular intervals during project planning and implementation and completing the same process you used to receive the attached list. As an alternative, you may contact this Ecological Services Field Office for updates.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process.

For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

Although no longer protected under the Endangered Species Act, be aware that bald eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*) and Migratory Bird Treaty Act (16 U.S.C. 703 *et seq.*), as are golden eagles. Projects affecting these species may require measures to avoid harming eagles or may require a permit. If your project is near an eagle nest or winter roost area, see our Eagle Permits website at <http://www.fws.gov/midwest/midwestbird/EaglePermits/index.html> to help you determine if you can avoid impacting eagles or if a permit may be necessary.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

Project Summary

Consultation Code: 03E12000-2020-SLI-0866

Event Code: 03E12000-2020-E-03942

Project Name: SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)

Project Type: TRANSPORTATION

Project Description: The project is located on SR 59, approximately 0.07 mile south of SR 47. Specifically, the project is located in Brown Township, Section 36, Township 17 North, Range 6 West.

The proposed bridge replacement project (Des. No. 1701591) includes replacement of the existing bridge over Little Raccoon Creek (Structure No. 059-54-05061 A), which is located near the northern limits of the project. The new bridge will be a three (3) span continuous reinforced concrete slab bridge with a length of 103 feet 6 inches and width of 36 feet 4 inches.

All work will take place within 50 feet of the existing roadway surface. Approximately 0.15 acre(s) of permanent right-of-way will be needed for this project. No temporary right-of-way will be needed for this project. The maximum depth of excavation is not expected to exceed 12 feet below ground surface (bgs). The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236 to reroute traffic during construction activities. SR 59 is to remain open during the Parke County Covered Bridge Festival. Access to all properties would be maintained during construction.

Suitable summer habitat is located adjacent to the project area. Approximately 0.17 acre of tree clearing around the existing bridge will be required for the replacement work. The Dominant tree species to be cleared is silver maple. Tree clearing is expected to take place during February/March of 2022.

A review of the USFWS Database by INDOT Crawfordsville District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The structure (059-54-05061 A) was inspected for the evidence of bats during the field visit conducted on June 26, 2019 by RQAW and no evidence of bats were observed. Per the Culvert Inspection Report, completed by INDOT on November 14, 2019, no evidence of bats was seen or heard in the culvert. Temporary lighting will be utilized

during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in late Winter/early Spring 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/39.88098414084488N87.04561456058613W>



Counties: Montgomery, IN

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

Phone: (812) 334-4261 Fax: (812) 334-4273

<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

February 20, 2020

Consultation Code: 03E12000-2020-I-0865

Event Code: 03E12000-2020-E-03960

Project Name: SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)

Subject: Concurrence verification letter for the 'SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

SR 59 Road Rehabilitation Project in Montgomery County (DES 1593272)

Description

The project limits on SR 59 begin approximately 1.0 mile south of the intersection with SR 47, at CR 1150 South, and extend north to SR 47. Specifically, the project is located in Brown Township, Bellmore and Alamo U.S. Geological Survey (USGS) Quadrangles, Township 17 North, Range 6 West, Sections 25, 35, and 36.

The proposed road rehabilitation project (Des. No. 1593272) will involve milling and resurfacing the existing pavement, replacing curbs and storm sewer drain inlets, installing new storm sewer trunk lines along SR 59 (Main St.), regrading existing drainage ditches, and replacing existing sidewalks and curb ramps, as needed, to comply with Americans with Disabilities Act (ADA) standards. The existing roadway will be widened from the beginning of the project to the SR 59 (Main St) and SR 59 (Cross St) intersection (0.64 mile), and from north of the bridge over Little Racoon Creek to SR 47 (0.05 mile); however, the approach to the SR 59 and SR 47 intersection will only require milling and overlay. Drainage through the first 600 feet of the project will be conveyed by open ditches and drive culverts.

All work will take place within 50 feet of the existing roadway surface. Approximately 0.95 acre(s) of permanent and 0.35 acre(s) of temporary right-of-way will be needed for this project. The maximum depth of excavation is not expected to exceed 12 feet below ground surface (bgs). The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236 to reroute traffic during construction activities. SR 59 is to remain open during the Parke County Covered Bridge Festival. Access to all properties would be maintained during construction.

Suitable summer habitat is located adjacent to the project area. Approximately 0.13 acres of tree clearing will be required along east side of SR 59, at the southern project area terminus. Approximately 10 trees in various locations along the project area will be cleared. The Dominant tree species to be cleared is silver maple. Tree clearing is expected to take place during February/March of 2022.

A review of the USFWS Database by INDOT Crawfordsville District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. Temporary lighting may be utilized during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in late Winter/early Spring 2022.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

No

20. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

21. Are *all* trees that are being removed clearly demarcated?

Yes

22. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?
No
23. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?
No
24. Does the project include slash pile burning?
No
25. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?
No
26. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)
No
27. Will the project involve the use of **temporary** lighting *during* the active season?
Yes
28. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?
Yes
29. Will the project install new or replace existing **permanent** lighting?
No
30. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?
No

31. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

32. Will the project raise the road profile **above the tree canopy**?

No

33. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

34. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

35. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

36. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

37. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

38. **Tree Removal AMM 3**

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

39. **Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

Yes

40. **Lighting AMM 1**

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

No

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

1.03

Avoidance And Minimization Measures (AMMs)

This determination key result includes the commitment to implement the following Avoidance and Minimization Measures (AMMs):

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

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<http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html>

In Reply Refer To:

February 20, 2020

Consultation Code: 03E12000-2020-I-0866

Event Code: 03E12000-2020-E-03957

Project Name: SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)

Subject: Concurrence verification letter for the 'SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*).

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

For Proposed Actions that include bridge/structure removal, replacement, and/or maintenance activities: If your initial bridge/structure assessments failed to detect Indiana bats, but you later detect bats during construction, please submit the Post Assessment Discovery of Bats at Bridge/Structure Form (User Guide Appendix E) to this Service Office. In these instances, potential incidental take of Indiana bats may be exempted provided that the take is reported to the Service.

If the Proposed Action is modified, or new information reveals that it may affect the Indiana bat and/or Northern long-eared bat in a manner or to an extent not considered in the PBO, further review to conclude the requirements of ESA Section 7(a)(2) may be required. If the Proposed Action may affect any other federally-listed or proposed species, and/or any designated critical habitat, additional consultation between the lead Federal action agency and this Service Office is required. If the proposed action has the potential to take bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act may also be required. In either of these circumstances, please contact this Service Office.

Project Description

The following project name and description was collected in IPaC as part of the endangered species review process.

Name

SR 59 Bridge Replacement Project in Montgomery County (DES 1701591)

Description

The project is located on SR 59, approximately 0.07 mile south of SR 47. Specifically, the project is located in Brown Township, Section 36, Township 17 North, Range 6 West.

The proposed bridge replacement project (Des. No. 1701591) includes replacement of the existing bridge over Little Raccoon Creek (Structure No. 059-54-05061 A), which is located near the northern limits of the project. The new bridge will be a three (3) span continuous reinforced concrete slab bridge with a length of 103 feet 6 inches and width of 36 feet 4 inches.

All work will take place within 50 feet of the existing roadway surface. Approximately 0.15 acre(s) of permanent right-of-way will be needed for this project. No temporary right-of-way will be needed for this project. The maximum depth of excavation is not expected to exceed 12 feet below ground surface (bgs). The maintenance of traffic (MOT) would involve a detour utilizing SR 234, SR 231, and SR 236 to reroute traffic during construction activities. SR 59 is to remain open during the Parke County Covered Bridge Festival. Access to all properties would be maintained during construction.

Suitable summer habitat is located adjacent to the project area. Approximately 0.17 acre of tree clearing around the existing bridge will be required for the replacement work. The Dominant tree species to be cleared is silver maple. Tree clearing is expected to take place during February/March of 2022.

A review of the USFWS Database by INDOT Crawfordsville District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The structure (059-54-05061 A) was inspected for the evidence of bats during the field visit conducted on June 26, 2019 by RQAW and no evidence of bats were observed. Per the Culvert Inspection Report, completed by INDOT on November 14, 2019, no evidence of bats was seen or heard in the culvert. Temporary lighting may be utilized during construction. The project will not involve the replacement or installation of permanent lighting. Construction is anticipated to begin in late Winter/early Spring 2022.

Determination Key Result

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the threatened Northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

Qualification Interview

1. Is the project within the range of the Indiana bat^[1]?

[1] See [Indiana bat species profile](#)

Automatically answered

Yes

2. Is the project within the range of the Northern long-eared bat^[1]?

[1] See [Northern long-eared bat species profile](#)

Automatically answered

Yes

3. Which Federal Agency is the lead for the action?

A) Federal Highway Administration (FHWA)

4. Are *all* project activities limited to non-construction^[1] activities only? (examples of non-construction activities include: bridge/abandoned structure assessments, surveys, planning and technical studies, property inspections, and property sales)

[1] Construction refers to activities involving ground disturbance, percussive noise, and/or lighting.

No

5. Does the project include *any* activities that are **greater than** 300 feet from existing road/rail surfaces^[1]?

[1] Road surface is defined as the actively used [e.g. motorized vehicles] driving surface and shoulders [may be pavement, gravel, etc.] and rail surface is defined as the edge of the actively used rail ballast.

No

6. Does the project include *any* activities **within** 0.5 miles of a known Indiana bat and/or NLEB hibernaculum^[1]?

[1] For the purpose of this consultation, a hibernaculum is a site, most often a cave or mine, where bats hibernate during the winter (see suitable habitat), but could also include bridges and structures if bats are found to be hibernating there during the winter.

No

7. Is the project located **within** a karst area?

No

8. Is there *any* suitable^[1] summer habitat for Indiana Bat or NLEB **within** the project action area^[2]? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the [national consultation FAQs](#).

Yes

9. Will the project remove *any* suitable summer habitat^[1] and/or remove/trim any existing trees **within** suitable summer habitat?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

10. Will the project clear more than 20 acres of suitable habitat per 5-mile section of road/rail?

No

11. Have presence/probable absence (P/A) summer surveys^{[1][2]} been conducted^{[3][4]} **within** the suitable habitat located within your project action area?

[1] See the Service's [summer survey guidance](#) for our current definitions of suitable habitat.

[2] Presence/probable absence summer surveys conducted within the fall swarming/spring emergence home range of a documented Indiana bat hibernaculum (contact local Service Field Office for appropriate distance from hibernacula) that result in a negative finding requires additional consultation with the local Service Field Office to determine if clearing of forested habitat is appropriate and/or if seasonal clearing restrictions are needed to avoid and minimize potential adverse effects on fall swarming and spring emerging Indiana bats.

[3] For projects within the range of either the Indiana bat or NLEB in which suitable habitat is present, and no bat surveys have been conducted, the transportation agency will assume presence of the appropriate species. This assumption of presence should be based upon the presence of suitable habitat and the capability of bats to occupy it because of their mobility.

[4] Negative presence/probable absence survey results obtained using the [summer survey guidance](#) are valid for a minimum of two years from the completion of the survey unless new information (e.g., other nearby surveys) suggest otherwise.

No

12. Does the project include activities **within documented Indiana bat habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry triangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

13. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors?

Yes

14. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented Indiana bat** roosting/foraging habitat or travel corridors occur^[1]?

[1] Coordinate with the local Service Field Office for appropriate dates.

B) During the inactive season

15. Does the project include activities **within documented NLEB habitat**^{[1][2]}?

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

[2] For the purposes of this key, we are considering documented corridors as that where Indiana bats and/or NLEB have actually been captured and tracked to using (1) radio telemetry; or (2) treed corridors located directly between documented roosting and foraging habitat.

No

16. Will the removal or trimming of habitat or trees occur **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors?

Yes

17. What time of year will the removal or trimming of habitat or trees **within** suitable but **undocumented NLEB** roosting/foraging habitat or travel corridors occur?

B) During the inactive season

18. Will *any* tree trimming or removal occur **within** 100 feet of existing road/rail surfaces?

Yes

19. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

No

20. Will *any* tree trimming or removal occur **between** 100-300 feet of existing road/rail surfaces?

No

21. Are *all* trees that are being removed clearly demarcated?

Yes

22. Will the removal of habitat or the removal/trimming of trees include installing new or replacing existing **permanent** lighting?

No

23. Does the project include wetland or stream protection activities associated with compensatory wetland mitigation?

No

24. Does the project include slash pile burning?

No

25. Does the project include *any* bridge removal, replacement, and/or maintenance activities (e.g., any bridge repair, retrofit, maintenance, and/or rehabilitation work)?

Yes

26. Is there *any* suitable habitat^[1] for Indiana bat or NLEB **within** 1,000 feet of the bridge? (includes any trees suitable for maternity, roosting, foraging, or travelling habitat)

[1] See the Service's current [summer survey guidance](#) for our current definitions of suitable habitat.

Yes

27. Has a bridge assessment^[1] been conducted **within** the last 24 months^[2] to determine if the bridge is being used by bats?

[1] See [User Guide Appendix D](#) for bridge/structure assessment guidance

[2] Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges that meet the physical characteristics described in the Programmatic Consultation, regardless of whether assessments have been conducted in the past. Due to the transitory nature of bat use, a negative result in one year does not guarantee that bats will not use that bridge/structure in subsequent years.

Yes

SUBMITTED DOCUMENTS

- *Bridge-Structure Assessment Form_SR 59 Waveland DES 1593272 and 1701591.pdf* <https://ecos.fws.gov/ipac/project/SQGY3FZTLRGKFH7Z4X33JAM6KM/projectDocuments/20382033>
- *Bridge-Structure Assessment Form_SR 59 Waveland DES 1701591.pdf* <https://ecos.fws.gov/ipac/project/SQGY3FZTLRGKFH7Z4X33JAM6KM/projectDocuments/20382039>
- *Bridge-Structure Assessment Form_SR 59 Waveland DES 1701591.pdf* <https://ecos.fws.gov/ipac/project/SQGY3FZTLRGKFH7Z4X33JAM6KM/projectDocuments/20382040>

28. Did the bridge assessment detect *any* signs of Indiana bats and/or NLEBs roosting in/under the bridge (bats, guano, etc.)^[1]?

[1] If bridge assessment detects signs of *any* species of bats, coordination with the local FWS office is needed to identify potential threatened or endangered bat species. Additional studies may be undertaken to try to identify which bat species may be utilizing the bridge prior to allowing *any* work to proceed.

Note: There is a small chance bridge assessments for bat occupancy do not detect bats. Should a small number of bats be observed roosting on a bridge just prior to or during construction, such that take is likely to occur or does occur in the form of harassment, injury or death, the PBO requires the action agency to report the take. Report all unanticipated take within 2 working days of the incident to the USFWS. Construction activities may continue without delay provided the take is reported to the USFWS and is limited to 5 bats per project.

No

29. Will the bridge removal, replacement, and/or maintenance activities include installing new or replacing existing **permanent** lighting?

No

30. Does the project include the removal, replacement, and/or maintenance of *any* structure other than a bridge? (e.g., rest areas, offices, sheds, outbuildings, barns, parking garages, etc.)

No

31. Will the project involve the use of **temporary** lighting *during* the active season?

Yes

32. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **temporary** lighting will be used?

Yes

33. Will the project install new or replace existing **permanent** lighting?

No

34. Does the project include percussives or other activities (**not including tree removal/trimming or bridge/structure work**) that will increase noise levels above existing traffic/background levels?

No

35. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

Yes

36. Will the project raise the road profile **above the tree canopy**?

No

37. Are the project activities that are not associated with habitat removal, tree removal/trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives consistent with a No Effect determination in this key?

Automatically answered

Yes, other project activities are limited to actions that DO NOT cause any additional stressors to the bat species as described in the BA/BO

38. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the Indiana bat's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

39. Is the habitat removal portion of this project consistent with a Not Likely to Adversely Affect determination in this key?

Automatically answered

Yes, because the tree removal/trimming that occurs outside of the NLEB's active season occurs greater than 0.5 miles from the nearest hibernaculum, is less than 100 feet from the existing road/rail surface, includes clear demarcation of the trees that are to be removed, and does not alter documented roosts and/or surrounding summer habitat within 0.25 miles of a documented roost.

40. Is the bridge removal, replacement, or maintenance activities portion of this project consistent with a No Effect determination in this key?

Automatically answered

Yes, because the bridge has been assessed using the criteria documented in the BA and no signs of bats were detected

41. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

42. **Tree Removal AMM 1**

Can *all* phases/aspects of the project (e.g., temporary work areas, alignments) be modified, to the extent practicable, to avoid tree removal^[1] in excess of what is required to implement the project safely?

Note: Tree Removal AMM 1 is a minimization measure, the full implementation of which may not always be practicable. Projects may still be NLAA as long as Tree Removal AMMs 2, 3, and 4 are implemented and LAA as long as Tree Removal AMMs 3, 5, 6, and 7 are implemented.

[1] The word “trees” as used in the AMMs refers to trees that are suitable habitat for each species within their range. See the USFWS’ current summer survey guidance for our latest definitions of suitable habitat.

Yes

43. **Tree Removal AMM 3**

Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

44. **Tree Removal AMM 4**

Can the project avoid cutting down/removal of *all* (1) **documented**^[1] Indiana bat or NLEB roosts^[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

[1] The word documented means habitat where bats have actually been captured and/or tracked.

[2] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry biangulation/triangulation to estimate foraging areas; or (3) foraging areas with repeated use documented using acoustics. Documented roosting habitat is also considered as suitable summer habitat within 0.25 miles of documented roosts.)

Yes

45. **Lighting AMM 1**

Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

1. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

Yes

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

No

3. How many acres^[1] of trees are proposed for removal between 0-100 feet of the existing road/rail surface?

[1] If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.17

4. Please describe the proposed bridge work:

The proposed bridge replacement project (Des. No. 1701591) includes replacement of the existing bridge over Little Raccoon Creek (Structure No. 059-54-05061 A), which is located near the northern limits of the project. The new bridge will be a three (3) span continuous reinforced concrete slab bridge with a length of 103 feet 6 inches and width of 36 feet 4 inches.

5. Please state the timing of all proposed bridge work:

Late Winter/early Spring of 2022

6. Please enter the date of the bridge assessment:

June 26, 2019

Avoidance And Minimization Measures (AMMs)

This determination key result includes the committment to implement the following Avoidance and Minimization Measures (AMMs):

GENERAL AMM 1

Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs.

LIGHTING AMM 1

Direct temporary lighting away from suitable habitat during the active season.

TREE REMOVAL AMM 1

Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal.

TREE REMOVAL AMM 2

Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/rail surface and **outside of documented** roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed.

TREE REMOVAL AMM 3

Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

TREE REMOVAL AMM 4

Do not remove **documented** Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or **documented** foraging habitat any time of year.

Determination Key Description: FHWA, FRA, FTA Programmatic Consultation For Transportation Projects Affecting NLEB Or Indiana Bat

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

This decision key is intended for projects/activities funded or authorized by the Federal Highway Administration (FHWA), Federal Railroad Administration (FRA), and/or Federal Transit Administration (FTA), which may require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's [February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects](#). The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.