FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	Olio Road/ Hamilton County
Designation Number(s):	2101733
Project Description/Termini:	Added Travel Lanes/ From 146th Street to 156th Street along Olio Road

	Categorical Exclusion, Level 2 – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
X	**Categorical Exclusion, Level 4** – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

N/A
INDOT DE Initials and Date

ADWP February 13, 2025
INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date:

Name and Organization of CE/EA Preparer: Samantha Beaupre/Lochmueller Group, Inc.

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

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.**

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

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

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

Notice of Entry letters were mailed to potentially affected property owners near the project area on August 18, 2022, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, G1 to G2.

Section 106

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Adverse Effect" was published in the *Hamilton County Recorder* on November 25, 2024 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 December 24, 2024. The text of the public notice and the affidavit of publication appear in Appendix D, D125 to D126. No comments or responses were received.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments 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

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

At this time, 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: City of Noblesville INDOT District: Greenfield

Local Name of the Facility: Olio Road

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

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

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need:

The need for the project stems from inadequate capacity for the projected vehicular demand along Olio Road between 146th and 156th Street, including Bridge #29-00170. Several developments are proposed along this segment of Olio Road. The Finch Creek Development is planned west of Olio Road and north of 156th Street. This development will consist of 1,300 single-family homes and 600 apartment units on 605 acres. Another development, Gatewood Lakes, is planned on the east side of Olio Road. This development will consist of 500 townhomes, 400 active adult homes (age 55 and over independent living), and 2,200 to 2,400 single-family homes on approximately 1,100 acres. Additionally, the Noblesville Event Center is currently under construction at 14157 CJ Way, Noblesville, IN 46060 on East 141st Street, between Interstate (I)-69 and Olio Road, 0.5 mile southeast of the project area. The Noblesville Event Center is a 3,400 seat multi-purpose facility that will open in Summer 2025 and is the home of the Indiana Pacers G League (https://www.visithamiltoncounty.com/sports-authority/facilities/noblesville-event-center/). The arena is expected to have 1,000 parking spaces. The event center is part of the planned Innovation Mile, a business and technology hub planned southeast of the project area (https://www.noblesville.in.gov/egov/documents/1695929917_83341.pdf).

According to the *Olio Road Project Existing and No Build Traffic Operations Memo* developed in January 2024, this segment of Olio Road will experience capacity issues by 2045 due to the aforementioned developments along and adjacent to this segment of Olio Road (Appendix I, I164 to I176). Capacity of a roadway is commonly reported as a level of service (LOS) from A ("free flow") to F ("oversaturated"). LOS C is commonly used for design purposes and represents a roadway with volumes utilizing 70 to 80 percent of its capacity. LOS D ("at capacity") is typically considered acceptable for peak period conditions in urban and suburban areas. This portion of Olio Road is currently operating at an LOS B in the AM and PM peak hour. Development of the area is anticipated to decrease the LOS from a B to an E ("saturated") by 2045.

The need is also due to the insufficient geometric design for a major collector roadway. Presently, Olio Road between 146th Street and 156th Street (including Bridge #29-00170), which is partially within the urban area boundary of Noblesville, consists of two 10-foot-wide travel lanes with 0 to 2-foot-wide aggregate shoulders. Additionally, the Indianapolis Metropolitan Planning Organization (IMPO) Traffic Count Map for this section of Olio Road estimated in 2025 an average daily traffic (ADT) volume of 4,300. Given these parameters, and per Figure 53-8 of the Indiana Design Manual (IDM), the desired geometric design for an urban major collector is 12-foot-wide lanes (11-foot-wide minimum) with an 8-foot-wide paved shoulder or 2-foot-wide curb (Appendix I, I93 to I96). This section of Olio Road (including Bridge #29-00170) fails to meet the minimum geometric design requirements for this classification of a roadway.

The need for the project also stems from the crashes experienced at the intersection of Olio Road and 156th Street. According to the *Road Safety Assessment Report* developed in September of 2024, the crashes experienced at the intersection between years 2021 through 2023 is roughly 2 standard deviations higher than expected at this intersection based on the roadway classifications, type of intersection, traffic volumes, and number of crashes resulting in severe injuries (Appendix I, I97 to I163). A majority of the crashes at the intersection of Olio Road and 156th Street were right angle crashes. There were 6 right angle crashes that occurred at the intersection and 3 of them resulted in incapacitating injuries.

Purpose:

The purpose of the project is to address the inadequate capacity within the Olio Road corridor between 146th Street and 156th Street, including Bridge #29-00170, and obtain a minimum acceptable LOS of D for this portion of Olio Road and an LOS of D for the 156th and Olio Road intersection during the design year of 2045. Additionally, the purpose is to reduce the opportunity for right-angle crashes, the most severe crashes, at the 156th Street and Olio Road intersection and to have this segment of Olio Road meet current geometric design standards for a major collector roadway.

County Hamilton Route Olio Road Des. No. 2101733

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Hamilton Municipality: Noblesville

Limits of Proposed Work: Olio Road, 146th Street to 156th Street

Total Work Length: 1.11 Mile(s) Total Work Area: 49.33 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		X
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date: N/A	

[1]*If an IAD is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IAD.*

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

The City of Noblesville, with funding from the Federal Highway Administration (FHWA), intends to proceed with an added travel lane project along Olio Road, from 146th Street to the southern end of Bridge #29-00170 (over Sand Creek). The City of Noblesville also intends to proceed with the replacement of Bridge #29-00170 and an intersection improvement from the northern end of Bridge #29-00170 to 156th Street.

Location:
The project is located in Sections 11, 12, 13, and 14, Township 18 North, Range 5 East; in Wayne Township as depicted on the Riverwood and McCordsville Quadrangles U. S. Geological Survey 1:24,000 scale quadrangle (Appendix B, B2).

Existing Conditions:
Olio Road is functionally classified as a major collector roadway. The typical cross section of Olio Road within the project area is two 10-foot-wide through travel lanes (one in each direction) and 0- to 2-foot-wide aggregate shoulders. South of the project area (146th Street), the typical cross section of Olio Road consists of four 12-foot-wide through travel lanes (two in each direction). North of the project area (156th Street), the typical cross section of Olio Road consists of two 10-foot-wide through travel lanes (one in each direction). The existing speed limit along Olio Road is 45 miles per hour (mph). According to the Olio Road Project Existing and No Build Traffic Operations Memo developed in January 2024, this segment of Olio Road will experience capacity issues by 2045 (Appendix I, I164 to I176). Capacity of a roadway is commonly reported as a level of service (LOS) from A ("free flow") to F ("oversaturated"). LOS C is commonly used for design purposes and represents a roadway with volumes utilizing 70 to 80 percent of its capacity. LOS D is typically considered acceptable for peak period conditions in urban and suburban areas. This portion of Olio Road is currently operating at an LOS B in the AM and PM peak hour. Development of the area is anticipated to decrease the LOS from a B to an E by 2045.

156th Street is functionally classified as a local minor collector. The typical cross section of 156th Street is two 9-foot-wide through travel lanes (one in each direction) and 1- to 2-foot aggregate shoulders.

Bridge #29-00170 carries Olio Road over Sand Creek. The concrete bridge was built in 1992 and is not considered historic. The INDOT Bridge Inspection Report dated August 17, 2023 (Appendix I, I90 to I92), identified hairline cracks on the midspan and headwall. The structure is 22 feet long with a deck width of 32.1 feet. The typical section on the bridge consists of two 11-foot-wide travel lanes (one in each direction).

Bridge #29-00277 carries 156th Street over Sand Creek. The bridge consists of dual steel culverts built in 1970 and is not considered historic. The structure is located outside of the project area.

There are several drainage ditches along Olio Road, which flood the adjacent properties during rainfall events. There are three existing culverts that cross under Olio Road, several driveway culverts, and a drainage culvert on the east side of Olio Road and north of 146th Street. See the *Bridges and/or Small Structure(s)* section of this document for more information. Existing pedestrian facilities consist of a 500-foot length of 8-foot wide hot mix asphalt (HMA) path along the fire station property west of Olio Road.

Adjacent land use consists of residential, municipal (Fire Station), commercial (Ruoff Music Center), and agricultural areas (Appendix B, B3 to B8).

Preferred Alternative:
Olio Road will be widened from a two-lane road into a four-lane boulevard. The new typical section will consist of four 12-foot-wide travel lanes with an 11- to 16-foot-wide raised grass median. Additionally, 20-foot wide median breaks will be present in several places along the project area to allow motorists to turn into properties located along Olio Road (Appendix B, B29). The roadway will have curb and gutter and two 10-foot-wide multi-use paths, one on each side of the road (Appendix B, B29). The multi-use paths will connect to existing multi-use paths at the intersection of Olio Road and 146th Street and in front of Noblesville Fire Station 77. Americans with Disabilities Act (ADA) compliant curb ramps will be installed in association with the multi-use paths. The existing pavement will be milled to a minimum depth of 1.5 inches. Hot mix asphalt (HMA) pavement will be used for the resurfacing of the existing roadway, the new roadway construction, and the multi-use paths (Appendix B, B28). The curb and gutter will include a 6-inch circular underdrain (Appendix B, B29). A left turn lane will be constructed north of the northern Ruoff Music Center entrance, located approximately 0.22 mile north of the intersection with 146th Street (Appendix B, B33). A right turn lane will be constructed south of the northern Ruoff Music Center entrance. A left turn lane will be constructed south of the southern Ruoff Music Center entrance located approximately 0.11 mile north of the 146th Street and Olio Road intersection (Appendix B, B32). A series of five detention ponds will be constructed on the east side of Olio Road for stormwater detention. New stormwater infrastructure will be constructed to convey drainage under Olio Road to the new detention ponds (Appendix B, B32 to B36). See the *Bridges and/or Small Structure(s)* section of this document for more information. Several private drives along Olio Road and driveway culverts will be reconstructed. Roadside ditches will be reconstructed as necessary due to the widening of the existing roadway. The design speed of the new road will be 45 mph (Appendix B, B25). Temporary erosion and sediment control will consist of inlet protection, silt fence, filter sock, modified check dams, and temporary seeding (Appendix B, B38 to B43).

In addition, construction of a roundabout is proposed at the intersection of Olio Road and 156th Street. The typical section of the roundabout will consist of an 88-foot-wide raised landscaped median, a 12-foot-wide concrete truck apron, a 2-foot-wide curb, and 32 feet of HMA pavement. Approaching the roundabout on Olio Road, the travel lanes width will vary from 24 to 32 feet (consisting of two lanes with a minimum width of 12 feet) with a 2-foot-wide curb and gutter,8-foot-wide grassy shoulder, and 10-foot-wide multi-use path. An inside splitter island will separate traffic entering and exiting the roundabout. A 2-foot-wide curb will be located between the splitter island and the travel lanes. Approaching the roundabout on 156th Street, the travel lane width will vary from 12 to 16 feet, 2-foot-wide curb and gutter, 8-foot-wide grassy shoulders, an inside splitter island, and a 2-foot-wide curb adjacent to the splitter island. Approaching the splitter islands on 156th Street, the typical section will consist of a 11.83- to 16-foot-wide median strip, 12- to 16-foot-wide travel lanes, 2-foot-wide curb and gutter, and 8-foot-wide grassy shoulders. Pavement markings and signage will be placed to direct motorists through the roundabout (Appendix B, B65 to B86). New permanent lighting will be installed in the area of the roundabout.

The bridge carrying Olio Road over Sand Creek (Bridge #29-00170), located 0.04 mile south of 156th Street, will be replaced as part of the project. The existing structure will be removed. The proposed bridge will be a continuous reinforced concrete slab bridge with one 26.5-foot-wide span. The typical section will consist of four 12-foot-wide lanes (two in each direction) with two 2-foot-wide outside shoulders, two 1.5-foot-wide inside shoulders, two 10.5-foot-wide multi-use paths, one 5-foot-wide median, two 1-foot-wide barrier rails, and two 7-inch-wide curbs. It is anticipated that the new bridge will have a clear roadway width of 56 feet and an out-to-out coping of 83.2 feet (Appendix B, B87 to B94). Sand Creek will be dewatered during construction with the use of cofferdams. One side will be dewatered at a time.

Bridge #29-00277 will not be impacted.

The maintenance of traffic (MOT) for the project will require phased construction and detours. The widening along Olio Road will occur in two phases. The intersection improvement and bridge replacement will require the closure of the intersection at 156th Street and Bridge #29-00170 during construction and utilization of a detour (Appendix B, B30 and B31). Refer to the *MOT During Construction* section for more information.

Construction is anticipated to begin in Fiscal Year (FY) 2027.

Approximately 167 linear feet (0.03 acre) of stream impacts, 0.56 acre of wetland impacts, 22.60 acres of terrestrial habitat impacts, and 0.55 acre of tree clearing are anticipated. Impacts have been minimized to the greatest extent possible. Avoidance of the anticipated impacts would result in the project not meeting the purpose and need. Mitigation may be required for the wetland impacts and will be determined during permitting. The project requires approximately 16.84 acres of new permanent right-of-way (ROW), 10.11 acres of temporary ROW, and 4.79 acres of new drainage easement.

The preferred alternative meets the purpose and need by improving capacity and achieving a minimum acceptable LOS of D for this portion of Olio Road and the 156th and Olio Road intersection in the design year (2045). It also addresses geometric deficiencies by upgrading this section of Olio Road, including Bridge #29-00170, to meet current IDM standards. Furthermore, the preferred alternative meets the purpose and need by reducing the right-angle crashes, the most severe crashes at the intersection of Olio Road and 156th Street.

Logical Termini/Independent Utility:
The north-south termini of the project are Olio Road from 146th Street to 0.12 mile north of 156th Street. The east-west termini are 156th Street from 382 feet west of Olio Road to 403 feet east of Olio Road. The termini of the project provide the logical beginning and end point necessary to complete the added travel lanes project. Olio Road is already a 4-lane roadway south of 146th Street. The multi-use paths will connect with the existing path at the intersection of 146th Street and Olio Road. The planned development in the area (Finch Creek and Gatewood Lakes) will primarily occur near or adjacent to this stretch of Olio Road from 146th Street to 156th Street. The added capacity will allow residents of the new developments to travel to the Hamilton Town Center, access I-69, and travel to the planned Noblesville Event Center to the south of the project. The project is independent of any other action and able to be constructed without relying on the completion of any other project.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

No Build Alternative:
This alternative would involve no added travel lanes, would not replace the Bridge #29-00170, and would not improve the intersection of Olio Road and 156th Street. This alternative would not address the capacity and geometry issues along this section of Olio Road. While this alternative eliminates immediate costs and environmental impacts, it would not meet the purpose and need of the project. Therefore, this alternative was dismissed from further consideration.

Bridge Widening Alternative:
This alternative would involve widening Bridge #29-00170 to meet the new typical section along Olio Road. This alternative would meet the purpose and need and would result in approximately the same environmental impacts. However, this alternative would not extend the life of the bridge, resulting in further costs in the near future. Therefore, this alternative was not deemed prudent and was dismissed from further consideration.

All Way Stop Alternative:
This alternative would involve adding stop signs to the northbound and southbound Olio Road approaches, as eastbound and westbound 156th Street are currently stop controlled. This alternative also includes adding “stop ahead” signage and buzz strips to the northbound and southbound Olio Road approaches. While an all-way stop-controlled

intersection could accommodate projected traffic growth through the design year and would reduce immediate costs and environmental impacts, it has significant limitations. Specifically, this alternative is less effective in reducing the severity of right-angle crashes compared to the preferred alternative. As a result, it does not adequately address the project's purpose and need and was therefore dismissed from further consideration.

No other alternatives were considered.

The No Build Alternative is not feasible, prudent or practicable because (*Mark all that apply*)

It would not correct existing capacity deficiencies;	X
It would not correct existing safety hazards;	
It would not correct the existing roadway geometric deficiencies;	X
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):	

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway: Olio Road
Functional Classification: Major collector
Current ADT: 4,300 VPD (2025) Design Year ADT: 5,300 VPD (2045)
Design Hour Volume (DHV): 530 Truck Percentage (%) 4.4
Designed Speed (mph): 45 Legal Speed (mph): 45

	Existing		Proposed	
Number of Lanes:	2		4	
Type of Lanes:	through		through	
Pavement Width:	20	ft.	48	ft.
Shoulder Width:	0-2	ft.	4	ft.
Median Width:	N/A	ft.	16	ft.
Sidewalk Width:	N/A	ft.	10	ft.

Setting:		Urban	X	Suburban		Rural
Topography:	X	Level		Rolling		Hilly

Name of Roadway: 156th Street
Functional Classification: Minor collector
Current ADT: 1,200 VPD (2025) Design Year ADT: 1,530 VPD (2045)
Design Hour Volume (DHV): 153 Truck Percentage (%) 8.9%
Designed Speed (mph): 45 Legal Speed (mph): 45

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	through		through	
Pavement Width:	20	ft.	56	ft.
Shoulder Width:	0	ft.	2	ft.
Median Width:	N/A	ft.	Varies (min. 4 ft)	ft.
Sidewalk Width:	N/A	ft.	10	ft.

Setting:		Urban	X	Suburban		Rural
Topography:	X	Level		Rolling		Hilly

BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

Structure/NBI Number(s): 29-00170/National Bridge Inventory (NBI) No. 2900227 Sufficiency Rating: 87.2 (INDOT Bridge Inspection Report dated 8/17/2023)
(Rating, Source of Information)

	Existing		Proposed	
Bridge/Structure Type:	Precast concrete arch box culvert		Continuous reinforced concrete slab	
Number of Spans:	1		1	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	30.5	ft.	56	ft.
Outside to Outside Width:	32.1	ft.	83.2	ft.
Shoulder Width:	0	ft.	7	ft.

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

Bridge #29-00170 (NBI No. 2900227) carries Olio Road over Sand Creek. The concrete bridge was built in 1992 and is not considered historic. The structure is 22 feet long with a deck width of 32.1 feet. The typical section on the bridge consists of two 11-foot-wide travel lanes (one in each direction). The existing bridge will be removed and replaced. The proposed bridge will be a continuous reinforced concrete slab bridge with one 26.5-foot-wide span. The typical section will consist of four 12-foot-wide lanes (two in each direction) with two 2-foot-wide outside shoulders, two 1.5-wide inside shoulders, two 10.5-foot-wide multi-use paths, one 5-foot-wide median, two 1-foot-wide barrier rails, and two 7-inch curbs. It is anticipated that the new bridge will have a clear roadway width of 56 feet and an out-to-out coping of 83.2 feet. Approximately 110 linear feet (0.02 acre) of Sand Creek will be permanently impacted by the bridge replacement. Approximately 167 linear feet (0.03 acre) of Sand Creek will be temporarily impacted by cofferdam use during construction.

Five existing small structures are present within the project area. The impacts to these structures are discussed in the table below.

Existing Structure No.	Structure No. in Plans	Existing Type	Existing Size	Proposed Size	Location	Impacts
Unnamed	Str. No. P200	Concrete pipe	36 in x 100 ft	42 in x 102 ft	40.0021538, -85.9188725	Replaced, no stream impacts
Unnamed	Str. No. 103	CMP	24 in x 36 ft	12 in x 43 ft	40.0033582, -85.9191048	Replaced, no stream impacts
Unnamed	N/A	Concrete pipe	24 in x 100 ft	N/A	40.0113546, -85.9194747	No impact, outside of construction limits
Unnamed	Str. No. 119	CMP	12 in x 33 ft	12 in x 43 ft	40.0120344, -85.9189356	Replaced, no stream impacts
Unnamed	Str. No. 121	CMP	24 in x 36 ft ft	12 in x 43 ft	40.0132142, -85.9191234	Replaced, no stream impacts

Several new structures will be constructed as a part of the project. These are listed in the table below.

Structure No. in Plans	Proposed Size (dia. x length)	Location	Impacts
Str. No. 201	12 in x 16 ft	40.0024042, -85.9187453	No stream impacts
Str. No. 202	12 in x 16 ft	40.0022740, -85.9187106	No stream impacts
Str. No. 101	12 in x 43 ft	40.0027384, -85.9190605	No stream impacts
Str. No. 102	12 in x 43 ft	40.0029281, -85.9190488	No stream impacts
Str. No. 104	12 in x 43 ft	40.0038976, -85.9190985	No stream impacts
Str. No. 105	12 in x 42 ft	40.0044769, -85.9190915	No stream impacts
Str. No. 203	18 in x 116 ft	40.0051724, -85.9188619	No stream impacts
Str. No. 208	36 in x 119 ft	40.0051777, -85.9187167	No stream impacts
Str. No. 106	12 in x 42 ft	40.0055428, -85.9191245	No stream impacts
Str. No. 107	12 in x 43 ft	40.0057891, -85.9191076	No stream impacts
Str. No. 108	12 in x 43 ft	40.0064938, 85.9191528	No stream impacts
Str. No. 109	12 in x 43 ft	40.0065233, -85.9191112	No stream impacts
Str. No. 110	18 in x 5 ft	40.0068871, -85.9193761	No stream impacts
Str. No. 110a	18 in x 37 ft	40.0068566, -85.9191363	No stream impacts
Str. No. 401	18 in x 37 ft	40.0071786, -85.9190294	No stream impacts
Str. No. 402	18 in x 36 ft	40.0074553, -85.9190662	No stream impacts
Str. No. 403	18 in x 55 ft	40.0078935, -85.9190983	No stream impacts
Str. No. 404	18 in x 49 ft	40.0081948, -85.9190957	No stream impacts
Str. No. 111	12 in x 5 ft	40.0075723, -85.9192938	No stream impacts
Str. No. 111a	18 in x 228 ft	40.0075513, -85.9191838	No stream impacts
Str. No. 112	6 in x 12 ft	40.0079870, -85.9193046	No stream impacts
Str. No. 112a	18 in x 194 ft	40.0079892, -85.9191812	No stream impacts
Str. No. 113	18 in x 5 ft	40.9191763, -85.9191763	No stream impacts
Str. No. 113a	18 in x 219 ft	40.0092504, -85.9190963	No stream impacts
Str. No. 114	24 in x 5 ft	40.0098129, -85.9192304	No stream impacts
Str. No. 114a	24 in x 41 ft	40.0097681, -85.9190485	No stream impacts
Str. No. 115	12 in x 42 ft	40.0102384, -85.9191442	No stream impacts
Str. No. 116	18 in x 44 ft	40.0105559, -85.9191187	No stream impacts
Str. No. 117	12 in x 43 ft	40.0110409, -85.9188927	No stream impacts
Str. No. 118	12 in x 46 ft	40.0116142, -85.9188663	No stream impacts
Str. No. 204	18 in x 43 ft	40.0107693, -85.9189182	No stream impacts
Str. No. 120	12 in x 43 ft	40.0125994, -85.9190359	No stream impacts
Str. No. 122	12 in x 42 ft	40.0135232, -85.9191030	No stream impacts
Str. No. 123	12 in x 42 ft	40.0139658, -85.9190677	No stream impacts
Str. No. 124	18 in x 47 ft	40.0142317, -85.9191604	No stream impacts
Str. No. 125	18 in x 46 ft	40.0146437, -85.9192157	No stream impacts
Str. No. 205	12 in x 22 ft	40.0123594, -85.9187162	No stream impacts

Str. No. 206	12 in x 35 ft	40.0124548, -85.9186299	No stream impacts
Str. No. 207	12 in x 81 ft	40.0141172, -85.9190405	No stream impacts
Str. No. 126	12 in x 42 ft	40.0152142, -85.9192492	No stream impacts

See Appendix B, B62 to B64 for the design plan structure table. No other bridges or small structures will be impacted by the project.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		X
Is a temporary roadway proposed?		X
Will the project involve the use of a detour or require a ramp closure? (describe below)	X	
Provisions will be made for access by local traffic and so posted.	X	
Provisions will be made for through-traffic dependent businesses.	X	
Provisions will be made to accommodate any local special events or festivals.	X	
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		X
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		X

Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

The MOT for the project will require phased construction and detours. The widening along Olio Road will occur in two phases (Appendix B, B30 to B31). Phase 1 will involve construction along Olio Road from 146th Street to approximately 0.65 mile north of 146th Street. Phase 2 will involve construction along Olio Road from 0.65 mile north of 146th Street to 156th Street. The detour route for both phases will utilize 166th Street, Boden Road, and 146th Street. Each phase will take approximately 6 months to complete. The detour will result in an added travel distance of 2.0 miles and an added travel time of 4 minutes.

The intersection improvement and bridge replacement will require the closure of the intersection and Bridge #29-00170 during construction (Appendix B, B69 and B90). The detour route will utilize Boden Road, 146th Street, and Prairie Baptist Road. The detour will result in an added travel distance of 1.9 miles and an added travel time of 3 minutes. The intersection/bridge will be closed for 4 months.

Ruoff Music Center is an event center located adjacent to the project. Events will likely be impacted by project construction and the MOT. The City of Noblesville will coordinate with the Ruoff Music Center regarding the proposed MOT prior to project letting to limit disruptions to events and the surrounding community to the extent possible. This additional coordination is included as a firm commitment in the *Environmental Commitments* section of this document.

Noblesville Fire Station 77 is located adjacent to the project area. The City of Noblesville and the designer have discussed the MOT with the Noblesville City Fire Chief and Deputy Fire Chief. The disruptions to the fire station are limited to the extent possible by splitting the construction phases at the fire station. One of the two fire station drives will be accessible throughout construction. The Noblesville City Fire Chief and Deputy Fire Chief have approved the proposed MOT plan.

The existing 500-foot hot mix asphalt (HMA) path along the fire station property is not connected to any other pedestrian facilities. Therefore, no pedestrian MOT will be utilized.

The MOT will be implemented per the *Manual on Uniform Traffic Control Devices (MUTCD)* guidelines. Construction is anticipated to begin in fall of 2026. Access to adjacent properties will be maintained throughout project construction.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 1,674,903 (2022-2025) Right-of-Way: $ 2,300,000 (2024-2026) Construction: $ 17,698,300.00 (2025-2026)

Anticipated Start Date of Construction: Fall 2026

RIGHT OF WAY:

Land Use Impacts	Amount (acres)		
	Permanent	Temporary	Drainage Easement
Residential	1.51	0.18	0.00
Commercial	0.76	0.07	0.00
Agricultural	13.45	9.85	4.79
Forest	0.00	0.00	0.00
Wetlands	0.58	0.00	0.00
Other: Government (Fire Station)	0.54	0.01	0.00
Other:	0.00	0.00	0.00
TOTAL	16.84	10.11	4.79

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, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

The existing right-of-way (ROW) extends approximately 10 feet east and west of the roadway centerline along Olio Road within the project area. The existing ROW consists of existing roadway pavement. The existing ROW extends approximately 10 feet north and south of the roadway centerline along 156th Street within the project area. The existing ROW consists of existing roadway pavement.

The project requires approximately 16.84 acres of new permanent ROW consisting of 1.51 acres of residential, 0.76 acre of commercial, 13.45 acres of agricultural, 0.58 acre of wetlands, and 0.54 acre from the fire station. The project also requires approximately 10.11 acres of temporary ROW consisting of 0.18 acre of residential, 0.07 acre of commercial, 9.85 acre of agricultural, and 0.01 acre from the fire station. The temporary ROW is for driveway reconstruction and grading. The project will also involve establishing a new drainage easement for the maintenance of the detention ponds consisting of 4.79 acres of agricultural land. The new drainage easement consists of land that is also being acquired as temporary ROW.

The new permanent ROW along Olio Road will extend approximately 20 to 140 feet west and 35 to 125 feet east of the roadway centerline within the project area. The new permanent ROW along 156th Street will extend 10 to 55 feet north and south of the roadway centerline within the project area.

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

Changes to scope of work include tree or habitat removal, temporary and/or permanent lighting changes, and/or hibernacula/karst impacts not included in the original environmental documentation.

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

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource 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.

Early coordination letters were sent on February 6, 2023 (Appendix C, C1 to C5).

Agency	Date Sent	Date Response Received	Appendix
FHWA- Indiana Division	February 6, 2023	No response received	N/A
US Department of Agriculture, Natural Resources Conservation Services	February 6, 2023	December 12, 2023	Appendix C, C15 to C16
US Department of Housing and Urban Development, Chicago Regional Office	February 6, 2023	No response received	N/A
United States Coast Guard, 8th District	February 6, 2023	April 14, 2023	Appendix C, C12
US Army Corps of Engineers, Louisville District	February 6, 2023	No response received	N/A
National Park Service, Midwest Regional Office	February 6, 2023	No response received	N/A
INDOT, Greenfield District Environmental Section Manager	February 6, 2023	No response received	N/A
INDOT, Greenfield District Project Manager	February 6, 2023	No response received	N/A
Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife (DFW)	February 6, 2023	March 8, 2023	Appendix C, C7 to C11
Indiana Geological & Water Survey	December 11, 2023	December 11, 2023	Appendix C, C13 to C14
IDNR, Oil and Gas Division	February 6, 2023	No response received	N/A
INDOT Environmental Services	February 6, 2023	No response received	N/A
INDOT Office of Aviation	February 6, 2023	February 6, 2023	Appendix C, C6
Indianapolis Metropolitan Planning Organization	February 6, 2023	No response received	N/A
Hamilton County Highway Department	February 6, 2023	No response received	N/A
Hamilton County Board of Commissioners	February 6, 2023	No response received	N/A
Hamilton County Council	February 6, 2023	No response received	N/A
Wayne Township Trustee	February 6, 2023	No response received	N/A
Hamilton County Surveyor's Office	February 6, 2023	No response received	N/A
Hamilton County Emergency Management Agency	February 6, 2023	No response received	N/A
Hamilton County Sheriff's Department	February 6, 2023	No response received	N/A
Noblesville School District	February 6, 2023	No response received	N/A
Hamilton County Plan Commission (Floodplain Administrator)	February 6, 2023	No response received	N/A
Noblesville City Engineer	February 6, 2023	No response received	N/A
Noblesville Emergency Medical Service	February 6, 2023	No response received	N/A
Noblesville Police Department	February 6, 2023	No response received	N/A

Noblesville Mayor's Office	February 6, 2023	No response received	N/A
Noblesville Common Council	February 6, 2023	No response received	N/A
Noblesville MS4 Coordinator	July 16, 2024	No response received	N/A
Ruoff Music Center	July 18, 2024	No response received	N/A

All applicable recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) document.

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: 827 Linear feet Total impacted stream(s): 110 Linear feet

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Sand Creek	Perennial	782	110	Located near the Olio Road and 156th Street intersection, likely WOTUS, flows northeast to southwest (Appendix F, F5 to F6 and F18 to F19
Unnamed Tributary (UNT) to Sand Creek	Ephemeral	45	0	Located north of 156th Street, likely WOTUS, flows northeast to southwest (Appendix F, F5 to F6 and F18)

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial maps of the project area (Appendix B, B3 to B8), and the RFI report (Appendix E, E1 to E11), there are four streams, rivers, watercourses, or other jurisdictional features within the 0.5-mile search radius. There is one stream within the project area, which was updated to two streams by the site visits on September 14, 2022 and October 30, 2023 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was completed for the project on January 17, 2024. Please refer to Appendix F, F2 to F12 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that two likely jurisdictional waters were located within the survey area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

No federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways; or Nationwide Rivers Inventory waterways are present in the project area.

Sand Creek is a perennial stream that flows from northeast to southwest through the survey area. This stream is considered to exhibit average quality based on riparian cover and available habitat. There is 782 linear feet (0.12 acre) of Sand Creek located within the project area. Approximately 110 linear feet (0.02 acre) of Sand Creek will be permanently impacted by the bridge replacement. Approximately 167 linear feet (0.03 acre) of Sand Creek will be

temporarily impacted by cofferdam use during construction. A USACE Section 404 and IDEM Section 401 Regional General Permit will be required. Mitigation is not anticipated to be required. Impacts to Sand Creek have been minimized to the greatest extent possible. Avoidance of impacts to Sand Creek is not possible because it would prevent the project from meeting the purpose and need.

Sand Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. This is included as a firm commitment in the *Environmental Commitments* section of this document.

UNT to Sand Creek is an ephemeral stream that flows from northeast to southwest through the survey area. This stream is considered to exhibit poor quality due to lack of available habitat. There is 45 linear feet (0.005 acre) of UNT to Sand Creek located within the project area. This stream is outside of the construction limits and will not be impacted as a result of the project.

The US Coast Guard responded on April 14, 2023, indicating that a Coast guard bridge permit or exemption will not be required for this project (Appendix C, C12).

The IDNR DFW responded on March 8, 2023 with recommendations to revisit the project design to reduce impacts to fish, wildlife, and botanical resources where possible; ensure the stream depth, channel width, and water velocities during low-flow conditions are approximate to those in the natural stream channel; maintain aquatic and wildlife passage; minimize in-channel disturbance; to not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds; extend riprap below the normal water level; to not deposit or allow construction/demolition materials or debris to fall or otherwise enter the waterway; and apply time of year restrictions for waterway disturbance (Appendix C, C7 to C11). Wildlife passage will be maintained under the new bridge carrying Olio Road over Sand Creek. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other:			

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial maps of the project area (Appendix B, B3 to B8), and the RFI report (Appendix E, E1 to E11), there are three open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group. Therefore, no impacts are expected.

	Presence	**Impacts**	
		Yes	**No**
Wetlands	X	X	

Total wetland area: 0.7 Acre(s) Total wetland area impacted: 0.56 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 (i.e. location, likely Water of the US, appendix reference)
Wetland 1	PEM1	0.15	0.15	Located east of Olio Road, likely WOTUS (Appendix F, F6 and F20
Wetland 2	PEM1	0.52	0.38	Located on the west side of Olio Road south of an existing multi-use path, not likely WOTUS (Appendix F, F7 and F21)
Wetland 3	PEM1	0.01	0.01	Located on the east side of Olio Road, not likely WOTUS (Appendix F, F8, and F21 to F22)
Wetland 4	PEM1	0.02	0.02	Located on the east side of Olio Road on the south end of the survey area, not likely WOTUS (Appendix F, F9 and F23)

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination	**X**	**N/A**
Wetland Delineation	**X**	**N/A**
USACE Isolated Waters Determination		

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.	**X**

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial maps of the project area (Appendix B, B3 to B8), and the RFI report (Appendix E, E1 to E11), there are ten wetlands within the 0.5-mile search radius. There is one wetland within or adjacent to the project area, which was updated to four wetlands by the site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was completed for the project on January 17, 2024. Please refer to Appendix F, F2 to F12 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that four wetland features, Wetlands 1-4, are located within the survey area. Wetland 1 has hydrologic connectivity to the White River, a traditionally navigable waterway (TNW), and therefore would likely be subject to USACE jurisdiction. Wetlands 2-4 do not have hydrologic connectivity to a TNW and therefore would not be subject to USACE jurisdiction (Appendix F, F104 to F116. The USACE makes all final determinations regarding jurisdiction.

Wetland 1 is a 0.15 acre wetland on the east side of Olio Road. As defined by *Cowardin et al.* (1979), this wetland would be classified as a palustrine, emergent, persistent (PEM1) wetland. Based on a qualitative assessment of Wetland 1, this wetland is of poor quality due to lack of available habitat. The project will permanently impact 0.15 acre of Wetland 1 to add the additional travel lanes. No temporary impacts are anticipated to Wetland 1. The wetland cannot be avoided while meeting the project purpose and need.

Wetland 2 is a 0.52 acre wetland on the west side of Olio Road south of an existing multi-use path. As defined by *Cowardin et al.* (1979), this wetland would be classified as a PEM1 wetland. Based on a qualitative assessment of Wetland 2, this wetland is of poor quality due to lack of available habitat. The project will permanently impact 0.38 acre of Wetland 2 to add the additional travel lanes. No temporary impacts are anticipated to Wetland 2. The impacts to the wetland are minimized to the greatest extent possible. The impacts cannot be avoided in order to meet the project's purpose and need. The portion of Wetland 2 that will not be impacted will be labeled on the plans as "Do Not Disturb". This is included as a firm commitment in the *Environmental Commitments* section of this CE document.

Wetland 3 is a 0.01 acre wetland located on the east side of Olio Road. As defined by *Cowardin et al.* (1979), this wetland would be classified as a PEM1 wetland. Based on a qualitative assessment of Wetland 3, this wetland is of poor quality due to lack of available habitat. The project will permanently impact 0.01 acre of Wetland 3 to add the additional travel lanes. No temporary impacts are anticipated to Wetland 3. The impacts cannot be avoided while meeting the project's purpose and need.

Wetland 4 is a 0.02 acre wetland located on the east side of Olio Road on the south end of the survey area. As defined by *Cowardin et al.* (1979), this wetland would be classified as a PEM1 wetland. Based on a qualitative assessment of Wetland 4, this wetland is of poor quality due to lack of available habitat. The project will permanently impact 0.02 acre of Wetland 4 to add the additional travel lanes. No temporary impacts are anticipated to Wetland 4. The impacts cannot be avoided while meeting the project's purpose and need.

A USACE Section 404 and IDEM Section 401 Regional General Permit will be required. Due to the cumulative wetland impacts, mitigation will likely be required and will be determined during permitting.

The IDNR DFW responded on March 8, 2023, with recommendations to coordinate with the Indiana Department of Environmental Management (IDEM) and USACE as well as mitigate impacts to wetland habitat (Appendix C, C7 to C11). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

	Presence	**Impacts**	
		Yes	**No**
Terrestrial Habitat	X	X	

Total terrestrial habitat in project area: 22.60 Acre(s) Total tree clearing: 0.55 Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measure to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group, and the aerial maps of the project area (Appendix B, B3 to B8), there is maintained roadside vegetation, agricultural land, and strips of forested area within the project area. Dominant tree species include silver maple (*Acer saccharinum*) and American beech (*Fagus grandifolia*). Dominant herbaceous species consisted of hairy crabgrass (*Digitaria sanguinalis*), annual ragweed (*Ambrosia artemisiifolia*), yellow foxtail (*Setaria pumila*), lady's thumb (*Persicaria maculosa*), giant foxtail (*Setaria faberi*), white clover (*Trifolium repens*), and tall fescue (*Schedonorus arundinaceus*). Approximately 22.60 acres of terrestrial habitat will be disturbed to widen the road, construct the multi-use paths, construct the roundabout at the Olio Road and 156th Street intersection, replace Bridge #29-00170, and construct the water detention areas. Approximately 0.55 acre of tree clearing will occur. All tree clearing will occur within 100 feet from the existing roadway and during the inactive bat season. The land disturbance and tree clearing was minimized to the greatest extent possible, while still meeting the project purpose and need. Mitigation is not anticipated.

The IDNR DFW responded on March 8, 2023 with recommendations to revegetate disturbed areas with native species, use bioengineering methods for bank stabilization where feasible, to not cut trees suitable for bat roosting, apply tree clearing time of year restrictions, potential mitigation requirements, and to use appropriate erosion and sediment control (Appendix C, C7 to C11). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

County Hamilton Route Olio Road Des. No. 2101733

Protected Species **Federally Listed Bats**	**Yes**	**No**
Information for Planning and Consultation (IPaC) determination key completed	X	
Section 7 informal consultation completed (IPaC cannot be completed)		X
Section 7 formal consultation Biological Assessment (BA) required		X

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [X] LAA [ ]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)		X
State species (not bird) found in project area (based upon consultation with IDNR)		X

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)		X
State bird species based upon coordination with IDNR		X

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E, E1 to E11), completed by Lochmueller Group on April 10, 2023, the IDNR Hamilton County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR DFW early coordination response letter dated March 8, 2023 (Appendix C, C7 to C11), 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. An INDOT 0.5-mile bat review occurred on September 8, 2022, and did not indicate the presence of endangered bat species or their hibernacula within the 0.5-mile search radius.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C17 to C24). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*).Other species were generated in the IPaC species list along with the Indiana bat. Refer to paragraph below.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A bridge inspection occurred on September 14, 2022 and September 29, 2024, and no evidence of bats was observed (Appendix C, C41). USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after September 29, 2026, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* of this document.

An effect determination key was completed on January 9, 2024, and based on the responses provided, the project was found to "not likely to adversely affect" the Indiana bat and/or the NLEB (Appendix C, C25 to C40). INDOT reviewed and verified the effect finding on January 9, 2024, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) include temporary and permanent lighting restrictions and tree removal restrictions. AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

The official species list generated from IPaC indicated two other species present within the project area: the whooping crane (*Grus americana*) and the monarch butterfly (*Danaus plexippus*). The whooping crane is listed as endangered wherever found, except where listed as an experimental population according to the Environmental Conservation

Online System (https://ecos.fws.gov/ecp/species/758). The whooping crane is listed as an experimental population in this location. Therefore, the species was not considered as part of this project. The monarch butterfly is identified as a candidate species, which is not yet listed or proposed for listing. Therefore, these species were not considered as part of this project, and the USFWS Interim Policy is not applicable because there are no other federally protected species identified within the project area. No further coordination is needed with USFWS.

Bridge #29-00170 over Sand Creek and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Recurring Special Provision (RSP) 107-C-273 "Migratory Bird Protection."

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

Geological and Mineral Resources	**Yes**	**No**
Project located within the Indiana Karst Region		X
Karst features identified within or adjacent to the project area		X
Oil/gas or exploration/abandoned wells identified in the project area		X

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): N/A

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topographic map of the project area (Appendix B, B2), and the RFI report (Appendix E, E1 to E11), there are no karst features identified within or adjacent to the project area. In the early coordination response dated December 11, 2023, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C13 to C14). The IGWS response indicated a moderate liquefaction potential, a high potential for bedrock resources, and a low potential for sand and gravel resources. The response also indicated a floodway and petroleum exploration wells in the project area. An early coordination letter was sent on February 6, 2023 to the IDNR, Oil and Gas Division. No response was received. The petroleum exploration wells will not be affected because the nearest one is located south of the construction limits. Survey and field investigations did not identify any wells in the project area. Response from IGWS has been communicated with the designer on July 16, 2024. No impacts are expected.

SECTION C – OTHER RESOURCES

Drinking Water Resources	Presence	Impacts Yes	Impacts No
Wellhead Protection Area(s)			
Source Water Protection Area(s)	X		X
Water Well(s)	X		X
Urbanized Area Boundary	X		X
Public Water System(s)	X		X

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		X
If Yes, is the FHWA/EPA SSA MOU Applicable?		
If Yes, is a Groundwater Assessment Required?		

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

Sole Source Aquifer
The project is located in Hamilton County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/Environmental Protection Agency (EPA)/INDOT Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, a detailed groundwater assessment is not needed, and no impacts are expected.

Wellhead Protection Area and Source Water
The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on July 16, 2024, by Lochmueller Group. The project is not located within a Wellhead Protection Area. The project is located within a Source Water Area. The features will not be affected because the maximum depth of excavation is anticipated to be 18 feet for the bridge replacement. The project will comply with the Source Water Assessment Program.

Water Wells
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on July 16, 2024, by Lochmueller Group. One well is mapped in the project area but is actually located approximately 150 feet east of the construction limits. The feature will not be impacted because it is outside of the construction limits. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the wells.

Urban Area Boundary
Based on a desktop review of the MS4s Boundaries Map for Indiana (https://www.arcgis.com/apps/webappviewer/index.html?id=d6162b97f8a64df4877e1ad5cbaa2882) by Lochmueller Group on July 16, 2024, this project is located in an Urban Area Boundary (UAB). An early coordination letter was sent on February 6, 2023, to the Hamilton County MS4 Coordinator and on July 16, 2023, to the Noblesville MS4 Coordinator by Lochmueller Group. The MS4 coordinators did not respond within the 30-day time frame. All required stormwater management control best management practices (BMPs) will be installed, inspected, maintained, and subsequently removed for all earth disturbing activity areas. These items will follow INDOT Standard Specifications for Stormwater Management.

Public Water System
Based on a desktop review, site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group, the aerial maps of the project area (Appendix B, B3 to B8), and the design plans (Appendix B, B25 to B94), this project is located where there is a public water system. Indiana American Water is planning to construct new water lines within the project

area. Coordination between Indiana American Water and the designer has occurred and will continue through final design. This project will not impact the new water lines. No impacts are expected.

	Presence	Impacts	
Floodplains		Yes	No
Project located within a regulated floodplain	X	X	
Longitudinal encroachment			
Transverse encroachment	X	X	
Homes located in floodplain within 1000' up/downstream from project			

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4 [X] Level 5 [ ]

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the IDNR Indiana Floodway Information Portal website (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e) by Lochmueller Group on November 15, 2023, and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F1 and F17). An early coordination letter was sent on February 6, 2023, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame.

INDOT has established five (5) categories of projects based upon the size, scope, and impact to the floodplain. Category 4 projects are projects involving replacement of existing drainage structures. This project qualifies as a Category 4 per the current INDOT CE Manual, which states:

- Category 4 - No homes are located within the base floodplain within 1,000 feet upstream and no homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity 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.

The IDNR DFW responded on March 8, 2023, and indicated the proposed project will require the formal approval for construction in a floodway pursuant to the Flood Control Act (IC 14-28-1), unless it qualifies for a bridge exemption (Appendix C, C7 to C11). No mitigation is anticipated.

	Presence	Impacts	
Farmland		Yes	No
Agricultural Lands	X	X	
Prime Farmland (per NRCS)	X	X	

Total Points (from Section VII of CPA-106/AD-1006*) **147**

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

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Based on a desktop review, site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group, and the aerial maps of the project area (Appendix B, B3 to B8), the project will convert 25.6 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on February 6, 2023, to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). Coordination with NRCS resulted in a score of 147 on the NRCS-CPA-106 (Appendix C, C15 to C16). The acreage of farmland conversion discussed in the NRCS coordination is greater than in the ROW table of this document because a conservative ROW estimate was used during early coordination. NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA			

Full 106 Effect Finding

No Historic Properties Affected [ ] No Adverse Effect [X] Adverse Effect [ ]

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) [X] Archaeology [ ] NRHP Bridge(s) [ ]

Documentation Prepared (mark all that apply)		**ESD Approval Date(s)**	**SHPO Approval Date(s)**
APE, Eligibility and Effect Determination	X	November 19, 2024	December 20, 2024
800.11 Documentation	X	November 19, 2024	December 20, 2024
Historic Properties Report or Short Report	X	July 19, 2023	August 21, 2023
Archaeological Records Check and Assessment	X	May 5, 2023	August 21, 2023
Archaeological Phase Ia Survey Report	X	May 5, 2023	August 21, 2023
Archaeological Phase Ic Survey Report			
Other:			

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

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

Area of Potential Effect (APE):

The APE for this project encompasses all resources immediately adjacent to the project area and those that may not be immediately adjacent but that have a proximate viewshed of the project area. The project area encompasses the area required to support the purpose and need of the project. Due to the flat nature of the area, a 1000-foot buffer from the project area was used as the APE to encompass all proposed activities and their effects to adjacent properties. The Archaeological APE is defined as the 19.65-hectares survey area approximately 1.8 kilometers in length encompassing Olio Road and all intersections within the project limits investigated for the presence of archaeological resources. See Appendix D, D16 to D18 for maps of the project area and APE.

Coordination with Consulting Parties:
Consulting parties were identified in accordance with the INDOT Cultural Resources Manual. Early coordination was initiated with an email to potential consulting parties and uploaded to INDOT's Section 106 Consultation and Outreach Portal Enterprise (IN SCOPE) on November 10, 2022, (Appendix D, D54 to D60 as listed below, with a letter inviting organizations and individuals to be consulting parties. A copy of the Historic Property Report (HPR) and the Phase Ia archaeological reconnaissance report were uploaded to IN SCOPE for viewing by potential consulting parties on July 19, 2023. The following is a list of invited organizations and individuals and the date of their response. Those who indicated they wished to serve as consulting parties are in bold. Please note, INDOT acts on behalf of the FHWA, the lead federal agency, and the State Historic Preservation Officer (SHPO) is considered an automatic consulting party and therefore is not listed below.

Section 106 Invited Consulting Parties	Date of Response
State Historic Preservation Officer	**December 8, 2022**
Hamilton County Commissioners	No Response
Hamilton County Highway Engineer	No Response
Hamilton County Historian	No Response
Hamilton County Historical Society	No Response
Noblesville Preservation Alliance	No Response
Indiana Landmarks, Central Regional Office	**December 20, 2022**
Mayor of Noblesville	No Response
Indianapolis Metropolitan Planning Organization	No Response
Noblesville City Engineer	No Response
Noblesville Common Council	No Response
Hamilton County Council	No Response
Paul & Nancy Radcliff	No Response
Heritage LLP	No Response
Delaware Nation of Oklahoma	**December 20, 2022**
Delaware Tribe of Indians	**November 12, 2022**
Eastern Shawnee Tribe of Oklahoma	**December 19, 2022**
Miami Tribe of Oklahoma	**November 17, 2022**
Peoria Tribe of Indians of Oklahoma	No Response
Pokagon Band of Potawatomi Indians	No Response
Shawnee Tribe	**August 30, 2023**

In an email dated November 12, 2022, the Delaware Tribe of Indians responded to the early coordination letter stating, "… we determined that there are no known religious or culturally significant sites within the selected project area. We have no objection to the proposed project." See Appendix D, D61 to D62 for a copy of this communication.

In a letter dated November 17, 2022, the Miami Tribe of Oklahoma responded to the early coordination letter stating that, "[t]he Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site." See Appendix D, D63 for a copy of this communication.

In a letter dated December 8, 2022, the SHPO staff responded to the early coordination letter suggesting two additional consulting parties that they thought should be invited to participate including the Noblesville Common Council and the Hamilton County Council. In that same letter, the SHPO staff asked that property owners be invited as soon as possible if right-of-way is planned to be taken from adjacent historic properties. See Appendix D, D64 to D65 for a copy of this communication. An early coordination email was sent to the Noblesville Common Council and the Hamilton County Council on December 20, 2022. See Appendix D, D67 to D68 for a copy of this communication.

In a letter dated December 19, 2022, the Eastern Shawnee responded to the early coordination letter stating, "… the project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe." See Appendix D, D66 for a copy of this communication.

In an email dated December 20, 2022, Indiana Landmarks (Central Regional Office) accepted consulting party status for the proposed project. See Appendix D, D69 to D73 for a copy of this communication.

In a letter dated December 20, 2022, the Delaware Nation of Oklahoma responded to the early coordination letter stating, "… the proposed project should have no adverse effect on any known cultural or religious sites of interest to the Delaware Nation." See Appendix D, D74 for a copy of this communication.

Archaeology:
A Phase Ia archaeological reconnaissance survey was conducted by Cultural Resource Analysts, Inc. (CRA) between December 5 and 8, 2022. The field reconnaissance yielded four previously undocumented sites within or adjacent to the survey area: 12H1974-12H1977. All four sites are historic scatters associated with structures appearing on historic maps. More specifically, Site 12H1974 dates to the twentieth century, Sites 12H1975 and 12H1976 date between the late nineteenth and twentieth centuries, and Site 12H1977 dates between the mid-nineteenth and early twentieth centuries. For sites 12H1974, 12H1975, and 12H1977, these sites lack the ability to yield important information and are not recommended eligible for the National Register of Historic Places (NRHP). No further archaeological investigation is recommended for sites 12H1974, 12H1975, and 12H1977. For Site 12H1976 the majority of the site has a lack of research potential but one small area at Site 12H1976 had an anomalous shovel test, which could represent an intact sub-plow zone feature, and it is recommended that that specific area of the site be avoided by ground disturbing activities that may go deeper than 17 centimeters (cm). That small portion of Site 12H1976, is located outside the construction limits for the current undertaking. See Appendix D, D107 to D108 for a summary of the Phase Ia archaeological reconnaissance survey.

In a letter dated August 21, 2023, the SHPO staff concurred with the conclusions in the Phase 1a archaeological investigation report. SHPO staff did ask that the survey area for site 12H1976 be clearly marked on the plans so that the unsurveyed portion is avoided by all ground-disturbing activities. In addition, SHPO staff asked for additional clarification between conflicting wording used in the Phase Ia archaeology report and the distribution letter. They requested to know if site 12H1976 will be avoided by all construction activities or if a certain depth of excavation will be allowed within its boundaries. See Appendix D, D82 to D84 for a copy of the communication.

In regard to the questions SHPO asked in their letter dated August 21, 2023, it should be noted that the report distribution letter that accompanied the HPR and Phase Ia archaeology report was incorrect in noting that, "For Site 12H1976 it is recommended that no work deeper than 17 cm below ground level occur or the area will require additional work." It should have stated that based on the recommendations made by Cultural Resource Analysts Inc. (CRA), that the majority of Site 12H1976 has a lack of research potential but that one small area at Site 12H1976 had an anomalous shovel test, which could represent an intact sub-plow zone feature, and it is recommended that specific area of the site be avoided by ground disturbing activities that may go deeper than 17 centimeters (cm). In addition, that portion of the site is outside the construction limits for the project. No ground disturbing activities will occur near that area. The location will be marked for avoidance on the plans and in the field during construction. This has been included as a firm commitment in the *Environmental Commitments* section of this document.

In a letter dated August 2, 2023, the Miami Tribe of Oklahoma responded to the HPR and Phase Ia archaeology report stating, "[t]he Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site." See Appendix D, D81 for a copy of the communication.

In an email dated August 30, 2023, the Shawnee Tribe responded to the HPR and Phase Ia archaeology report stating that, "[t]he Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project." See Appendix D, D85 for a copy of the communication.

An addendum to the Phase Ia archaeological reconnaissance survey was prepared by Cultural Resource Analysts, Inc. (CRA) on August 5, 2024 (Appendix D, D109 to D111). No archaeological materials were found in the survey area.

Historic Properties:
The NRHP, Indiana Register of Historic Sites and Structures (State Register), the State Historic Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM), and the Indiana Historic Sites and Structures Inventory (IHSSI) were consulted prior to and following the field review. Hamilton County was surveyed between 1990 and 1991 for the IHSSI. The resulting *Hamilton County Interim Report* (1992) was also reviewed. No resources already listed in the NRHP were located within the APE. One previously surveyed resource that appears in the Interim Report is located within the APE: IHSSI #057-541-40032 (Farm, Contributing). No cemeteries are located within the APE for this project.

The *Indiana Historic Bridge Inventory Volume 2: Listing of Historic and Non-Historic Bridges* (February 2009) by Mead & Hunt was reviewed. No bridges eligible for listing in the NRHP are located within the project area.

Gary Francis Quigg, Lochmueller Group historian who meets the Secretary of the Interior's Professional Qualification Standards, performed a site inspection of the project area on December 20, 2022, and documented resources that will be at least 50 years of age at the time of the project letting within the APE. The APE was investigated for the existence of any historic properties, structures, objects, or districts listed in or eligible for listing in the NRHP. The historians walked the APE, taking photographs of all resources meriting a Contributing or higher rating. Non-Contributing resources or those that did not meet the age requirements were noted but not documented other than in general view photographs. Within the APE is one previously surveyed property that appears in the *Interim Report*. Four newly identified aboveground resources were recorded within the APE. One previously surveyed IHSSI property that is no longer extant was located within the APE.

An HPR, based on the results of the December 20, 2022, aboveground field survey, was completed (Blad, July 19, 2023) and provided NRHP boundaries for the two recommended NRHP-eligible properties: Wiseman Farm (IHSSI #057-541-40032) and Hair-Whitaker Farm (Lochmueller #4). Please see Appendix D, D104 to D106, for a summary of the HPR.

In a letter dated August 21, 2023, the SHPO staff concurred with the conclusions in the HPR, noting that, "[t]he area of potential effects ("APE") proposed in the HPR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur" (Appendix D, D82 to D84). They also noted they agreed the Wiseman Farm at 15315 Olio Road (IHSSI #057-541-40032) and the Hair-Whitaker Farm at 15822 Olio Road (Lochmueller #4) are eligible for listing in the NRHP.

No additional comments were received from consulting parties regarding HPR or Phase Ia.

Documentation Findings:
On November 19, 2024, INDOT, acting on behalf of the FHWA, issued a finding of "No Adverse Effect" for the project (Appendix D, D1 to D14). The project will involve impacts to an NRHP eligible property, Wiseman Farm (IHSSI #057-541-40032). The impacts will include the acquisition of 0.01 acre of temporary ROW, 0.09 acre of permanent ROW, and encroachment on the recommended NRHP boundary. No impacts to the fence line and no installation of lighting will occur. The project will have "No Adverse Effect" to this resource because the proposed changes will not alter the Wiseman Farm in a manner that would diminish its historic integrity or its eligibility for listing in the NRHP. The supporting 800.11(d) document and finding were sent to consulting parties on November 20, 2024 (Appendix D, D97 to D100). The SHPO concurred with the "No Adverse Effect" finding on December 20, 2024 (Appendix D, D101 to D102). The SHPO requested that if lighting becomes a part of the project, or future projects, that their office be provided with the updated information as this may add to the visual impacts of the project on the Wiseman Farm (IHSSI #057-541-40032). This is included in the *Environmental Commitments* section of this document.

Public Involvement:
To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Adverse Effect" was published in the *Hamilton County Reporter* on November 25, 2024 offering the public the 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 December 24, 2024. No comments were received within the public comment period. The text of the public notice and

the affidavit of publication appear in Appendix D, D125 to D126.

The Section 106 process has been completed and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

	Presence	Use	
		Yes	No
Parks and Other Recreational Land			
Publicly owned park			
Publicly owned recreation area			
Other (school, state/national forest, bikeway, etc.)			
Wildlife and Waterfowl Refuges			
National Wildlife Refuge			
National Natural Landmark			
State Wildlife Area			
State Nature Preserve			
Historic Properties			
Site eligible and/or listed on the NRHP	**X**	**X**	

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	X
Individual Section 4(f)	
Any exception included in 23 CFR 774.13	

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

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 / 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, the aerial maps of the project area (Appendix B, B3 to B8), and the RFI report (Appendix E, E1 to E11), there is one potential 4(f) resource located within the 0.5-mile search radius. Ruoff Music Center is a privately owned recreational property and therefore is not considered a Section 4(f) resource.

According to the HPR, two recommended NRHP-eligible properties: Wiseman Farm (IHSSI #057-541-40032) and Hair-Whitaker Farm (Lochmueller #4) are located within the APE. The project will convert property from the Wiseman Farm (IHSSI #057-541-40032), 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". The project qualifies for the MOU between FHWA-Indiana Division, the Indiana SHPO, and INDOT dated January 2, 2020. The MOU stipulates that FHWA intends to determine Section 4(f) de minimis use on historic properties for projects in which SHPO has concurred with a finding of "No Adverse Effect" or "No Historic Properties Affected." The Section 4(f) MOU satisfies the notification requirements specified in 23 CFR 774 for all projects where there is a determination of "No Adverse Effect" or that there are "No Historic Properties Affected" associated with a Section 4(f) historic property except those that are also National Historic Landmarks (NHLs). Therefore, FHWA hereby intends to issue a "de minimis" finding for the Wiseman Farm (IHSSI

#057-541-40032), pursuant to SAFETEA-LU, thereby satisfying FHWA's responsibilities under Section 4(f) for this historic property.

The project will not convert property from Hair-Whitaker Farm (Lochmueller #4), 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 Hair-Whitaker Farm (Lochmueller #4).

Section 6(f) Involvement	**Presence**	**Use**	
		Yes	**No**
Section 6(f) Property			

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

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.

A review of 6(f) properties on the INDOT ESD website revealed a total of ten properties in Hamilton County (Appendix I, I1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impact to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	**Yes**	**No**
Is the project in the most current STIP/TIP?	X	
Is the project located in an MPO Area?	X	
Is the project in an air quality non-attainment or maintenance area?	X	
If Yes, then:		
Is the project in the most current MPO TIP?	X	
Is the project exempt from conformity?		X
If No, then:		
Is the project in the Transportation Plan (TP)?	X	
Is a hot spot analysis required (CO/PM)?		X

Location in STIP: Amendment 24-10.2

Name of MPO (if applicable): Indianapolis Metropolitan Planning Organization

Location in TIP (if applicable):

Level of MSAT Analysis required?

Level 1a [ ] Level 1b [ ] Level 2 [X] Level 3 [ ] Level 4 [ ] Level 5 [ ]

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

STIP/TIP
This project is included in Amendment 24-10.2 of the Fiscal Year (FY) 2024-2027 Indianapolis Metropolitan Planning Organization Transportation Improvement Program (IMPO TIP) and Statewide Transportation Improvement Program (STIP) (Appendix H, H1 to H2). Amendment 24-10.2 is currently pending approval; this document will be updated once the amendment is approved.

Attainment Status
This project is located in Hamilton County, which is currently a maintenance area for Ozone, under the 1997 Ozone 8-hour standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, *South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al. Decision.* The project's design concept and scope are accurately reflected in both the IMPO Transportation Plan (TP) and the TIP and both conform to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.

MSAT
In addition to the criteria air pollutants for which there are National Ambient Air Quality Standards (NAAQS), EPA also regulates air toxics. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g. airplanes), area sources (e.g. dry cleaners), and stationary sources (e.g. factories or refineries).

Mobile Source Air Toxics (MSATs) are a subset of the 188 air toxics defined by the Clean Air Act. The MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline.

The EPA is the lead Federal Agency for administering the Clean Air Act and has certain responsibilities regarding the health effects of MSATs. The EPA has issued a Final Rule on Controlling Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229 – March 29, 2001). This rule was issued under the authority in Section 202 of the Clean Air Act. In its rule, the EPA examined the impacts of existing and newly promulgated mobile source control programs, including its reformulated gasoline (RFG) program, its national low emission vehicle (NLEV) standards, its Tier 2 motor vehicle emissions standards and gasoline sulfur control requirements, and it proposed heavy duty engine and vehicle standards and on-highway diesel fuel sulfur control requirements.

Technical shortcomings of emissions and dispersion models and uncertain science with respect to health effects prevent meaningful or reliable estimates of MSAT emissions and effects of this project. However, even though reliable methods do not exist to accurately estimate the health impacts of MSATs at the project level, it is possible to qualitatively assess the levels of future MSAT emissions under the project. Although a qualitative analysis cannot identify and measure health impacts from MSATs, it can give a basis for identifying and comparing the potential differences among MSAT emissions – if any – from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled "A Methodology for Evaluating Mobile Source Air Toxic Emissions among Transportation Project Alternatives" found at: https://www.fhwa.dot.gov/ENVIRonment/air_quality/air_toxics/research_and_analysis/mobile_source_air_toxics/msatemission4.cfm.

For the preferred alternative carried forward in this document, the amount of MSATs emitted would be proportional to the vehicle miles traveled (VMT) assuming that other variables such as fleet mix are the same for each alternative. The VMT estimated for the preferred alternative carried forward is indistinguishable from the No Build Alternative because the increase in projected traffic is due to planned development which will occur independent of this project.

Based on regulations now in effect, an analysis of national trends with EPA's MOVES3 model forecasts a combined reduction of over 76 percent in the total annual emissions rate for the priority MSAT from 2020 to 2060 while vehicle-miles of travel are projected to increase by 31 percent (Updated Interim Guidance on Mobile Source Air Toxic Analysis in NEPA Documents, Federal Highway Administration, January 18, 2023). This will both reduce the

background level of MSAT as well as MSAT emissions from this project. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the project area are likely to be lower in the future in nearly all cases.

In this document, the FHWA has provided a quantitative analysis of MSAT emissions relative to the preferred alternative carried forward, and has acknowledged that the preferred alternative may result in increased exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain, and because of this uncertainty, the health effects from these emissions cannot be estimated.

The additional travel lanes proposed as part of the project alternatives will have the effect of moving some traffic closer to nearby homes, schools, and businesses; therefore, there may be localized areas where ambient concentrations of MSATs could be higher under the preferred alternative than the No Build Alternative. However, as discussed before, the magnitude and the duration of these potential increases compared to the No Build Alternative cannot be accurately quantified due to the inherent deficiencies of current models.

Greenhouse Gases (GHG)
This analysis was performed for this project prior to the issuance of recent Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173. As such, this analysis is included for transparency but is no longer applicable to the impacts analysis for federal projects and this impact was not considered in the federal decision.

The Council on Environmental Quality's (CEQ) GHG interim guidance (https://www.regulations.gov/document/CEQ-2022-0005-0001) was reviewed and considered in the following greenhouse gas emissions analysis. The intent of the guidance is to consider a proposed project's effects on GHG emissions to ensure that FHWA projects do not have any negative impacts to GHG and how the selected alternative will improve GHG emissions.

As discussed in the Purpose and Need section above, increased traffic congestion is expected between 146th and 156th Street due to the planned developments of Finch Creek, Gatewood Lakes, and the Noblesville Event Center. Development of the area is anticipated to decrease the LOS from a B to an E by 2045. This deterioration of LOS is anticipated to increase the amount that vehicles are decelerating and accelerating, as well as potential to result in longer travel and idle times for vehicles moving through this area.

The purpose of this project is to address the inadequate capacity within the Olio Road corridor between 146th Street and 156th Street and obtain a minimum acceptable LOS of D for this portion of Olio Road and the 156th and Olio Road intersection during the design year of 2045. Therefore, the project intends to address projected increased vehicular traffic in this area of Noblesville. It is anticipated the project's improvements to capacity and LOS will result in a reduction of GHG emissions due to the reduction of anticipated deceleration/acceleration conditions and potential idle times from projected congestion.

The no build alternative would not meet the purpose and need for this project and would result in an increase in GHG emissions due to projected vehicular congestion. During construction, there may be a minor temporary increase of GHG emissions due to the increase of heavy trucks moving construction material to and from the site, as well as the operation of construction equipment. Additionally, the temporary reduction of travel lanes on Olio Road and detour may increase GHG emissions due to deceleration/ acceleration of vehicles. However, these temporary increases would cease upon completion of the project. The no build alternative would not result in construction emissions, since there would be no construction effort compared to the preferred alternative. These temporary increases of GHG emissions from construction would be minor and do not outweigh the overall anticipated reduction in GHG emissions by the project. The above analysis indicates the project is anticipated to improve capacity and LOS, which will result in a reduction of GHG emissions due to the reduction of anticipated deceleration/acceleration conditions and potential idle times from projected congestion.

In addition to GHG emissions, climate change impacts and resiliency factors were examined. According to the Indianapolis MPO's Central Indiana Regional Resiliency Snapshot (https://www.indympo.org/whats-underway/regional-resiliency-snapshot), facilities in central Indiana may be located in areas susceptible to various threats, including flooding, severe weather, extreme heat, or a combination of threats. Additionally, climate change can exacerbate the severity or frequency of these threats. Winter storm, flooding, and related severe weather are threats that have the highest probability and impacts for the central Indiana region where this project is located. The most probable climate change related threat for this project would be severe weather that results in increased precipitation and flooding due the proximity of Sand Creek and its tributaries. As this project was developed, improved drainage and detention was considered throughout design. The project was designed to allow water to runoff the roadway. This runoff will be captured by drainage ditches and stormwater detention ponds (dry ponds) along the roadways that will be constructed. Additionally, the project minimized impacts to Sand Creek's floodplain with only minor impacts.

SECTION G - NOISE

Noise	**Yes**	**No**
Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?	X	

Date Noise Analysis was approved/technically sufficient by INDOT ESD: February 2, 2024

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

Based on the studies completed to date, Lochmueller Group has identified that the project will result in no impacted receptors (Appendix I, I16 to I88). The proposed Olio Road lane configurations and 156th Street roundabout were modeled with the FHWA Traffic Noise Model program (TNM 2.5) using 2045 peak hour traffic volumes to predict the Leq(h) levels for the project in the design year. The noise analysis project area was subdivided into three noise sensitive areas (NSAs) based on distribution and clustering of Category B (residential) properties. All potential noise receptors within 500-foot of the proposed travel lanes were included in the respective NSA boundaries. NSA 1 encompasses approximately 8.7 acres and includes three single family residential properties (Category B) along 156th Street north of Sand Creek. NSA 2 encompasses approximately 24.8 acres and includes seven single family residential properties (Category B) and Noblesville Fire Station 77 (Category F) along the west side of Olio Road. NSA 3 encompasses approximately 4.9 acres and includes two single family residential properties (Category B) along the east side of Olio Road approximately midway between 146th Street and 156th Street. To generate Leq(h) levels for all potential noise sensitive receptors within the study area, 13 receptor data points were included in the TNM 2.5 set up. There are 12 Category B residential receptors and one Category F receptor (Noblesville Fire Station 77) within the three designated NSAs. Collectively, 2045 Leq(h) predicted levels range from 47.5 dB(A) at the most distal residence to Olio Road along 156th Street in NSA 1 to 61.7 dB(A) at two different residences (15411 Olio Road and 15012 Olio Road) in NSA 2 and NSA 3, respectively. The analysis predicted that there would be no Category B Noise Abatement Criteria (NAC) impacts (approach or greater than the 67 dB(A) NAC threshold) for any of the twelve residences evaluated. As a result, noise abatement was not evaluated.

This noise analysis was based on preliminary design criteria. INDOT ESD reviewed the noise analysis and found it to be technically sufficient (Appendix I, I89). INDOT does not provide comments on recommendations provided in noise studies for local agency projects. However, INDOT ESD assessed that the study was completed in accordance with federal guidelines and state policy. A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed and noise impacts are identified, noise abatement will be evaluated at that time as to whether it is feasible and reasonable.

Upon completion of the environmental document phase, the noise study will be provided directly to the county's planning unit by the environmental preparer and/or member of the project team. If the project is in a municipality that has a planning unit, a noise study will also be provided to the municipality's planning unit. INDOT Environmental Services Division shall

be copied on this correspondence. This is included in the *Environmental Commitments* section of this document.

SECTION H – COMMUNITY IMPACTS

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

Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

The MOT for the project will require phased construction and detours. The widening along Olio Road will occur in two phases. Phase 1 will involve construction along Olio Road from 146th Street to approximately 0.65 mile north of 146th Street. Phase 2 will involve construction along Olio Road from 0.65 mile north of 146th Street to 156th Street. The intersection improvement and bridge replacement will require the closure of the intersection and Bridge #29-00170 during construction. The detour route will utilize Boden Road, 146th Street, and Prairie Baptist Road (Appendix B, B30 to B31, B69, and B90). Refer to the *MOT During Construction* section for more information.

The project will result in temporary inconveniences to local business and property owners due to the MOT and permanent impacts due to loss of strip ROW. However, the project will ultimately be beneficial to local business and properties due to addressing the inadequate capacity of Olio Road. Overall, the negative impacts to property owners and local businesses within the project area will consist primarily of short-term construction impacts. No relocations are anticipated. Property owners will be provided access throughout the duration of the project to reduce impacts as much as possible. The project is not anticipated to result in substantial impacts to community cohesion, because it will not change access to properties in the area. The project is not expected to impact the surrounding community or cause economic impacts to the surrounding area. Therefore, this project will have minimal or no negative impacts to the community or local economy.

According to the Indiana Festivals website (www.indianafestivals.org) accessed on July 22, 2024, by Lochmueller Group there are six festivals planned within 10 miles of the project. The festivals, listed below, are primarily in western and downtown Noblesville and the project is located in eastern Noblesville.

- Welcome to Fairyville is located in downtown Noblesville, approximately 5 miles from the project area. The festival is an annual event occurring in April (https://noblesvillecreates.org/fairyville/).
- The Indiana Gospel Music Festival is located at the Hamilton County Fairgrounds, approximately 6 miles from the project area. The festival is an annual event occurring in July (http://www.igmfonline.org/).
- Art Fair on the Square is located at the Noblesville Courthouse Square, approximately 6.5 miles from the project area. The fair is an annual event occurring in August (https://www.hcaa-in.org/art-fair-on-the-square).
- Russell Farms Country Fall Festival is located at Russell Farms, approximately 6 miles from the project area. The festival is an annual event occurring from September to October (https://www.russell-farms.com/).
- The Potter's Bridge Fall Festival is located at Potter's Bridge Park, approximately 8 miles from the project area. The festival is an annual event occurring in October (https://hamiltoncounty.in.gov/950/Potters-Bridge-Fall-Festival)
- The Indiana Peony Festival is located at Seminary Park, approximately 6.5 miles from the project area. The festival is an annual event occurring in May (https://www.indianapeonyfestival.com/festival).

While the MOT may increase travel times to the festivals, the project will not otherwise negatively impact the events.

The ADA Transition Plan for the City of Noblesville, Indiana was approved and implemented in July of 2008 and updated in February of 2023 (https://www.noblesville.in.gov/egov/documents/1677611345_89599.pdf). The project will

include the construction of multi-use paths on both sides of Olio Road. The project will comply with the published ADA Transition Plan and will not create additional barriers to access.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Based on a desktop review, the aerial maps of the project area (Appendix B, B3 to B8), and the RFI report (Appendix E, E1 to E11), there is one recreational facility located within 0.5 mile of the project. There is one pipeline segment, owned by Indiana Gas Company, located within 0.5 mile of the project. Although not located within the 0.5 mile search radius, one public-use airport is located approximately 2.35 miles east of the project area. One recreational facility, Ruoff Music Center, is located adjacent to the project area. These numbers were confirmed by the site visits on September 14, 2022, and October 30, 2023, by Lochmueller Group. Additionally, one public facility, Noblesville Fire Station 77, is located adjacent to the project area.

An early coordination letter was sent on July 18, 2024, to the Ruoff Music Center and the Noblesville Fire Department. They did not respond within the 30-day time frame. Strip ROW will be acquired from Ruoff Music Center as a part of this project. Additionally, the MOT will impact event traffic during construction. The City of Noblesville will coordinate with the Ruoff Music Center regarding the proposed MOT prior to project letting to limit disruptions to events and the surrounding community to the extent possible. This is included as a firm commitment in the *Environmental Commitments* section of this document.

Noblesville Fire Station 77 is located adjacent to the project area. The City of Noblesville and the designer have discussed the MOT with the Noblesville City Fire Chief and Deputy Fire Chief. The disruptions to the fire station are limited to the extent possible by splitting the construction phases at the fire station. One of the two fire station drives will be accessible throughout construction. The Noblesville City Fire Chief and Deputy Fire Chief have approved the proposed MOT plan.

An early coordination letter was sent on February 6, 2023, to the INDOT Office of Aviation. The INDOT Office of Aviation replied on February 6, 2023 and stated that no tall structure permit is required for the project if all equipment being used is under 100 feet in height (Appendix C, C6). All equipment being used for this project will be under 100 feet in height so no tall structure permit will be needed. Access to all properties will be maintained during construction. Access to the fire station will be maintained by splitting the construction phasing at the fire station.

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 limit access. This is included as a firm commitment in the *Environmental Commitments* section of this document

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?	X	
Will the project result in adversely high and disproportionate impacts to EJ populations?		X

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

This analysis was performed for this project prior to the issuance of recent Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 14173. As such, this analysis is included for

transparency but is no longer applicable to the impacts analysis for federal projects and this impact was not considered in the federal decision.

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 16.84 acres of permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority 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 Hamilton County, Indiana. The community that overlaps the project area is called the affected community (AC). In this project, there are two ACs: Census Tracts 1101.01 and 1101.02. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the American Community Survey (ACS) five-year estimates data (2018-2022) was obtained from the U.S. Census Bureau's webpage (https://data.census.gov/) on January 15, 2024, by Lochmueller Group. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (ACS 2018-2022)

	COC – Hamilton County, Indiana	AC-1 – Census Tract 1101.01, Hamilton County, Indiana	AC-2 – Census Tract 1101.02, Hamilton County, Indiana
Percent Minority	18.8%	26.5%	7.4%
125% of COC	23.5%	AC > 125% COC	AC < 125% COC
EJ Population of Concern		Yes	No
Percent Low-Income	4.2%	12.7%	3.7%
125% of COC	5.3%	AC > 125% COC	AC < 125% COC
EJ Population of Concern		Yes	No

AC-1, Census Tract 1101.01, has a percent minority of 26.5% which is below 50% but is above the 125% COC threshold. AC-2, Census Tract 1101.02, has a percent minority of 7.4% which is below 50% and is below the 125% COC. Therefore, AC-1 has a minority population of EJ concern.

AC-1, Census Tract 1101.01, has a percent low-income of 12.7% which is below 50% but is above the 125% COC threshold. AC-2, Census Tract 1101.02, has a percent low-income of 3.7% which is below 50% and is below the 125% COC. Therefore, AC-1 has a low-income population of EJ concern.

Conclusion

The proposed project is expected to require the acquisition of approximately 16.84 acres of permanent ROW. Within AC-1, 8.38 acres of permanent ROW will be acquired. Within AC-2, 8.46 acres of permanent ROW will be acquired. Land use within the proposed permanent ROW consists of residential and agricultural land use. Overall, the negative impacts to property owners within the project area will be minimal and consist primarily of short-term construction impacts and the loss of strip ROW. No relocations are anticipated. The ROW to be acquired will not substantially diminish the existing use by the affected property owners.

The maintenance of traffic (MOT) is anticipated to involve a closure of Olio Road and a detour. The detour route will utilize Boden Road, 146th Street, and Prairie Baptist Road. The detour will result in an added travel distance of 1.9 miles and an added travel time of 3 minutes. See the *MOT* section of this document for more information. The MOT impacts to the EJ population and non-EJ population will be temporary and will cease after construction. Property

owners will be provided access throughout the duration of the project to reduce impacts as much as possible. No permanent impacts to community cohesion are anticipated.

Impacts from the project to any EJ community in this area will be beneficial due to providing adequate capacity for the projected vehicular demand and sufficient geometric design for a major collector roadway. It is expected the project will not have a disproportionately high and adverse environmental or health impact to low-income or minority populations of EJ concern when compared to non-EJ populations.

The EJ analysis was submitted to INDOT ESD on March 13, 2024 for review (Appendix I, I2 to I14). INDOT ESD concurred with the findings on March 20, 2024, and stated, "With the information provided, INDOT ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non-EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required." (Appendix I, I15).

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a BIS or CSRS required?		X

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

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No relocations of people, businesses, or farms will take place as a result of this project.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)	**Documentation**
Red Flag Investigation (RFI)	X
Phase I Environmental Site Assessment (Phase I ESA)	
Phase II Environmental Site Assessment (Phase II ESA)	
Design/Specifications for Remediation required?	

Date RFI concurrence by INDOT SAM (if applicable): April 10, 2023

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of geographic information systems (GIS) and available public records, the RFI was completed on April 10, 2023, by Lochmueller Group and INDOT Site Assessment & Management (SAM) provided their concurrence on April 10, 2023 (Appendix E, E1 to E11). Four National Pollutant Discharge Elimination System (NPDES) facilities are located within 0.5 mile of the project area. None of the hazmat sites identified will impact the project. Further investigation for hazardous material concerns is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	X
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	X
Rule 5	X
Other	
IN Department of Natural Resources	
Construction in a Floodway	X
Navigable Waterway Permit	
Other	
Mitigation Required	X
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

Due to the approximately 110 linear feet (0.02 acre) of permanent impacts and approximately 167 linear feet (0.03 acre) of temporary impacts to Sand Creek, along with 0.15 acre of permanent impacts to Wetland 1, a USACE Section 404 and IDEM Section 401 Nationwide Permit will be required. Mitigation may be required and will be further evaluated during the permitting process.

Due to the 0.41 acre of permanent impacts to Wetlands 2, 3, and 4, an IDEM Isolated Wetlands Permit will be required. Mitigation may be required and will be further evaluated during the permitting process.

Due to the work occurring within a regulatory floodway, a Construction in a Floodway (CIF) Permit will be required. No mitigation is anticipated.

An IDEM Indiana Construction Stormwater General Permit (CSGP), formerly named a Rule 5 permit, will be required because the project will disturb greater than one acre of total land area (22.60 acres).

Applicable recommendations provided by resource agencies are included in the *Environmental Commitments* section of this document. If permits are 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.

ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

Firm:

1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT Greenfield District Environmental Section will be contacted immediately. Changes to scope of work include tree or habitat removal, temporary and/or permanent lighting changes, and/or hibernacula/karst impacts not included in the original environmental documentation. (INDOT ESD and INDOT Greenfield District)

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 limit access. (INDOT ESD)

3) Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)

4) Upon completion of the environmental document phase, the noise study will be provided directly to the county's planning unit by the environmental preparer and/or member of the project team. If the project is in a municipality that has a planning unit, a noise study will also be provided to the municipality's planning unit. INDOT Environmental Services Division shall be copied on this correspondence. (INDOT ESD)

5) Sand Creek is listed as impaired for *E. coli*. Workers who are working in or near water with *E. coli* should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)

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) Lighting AMM 2: When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. (USFWS)

9) Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)

10) 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. (IDNR DFW and USFWS)

11) 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)

12) 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. (USFWS)

13) USFWS Bridge/Structure Assessment are only valid for two years. If construction will begin after September 25, 2026, an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)

14) Bridge #29-00170 over Sand Creek and the project's surrounding habitat is conducive for use (i.e. nests) by a bird species protected under the Migratory Bird Treaty Act (MBTA). Prior to the start of nesting season (May 1) the structure must be inspected for birds or signs of birds. If birds or signs of birds are found during the inspection avoidance and minimization measures must be implemented prior to the start of and during the nesting season. Nests without eggs or young should be removed prior to construction during the non-nesting season (September 8 – April 30) and during the nesting season if no eggs or young are present. Nests with eggs or young cannot be removed or disturbed during the nesting season (May 1 – September 7). Nests with eggs or young should be screened or buffered from active construction. Details of the required procedures are outlined in the Recurring Special Provision (RSP) 107-C-273 "Migratory Bird Protection." (INDOT ESD)

15) The portion of Wetland 2 that will not be impacted will be labeled on the plans as "Do Not Disturb". (INDOT ESD)

16) One small area at Site 12H1976, identified in the Phase 1a Archaeological Investigation Report, had an anomalous shovel test, which could represent an intact sub-plow zone feature, and it is recommended that that specific area of the site be avoided by ground disturbing activities that may go deeper than 17 centimeters (cm). The location will be marked for avoidance on the plans and in the field during construction. (INDOT CRO)

17) The surveyed limits of archaeological sites 12H1974, 12H1975, and 12H1977 will be marked for avoidance on the plans and in the field during construction. (IDNR SHPO)

18) The SHPO requested that if lighting becomes a part of the project, or future projects, that their office be provided with the updated information as this may add to the visual impacts of the project on the Wiseman Farm (IHSSI #057-541-40032). (IDNR SHPO)

19) The City of Noblesville will coordinate with the Ruoff Music Center regarding the proposed MOT prior to project letting to limit disruptions to events and the surrounding community to the extent possible. (FHWA)

For Further Consideration:

1) The proposed project design should be revisited to reduce impacts to fish, wildlife, and botanical resources where possible. Disturb as narrow an area as possible to help minimize negative impacts. Where significant impacts to fish, wildlife or botanical resources are likely due to the roadway's width, the roadway width should be reduced to help avoid those impacts whenever possible. (IDNR DFW)

2) Maintaining or improving wildlife movement under roads is a priority concern for the Division of Fish & Wildlife for the ecological health of wildlife populations in terms of movement and dispersal, habitat connectivity, and to avoid unnecessary wildlife mortality on roads. Facilitating wildlife passage ability under roads means less wildlife crossing traffic lanes and consequently reduced driving hazards. Proposed landscaping along the corridor should consider the use of native trees, shrubs, grasses, and wildflowers to offset impacts to these resources as a result of the proposed project. (IDNR DFW)

3) Including pedestrian transportation alternatives is recommended in a project of this type to potentially offset some of the negative impacts of induced demand/ traffic. (IDNR DFW)

4) 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. (IDNR DFW)

5) 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; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR DFW)

6) 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. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the OHWM. Bank lines must be maintained or restored within structures to allow for wildlife passage above the ordinary high water mark. (IDNR DFW)

7) All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area. (IDNR DFW)

8) 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. 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. (IDNR DFW)

9) Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. (IDNR DFW)

10) Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed. (IDNR DFW)

11) 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. (IDNR DFW)

12) The DFW recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain 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 drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). (IDNR DFW)

13) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)

14) Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR DFW)

Appendix G: Public Involvement

Appendix H: Air Quality

Appendix I: Other Information

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

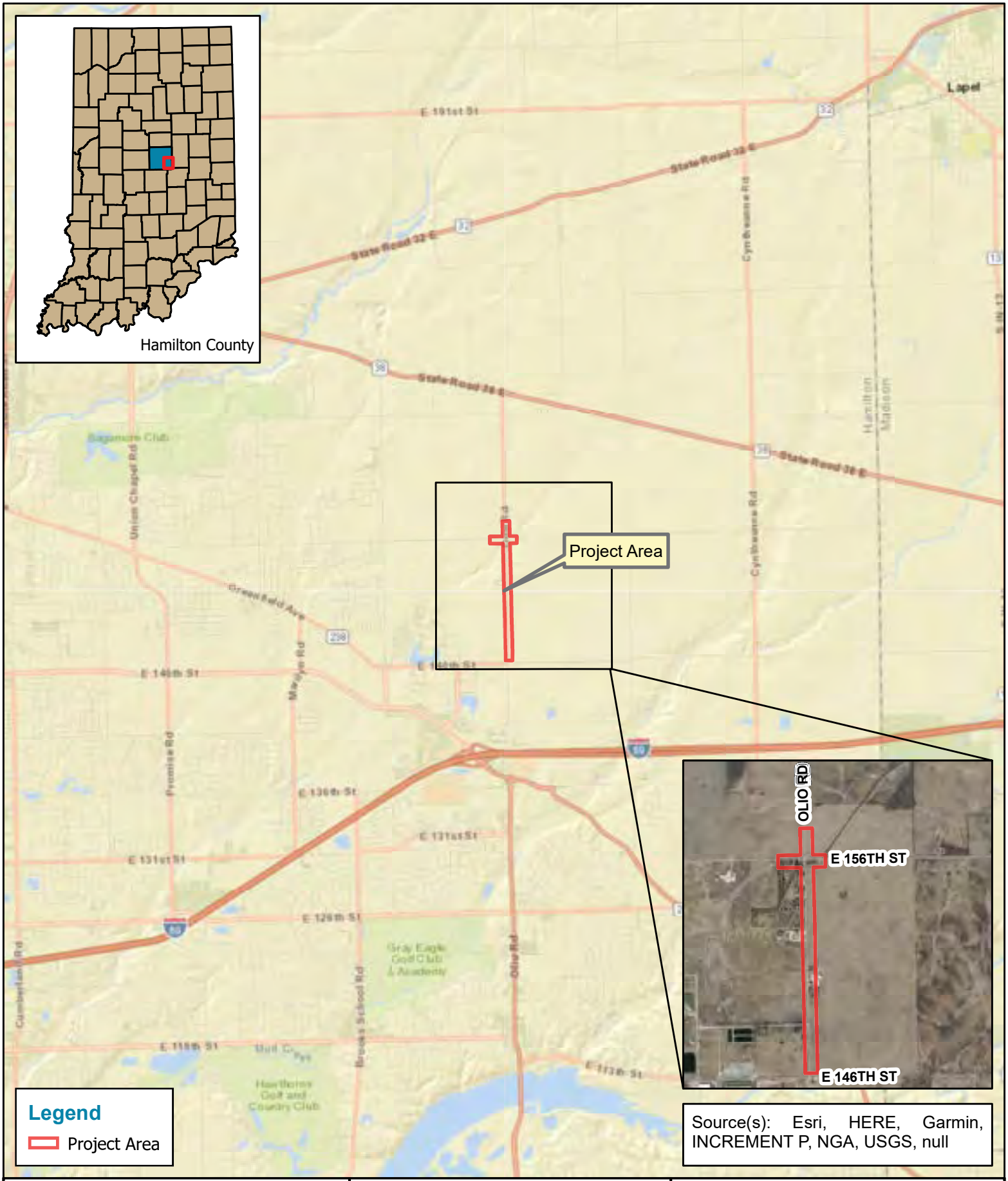
	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[9]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[10]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[11]
Approval Level • **District Env. (DE)** • **Env. Serv. Div. (ESD)** • **FHWA**	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

[1] Coordinate with INDOT Environmental Services Division. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3] Total permanent impacts to streams (linear feet) and wetlands (acres).
[4] US Army Corps of Engineers Individual 404 Permit
[5] Total permanent and temporary right-of-way. This does not include reacquisition of existing apparent right-of-way.
[6] If any relocations are within an area with a known or suspected Environmental Justice (EJ) or disadvantaged population, or has greater than 5 relocations, a conversation with FHWA, through INDOT ESD, is needed to confirm NEPA classification and outreach plan for the project.
[7] Avoidance and Mitigation Measures (AMMs) determined by the IPAC determination key to be required that are not tree AMMs, bridge AMMs, or structure AMMs.
[8] Projects that do not fall under a Species Specific Programmatic and results in a "Likely to Adversely Affect". Other findings can be processed as a lower-level CE.
[9] Potential for causing a disproportionately high and adverse impact.
[10] Section 4(f) use resulting in an Individual, Programmatic, or *de minimis* evaluation. The only exception is a *de minimis* evaluation for historic properties (Effective January 2, 2020). If a historic property *de minimis* and no other use, mark the *None* column.
[11] Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
* Includes the threatened/endangered species critical habitat
Note: Substantial public or agency controversy may require a higher-level NEPA document.

Categorical Exclusion

Appendix B

Graphics



LOCHMUELLER GROUP

3502 Woodview Trace, Suite 150
Indianapolis, IN 46268
Phone: (317) 222-3880
Fax: (317) 222-3881

Location Map

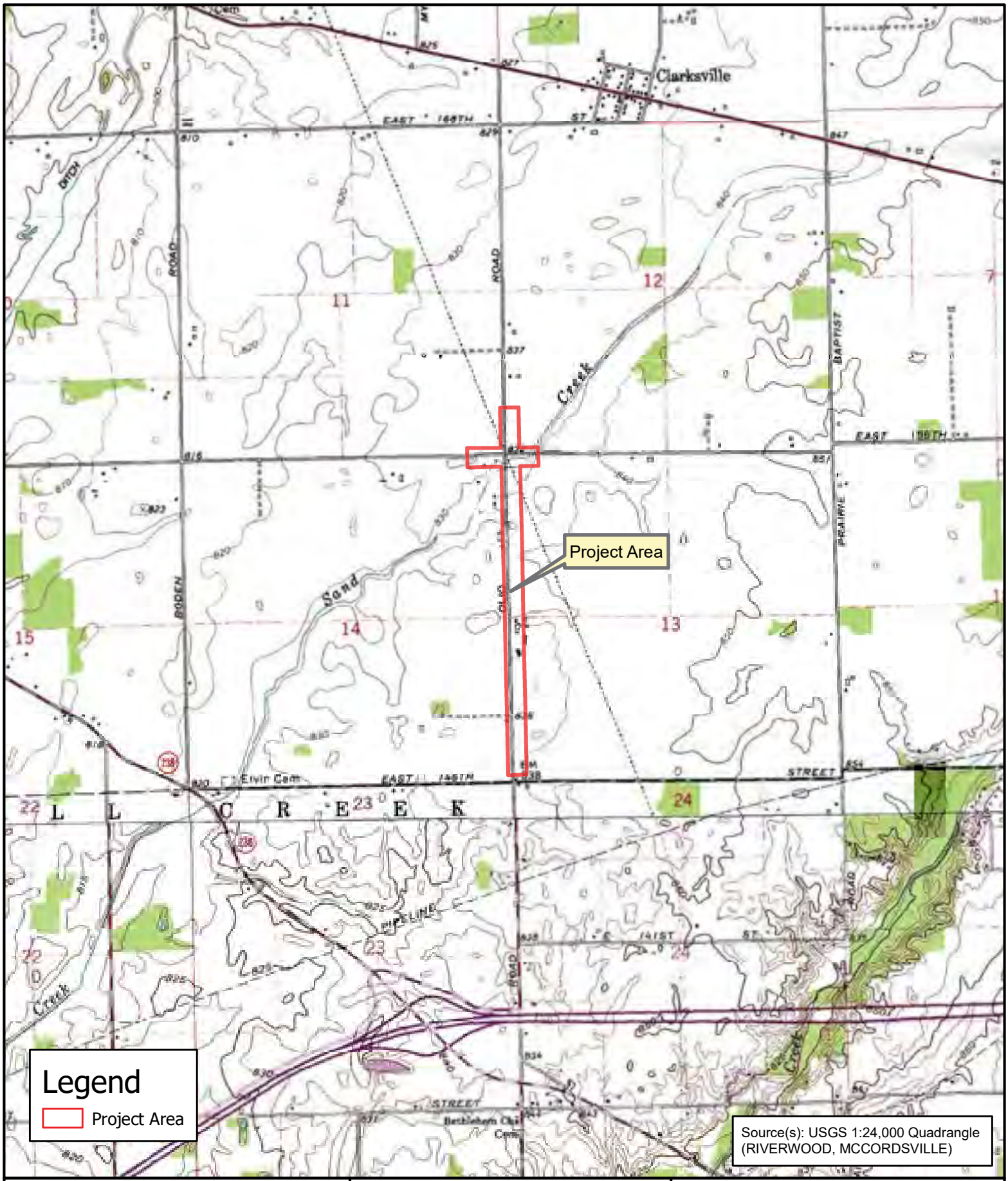
Des. No. 2101733

County: Hamilton
Township: Wayne
State: Indiana

0 0.5 1 Miles

N

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 9/5/2024, SBeaupre



LOCHMUELLER GROUP
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Phone: (317) 222-3880
Fax: (317) 222-3881

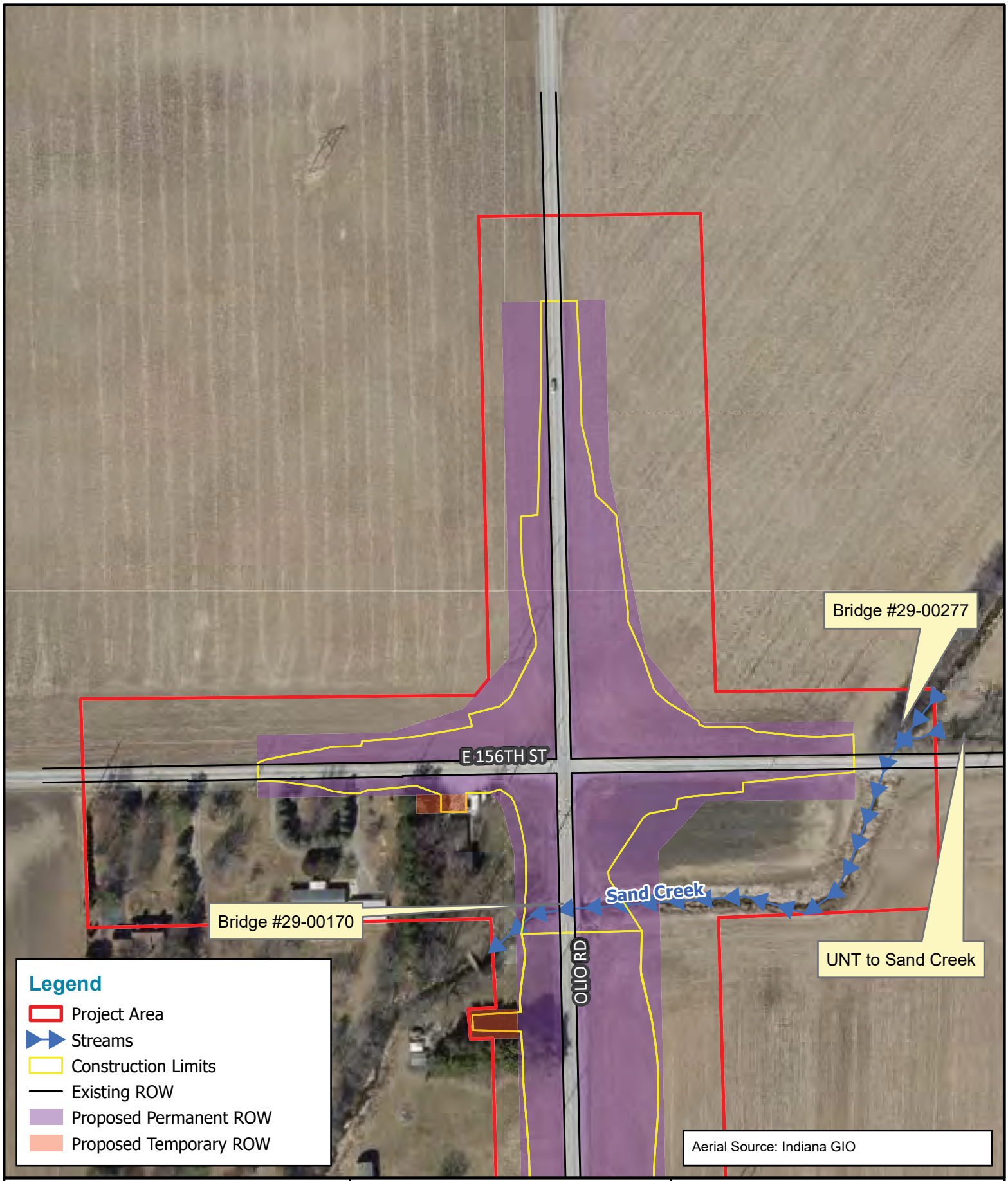
USGS Quad Map (1:24,000)
Des. No. 2101733

County: Hamilton
Township: Wayne
State: Indiana

0 1,000 2,000 Feet

N

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 9/5/2024, SBeaupre



LOCHMUELLER GROUP
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268
Phone: (317) 222-3880
Fax: (317) 222-3881

Aerial Map

Des. No. 2101733

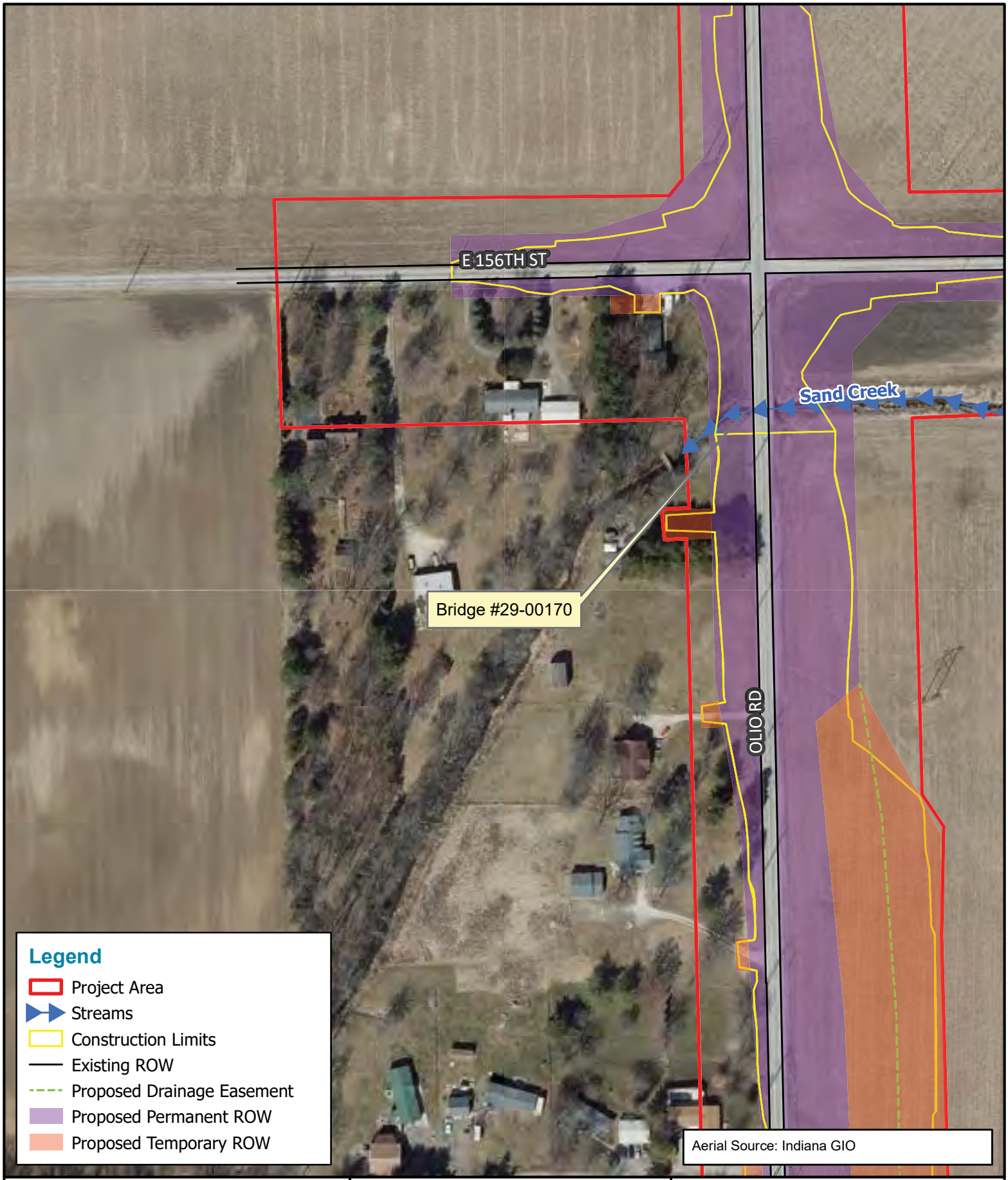
0 100 200 Feet

N

County: Hamilton
Township: Wayne
State: Indiana

Page 1 of 6

Olio Road Added Travel Lanes
146th Street to 156th Street
Created: 10/10/2024, SBeaupre



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146th Street to 156th Street
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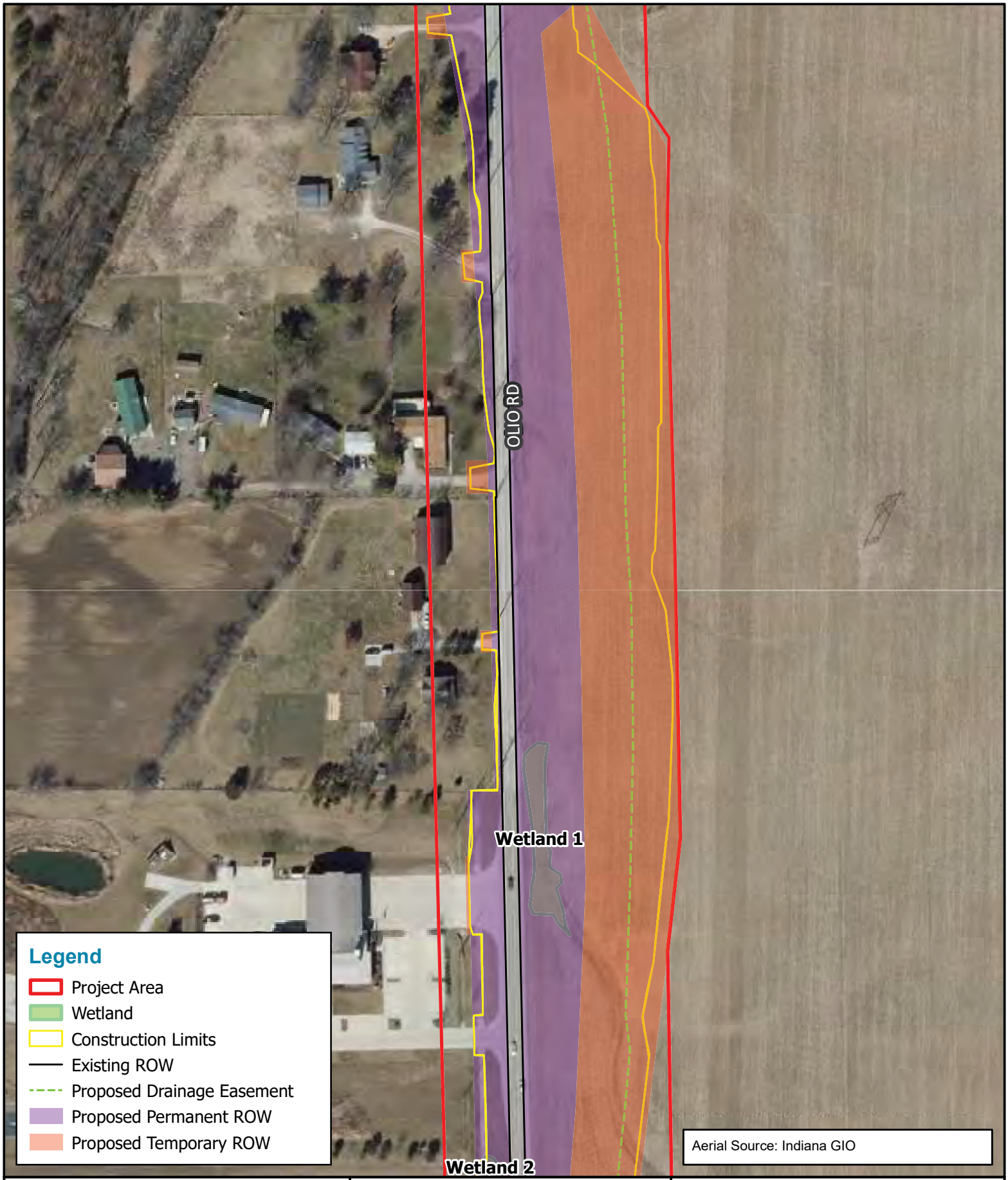

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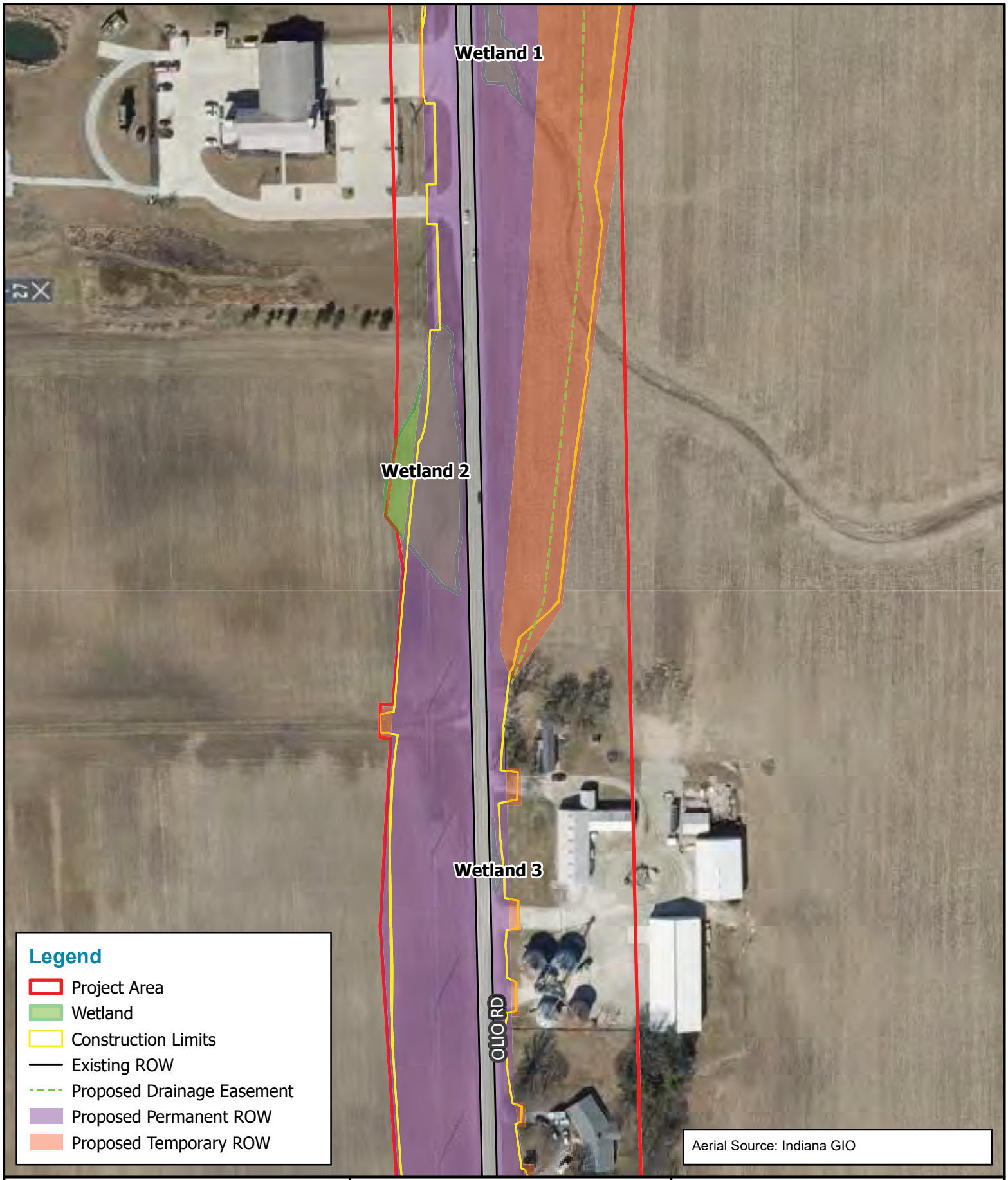

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0 100 200 Feet

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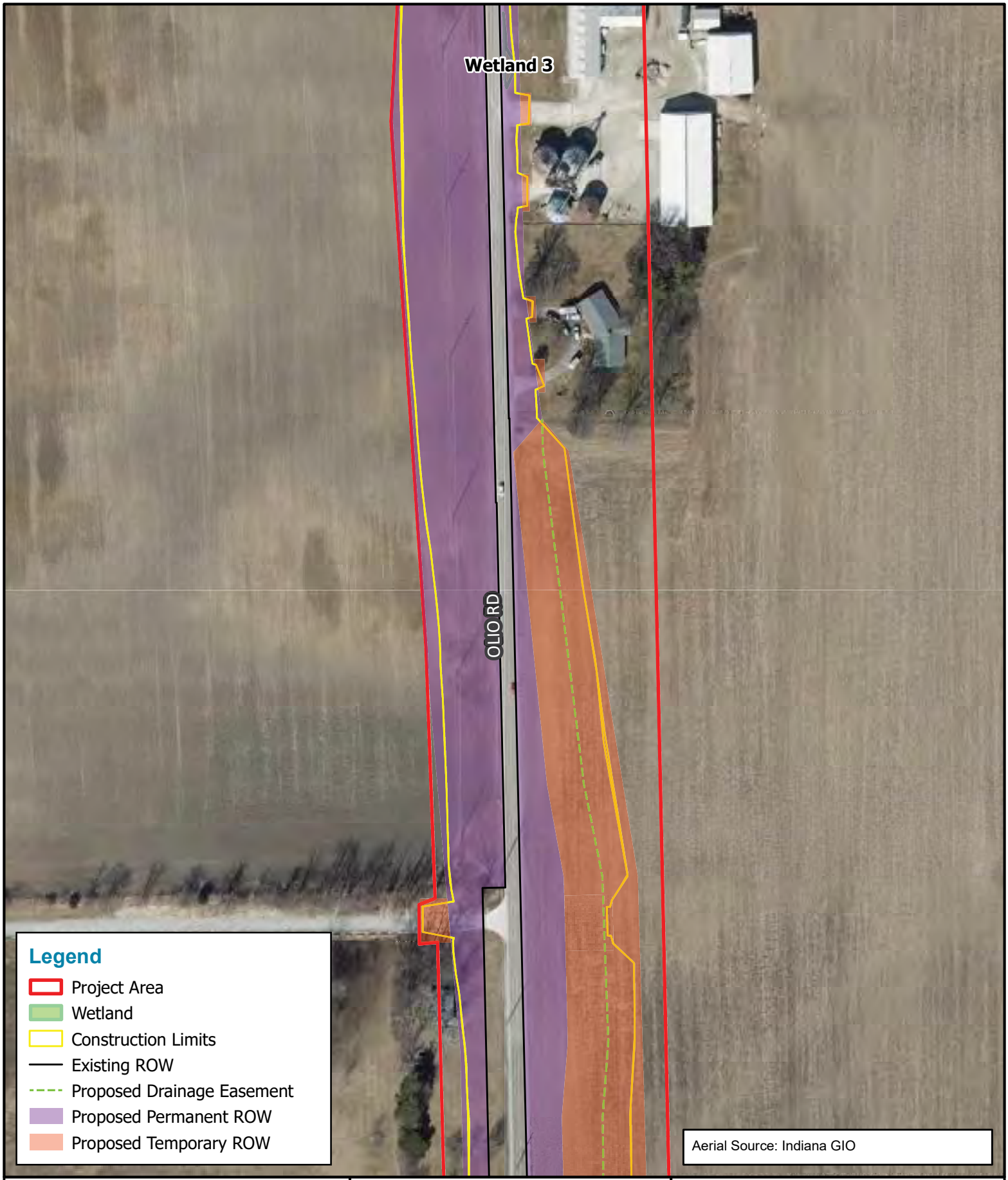

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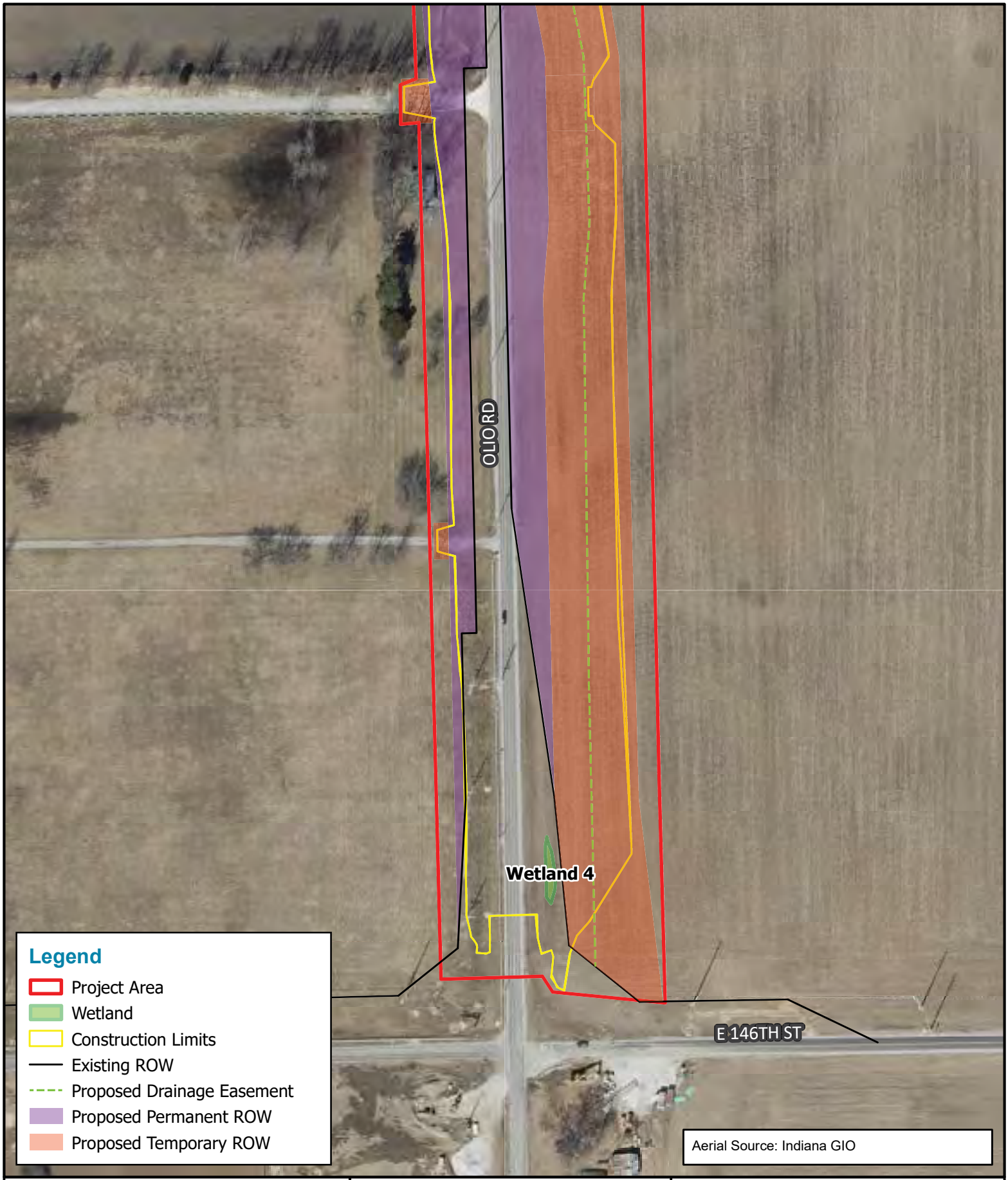
146th Street to 156th Street
Created: 10/10/2024, SBeaupre



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Created: 10/10/2024, SBeaupre

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Photo Location Map

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Page 1 of 6

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 10/10/2024, SBeaupre

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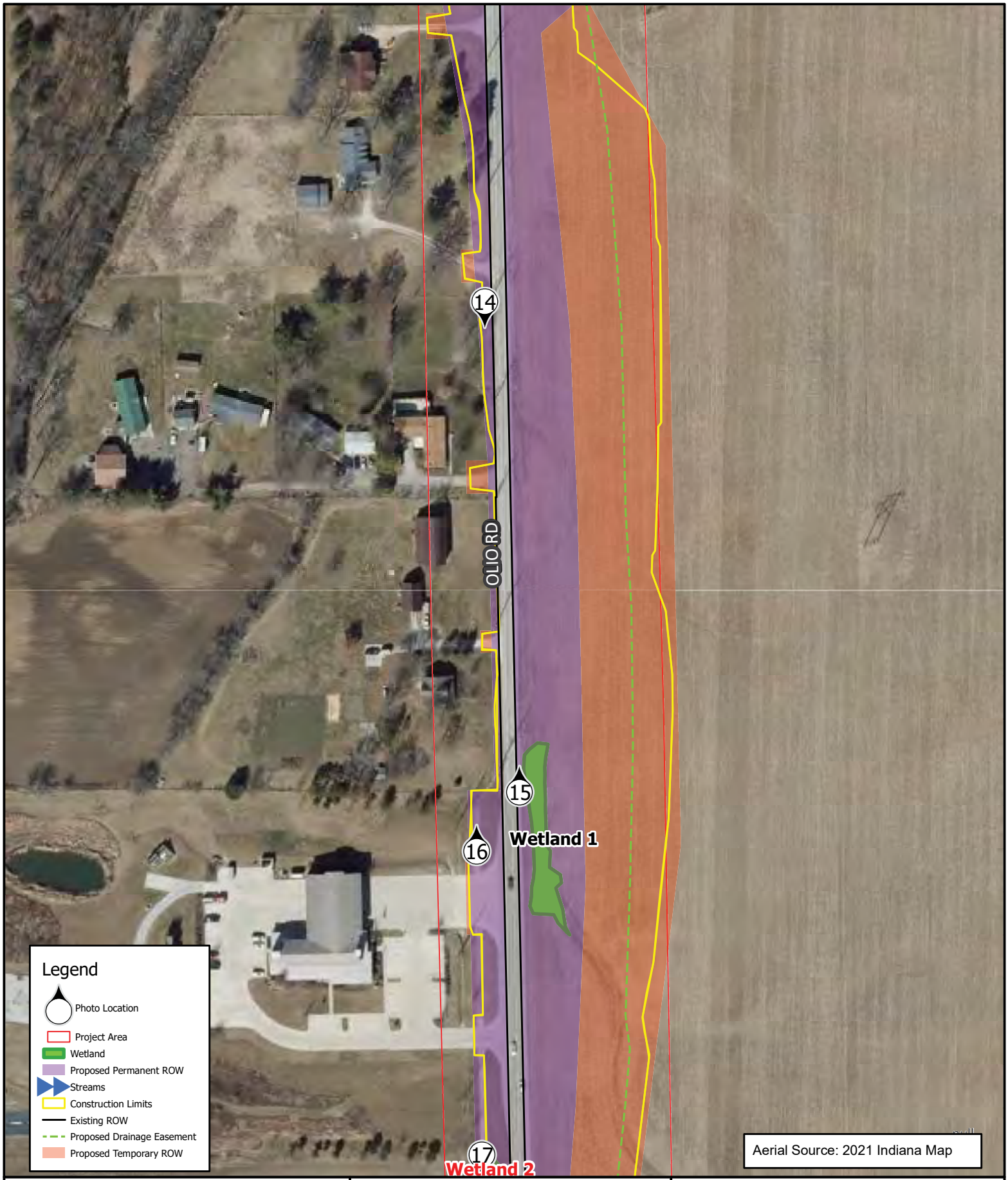

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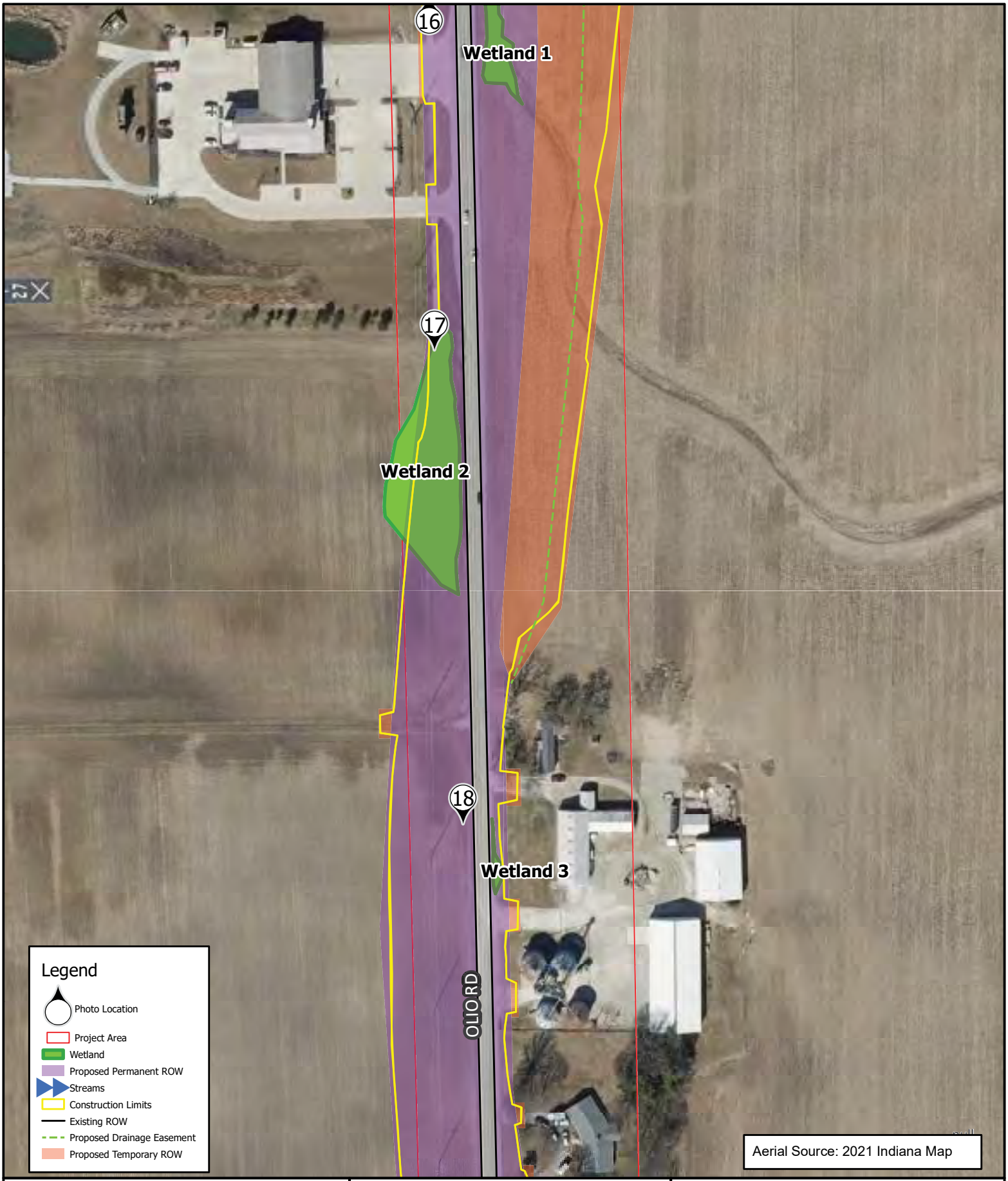

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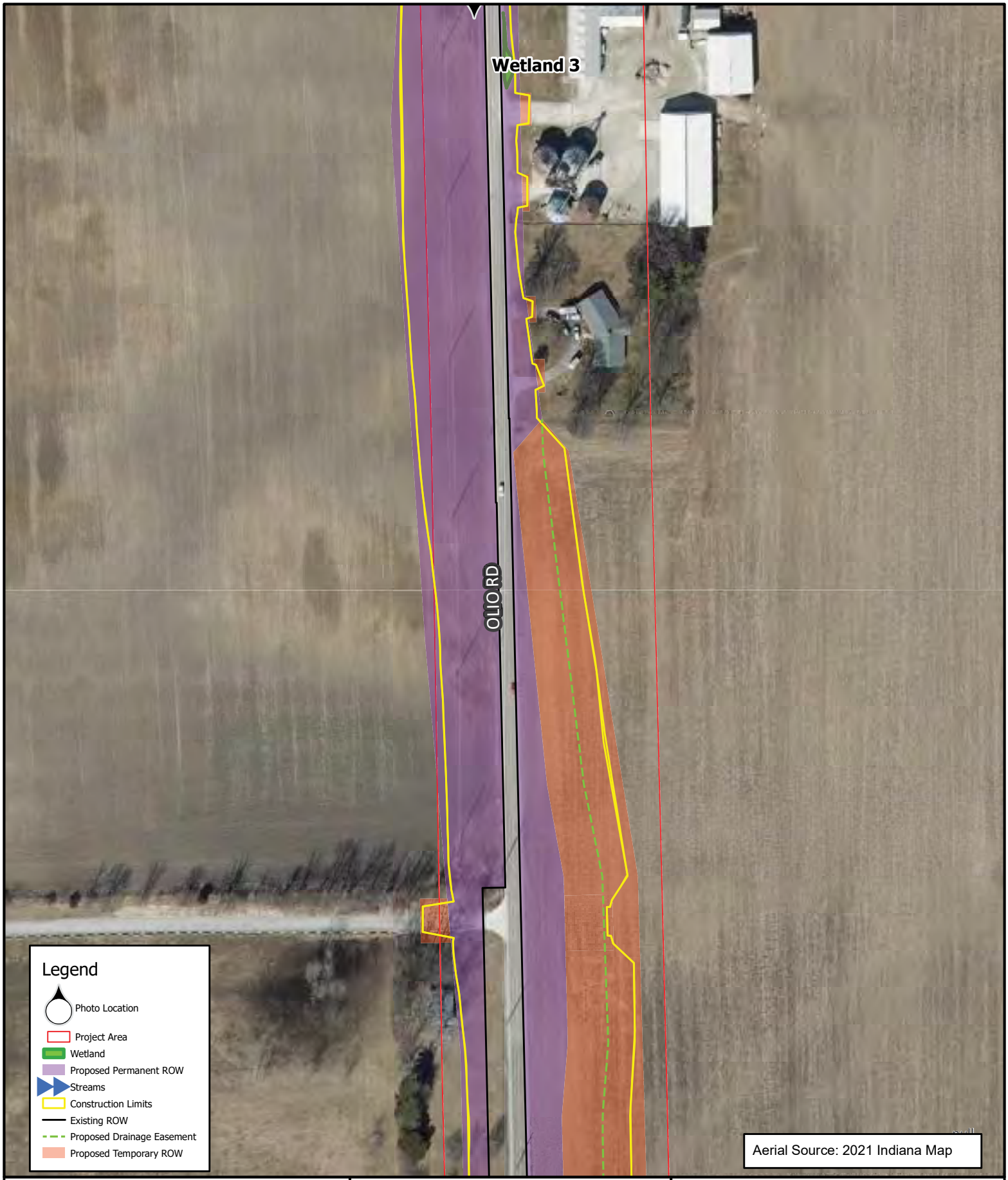

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Olio Road, 146th St to 156th St
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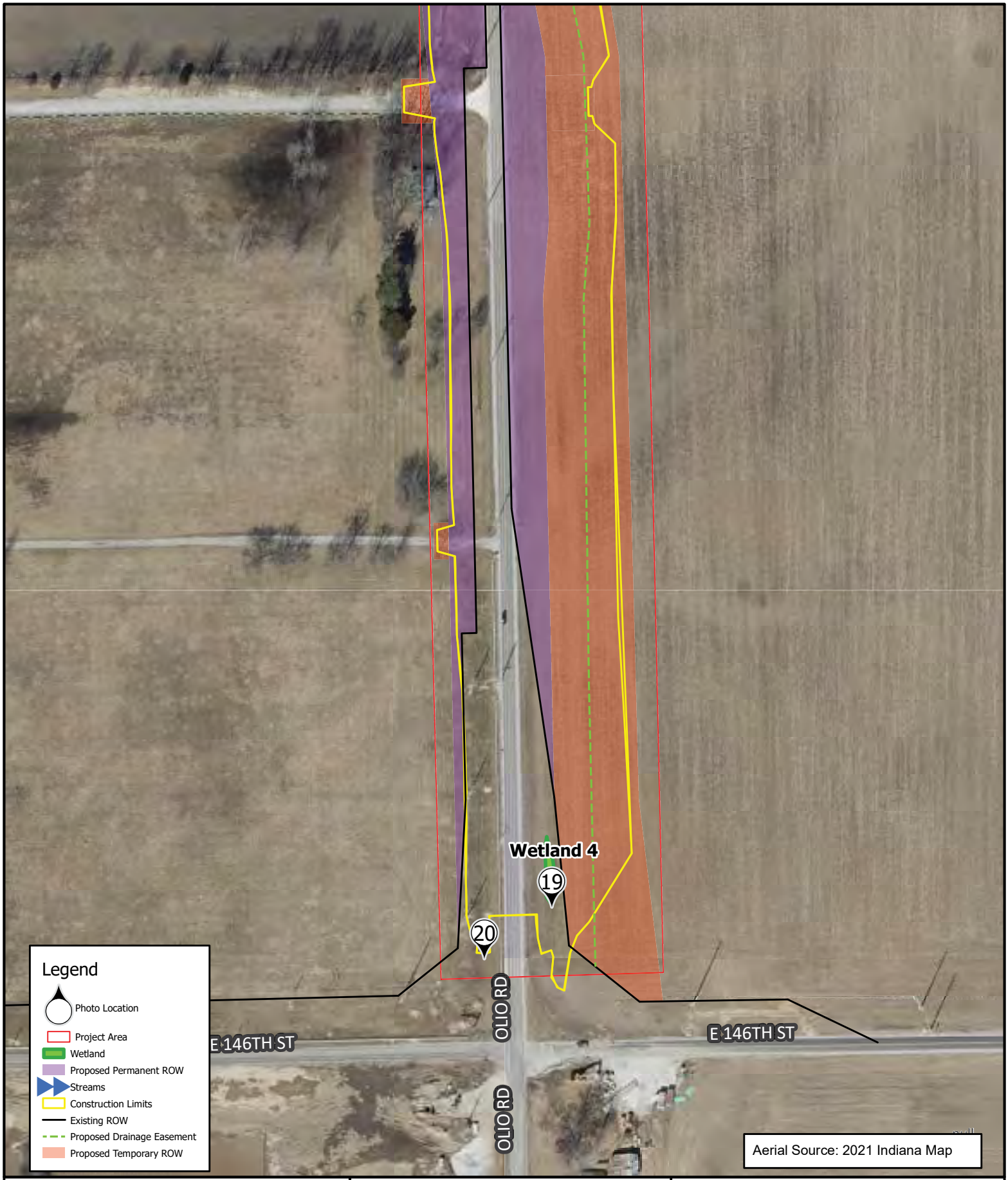

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Phone: (317) 222-3880
Fax: (317) 222-3881

Photo Location Map

Des. No. 2101733

County: Hamilton
Township: Wayne
State: Indiana

Page 6 of 6

0 100 200 Feet

N

Olio Road, 146th St to 156th St
Added Travel Lanes
Created: 10/10/2024, SBeaupre

1. Looking south on the west side of Olio Road

2. Looking north on the east side of Olio Road

3. Looking east along the north side of 156th Street

4. Looking south at development along Olio Road

5. Looking east from the Olio Road and 156th Street intersection

6. Looking northwest at the Olio Road and 156th Street intersection

7. Looking west along the north side of 156th Street

8. Looking southwest downstream Sand Creek

9. Looking northeast upstream Sand Creek from 156th Street

10. Looking southwest at dual culverts (Bridge #29-00277) under 156th Street downstream along Sand Creek

11. Looking east upstream Sand Creek at Olio Road crossing

12. Looking west along Sand Creek from Olio Road

13. Looking east upstream Sand Creek from Olio Road

14. Looking south along the west side of Olio Road

15. Looking north along east side of Olio Road

16. Looking north along multi-use path on the west side of Olio Road

17. Looking south from the end of the multi-use path

18. Looking south along the west side of Olio Road

19. Looking south at culvert on east side of Olio Road north of 146th Street intersection

20. Looking south at 146th Street and Olio Road roundabout and multi-use path

PROJECT	DESIGNATION
2101733	2101733
CONTRACT	BRIDGE FILE
R-44267	-

INDIANA DEPARTMENT
OF TRANSPORTATION

ROAD PLANS

PROJECT NO. 2101733 P.E., R/W, CN

TRAFFIC DATA	OLIO RD.
A.D.T. (2025)	4300 V.P.D.
A.D.T. (2045)	5300 V.P.D.
D.H.V. (2045)	530 V.P.H.
DIRECTIONAL DISTRIBUTION	52% NB / 48% SB
TRUCKS	4.4% D.H.V.
DESIGN DATA	
DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

THIS PROJECT INCLUDES RECONSTRUCTION OF OLIO ROAD FROM 146TH STREET TO THE SOUTHERN END OF THE BRIDGE CARRYING OLIO ROAD OVER SAND CREEK. THIS PROJECT IS LOCATED IN SECTIONS 13 AND 14, T18N, R5E, IN WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

APPROVED BY CITY OF NOBLESVILLE
BOARD OF PUBLIC WORKS AND SAFETY

JACK MARTIN, PRESIDENT

JOHN DITSLEAR, MEMBER

LAURIE DYER, MEMBER

ROBERT J. ELMER, MEMBER

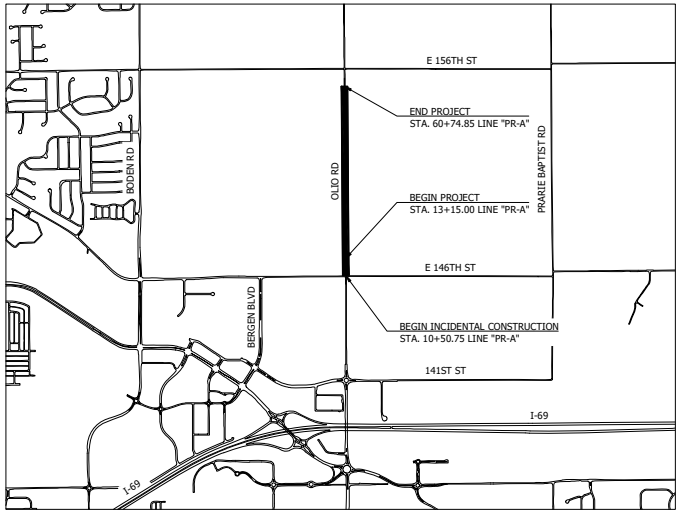
RICK L. TAYLOR, MEMBER

ATTEST DATE

EVELYN L. LEES, CLERK
CITY OF NOBLESVILLE, INDIANA

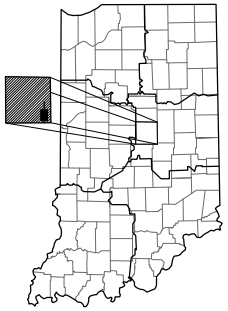
RECOMMENDED FOR APPROVAL DATE

ALISON KRUPSKI, P.E., CITY ENGINEER (ERC)
CITY OF NOBLESVILLE



SCALE: 1" = 1,500'

PROJECT LOCATION MAP
HAMILTON COUNTY



PROJECT LOCATION SHOWN BY

LATITUDE: 40°00'34"N LONGITUDE: 85°55'09"W

GROSS LENGTH: 0.901 MI.
NET LENGTH: 0.901 MI.
MAXIMUM GRADE: 1.47 %

HUC12 051202010903

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

UNITED Consulting
8440 Allison Pointe Blvd.
Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

PLANS PREPARED BY: UNITED CONSULTING (317) 895-2585 PHONE NUMBER

CERTIFIED BY: DATE

APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
-	
DESIGNATION	
2101733	

SURVEY BOOK	SHEETS
-	1 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Title Sheet.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis

UTILITIES

COMMUNICATIONS
AT&T Distribution
5870 N. College Ave.
Indianapolis, IN 46220
317-459-4769
Contact: Brad Bailey

COMMUNICATIONS
City of Noblesville
16 S 10th St.
Noblesville, IN 46060
317-770-2073
Contact: Adam Hedden

ELECTRIC DISTRIBUTION
Duke Energy
100 S Mill Creek Rd.
Noblesville, IN 46062
317-776-5320
Contact: Don McDuffy

ELECTRIC TRANSMISSION
Duke Transmission
1000 E Main St.
Plainfield, IN 46168
317-838-1053
Contact: Zach Boston

COMMUNICATIONS
Charter
3030 Roosevelt Ave.
Indianapolis, IN 46218
317-734-0751
Contact: Byron Posey

WATER
Indiana American Water
153 North Emerson Avenue
Greenwood, IN 46143
317-885-2417
Contact: Roy Francis

REVISIONS

SHEET NO.	DATE	REVISION

GENERAL NOTES

SHEET NO.	DESCRIPTION

INDEX

CALL TWO WORKING DAYS BEFORE YOU DIG
Call 811 or 800-382-5544

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

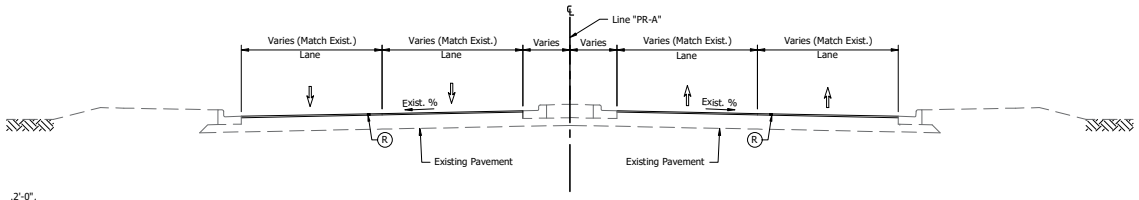
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

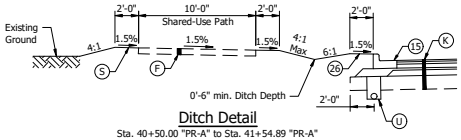
INDEX &
GENERAL NOTES

HORIZONTAL SCALE	BRIDGE FILE
N/A	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	2 of 97
CONTRACT	PROJECT
R-44267	2101733

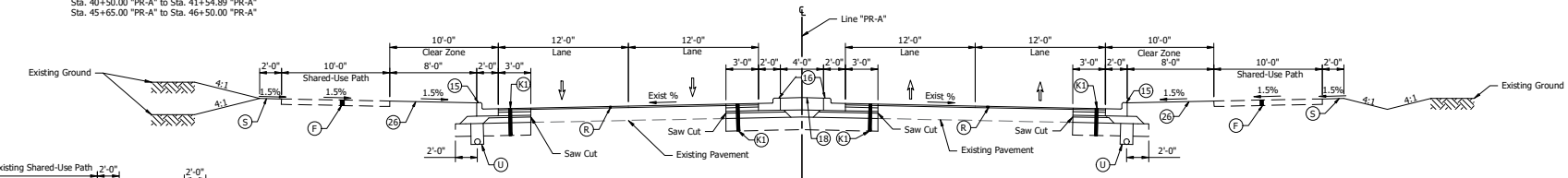
File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Index & General Notes.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



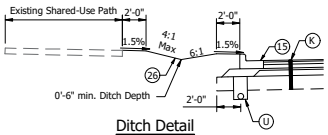
Olio Road Resurface
Sta. 10+50.75 "PR-A" to Sta. 11+71.00 "PR-A"



Ditch Detail
Sta. 40+50.00 "PR-A" to Sta. 41+54.89 "PR-A"
Sta. 45+65.00 "PR-A" to Sta. 46+50.00 "PR-A"



Olio Road Resurface and Widen
Sta. 11+71.00 "PR-A" to Sta. 13+15.00 "PR-A"



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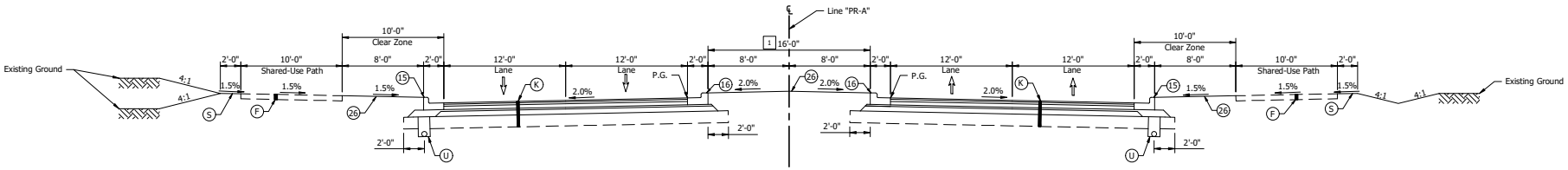
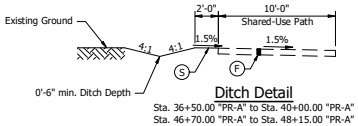


Olio Road
Sta. 13+15.00 "PR-A" to Sta. 45+73.64 "PR-A"

1 Equals 4'-0" Sta. 13+15.00 "PR-A" to Sta. 13+39.15 "PR-A"
Varies 4'-0" to 11'-10" Sta. 13+39.15 "PR-A" to Sta. 14+37.88 "PR-A"



Ditch Detail
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Sta. 46+70.00 "PR-A" to Sta. 48+15.00 "PR-A"

LEGEND

(F) HMA For Sidewalk
330 #/Sys HMA Surface, Type B (Placed in One Lift) on
6" Compacted Aggregate, No. 53 on
Subgrade Treatment, Type III
To Be Constructed if Funds Become Available

(R) Mill and Resurface
1.5" (Min.) Milling, Asphalt, then
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Existing Pavement

(K) Full Depth HMA Pavement
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
275 #/Sys QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on
440 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
200 #/Sys QC/QA-HMA, 4, 76, Intermediate, OG 19.0 mm on
660 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
Subgrade Treatment, Type IC

(K1) 165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Widening with HMA, Type C, Consisting of
275 #/Sys HMA Intermediate, Type C on
440 #/Sys HMA Base, Type C on
200 #/Sys Intermediate, OG Type C on
660 #/ys HMA, Base, Type C on
Subgrade Treatment, Type IC

(U) Underdrain, 6"

(S) Seed Mixture, U

(15) Curb and Gutter, Concrete, Modified, Type II

(16) Curb and Gutter, Concrete, Modified, Type III

(17) Center Curb, D, Concrete

(18) 13" PCCP (Decorative) on
8" Compacted Aggregate, No. 53
Subgrade Treatment, Type IC

(26) Sodding, Nursery

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Indianapolis, IN 46250
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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

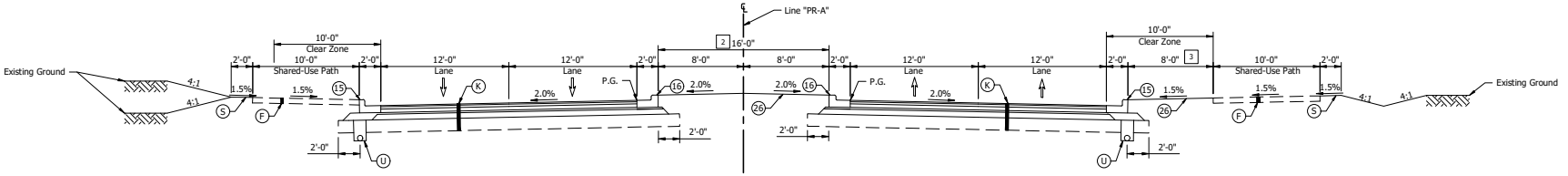
DESIGNED: SCW DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

OLIO ROAD
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	3 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDS\2025-02 Olio Road\Road\Dwg\Base\Typicals\Typ Plot Date: 4/5/2024 Plotted By: Tim Leemhuis

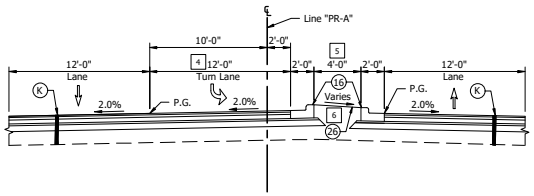


Olio Road

Sta. 45+73.84 "PR-A" to Sta. 60+74.89 "PR-A"

Varies 16'-0" to 11'-10" Sta. 54+53.48 "PR-A" to Sta. 56+60.00 "PR-A"
2 Varies 10'-2" to 6'-1" Sta. 57+29.00 "PR-A" to Sta. 58+94.00 "PR-A"
Varies 4'-4" to 4'-0" Sta. 59+86.00 "PR-A" to Sta. 60+52.50 "PR-A"
Equals 4'-0" Sta. 60+52.50 "PR-A" to Sta. 60+74.89 "PR-A"

3 Varies 8'-0" to 2'-0" Sta. 59+44.82 "PR-A" to Sta. 59+90.52 "PR-A"
Equals 0'-0" Sta. 59+90.52 "PR-A" to Sta. 60+74.89 "PR-A"

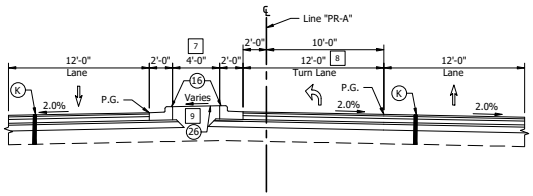


Olio Road Left Turn Lane Detail

4 Equals 12'-0" Sta. 23+20.00 "PR-A" to Sta. 24+20.00 "PR-A"
Varies 12'-0" to 0'-0" Sta. 24+20.00 "PR-A" to Sta. 25+20.00 "PR-A"

5 Equals 4'-0" Sta. 23+20.00 "PR-A" to Sta. 24+20.00 "PR-A"
Varies 4'-0" to 16'-0" Sta. 24+20.00 "PR-A" to Sta. 25+20.00 "PR-A"

6 (18) From Sta. 23+20.00 "PR-A" to Sta. 24+20.00 "PR-A"
(26) From Sta. 24+20.00 "PR-A" to Sta. 25+20.00 "PR-A"

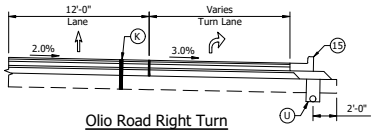


Olio Road Left Turn Lane Detail

7 Varies 11'-10" to 4'-0" Sta. 14+37.88 "PR-A" to Sta. 15+37.88 "PR-A"
Equals 4'-0" Sta. 15+37.88 "PR-A" to Sta. 16+37.88 "PR-A"
Varies 16'-0" to 4'-0" Sta. 40+72.00 "PR-A" to Sta. 41+72.00 "PR-A"
Equals 4'-0" Sta. 41+72.00 "PR-A" to Sta. 42+72.00 "PR-A"

8 Varies 0'-0" to 12'-0" Sta. 14+37.88 "PR-A" to Sta. 15+37.88 "PR-A"
Equals 12'-0" Sta. 15+37.88 "PR-A" to Sta. 16+37.88 "PR-A"
Varies 0'-0" to 12'-0" Sta. 40+72.00 "PR-A" to Sta. 41+72.00 "PR-A"
Equals 12'-0" Sta. 41+72.00 "PR-A" to Sta. 42+72.00 "PR-A"

9 (26) From Sta. 14+37.88 "PR-A" to Sta. 15+37.88 "PR-A"
(18) From Sta 15+37.88 "PR-A" to Sta. 16+37.88 "PR-A"
(26) From Sta. 40+72.00 "PR-A" to Sta. 41+72.00 "PR-A"
(18) From Sta 41+72.00 "PR-A" to Sta. 42+72.00 "PR-A"



Olio Road Right Turn

Varies 0'-0" to 12'-0" Sta. 20+05.00 "PR-A" to Sta. 21+05.00 "PR-A"
Equals 12'-0" Sta. 21+05.00 "PR-A" to Sta. 23+20.05 "PR-A"
Varies 12'-0" to 0'-0" Sta. 23+20.05 "PR-A" to Sta. 24+40.00 "PR-A"

LEGEND

(F) HMA For Sidewalk
330 #/Sys HMA Surface, Type B (Placed in One Lift) on
6" Compacted Aggregate, No. 53 on
Subgrade Treatment, Type III
To Be Constructed if Funds Become Available

(R) Mill and Resurface
1.5" (Min.) Milling, Asphalt, then
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Existing Pavement

(K) Full Depth HMA Pavement
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
275 #/Sys QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on
440 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
200 #/Sys QC/QA-HMA, 4, 76, Intermediate, OG 19.0 mm on
660 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
Subgrade Treatment, Type IC

(K1) 165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Widening with HMA, Type C, Consisting of
275 #/Sys HMA Intermediate, Type C on
440 #/Sys HMA Base, Type C on
200 #/Sys Intermediate, OG Type C on
660 #/ys HMA, Base, Type C on
Subgrade Treatment, Type IC

(U) Underdrain, 6"

(S) Seed Mixture, U

(15) Curb and Gutter, Concrete, Modified, Type II

(16) Curb and Gutter, Concrete, Modified, Type III

(17) Center Curb, D, Concrete

(18) 13" PCCP (Decorative) on
8" Compacted Aggregate, No. 53
Subgrade Treatment, Type IC

(26) Sodding, Nursery

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

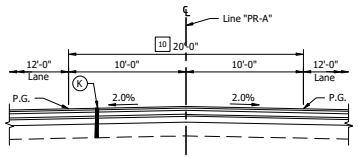
DESIGNED: SCW DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

OLIO ROAD
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	4 of 97
CONTRACT	PROJECT
R-44267	2101733

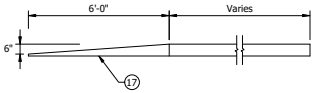
File Name: P:\RDV\CSD\25-02 Olio Road\Road\Dwg\Plans\Typicals.dwg Plot Date: 4/5/2024 Plotted By: Tim Lesmeister

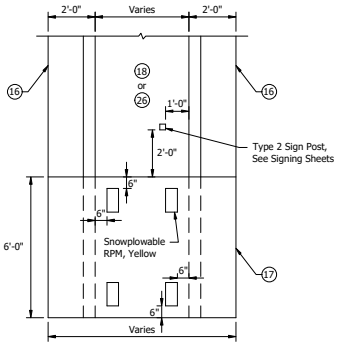


Olio Road Median Breaks

Sta. 16+37.88 to Sta. 17+16.00
Sta. 22+05.00 to Sta. 23+20.00
Sta. 29+57.00 to Sta. 36+52.00
Sta. 42+72.00 to Sta. 45+89.00
Sta. 48+22.00 to Sta. 48+98.00
Sta. 50+45.00 to Sta. 51+24.00
Sta. 53+28.00 to Sta. 54+06.00
Sta. 56+66.00 to Sta. 57+23.00
Sta. 59+00.00 to Sta. 59+80.00

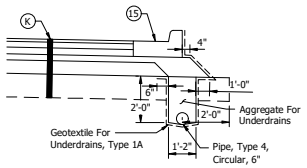
10 Varies 15'-8" to 14'-3" Sta. 56+66.00 "PR-A" to Sta. 57+23.00 "PR-A"
Varies 9'-11" to 8'-5" Sta. 59+00.00 "PR-A" to Sta. 59+80.00 "PR-A"





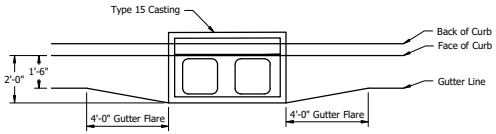
17 Center Curb, D, Concrete

Not To Scale



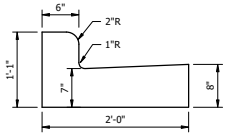
HMA UNDERDRAIN DETAIL FOR CURB AND GUTTER

NOT TO SCALE
Right Shown, Reverse for Left



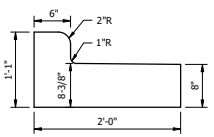
GUTTER FLARE AT TYPE 15 CASTING

Not To Scale



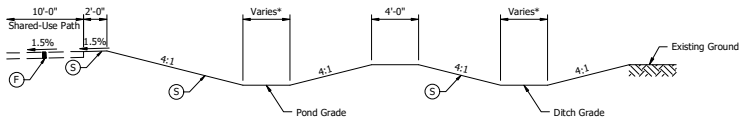
15 Curb and Gutter, Concrete, Modified, Type II

Not To Scale



16 Curb and Gutter, Concrete, Modified, Type III

Not To Scale



Detention Ditch Pond

Not To Scale
*See Detention Detail Sheets

LEGEND

(F) HMA For Sidewalk
330 #/Sys HMA Surface, Type B (Placed in One Lift) on
6" Compacted Aggregate, No. 53 on
Subgrade Treatment, Type III
To Be Constructed if Funds Become Available

(R) Mill and Resurface
1.5" (Min.) Milling, Asphalt, then
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Existing Pavement

(K) Full Depth HMA Pavement
165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
275 #/Sys QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on
440 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
200 #/Sys QC/QA-HMA, 4, 76, Intermediate, OG 19.0 mm on
660 #/Sys QC/QA-HMA, 3, 64, Base, 25.0 mm on
Subgrade Treatment, Type IC

(K1) 165 #/Sys QC/QA-HMA, 3, 70, Surface, 9.5 mm on
Widening with HMA, Type C, Consisting of
275 #/Sys HMA Intermediate, Type C on
440 #/Sys HMA Base, Type C on
200 #/Sys Intermediate, OG Type C on
660 #/ys HMA, Base, Type C on
Subgrade Treatment, Type IC

(U) Underdrain, 6"

(S) Seed Mixture, U

(15) Curb and Gutter, Concrete, Modified, Type II

(16) Curb and Gutter, Concrete, Modified, Type III

(17) Center Curb, D, Concrete

(18) 13" PCCP (Decorative) on
8" Compacted Aggregate, No. 53
Subgrade Treatment, Type IC

(26) Sodding, Nursery

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

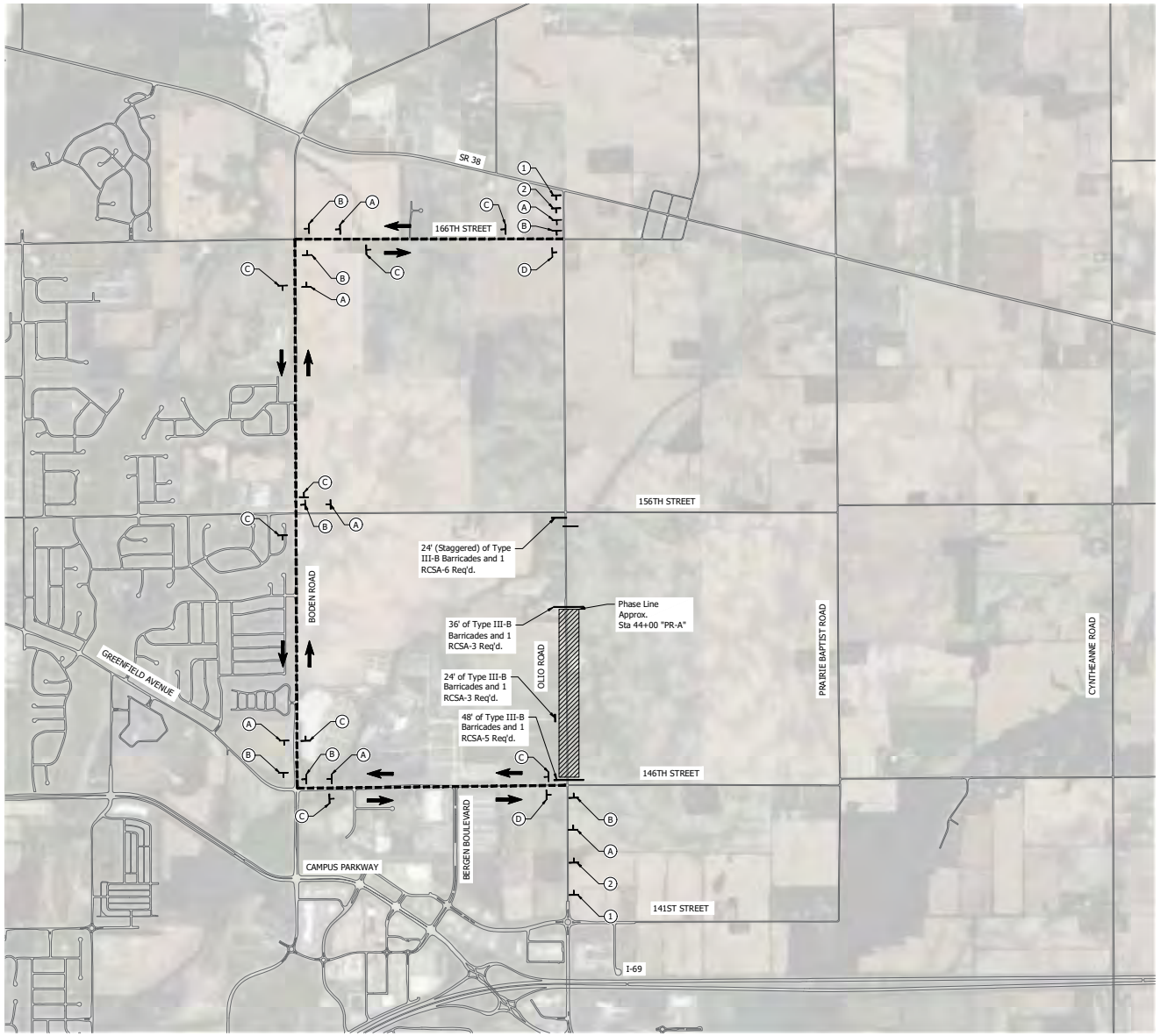
DESIGNED: SCW DRAWN: HSW
CHECKED: CCR CHECKED: CCR

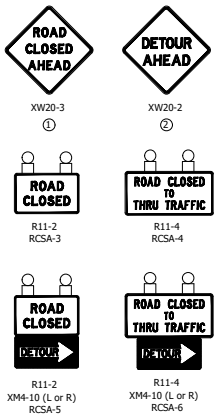
INDIANA
DEPARTMENT OF TRANSPORTATION

OLIO ROAD
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	5 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RDV\CSV\25-02 Olio Road\Road\Dwg\Plans\Typicals.dwg Plot Date: 4/5/2024 Plotted By: Tim Lostritto





SIGN LEGEND

QUANTITY SUMMARY				
Detour Route	Phase 1	Phase 2	Total	Units
Detour Route Marker Assembly	24	24	24	Each
Construction Sign, A	4	4	4	Each
Road Closure Sign Assembly	4	3	4	Each
Barricade, Type III-B	132	84	132	LFT

LEGEND

- Construction Sign, Type A
- Construction Warning Light, Type "A"
- Detour Route Marker Assembly
- Barricade, Type III-B
- Construction Area
- Detour Route
- Direction of Traffic Flow

DETOUR ROUTE MARKER ASSEMBLIES

- (A) Advance Turn D.R.M.A.
- (B) Directional D.R.M.A.
- (C) Confirming D.R.M.A.
- (D) End D.R.M.A.

NOTES: For Detour Route Marker Assemblies See Standard Drawing E801-TCDT-04.

GENERAL NOTES

1. Placement of all advanced warning signs shall be completed prior to the placement of any maintenance of traffic devices.
2. Placement of all maintenance of traffic devices shall be completed prior the start of any construction.
3. All maintenance of traffic shall be in accordance with MUTCD
4. Access to driveways and approaches shall be provided at all times.

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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

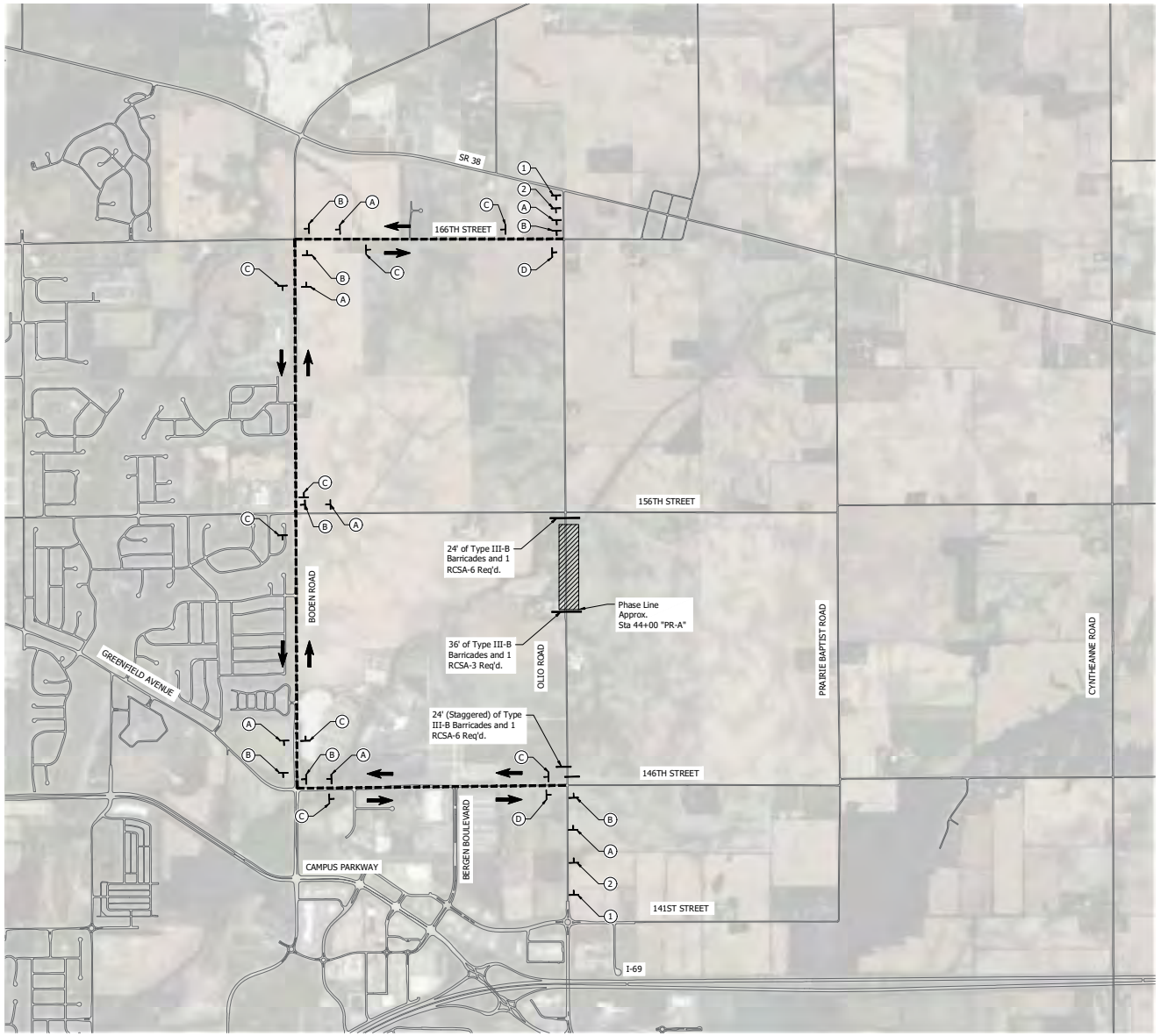
DESIGNED: SCW DRAWN: HSW
CHECKED: CCR CHECKED: CCR

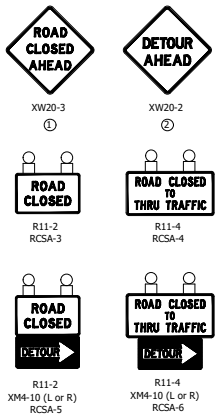
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 1 DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
1" =1000'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	11 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\0DI\CSD\22-421 Div Road\Road\Dwg\Plans\MOT DetourAway Plot Date: 4/5/2024 Plotted By: Tim Luemmke





XW20-3 (1) | XW20-2 (2)

R11-2 RCSA-3 | R11-4 RCSA-4

R11-2 XM4-10 (L or R) RCSA-5 | R11-4 XM4-10 (L or R) RCSA-6

SIGN LEGEND

LEGEND

- Construction Sign, Type A
- Construction Warning Light, Type "A"
- Detour Route Marker Assembly
- Barricade, Type III-B
- Construction Area
- Detour Route
- Direction of Traffic Flow

DETOUR ROUTE MARKER ASSEMBLIES

- (A) Advance Turn D.R.M.A.
- (B) Directional D.R.M.A.
- (C) Confirming D.R.M.A.
- (D) End D.R.M.A.

NOTES: For Detour Route Marker Assemblies See Standard Drawing E801-TCDT-04.

GENERAL NOTES

1. Placement of all advanced warning signs shall be completed prior to the placement of any maintenance of traffic devices.
2. Placement of all maintenance of traffic devices shall be completed prior the start of any construction.
3. All maintenance of traffic shall be in accordance with MUTCD
4. Access to driveways and approaches shall be provided at all times.

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SCW | DRAWN: HSW

CHECKED: CCR | CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 2 DETOUR ROUTE

HORIZONTAL SCALE	BRIDGE FILE
1" =1000'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	12 of 97
CONTRACT	PROJECT
R-44267	2101733

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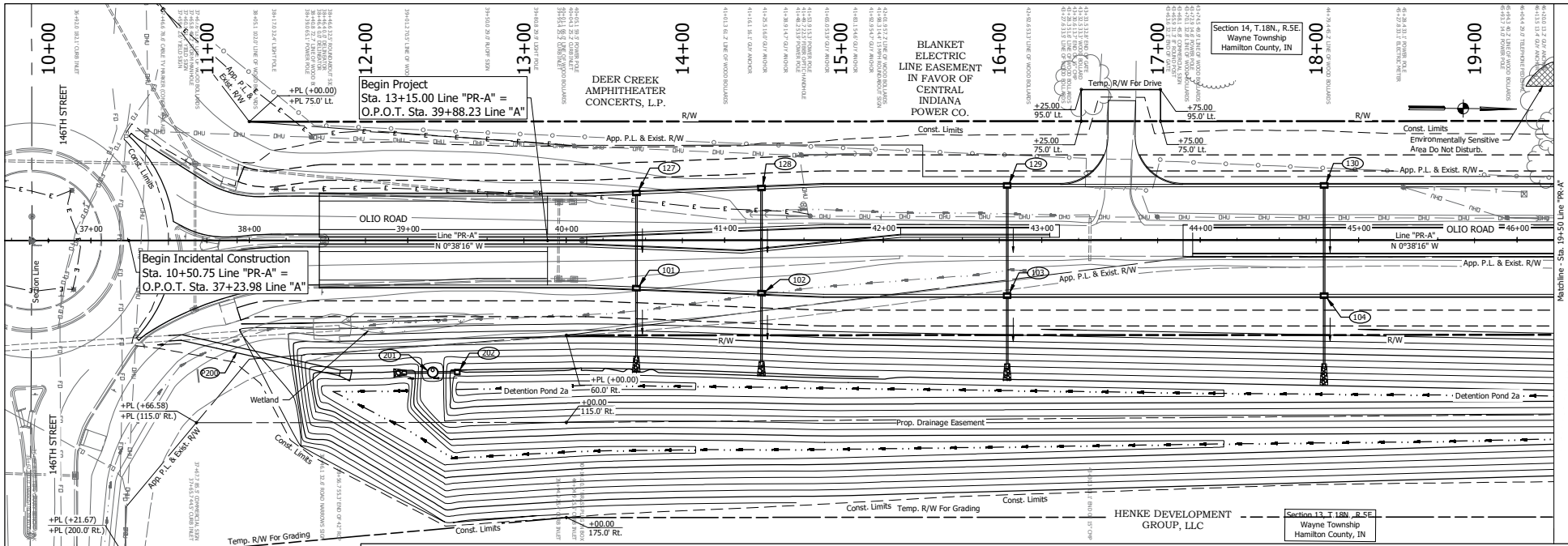
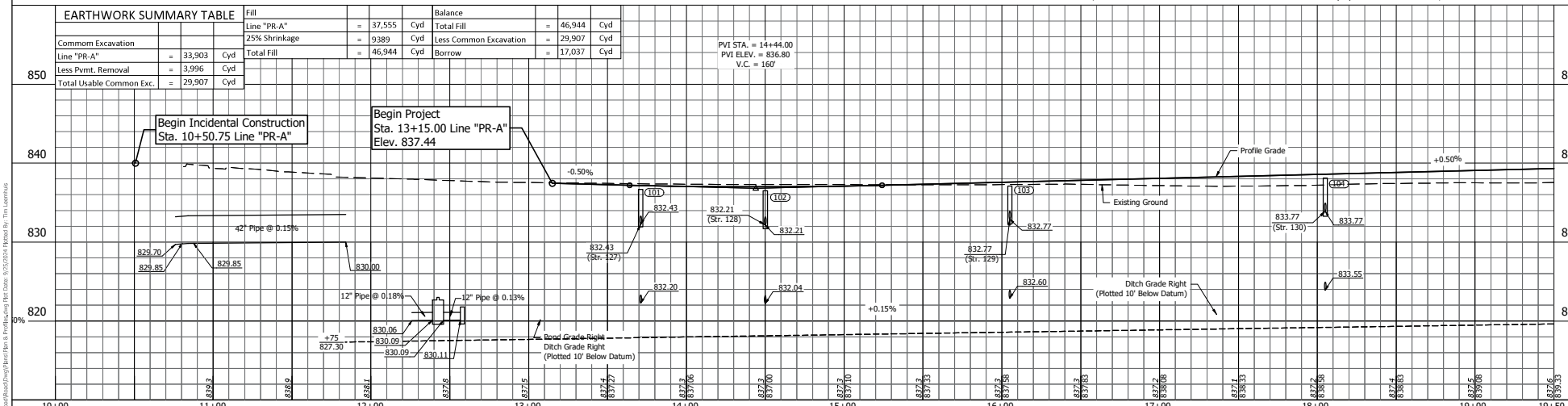


Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".

EARTHWORK SUMMARY TABLE				Fill				Balance			
				Line "PR-A"	=	37,555	Cyd	Total Fill	=	46,944	Cyd
Commom Excavation				25% Shrinkage	=	9389	Cyd	Less Common Excavation	=	29,907	Cyd
Line "PR-A"	=	33,903	Cyd	Total Fill	=	46,944	Cyd	Borrow	=	17,037	Cyd
Less Pvmt. Removal	=	3,996	Cyd								
Total Usable Common Exc.	=	29,907	Cyd								



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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

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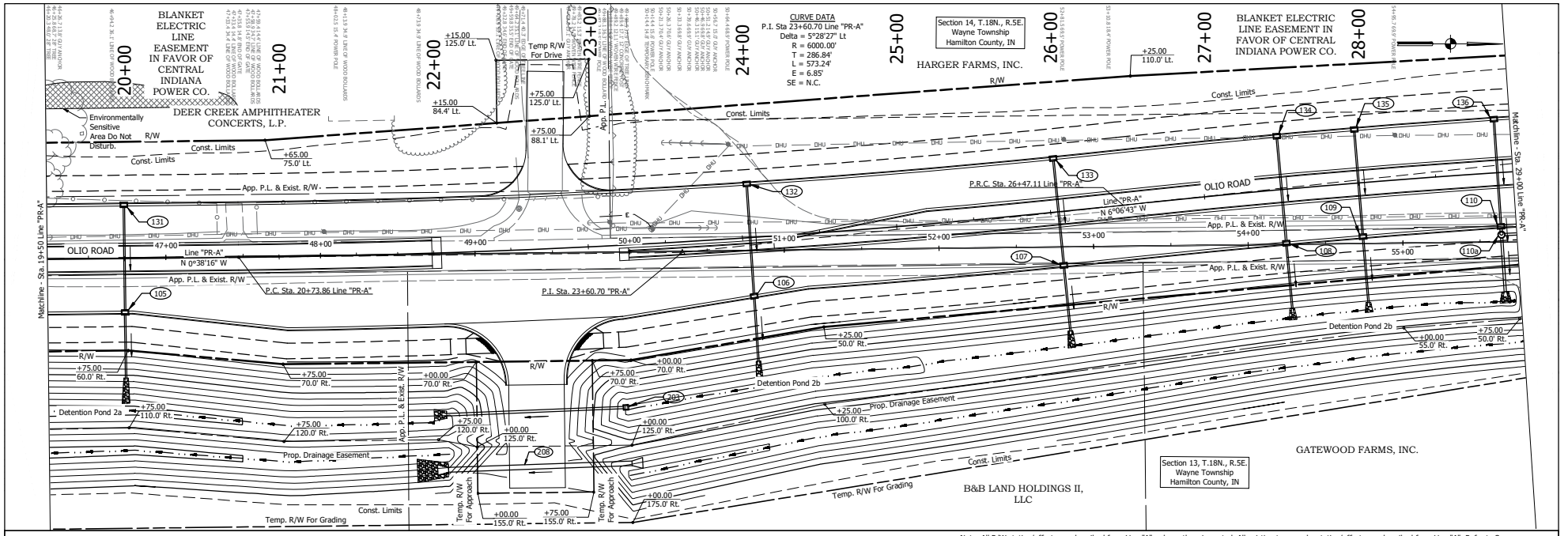
CHECKED: CCR CHECKED: CCR

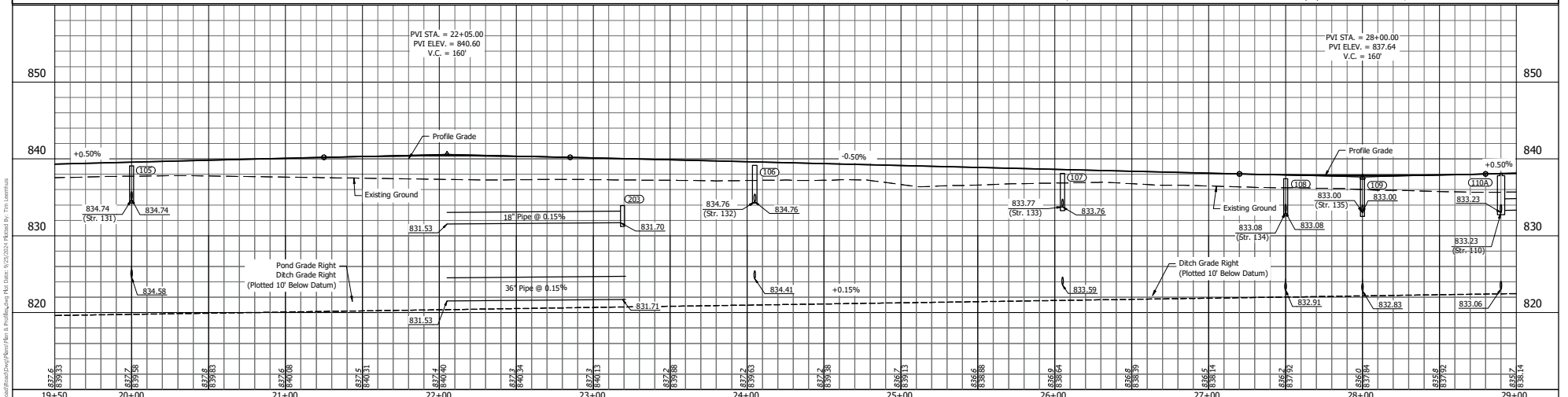
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	13 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PIN\2307\5-427 Olio Road\Road\Dwg\Plans\Plan & Profile\Line "PR" Date: 9/30/2024 Plotted By: Tim Lawmaire





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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: TBL DRAWN: HSW

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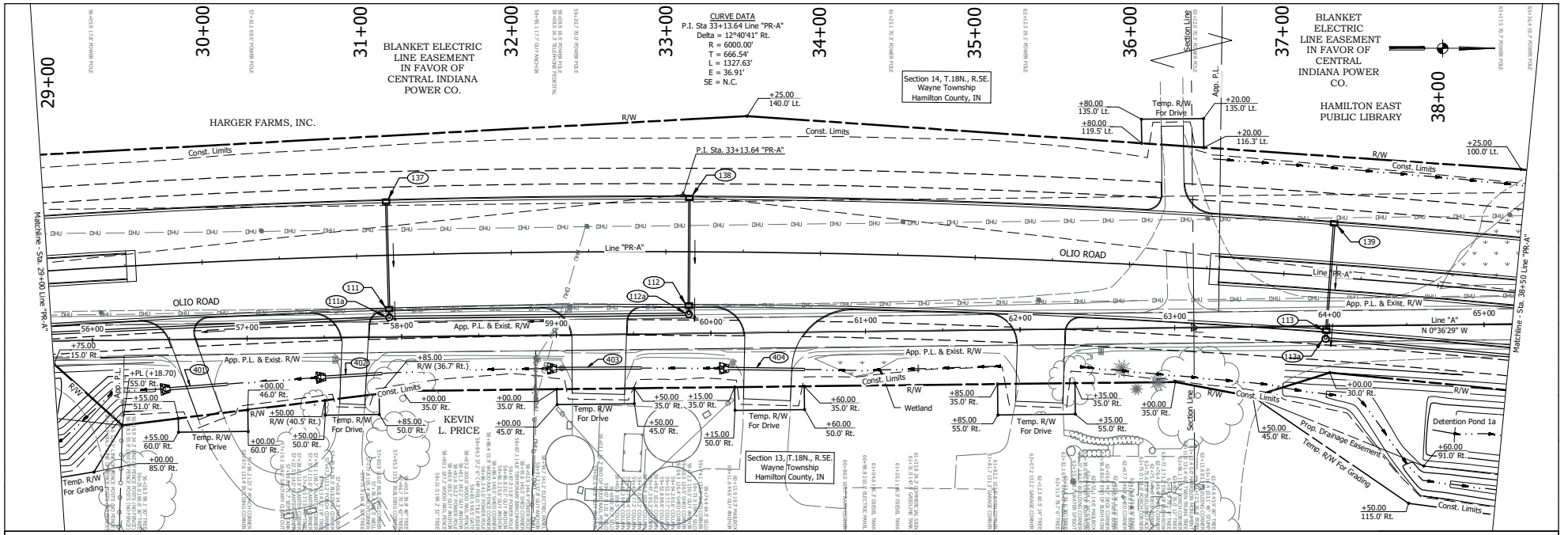
INDIANA DEPARTMENT OF TRANSPORTATION

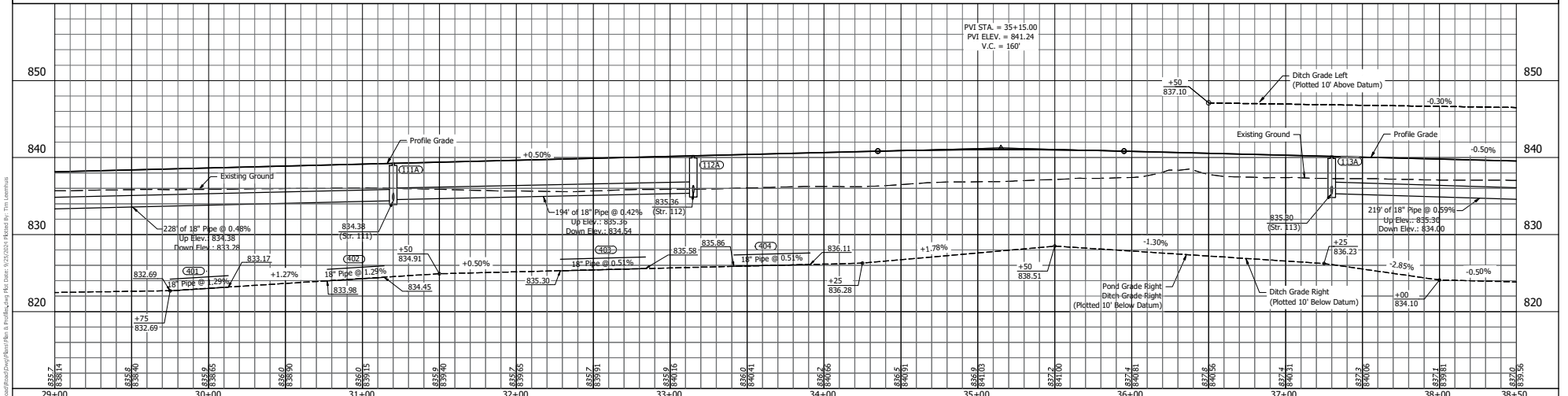
PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	14 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DVC\DVC25\22-026 Post\Road\Dwg\Plans\Plan & Profile\Line PR-A.dgn Date: 9/25/2024 Plotted By: Tim Leemhuis



Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW

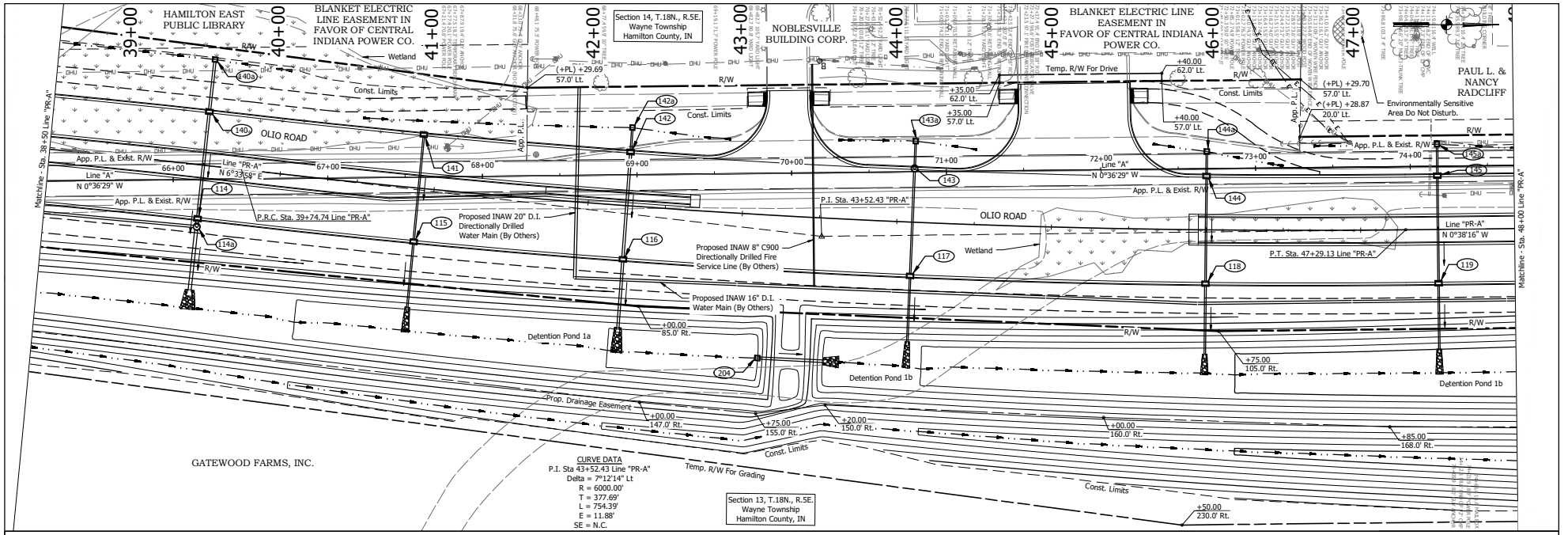
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

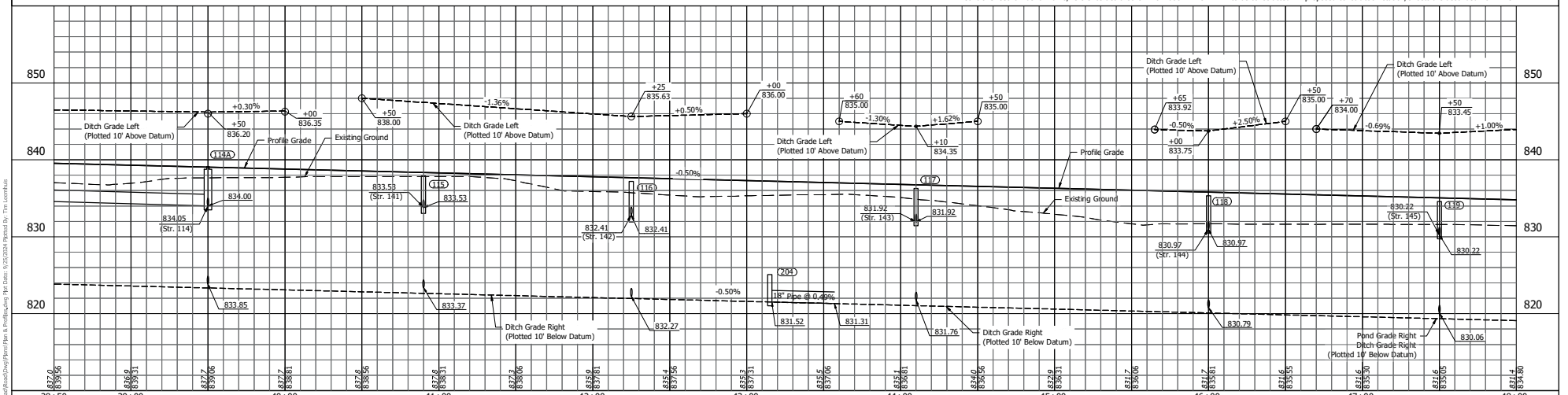
PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	15 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DVG\25\02\5-02 Ols Road\Road\Dwg\Plans\Plan & Profile_Line 'PR-A'.dgn Date: 9/25/2024 Plotted By: Tim Leenhuis



Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW

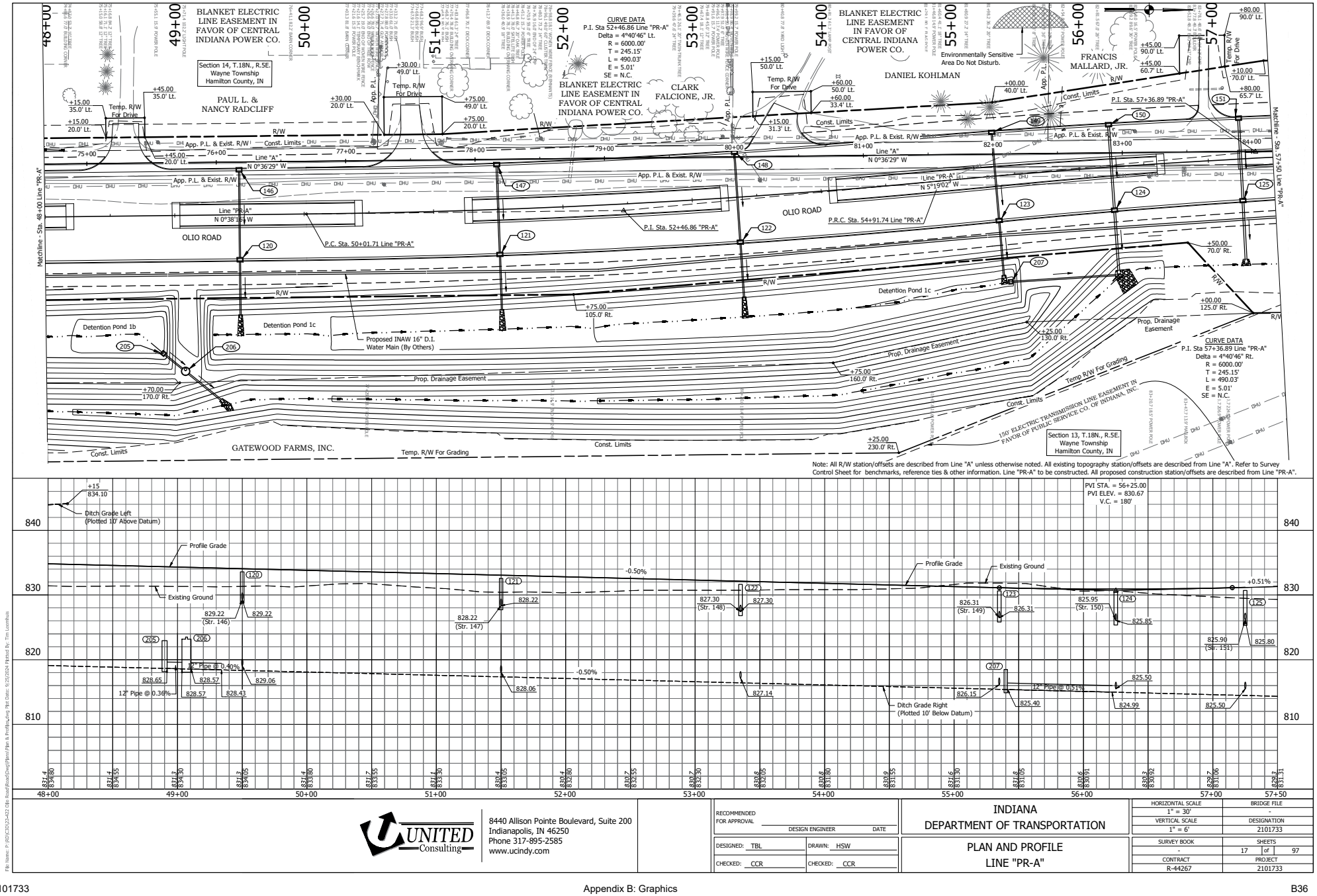
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	16 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DV\CSV\25-422 Olio Road\Road\Dwg\Plans\Plan & Profile.dwg Plot Date: 9/25/2024 Plotted By: Tim Leinhaus



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DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW
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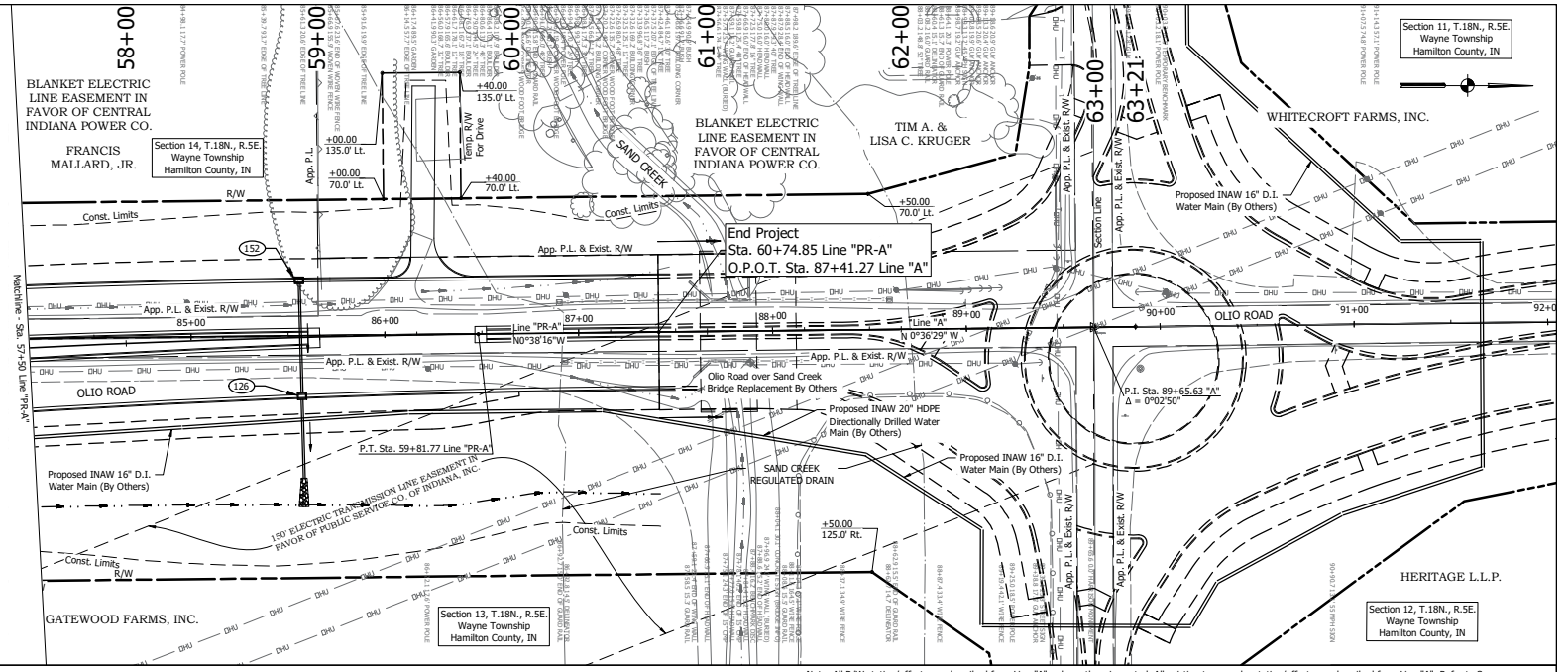
INDIANA DEPARTMENT OF TRANSPORTATION

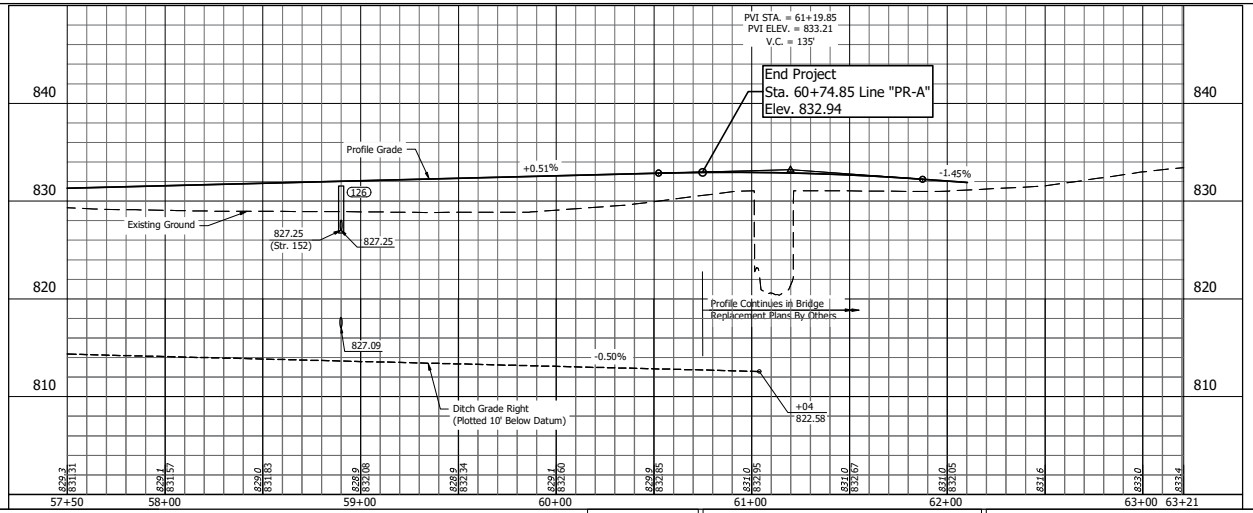
PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	17 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DES\25\25-422 Ols Road\Road\Dwg\Plans\Plan & Profile.dwg Plot Date: 9/25/2024 Plotted By: Tim Lueckhaus



Note: All R/W station/offsets are described from Line "A" unless otherwise noted. All existing topography station/offsets are described from Line "A". Refer to Survey Control Sheet for benchmarks, reference ties & other information. Line "PR-A" to be constructed. All proposed construction station/offsets are described from Line "PR-A".



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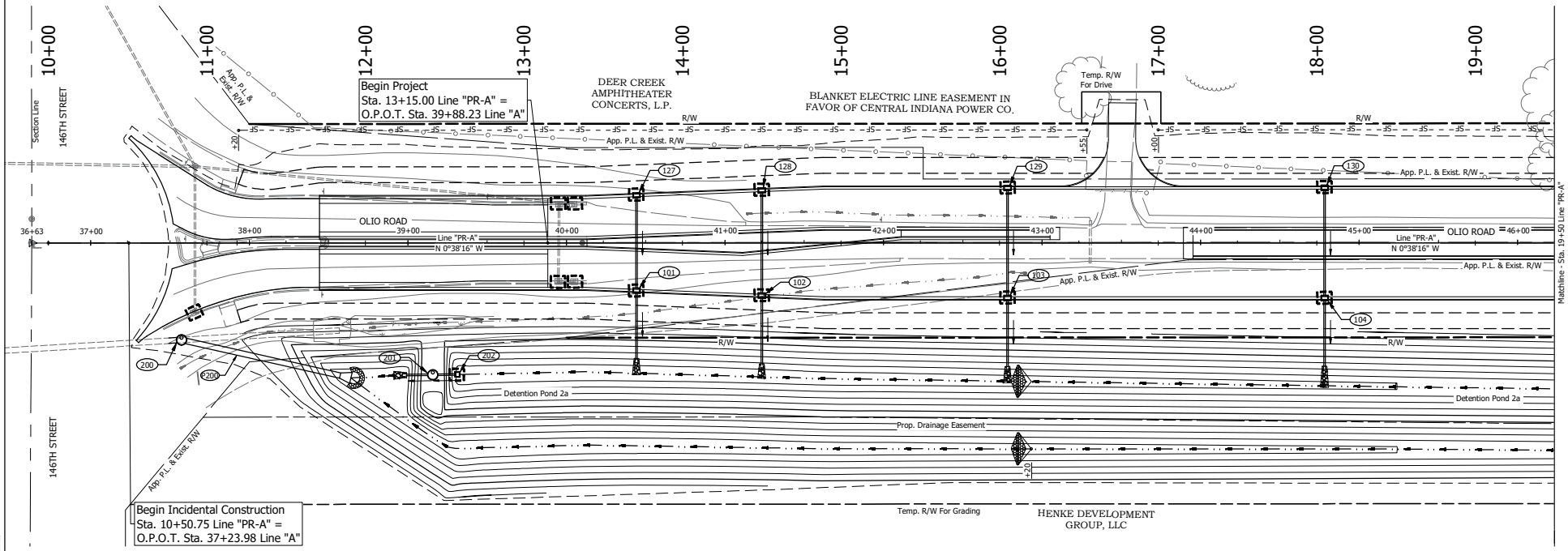
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
1" = 6'	2101733
SURVEY BOOK	SHEETS
-	18 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DV\CSD\25-427 Ols Road\Road\Dwg\Plans\Plan & Profile.dwg Plot Date: 9/25/2024 Plotted By: Tim Lounthue



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
3. Ditch sloped of 3:1 or greater shall be immediately seeded upon completion of grading
4. Temporary seeding shall be placed on disturbed areas that are expected to be undisturbed for over 7 days.
5. Temporary erosion control measures shall be removed as permanent erosion control measures are installed.
6. Permanent erosion control measure are not shown in these details. Refer to Plan & Profile sheets for permanent erosion control measures.

TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Modified Check Dam, Revetment Riprap
- Culvert Pipe Protection
- Proposed Ditch Flow Line
- SF — SF — Silt Fence
- FS — FS — Filter Sock

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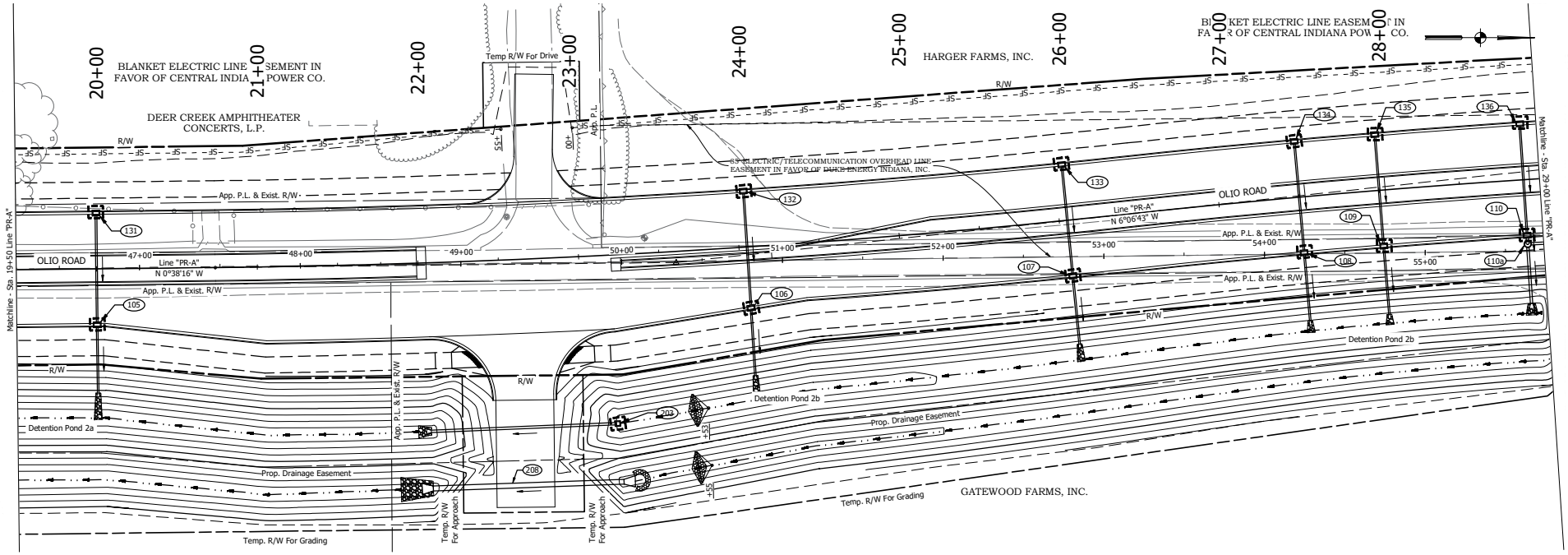
TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	25 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RW\2302-02 Olio Road\Road\Design\Plans\Erosion Control\Temp Ero Cntrl Plan.dwg Plot Date: 4/3/2024 Plotted By: Tim Lueth Lie



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
3. Ditch sloped of 3:1 or greater shall be immediately seeded upon completion of grading
4. Temporary seeding shall be placed on disturbed areas that are expected to be undisturbed for over 7 days.
5. Temporary erosion control measures shall be removed as permanent erosion control measures are installed.
6. Permanent erosion control measure are not shown in these details. Refer to Plan & Profile sheets for permanent erosion control measures.

TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Proposed Ditch Flow Line
- Modified Check Dam, Revetment Riprap
- Culvert Pipe Protection
- SF — SF — Silt Fence
- FS — FS — Filter Sock

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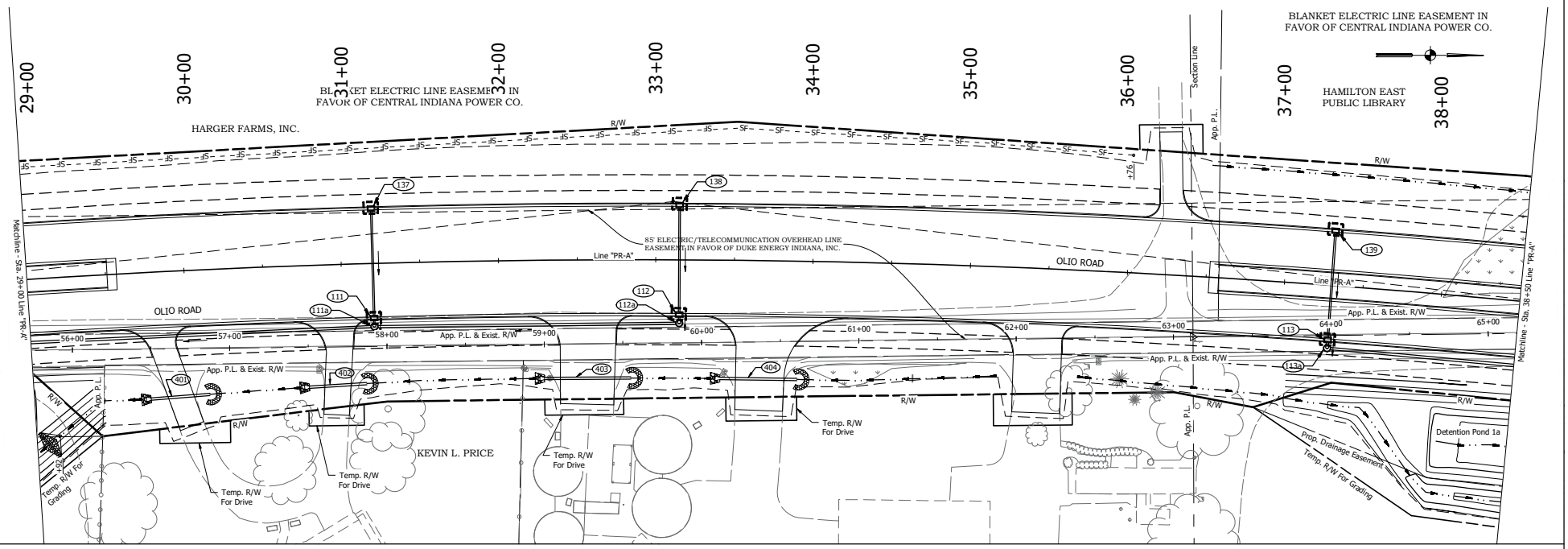
TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	26 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDS\CSD\25-422 Olio Road\Road\Dwg\Plans\Erosion Control\Ang Plat Date: 4/3/2024 Plotted By: Tim Lueth\Lue



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
3. Ditch sloped of 3:1 or greater shall be immediately seeded upon completion of grading
4. Temporary seeding shall be placed on disturbed areas that are expected to be undisturbed for over 7 days.
5. Temporary erosion control measures shall be removed as permanent erosion control measures are installed.
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TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Modified Check Dam, Revetment Riprap
- Culvert Pipe Protection
- Proposed Ditch Flow Line
- SF — SF — Silt Fence
- FS — FS — Filter Sock

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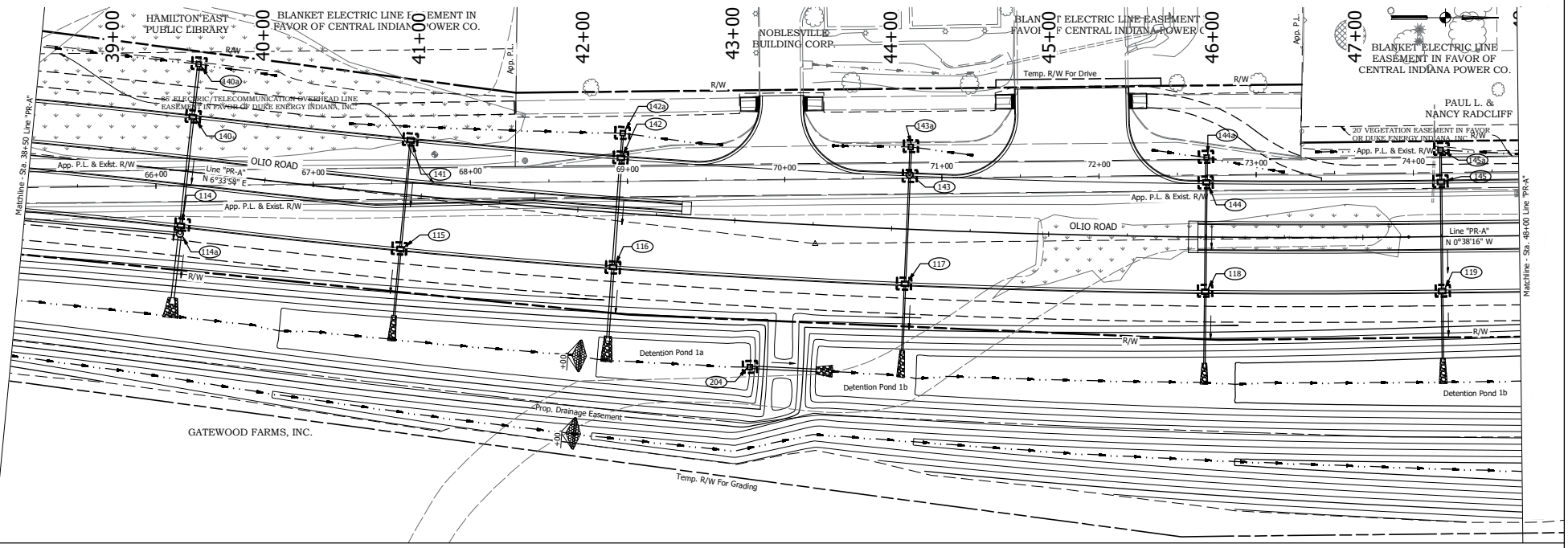
TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	27 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DES\2101733-02 Ols Road\Road\Design\Plans\Erosion Control\Ecosy.PM Date: 4/3/2024 Plotted By: Tim Lawrence



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
3. Ditch sloped of 3:1 or greater shall be immediately seeded upon completion of grading
4. Temporary seeding shall be placed on disturbed areas that are expected to be undisturbed for over 7 days.
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TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Modified Check Dam, Revetment Riprap
- Culvert Pipe Protection
- Proposed Ditch Flow Line
- SF — SF — Silt Fence
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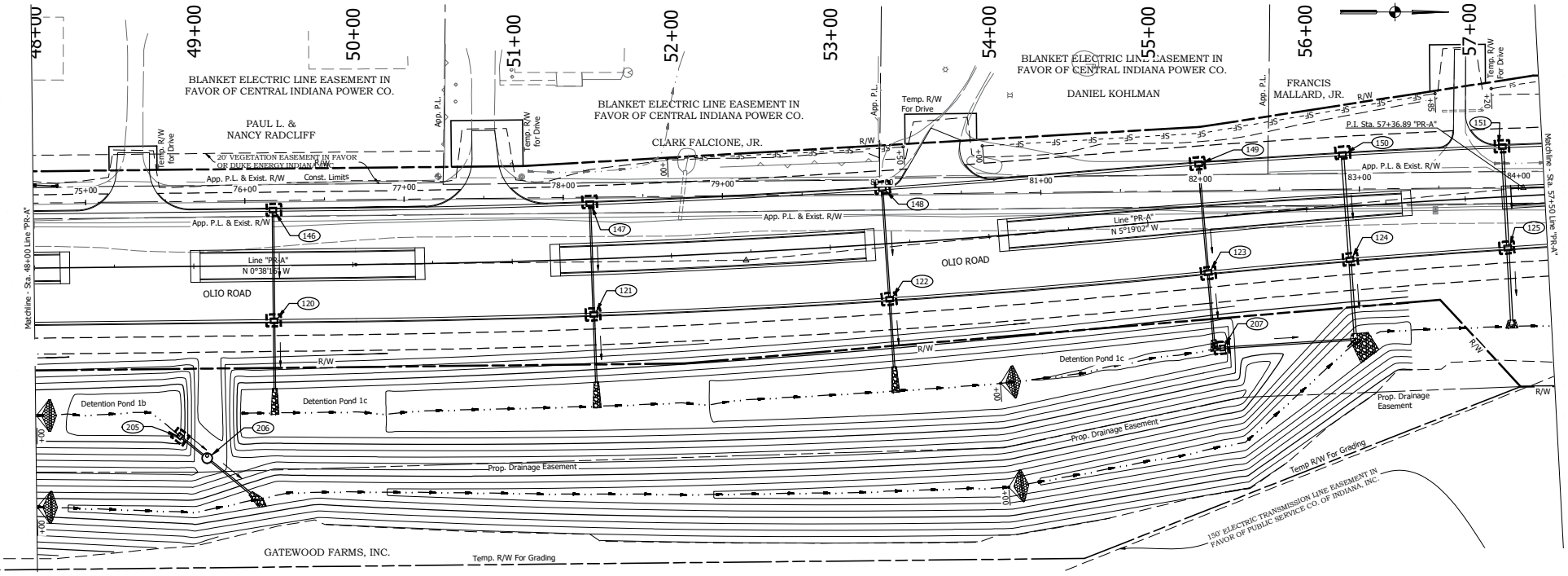
TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	28 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDS\25-22-03\ Dir. Root\Road\Dwg\Plans\Erosion Control\Ang Plat Date: 4/3/2024 Plotted By: Tim Lueth/Ue



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
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TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Modified Check Dam, Revetment Riprap
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- SF — SF — Silt Fence
- FS — FS — Filter Sock

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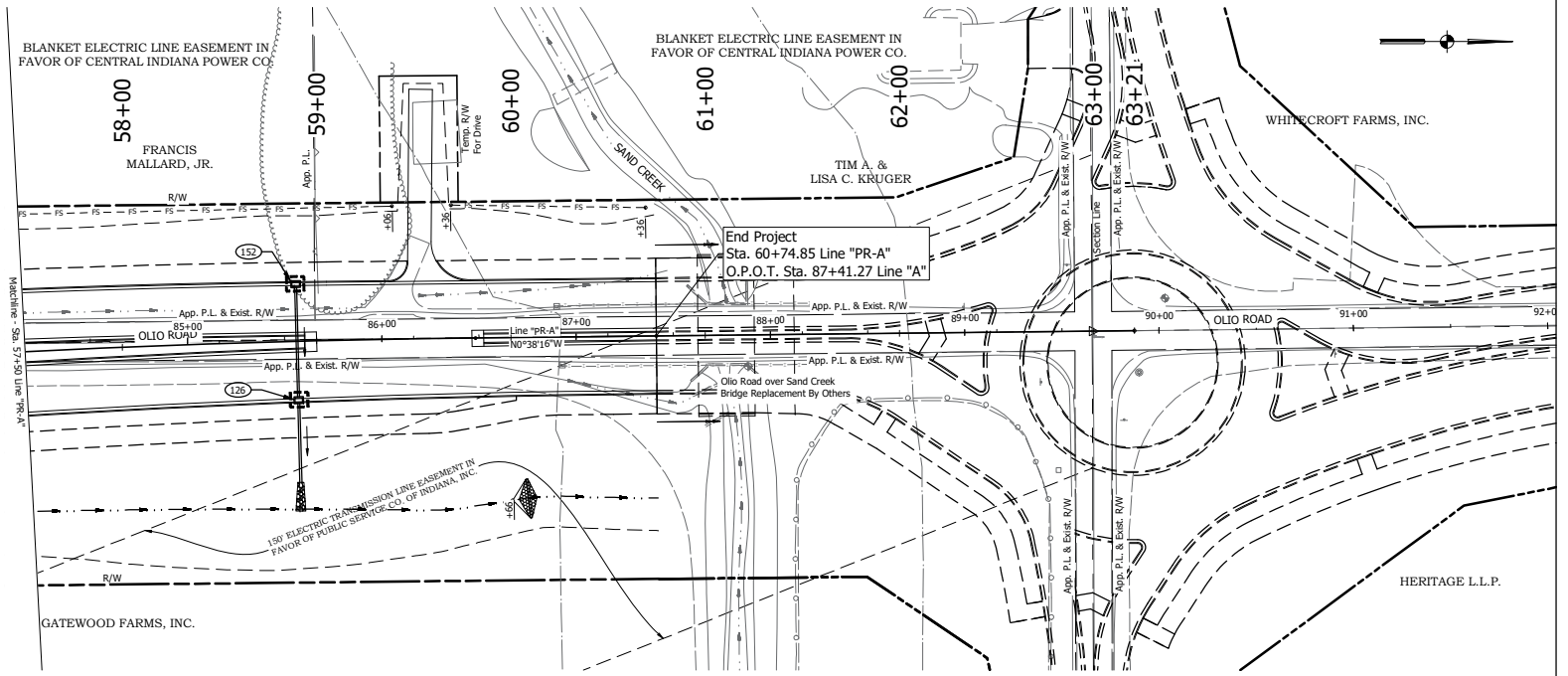
TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	29 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDS\CSD\25-422 Elk Road\Road\Dwg\Plans\Erosion Control\Ang Plat Date: 4/3/2024 Plotted By: Tim Lamb\Lie



TEMPORARY EROSION CONTROL NOTES

1. Inlet protection and silt fence shall be installed prior to any land disturbing activities. Check dams shall be installed as ditch grading is completed.
2. Inlet protection shall be provided for all existing & proposed inlets within the construction limits.
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TEMPORARY EROSION CONTROL LEGEND

- Inlet Protection
- Modified Check Dam, Revetment Riprap
- Culvert Pipe Protection
- Proposed Ditch Flow Line
- SF — SF — Silt Fence
- FS — FS — Filter Sock

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DESIGN ENGINEER DATE

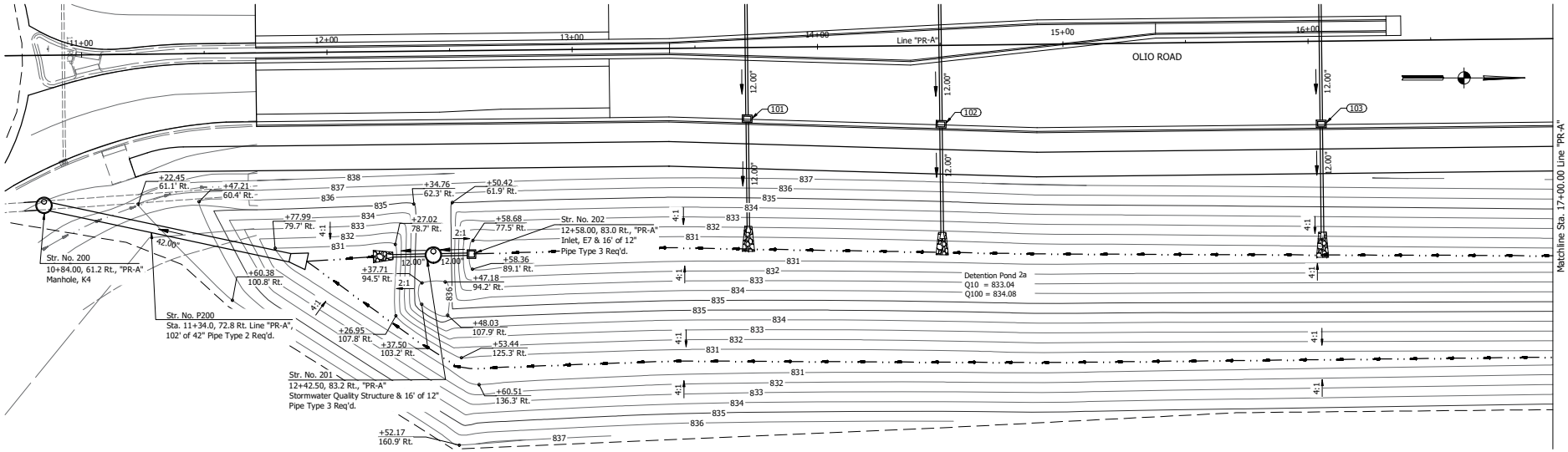
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

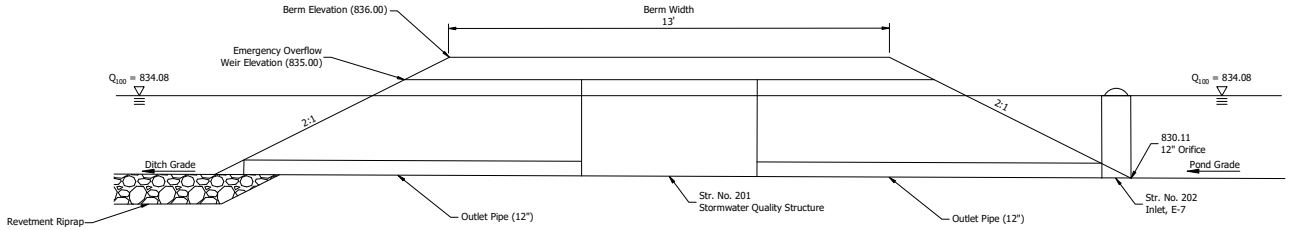
INDIANA DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION & SEDIMENT CONTROL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	30 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DES\2101733-02 Olio Road\Road\Design\Plans\Erosion Control\Exhibits\Erosion Control Exhibit.dwg Plot Date: 10/3/2024 Plotted By: Tim Lawrence





POND 2a OVERFLOW BERM DETAIL

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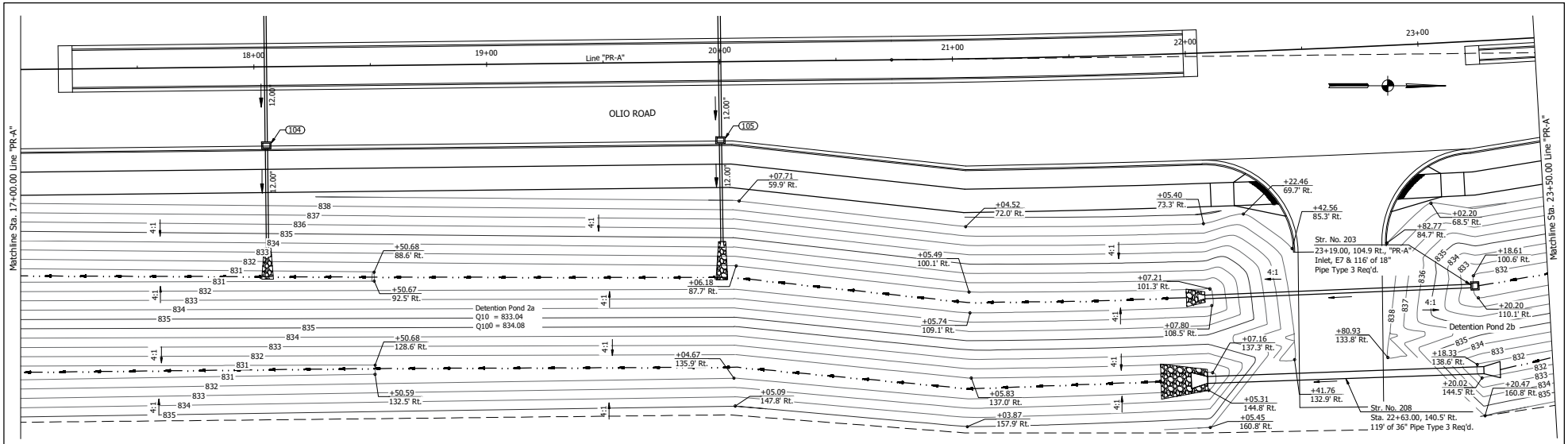
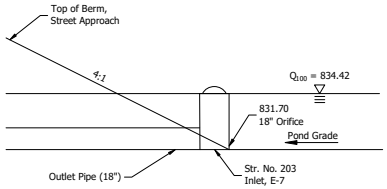
DETENTION POND DETAILS
POND 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	31 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\0\5\2\3\0\2-427.01\c-Road\Road\Dwg\Plans\Detention Details.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis





POND 2b OUTLET STRUCTURE DETAIL

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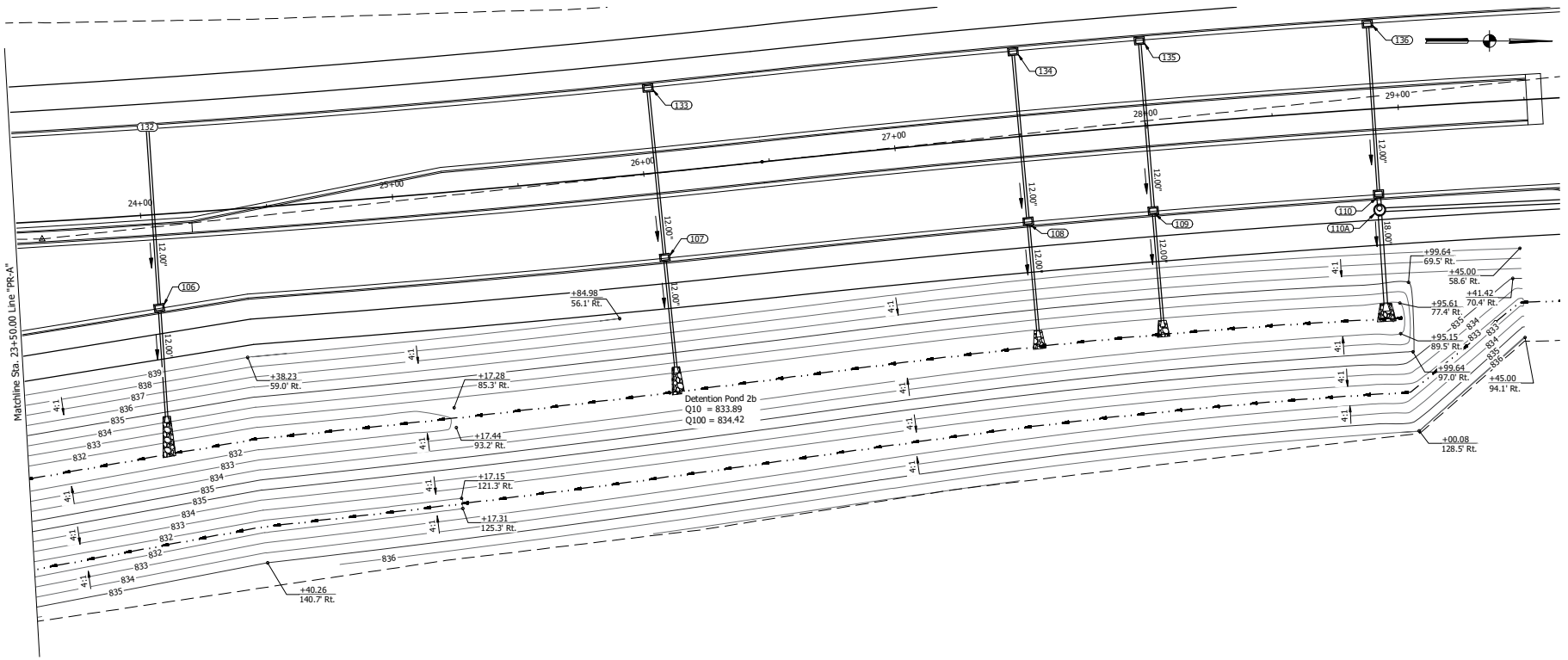
DETENTION POND DETAILS
POND 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	32 of 97
CONTRACT	PROJECT
R-44267	2101733



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DESIGN ENGINEER DATE

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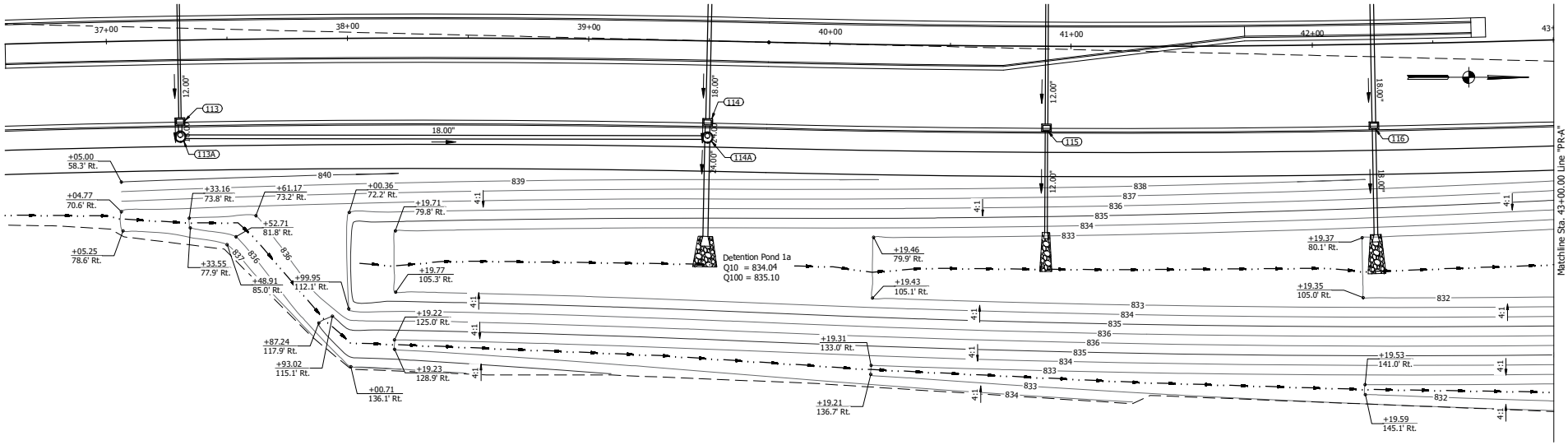
DETENTION POND DETAILS
POND 2

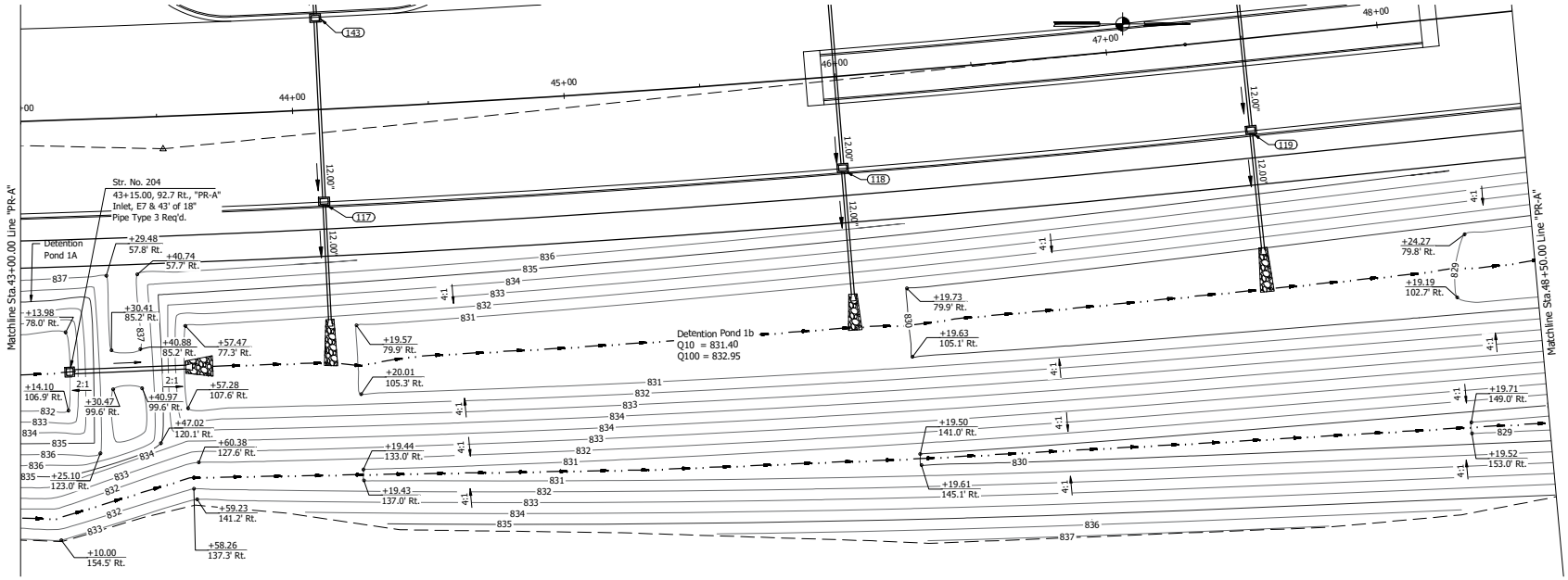
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	33 of 97
CONTRACT	PROJECT
R-44267	2101733

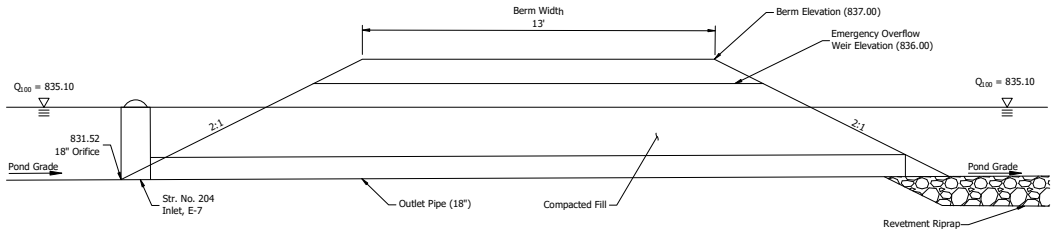
File Name: P:\INDOT\2021\22-427 Qtr. Road\Road\Dwg\Plan\Detention Details.dwg Plot Date: 4/5/2024 Plotted By: Tim Lavinthal



UNITED Consulting 8440 Allison Pointe Boulevard, Suite 200 Indianapolis, IN 46250 Phone 317-895-2585 www.ucindy.com	RECOMMENDED FOR APPROVAL DESIGN ENGINEER DATE DESIGNED: TBL DRAWN: HSW CHECKED: CCR CHECKED: CCR	INDIANA DEPARTMENT OF TRANSPORTATION DETENTION POND DETAILS POND 1	HORIZONTAL SCALE: 1" = 20' / BRIDGE FILE: - / VERTICAL SCALE: N/A / DESIGNATION: 2101733 / SURVEY BOOK: - / SHEETS: 34 of 97 / CONTRACT: R-44267 / PROJECT: 2101733		

File Name: P:\0515\2021\22-021 Civil\Road\Road\Dwg\Plans\Detention Details.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis





POND 1a OVERFLOW BERM DETAIL

N.T.S.

File Name: P:\INDOT\2021\22-427 Elk Road\Road\Dwg\Plans\Detention Details.dwg Plot Date: 4/5/2024 Plotted By: Tim Leonhuis

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DESIGN ENGINEER DATE

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CHECKED: CCR CHECKED: CCR

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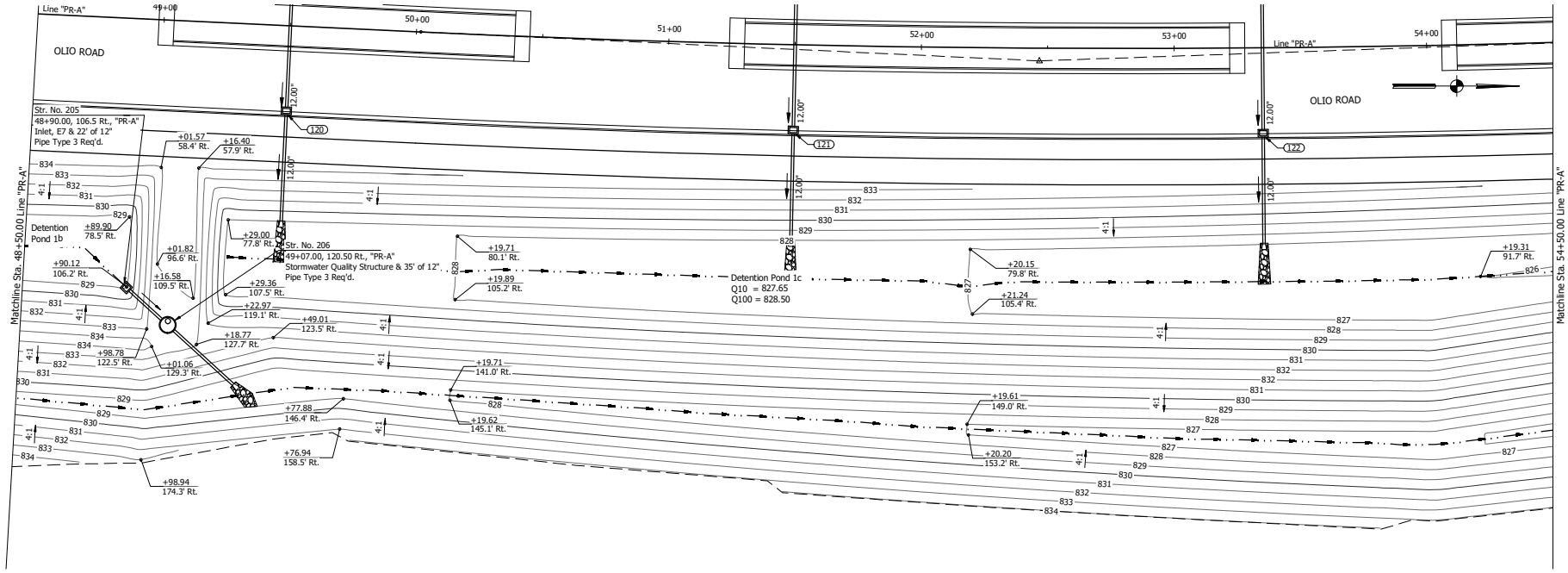
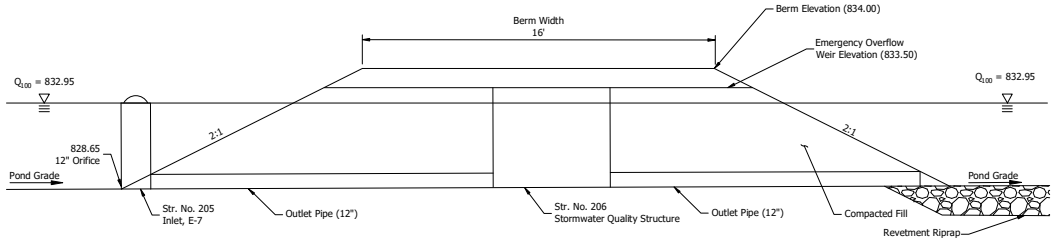
DEPARTMENT OF TRANSPORTATION

DETENTION POND DETAILS
POND 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	35 of 97
CONTRACT	PROJECT
R-44267	2101733





POND 1b OVERFLOW BERM DETAIL

N.T.S.

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW

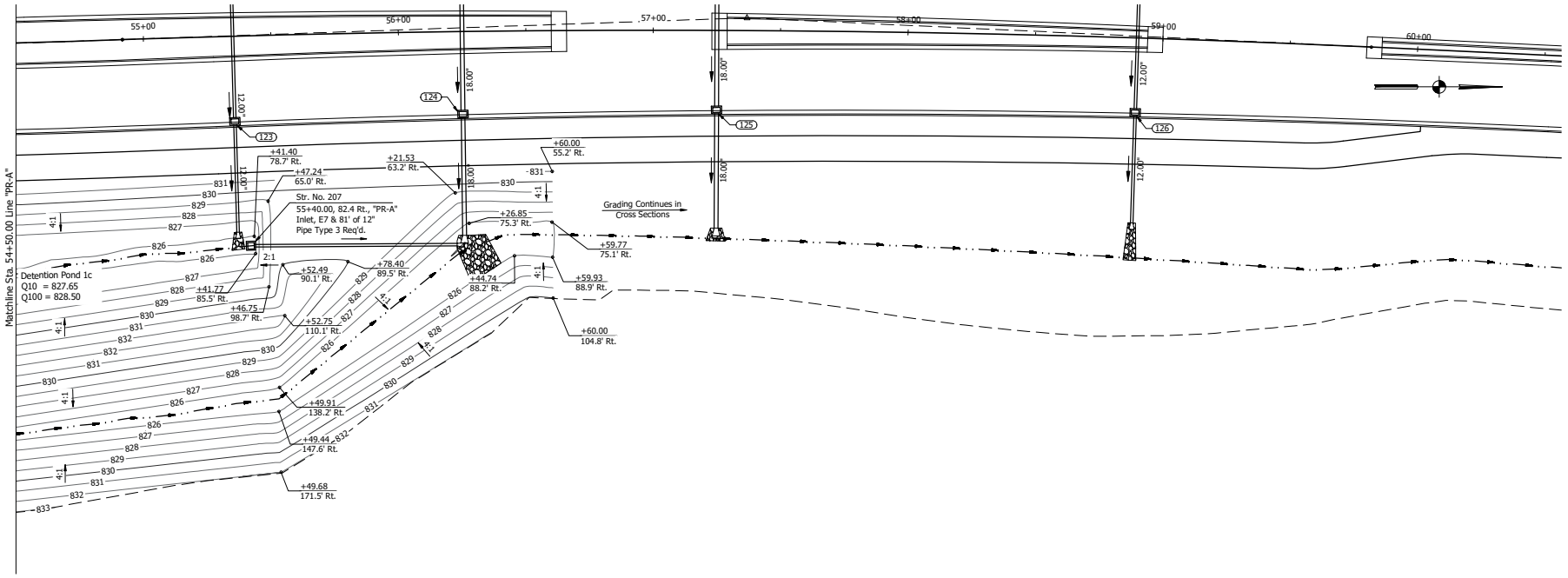
CHECKED: CCR CHECKED: CCR

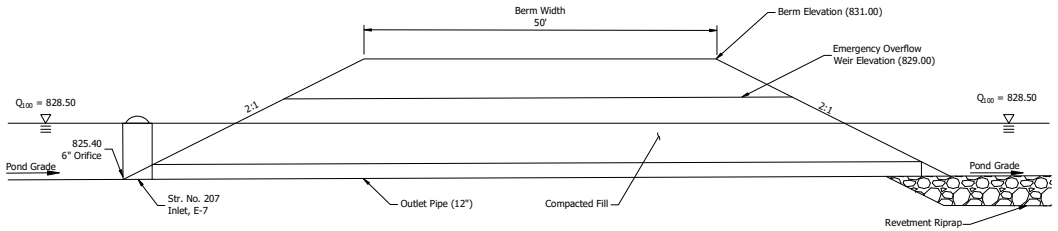
INDIANA
DEPARTMENT OF TRANSPORTATION

DETENTION POND DETAILS
POND 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	36 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\INDY\CAD\22-427.dir\Road\Road\Dwg\Plans\Detention Details.dwg Plot Date: 1/5/2024 Plotted By: Tim Lavinhua





POND 1c OVERFLOW BERM DETAIL

N.T.S.

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

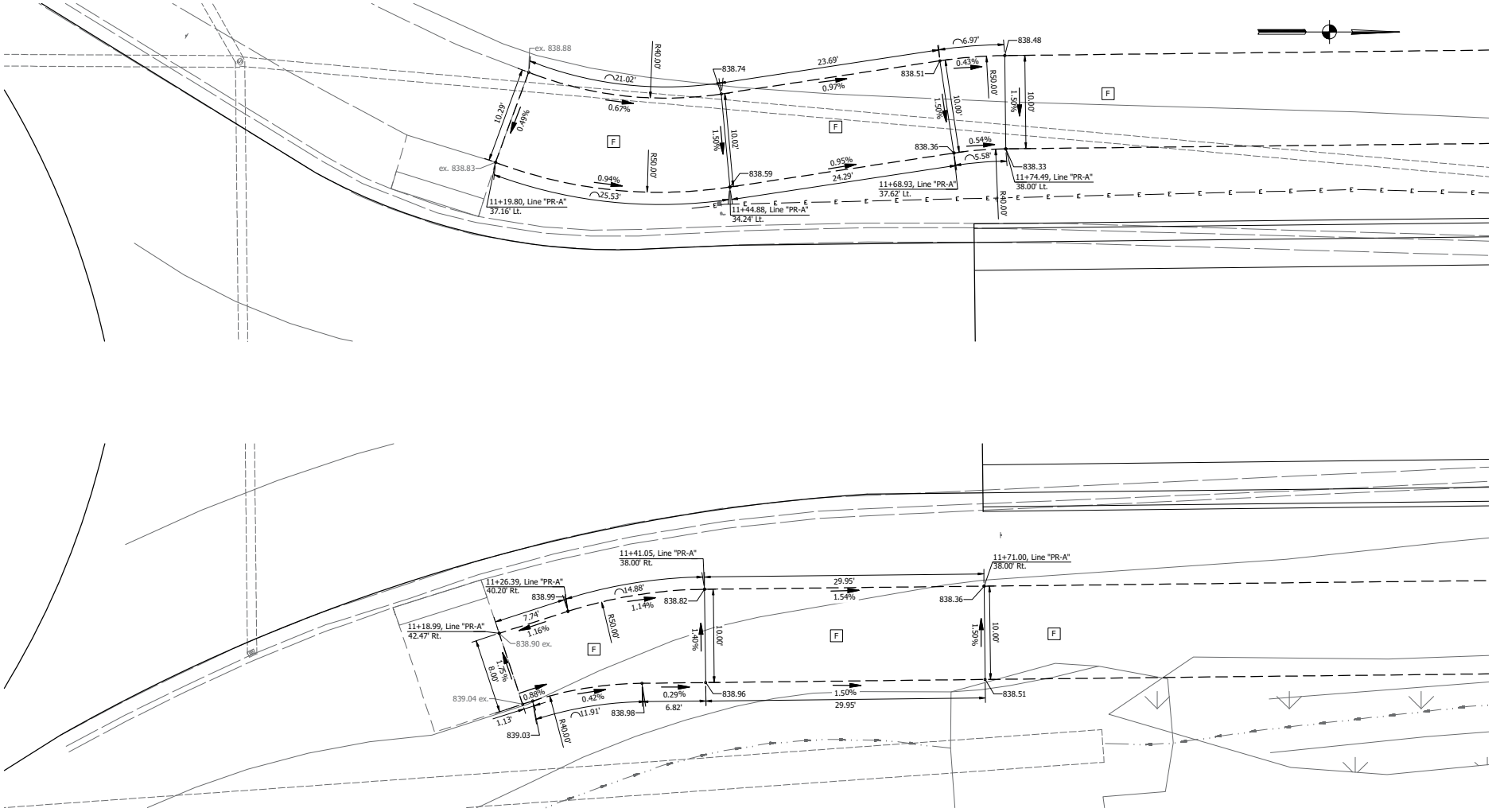
DESIGNED: TBL DRAWN: HSW

CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

DETENTION POND DETAILS
POND 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	37 of 97
CONTRACT	PROJECT
R-44267	2101733



LEGEND

- C3 PCCP For Approaches, 9" on Dense Graded Subbase, 6" on Geogrid Type IB on Subgrade Treatment Type II
- CR Curb Ramp, Concrete
- D 12" Compacted Aggregate, No. 2 on Geotextile for Pavement, Type 1A
- F Sidewalk To Be Constructed If Funds Become Available
- K2 HMA For Approaches, Type C
  165 #/Sys HMA Surface, Type C on
  275 #/Sys HMA Intermediate, Type C on
  440 #/Sys HMA Base, Type C on
  200 #/Sys HMA Intermediate, OG Type C on
  660 #/Sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- 15 Curb and Gutter, Concrete, Type II

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

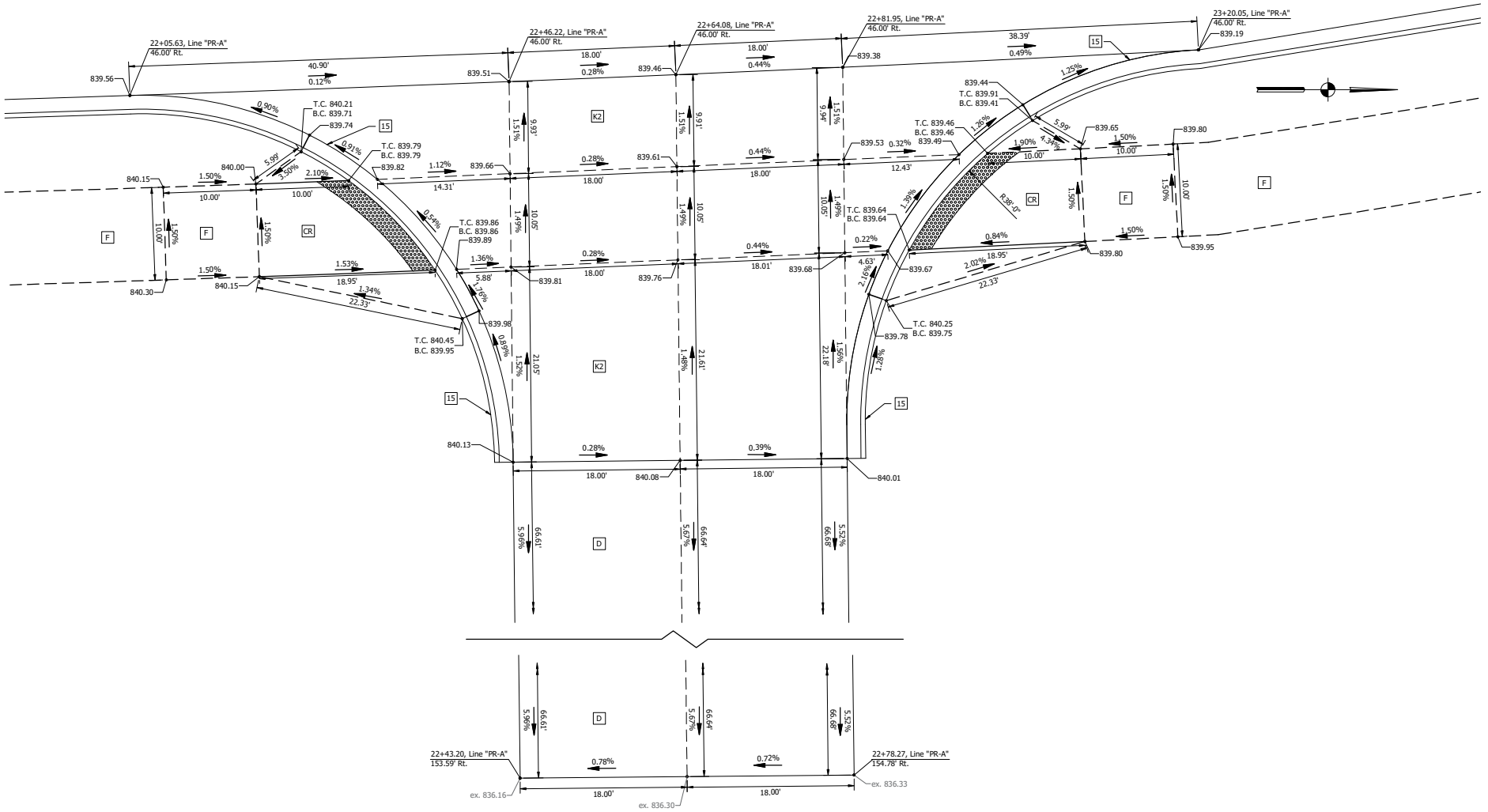
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP AND
GRADING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	38 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Grading and Curb Ramp Details Olio.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



LEGEND

- C3 — PCCP For Approaches, 9" on Dense Graded Subbase, 6" on Geogrid Type IB on Subgrade Treatment Type II
- D — 12" Compacted Aggregate, No. 2 on Geotextile for Pavement, Type 1A
- K2 — HMA For Approaches, Type C
  165 #/Sys HMA Surface, Type C on
  275 #/Sys HMA Intermediate, Type C on
  440 #/Sys HMA Base, Type C on
  200 #/Sys HMA Intermediate, OG Type C on
  660 #/Sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- 15 — Curb and Gutter, Concrete, Type II
- F — Sidewalk To Be Constructed If Funds Become Available
- CR — Curb Ramp, Concrete

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

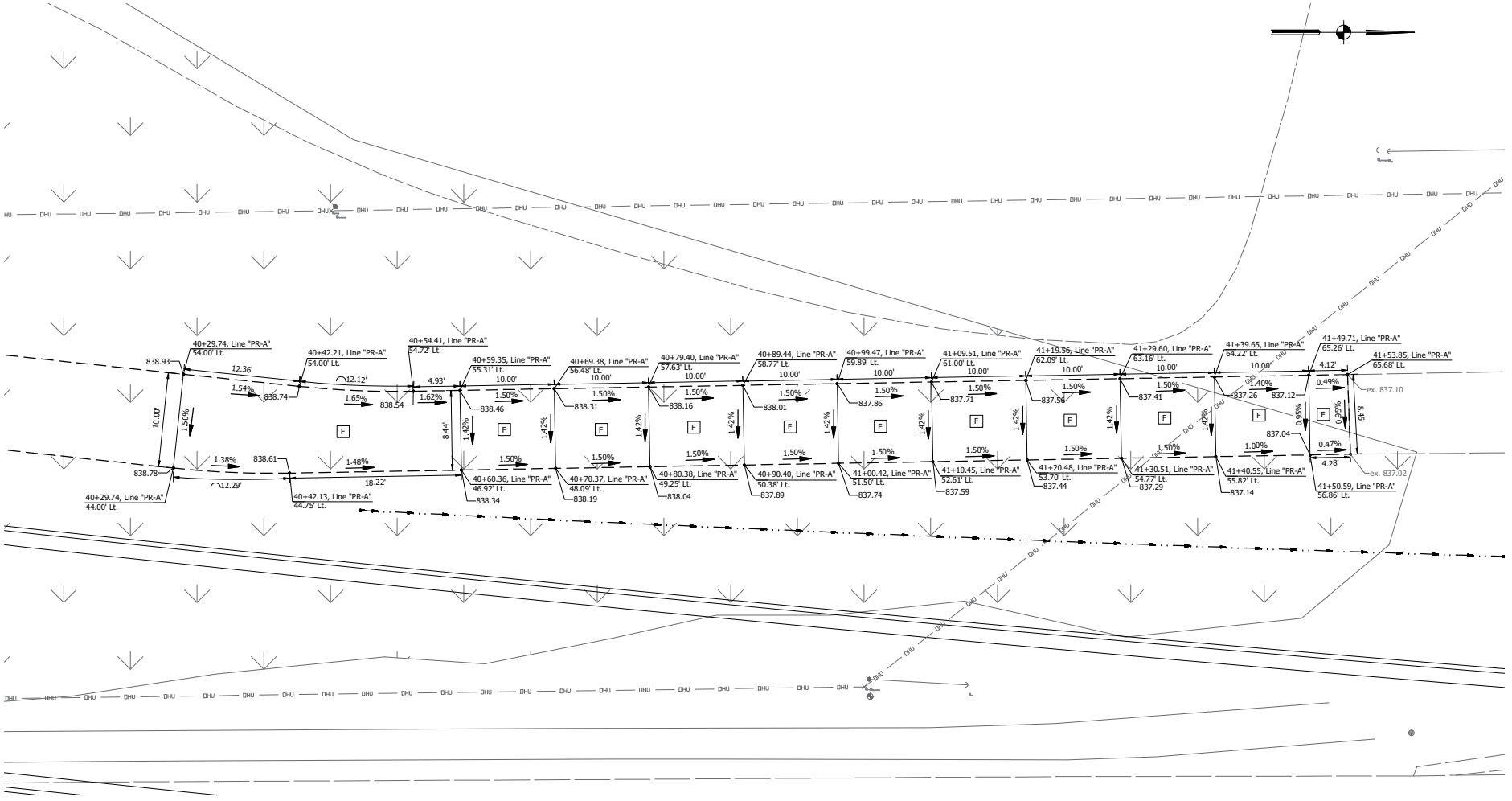
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP AND
GRADING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	39 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Grading and Curb Ramp Details Olio.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



LEGEND

- C3 — PCCP For Approaches, 9" on Dense Graded Subbase, 6" on Geogrid Type IB on Subgrade Treatment Type II
- CR — Curb Ramp, Concrete
- D — 12" Compacted Aggregate, No. 2 on Geotextile for Pavement, Type 1A
- F — Sidewalk To Be Constructed If Funds Become Available
- K2 — HMA For Approaches, Type C
  165 #/Sys HMA Surface, Type C on
  275 #/Sys HMA Intermediate, Type C on
  440 #/Sys HMA Base, Type C on
  200 #/Sys HMA Intermediate, OG Type C on
  660 #/Sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- 15 — Curb and Gutter, Concrete, Type II

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

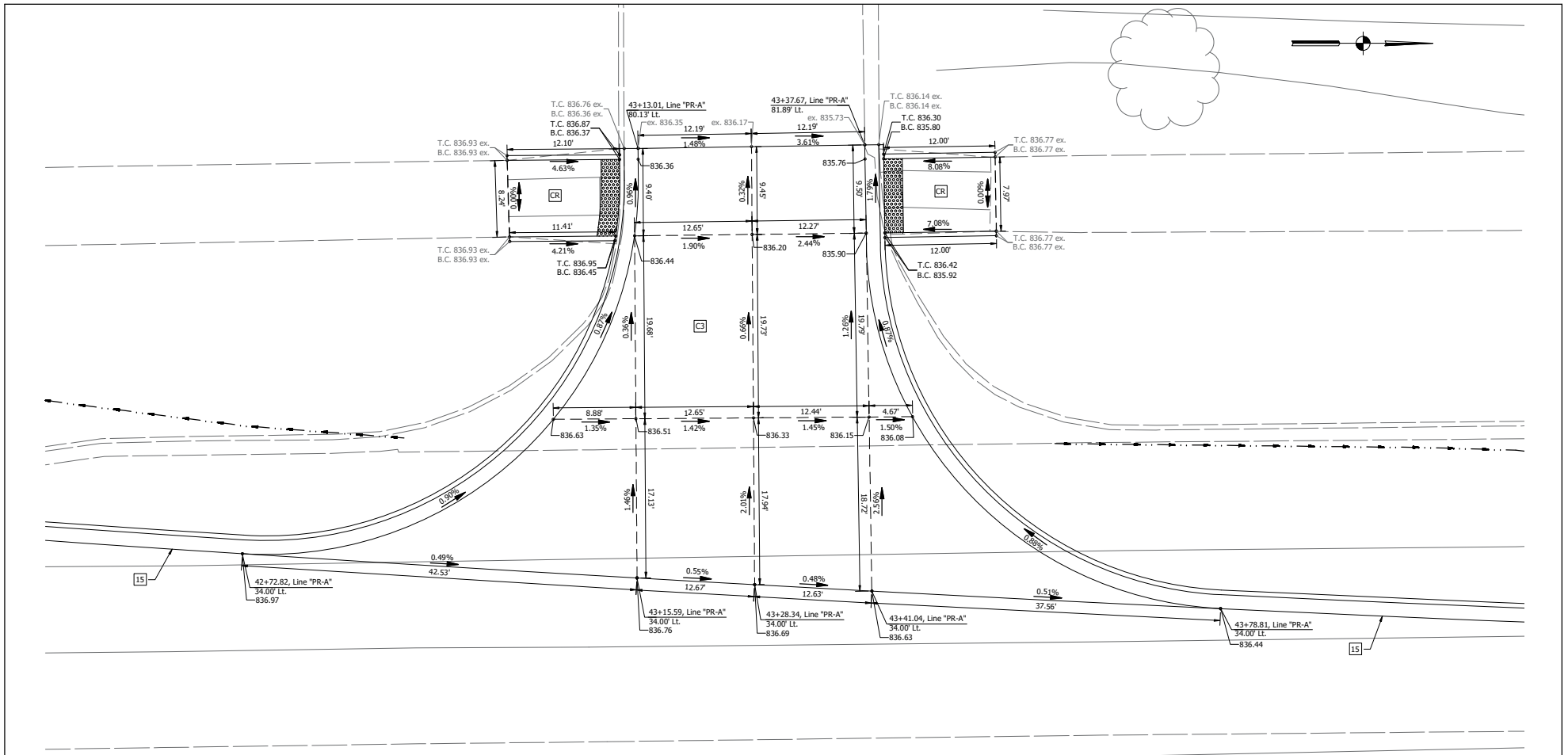
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP AND
GRADING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	40 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Grading and Curb Ramp Details Olio.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



LEGEND

- C3 PCCP For Approaches, 9" on Dense Graded Subbase, 6" on Geogrid Type IB on Subgrade Treatment Type II
- CR Curb Ramp, Concrete
- D 12" Compacted Aggregate, No. 2 on Geotextile for Pavement, Type 1A
- F Sidewalk To Be Constructed If Funds Become Available
- K2 HMA For Approaches, Type C
  165 #/Sys HMA Surface, Type C on
  275 #/Sys HMA Intermediate, Type C on
  440 #/Sys HMA Base, Type C on
  200 #/Sys HMA Intermediate, OG Type C on
  660 #/Sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- 15 Curb and Gutter, Concrete, Type II

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

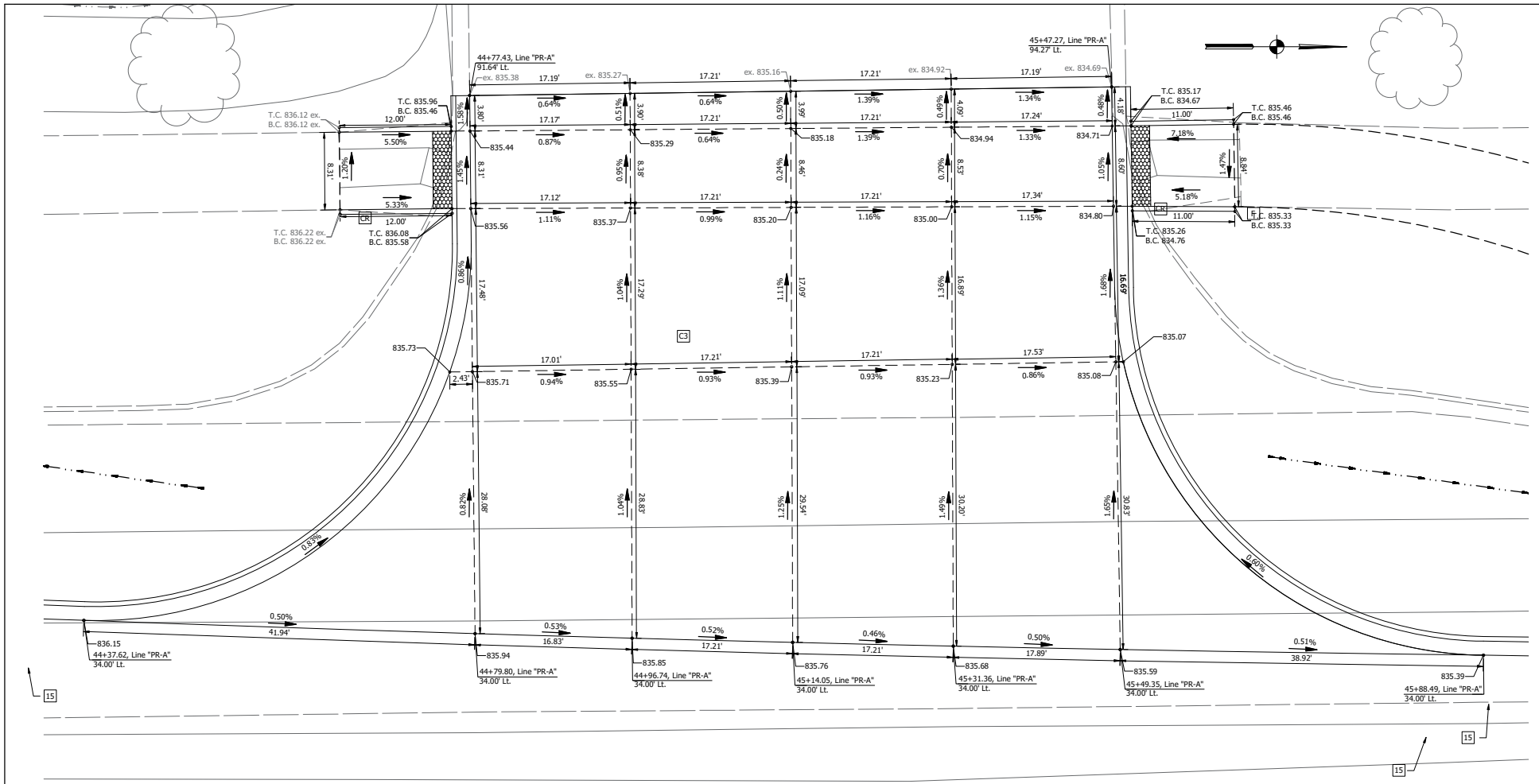
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP AND
GRADING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	41 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Grading and Curb Ramp Details Olio.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



LEGEND

- C3 — PCCP For Approaches, 9" on Dense Graded Subbase, 6" on Geogrid Type IB on Subgrade Treatment Type II
- CR — Curb Ramp, Concrete
- D — 12" Compacted Aggregate, No. 2 on Geotextile for Pavement, Type 1A
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  200 #/Sys HMA Intermediate, OG Type C on
  660 #/Sys HMA Base, Type C on
  Subgrade Treatment, Type IC
- 15 — Curb and Gutter, Concrete, Type II

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

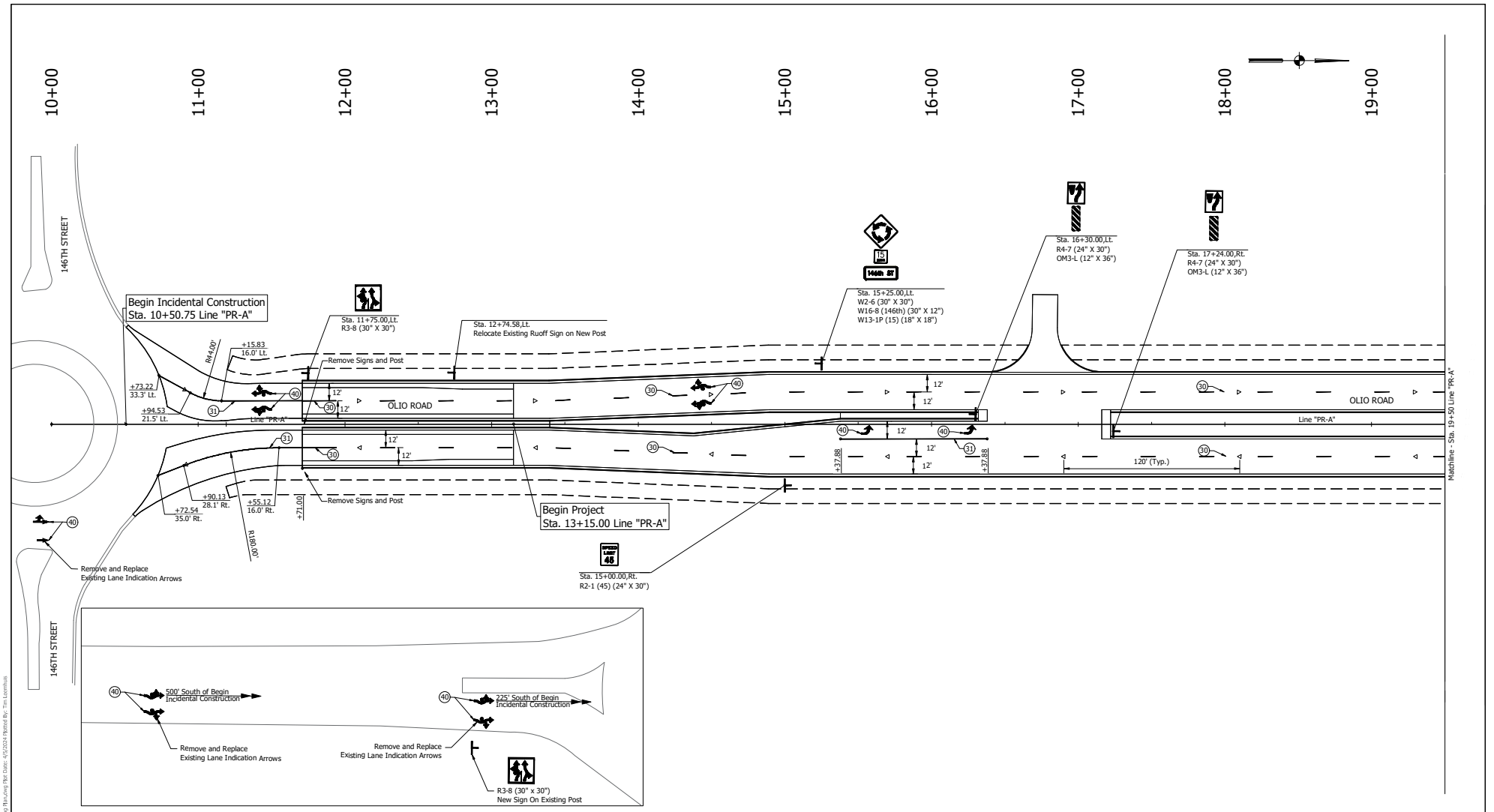
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

CURB RAMP AND GRADING DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	42 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\RD\C3D\22-422 Olio Road\Road\Dwg\Plans\Grading and Curb Ramp Details Olio.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis



PAVEMENT MARKING LEGEND

(28) Line, Thermoplastic, Broken, Yellow, 4"
(29) Line, Thermoplastic, Solid, Yellow, 4"
(30) Line, Thermoplastic, Broken, White, 4"
(31) Line, Thermoplastic, Solid, White, 4"
(32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
(40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
Raised Pavement Marker, One-Way, White
Raised Pavement Marker, Two-Way, White / Red
Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

Proposed Ground Mounted Sheet Sign

NOTE
All sign posts shall be Type 2 (2" x 2" x 12 ga.), Unreinforced Anchor Base.

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

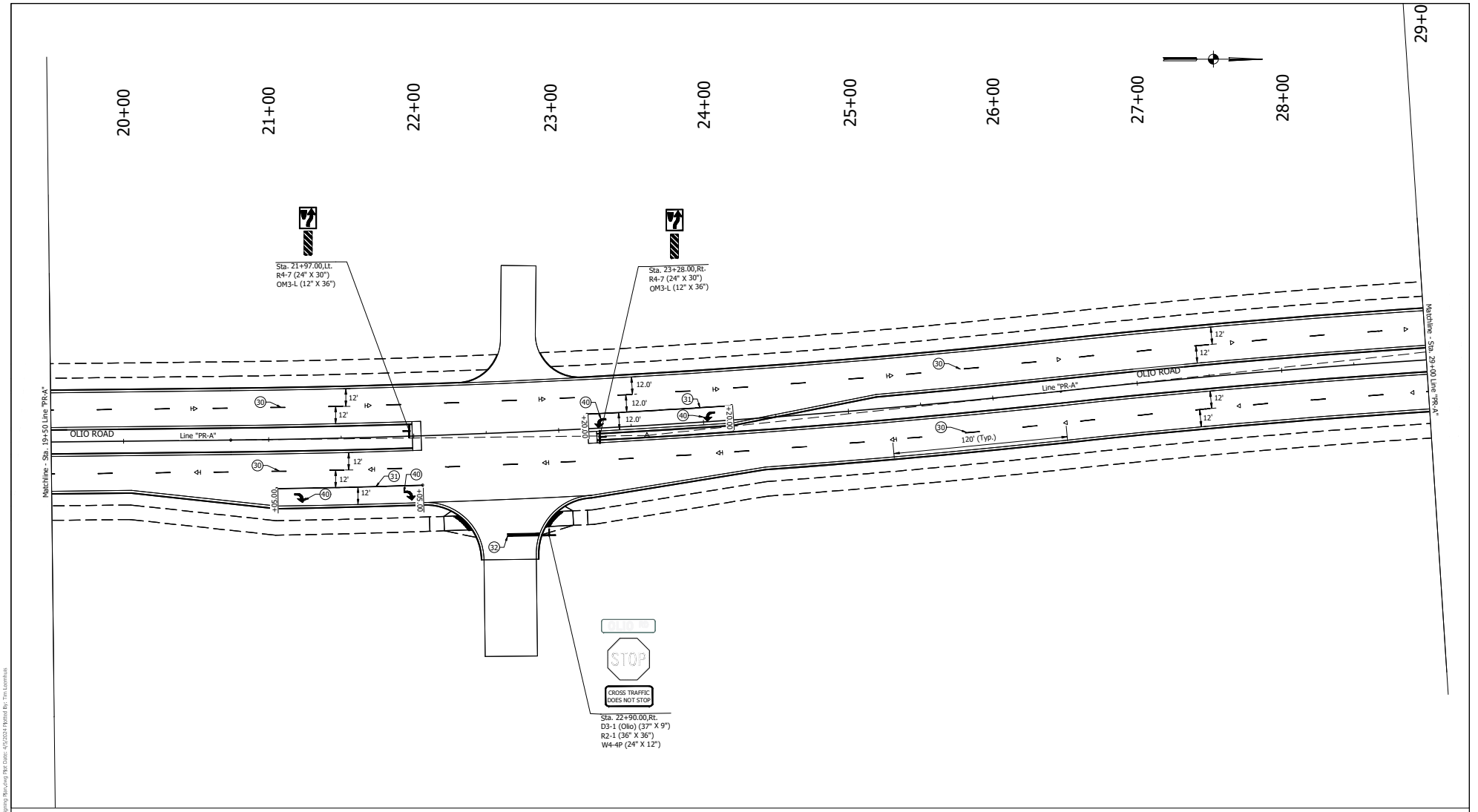
RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	43 of 97
CONTRACT	PROJECT
R-44267	2101733



PAVEMENT MARKING LEGEND

- (28) Line, Thermoplastic, Broken, Yellow, 4"
- (29) Line, Thermoplastic, Solid, Yellow, 4"
- (30) Line, Thermoplastic, Broken, White, 4"
- (31) Line, Thermoplastic, Solid, White, 4"
- (32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
- (40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
- Raised Pavement Marker, One-Way, White
- Raised Pavement Marker, Two-Way, White / Red
- Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

- Proposed Ground Mounted Sheet Sign

NOTE
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8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
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RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

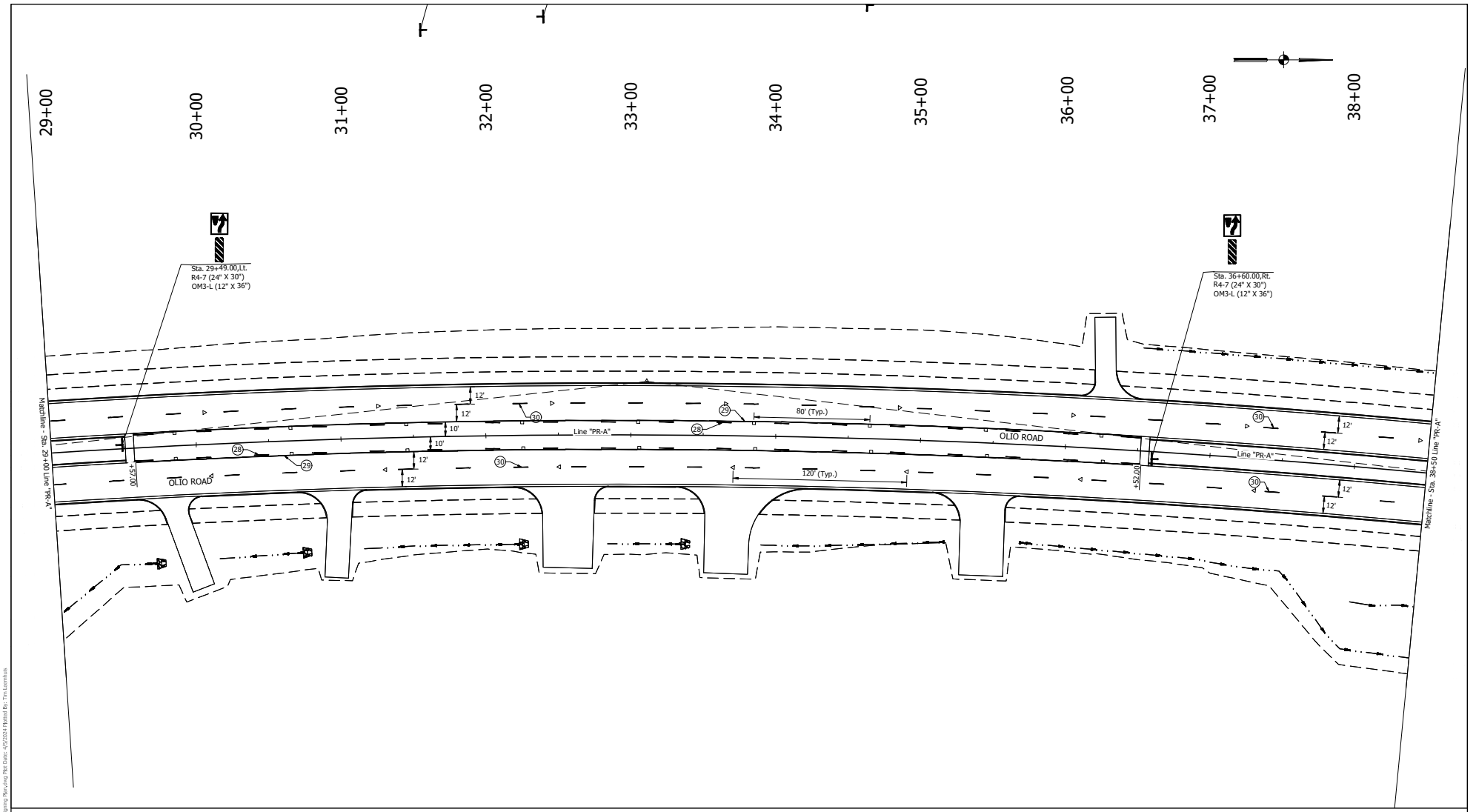
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	44 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PIV\2301\25-422 Olio Road\Road\Dwg\Plans\Marking & Signing Plan.dwg TM: Date: 4/3/2024 Plotted By: Tim Leemhuis



PAVEMENT MARKING LEGEND

- (28) Line, Thermoplastic, Broken, Yellow, 4"
- (29) Line, Thermoplastic, Solid, Yellow, 4"
- (30) Line, Thermoplastic, Broken, White, 4"
- (31) Line, Thermoplastic, Solid, White, 4"
- (32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
- (40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
- Raised Pavement Marker, One-Way, White
- Raised Pavement Marker, Two-Way, White / Red
- Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

- Proposed Ground Mounted Sheet Sign

NOTE
All sign posts shall be Type 2 (2" x 2" x 12 ga.), Unreinforced Anchor Base.

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
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www.ucindy.com

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	45 of 97
CONTRACT	PROJECT
R-44267	2101733

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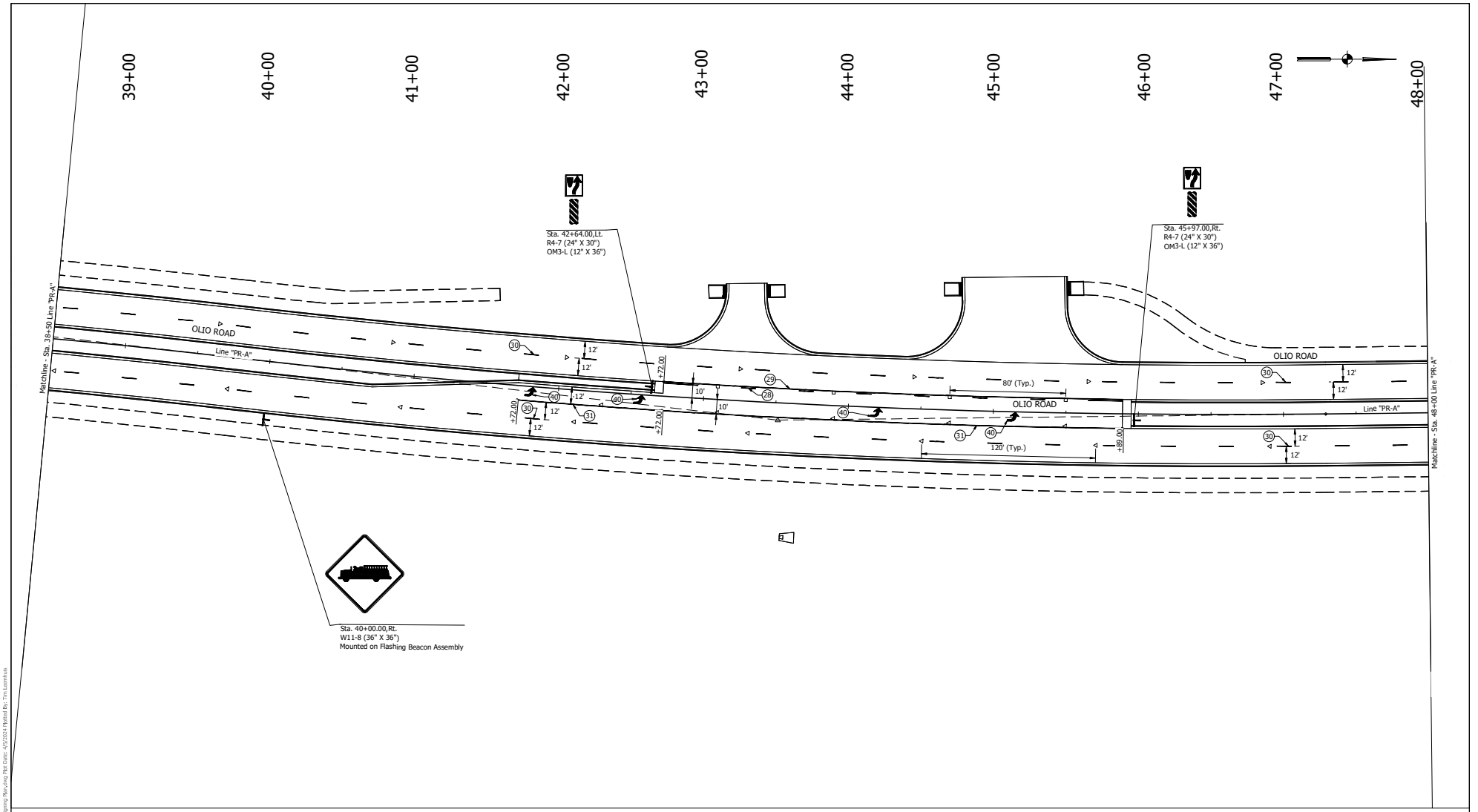

PAVEMENT MARKING LEGEND

- (28) Line, Thermoplastic, Broken, Yellow, 4"
- (29) Line, Thermoplastic, Solid, Yellow, 4"
- (30) Line, Thermoplastic, Broken, White, 4"
- (31) Line, Thermoplastic, Solid, White, 4"
- (32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
- (40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
- Raised Pavement Marker, One-Way, White
- Raised Pavement Marker, Two-Way, White / Red
- Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

- Proposed Ground Mounted Sheet Sign

NOTE
All sign posts shall be Type 2 (2" x 2" x 12 ga.), Unreinforced Anchor Base.

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8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

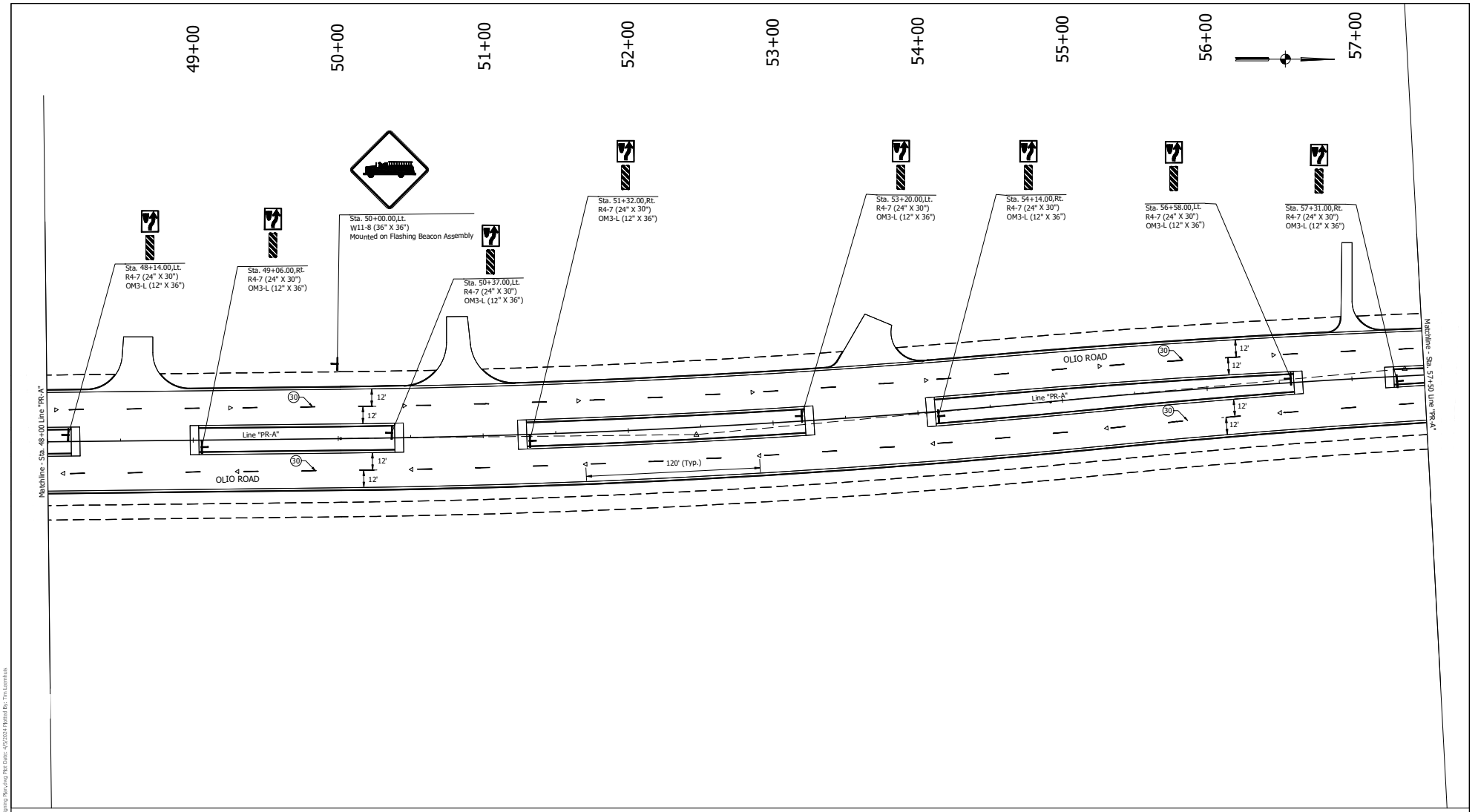
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	46 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDV\CSV\25-422 Olio Road\Road\Dwg\Plans\Marking & Signing Thru Line TBV Date: 4/3/2024 10:01:02 By: Tim Leverton



PAVEMENT MARKING LEGEND

(28) Line, Thermoplastic, Broken, Yellow, 4"
(29) Line, Thermoplastic, Solid, Yellow, 4"
(30) Line, Thermoplastic, Broken, White, 4"
(31) Line, Thermoplastic, Solid, White, 4"
(32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
(40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
Raised Pavement Marker, One-Way, White
Raised Pavement Marker, Two-Way, White / Red
Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

Proposed Ground Mounted Sheet Sign

NOTE
All sign posts shall be Type 2 (2" x 2" x 12 ga.), Unreinforced Anchor Base.

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

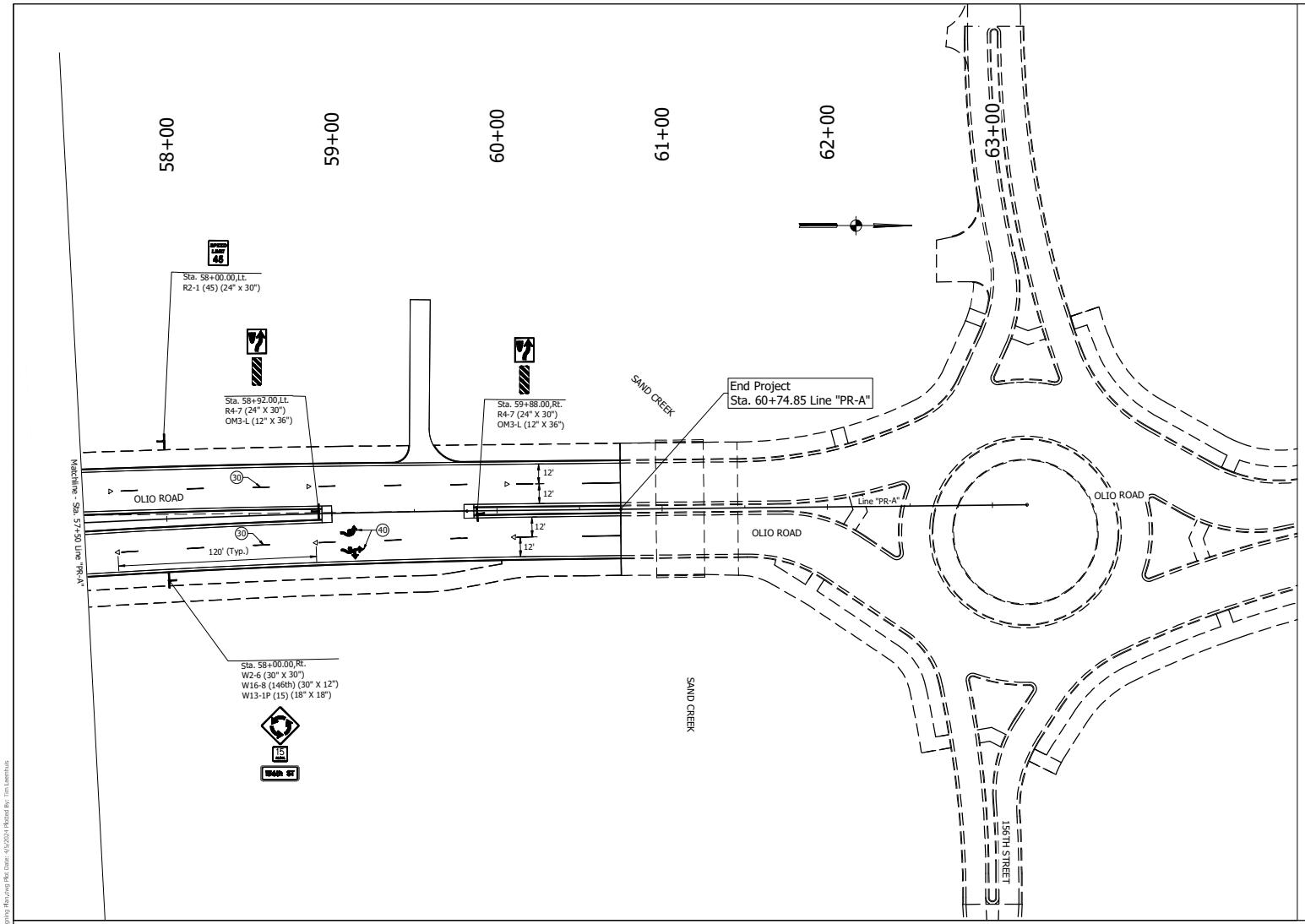
DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA
DEPARTMENT OF TRANSPORTATION

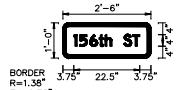
PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	47 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDV\CSD\25-422 Olio Road\Road\Dwg\Plans\Marking & Signing Thru Line TM Date: 4/3/2024 Plotted By: Tim Loemkuhl



SIGN DETAIL
1:20



Panel Style: warning_Rectangular.ssi
M.U.T.C.D.:: 2009 Edition
Panel Style: warning_Rectangular.ssi
Dimensions are in inches.tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	W16-8 (156)
WIDTH x HGHT.	2'-6" x 1'-0"
BORDER WIDTH	0.75"
CORNER RADIUS	1.38"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)														LENGTH	SERIES/SIZE
1	5	6	t	h		S	T								D 2000
3.8	5.6	9.2	12.3	14.4	16.7	20.7	23.8							22.5	4/3

SIGN DETAIL
1:20

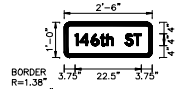
Panel Style: Noblesville Street.ssi
M.U.T.C.D.:: 2009 Edition
Panel Style: Noblesville Street.ssi
Dimensions are in inches.tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	D3-1
WIDTH x HGHT.	3'-1" x 0'-9"
BORDER WIDTH	0"
CORNER RADIUS	1.5"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)														LENGTH	SERIES/SIZE
R	D														D 2000
26.1	29.5													6.1	4
O	L	I	O												D 2000
4.8	10.4	15	17.3											16.7	6

SIGN DETAIL
1:20



Panel Style: warning_Rectangular.ssi
M.U.T.C.D.:: 2009 Edition
Panel Style: warning_Rectangular.ssi
Dimensions are in inches.tenths
Letter locations are panel edge to lower left corner

SIGN NUMBER	W16-8 (146)
WIDTH x HGHT.	2'-6" x 1'-0"
BORDER WIDTH	0.75"
CORNER RADIUS	1.38"
MOUNTING	Ground
BACKGROUND	TYPE: Reflective
	COLOR: Yellow
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

SYMBOL	ROT	X	Y	WID	HT

LETTER POSITIONS (X)														LENGTH	SERIES/SIZE
1	4	6	t	h		S	T								D 2000
3.7	5.3	9.2	12.3	14.4	16.7	20.7	23.8							22.5	4/3

PAVEMENT MARKING LEGEND

(28) Line, Thermoplastic, Broken, Yellow, 4"
(29) Line, Thermoplastic, Solid, Yellow, 4"
(30) Line, Thermoplastic, Broken, White, 4"
(31) Line, Thermoplastic, Solid, White, 4"
(32) Transverse Marking, Thermoplastic, Stop Line, White, 24"
(40) Pavement Message Marking, Thermoplastic, Lane Turn Indication Arrow
Raised Pavement Marker, One-Way, White
Raised Pavement Marker, Two-Way, White / Red
Raised Pavement Marker, Two-Way, Yellow / Yellow

SIGNING LEGEND

Proposed Ground Mounted Sheet Sign

NOTE
All sign posts shall be Type 2 (2" x 2" x 12 ga.), Unreinforced Anchor Base.

UNITED Consulting
8440 Allison Pointe Boulevard, Suite 200
Indianapolis, IN 46250
Phone 317-895-2585
www.ucindy.com

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND SIGNING DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	48 of 97
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DES\2302-02 Olio Road\Road\Design\Plans\Marking & Signing Plan.dwg Plot Date: 4/5/2024 Plotted By: Tim Leemhuis

STRUCTURE DATA TABLE

STRUCTURE NUMBER	LOCATION					SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOWLINE		SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1	STRUCTURE BACKFILL TYPE 5	REVETMENT RIPRAP	CLASS 2 RIPRAP	GEOTEXTILES	VIDEO INSPECTION FOR PIPES	PIPE END SECTION, CONCRETE	GRATED BOX END SECTION			SAFETY METAL END SECTION		CONNECT TO STR. NO.	REMARKS
	STATION	LEFT	RIGHT	CROSS	OFFSET							UP STREAM	DOWN STREAM												TYPE	SLOPE	EACH	SLOPE	EACH		
					FT	IN			LFT		FT	ELEV.	ELEV.	YR.				CYS	TON	TON	TON	SYS	LFT	EACH							
Line "PR-A"																															
101	12+86.0		x		29.5	12	2	Inlet, J10	43		1.3	832.78	832.62	75	N/A	7.0	1						43								Outfall to Pond 2a
102	14+00.0		x		32.4	12	2	Inlet, J10	43		1.3	832.27	832.10	75	N/A	7.0	1						43								Outfall to Pond 2a
103	14+50.0		x		34.4	12	2	Inlet, J10	43		1.3	832.19	832.02	75	N/A	7.0	1						43								Outfall to Pond 2a
104	15+00.0		x		36.0	12	2	Inlet, J10	43		1.3	832.27	832.11	75	N/A	7.0	1						43								Outfall to Pond 2a
105	16+30.0		x		35.5	12	2	Inlet, J10	43		1.3	832.89	832.72	75	N/A	7.0	1						43								Outfall to Pond 2a
106	18+35.0		x		35.5	12	2	Inlet, J10	42		1.3	833.92	833.76	75	N/A	7.0	1						42								Outfall to Pond 2a
107	20+00.0		x		35.5	12	2	Inlet, J10	42		1.3	834.74	834.58	75	N/A	7.0	1						42								Outfall to Pond 2a
108	23+25.0		x		47.0	12	2	Inlet, J10	41		1.3	835.12	834.96	75	N/A	7.0	1						41								Outfall to Pond 2b
109	24+75.0		x		35.5	12	2	Inlet, J10	42		1.3	834.42	834.26	75	N/A	7.0	1						42								Outfall to Pond 2b
110	26+25.0		x		35.5	12	2	Inlet, J10	42		1.3	833.67	833.51	75	N/A	7.0	1						42								Outfall to Pond 2b
111	27+50.0		x		35.5	12	2	Inlet, J10	40		1.3	833.08	832.92	75	N/A	7.0	1						40								Outfall to Pond 2b
112	28+00.0		x		35.5	12	2	Inlet, J10	42		1.3	833.00	832.84	75	N/A	7.0	1						42								Outfall to Pond 2b
113	28+25.0		x		35.5	12	2	Inlet, J10	42		1.3	833.02	832.86	75	N/A	7.0	1						42								Outfall to Pond 2b
114	28+90.0		x		35.5	12	2	Inlet, J10	5		2.9	833.25	833.23	75	N/A	7.0	1						5							114a	
114a	28+90.0		x		40.0	12	2	Manhole, C4	37		1.6	833.23	833.09	75	N/A	7.0	1						37								Outfall to Pond 2b
115	31+50.0		x		35.5	12	2	Inlet, J10	5		2.9	834.56	834.54	75	N/A	7.0	1						5							115a	
115a	31+50.0		x		40.0	12	2	Manhole, C4	258		3.0	834.44	833.66	75	N/A	7.0	1						258							114a	
116	33+30.0		x		35.5	12	2	Inlet, J10	5		2.9	835.47	835.45	75	N/A	7.0	1						5							116a	
116a	33+30.0		x		40.0	12	2	Manhole, C4	179		3.1	835.45	834.75	75	N/A	7.0	1						179							115a	
117	37+30.0		x		35.5	12	2	Inlet, J10	5		2.9	835.33	835.31	75	N/A	7.0	1						5							117a	
117a	37+30.0		x		40.0	12	2	Manhole, C4	219		2.7	835.53	834.90	75	N/A	7.0	1						219							118a	
118	39+50.0		x		35.5	12	2	Inlet, J10	5		2.9	834.23	834.21	75	N/A	7.0	1						5							118a	
118a	39+50.0		x		40.0	12	2	Manhole, C4	37		1.6	834.21	834.07	75	N/A	7.0	1						37								Outfall to Pond 1a
119	40+90.0		x		35.5	12	2	Inlet, J10	42		1.3	833.53	833.37	75	N/A	7.0	1						42								Outfall to Pond 1a
120	42+25.0		x		35.5	12	2	Inlet, J10	42		1.3	832.85	832.69	75	N/A	7.0	1						42								Outfall to Pond 1a
121	44+10.0		x		35.5	12	2	Inlet, J10	42		1.3	831.92	831.76	75	N/A	7.0	1						42								Outfall to Pond 1b
122	46+00.0		x		35.5	12	2	Inlet, J10	42		1.3	830.97	830.81	75	N/A	7.0	1						42								Outfall to Pond 1b
123	47+50.0		x		35.5	12	2	Inlet, J10	42		1.3	830.22	830.06	75	N/A	7.0	1						42								Outfall to Pond 1b
124	49+35.0		x		35.5	12	2	Inlet, J10	42		1.3	829.30	829.14	75	N/A	7.0	1						42								Outfall to Pond 1c
125	51+25.0		x		35.5	12	2	Inlet, J10	42		1.3	828.35	828.19	75	N/A	7.0	1						42								Outfall to Pond 1c
126	53+10.0		x		35.5	12	2	Inlet, J10	42		1.3	827.42	827.26	75	N/A	7.0	1						42								Outfall to Pond 1c

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW

CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	32 of 77
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\DV\CSD\25-422 Ols Road\Road\Dwg\Plans\Structure Data Table.dwg Plot Date: 6/14/2023 Plotted By: Tim Lawmaster

STRUCTURE DATA TABLE

STRUCTURE NUMBER	LOCATION					SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOWLINE		SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1	STRUCTURE BACKFILL TYPE 5	REVETMENT RIPRAP	CLASS 2 RIPRAP	GEOTEXTILES	VIDEO INSPECTION FOR PIPES	PIPE END SECTION, CONCRETE	GRATED BOX END SECTION			SAFETY METAL END SECTION		CONNECT TO STR. NO.	REMARKS
	STATION	LEFT	RIGHT	CROSS	OFFSET							UP STREAM	DOWN STREAM																		
					FT	IN			LFT		FT	ELEV.	ELEV.	YR.				CYS	TON	TON	TON	SYS	LFT	EACH	TYPE	SLOPE	EACH	SLOPE	EACH		
127	55+00.0		x		35.5	12	2	Inlet, J10	42		1.3	826.47	826.31	75	N/A	7.0	1						42								Outfall to Pond 1c
128	55+75.0		x		34.7	12	2	Inlet, J10	5		2.9	826.14	826.12	75	N/A	7.0	1						5							128a	
128a	55+75.0		x		39.2	12	2	Manhole, C4	50		3.3	826.12	825.90	75	N/A	7.0	1						50							129a	
129	56+25.0		x		34.1	12	2	Inlet, J10	5		2.9	826.08	826.06	75	N/A	7.0	1						5							129a	
129a	56+25.0		x		38.6	12	2	Manhole, C4	32		1.6	826.06	825.93	75	N/A	7.0	1						32								Outfall to Ditch
130	56+75.0		x		33.5	12	2	Inlet, J10	43		1.3	826.15	825.99	75	N/A	7.0	1						43								Outfall to Ditch
131	58+00.0		x		32.0	12	2	Inlet, J10	43		1.3	826.75	826.59	75	N/A	7.0	1						43								Outfall to Ditch
132	59+25.0		x		30.6	12	2	Inlet, J10	42		1.3	827.39	827.22	75	N/A	7.0	1						42								Outfall to Ditch
133	12+86.0	x			29.5	12	2	Inlet, J10	59		1.6	833.01	832.78	75	N/A	7.0	1						59							101	
134	14+00.0	x			31.9	12	2	Inlet, J10	64		1.6	832.54	832.27	75	N/A	7.0	1						64							102	
135	14+50.0	x			33.9	12	2	Inlet, J10	68		1.6	832.46	832.19	75	N/A	7.0	1						68							103	
136	15+00.0	x			35.5	12	2	Inlet, J10	71		1.6	832.54	832.27	75	N/A	7.0	1						71							104	
137	16+30.0	x			35.5	12	2	Inlet, J10	71		1.6	833.16	832.89	75	N/A	7.0	1						71							105	
138	18+35.0	x			35.5	12	2	Inlet, J10	71		1.6	834.19	833.92	75	N/A	7.0	1						71							106	
139	20+00.0	x			35.5	12	2	Inlet, J10	71		1.6	835.01	834.74	75	N/A	7.0	1						71							107	
140	23+25.0	x			35.5	12	2	Inlet, J10	83		1.7	835.44	835.12	75	N/A	7.0	1						83							108	
141	24+75.0	x			35.5	12	2	Inlet, J10	71		1.6	834.69	834.42	75	N/A	7.0	1						71							109	
142	26+25.0	x			35.5	12	2	Inlet, J10	71		1.6	833.94	833.67	75	N/A	7.0	1						71							110	
143	27+50.0	x			35.5	12	2	Inlet, J10	71		1.6	833.35	833.08	75	N/A	7.0	1						71							111	
144	28+00.0	x			35.5	12	2	Inlet, J10	71		1.6	833.27	833.00	75	N/A	7.0	1						71							112	
145	28+25.0	x			35.5	12	2	Inlet, J10	71		1.6	833.29	833.02	75	N/A	7.0	1						71							113	
146	28+90.0	x			35.5	12	2	Inlet, J10	71		1.6	833.52	833.25	75	N/A	7.0	1						71							114	
147	31+50.0	x			35.5	12	2	Inlet, J10	71		1.6	834.83	834.56	75	N/A	7.0	1						71							115	
148	33+30.0	x			35.5	12	2	Inlet, J10	71		1.6	835.74	835.47	75	N/A	7.0	1						71							116	
149	37+30.0	x			35.5	12	2	Inlet, J10	71		1.6	835.60	835.33	75	N/A	7.0	1						71							117	
150a	39+50.0	x			69.4	12	2	Inlet, E7	34		1.5	834.63	834.50	75	N/A	7.0	1						34							150	
150	39+50.0	x			35.5	12	2	Inlet, J10	71		1.6	834.50	834.23	75	N/A	7.0	1						71							118	
151	40+90.0	x			35.5	12	2	Inlet, J10	71		1.6	833.80	833.53	75	N/A	7.0	1						71							119	
152a	42+25.0	x			50.6	12	2	Inlet, E7	15		2.0	833.18	833.12	75	N/A	7.0	1						15							152	
152	42+25.0	x			35.5	12	2	Inlet, J10	71		1.5	833.12	832.85	75	N/A	7.0	1						71							120	
153a	44+10.0	x			52.4	12	2	Inlet, E7	17		1.9	832.26	832.19	75	N/A	7.0	1						17							153	
153	44+10.0	x			35.5	12	2	Inlet, J10	71		0.6	832.19	831.92	75	N/A	7.0	1						71							121	

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DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW
CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	33 of 77
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDV\CSV\25-422.03k Roof\Base\Dwg\Plans\Structure Data Table.dwg Plot Date: 03/14/2023 Plotted By: Tim Lasinski

STRUCTURE DATA TABLE

STRUCTURE NUMBER	LOCATION					SIZE	PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOWLINE		SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL TYPE 1	STRUCTURE BACKFILL TYPE 5	REVETMENT RIPRAP	CLASS 2 RIPRAP	GEOTEXTILES	VIDEO INSPECTION FOR PIPES	PIPE END SECTION, CONCRETE	GRATED BOX END SECTION			SAFETY METAL END SECTION		CONNECT TO STR. NO.	REMARKS
	STATION	LEFT	RIGHT	CROSS	OFFSET							UP STREAM	DOWN STREAM																		
					FT	IN			LFT		FT	ELEV.	ELEV.	YR.				CYS	TON	TON	TON	SYS	LFT	EACH	TYPE	SLOPE	EACH	SLOPE	EACH		
154a	46+00.0	x			50.6	12	2	Inlet, E7	15		2.0	831.30	831.24	75	N/A	7.0	1						15							154	
154	46+00.0	x			35.5	12	2	Inlet, J10	71		0.6	831.24	830.97	75	N/A	7.0	1						71							122	
155a	47+50.0	x			57.8	12	2	Inlet, E7	22		1.9	830.58	830.49	75	N/A	7.0	1						22							155	
155	47+50.0	x			35.5	12	2	Inlet, J10	71		1.6	830.49	830.22	75	N/A	7.0	1						71							123	
156	49+35.0	x			35.5	12	2	Inlet, J10	71		1.6	829.57	829.30	75	N/A	7.0	1						71							124	
157	51+25.0	x			35.5	12	2	Inlet, J10	71		1.6	828.62	828.35	75	N/A	7.0	1						71							125	
158	53+10.0	x			35.5	12	2	Inlet, J10	71		1.6	827.69	827.42	75	N/A	7.0	1						71							126	
159	55+00.0	x			35.2	12	2	Inlet, J10	71		1.6	826.74	826.47	75	N/A	7.0	1						71							127	
160	55+75.0	x			34.2	12	2	Inlet, J10	69		1.6	826.41	826.14	75	N/A	7.0	1						69							128	
161	56+25.0	x			33.6	12	2	Inlet, J10	68		1.6	826.35	826.08	75	N/A	7.0	1						68							129	
162	56+75.0	x			32.9	12	2	Inlet, J10	67		1.6	826.42	826.15	75	N/A	7.0	1						67							130	
163	58+00.0	x			31.3	12	2	Inlet, J10	63		1.6	827.02	826.75	75	N/A	7.0	1						63							131	
164	59+25.0	x			29.8	12	2	Inlet, J10	60		1.6	827.66	827.39	75	N/A	7.0	1						60							132	
Detention																															
Line "PR-A"																															
200	10+83.8		x		61.6			Manhole, K4																							
P200	11+35.8		x		71.0	42	1	42" RCP	103																						
201	12+42.5		x		82.7	12	1	12" RCP	33																						
202	22+63.0		x		103.8	18	1	18" RCP	118																						
203	22+63.0		x		139.0	36	1	36" RCP	118																						
204	43+35.5		x		79.2	18	1	18" RCP	38																						
205	49+05.4		x		126.5	12	1	12" RCP	51																						
P206	55+40.0		x		79.4	6	1	6" PVC	8																						
206	55+45.0		x		79.6			Inlet, F7																							
206	55+85.9		x		80.2	12	1	12" RCP	79																						

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: TBL DRAWN: HSW

CHECKED: CCR CHECKED: CCR

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	-
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEETS
-	34 of 77
CONTRACT	PROJECT
R-44267	2101733

File Name: P:\PDV\CSV\25-422.00c Roof\Road\Dwg\Plans\Structure Data Table.dwg Plot Date: 8/14/2023 Plotted By: Tim Lawinski

PROJECT	DESIGNATION
----	2101733
CONTRACT	BRIDGE FILE
EN-359	N/A

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

ROAD PLANS

INTERSECTION IMPROVEMENT
OLIO RD. & 156TH ST.
WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

PROJECT DESCRIPTION:
INTERSECTION IMPROVEMENT AT OLIO ROAD AND EAST 156TH ROAD FROM SAND CREEK BRIDGE TO 156TH STREET IN SECTION 11, 12, 13 & 14 T-18-N, R-5-E, WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

TRAFFIC DATA		Olio Road
A.A.D.T.	(2025)	4,300 V.P.D.
A.A.D.T.	(2045)	5,300 V.P.D.
D.H.V.	(2045)	530 V.P.H.
DIRECTIONAL DISTRIBUTION		52% NB
TRUCKS		3.6% A.A.D.T.
		4.4% D.H.V.

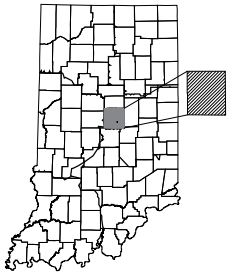
DESIGN DATA	
DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

APPROVED BY:
CITY OF NOBLESVILLE BOARD OF PUBLIC WORKS & SAFETY

Date: _____

Jack Martin	President
John Elmer	Member
Laurie Dyer	Member
Rick Taylor	Member
John Distlear	Member
Evelyn Lees	Clerk
Alison Krupski	City Engineer

VICINITY MAP
HAMILTON COUNTY



PROJECT LOCATION SHOWN BY
(HAMILTON COUNTY)

LATITUDE: 40°06'22" LONGITUDE: 85°55'37"

BRIDGE LENGTH:	0.013	MI.
ROADWAY LENGTH:	0.195	MI.
TOTAL LENGTH:	0.208	MI.
MAX. GRADE:	1.47	%

HUC: 051202010903

NOBLESVILLE CITY STANDARDS DATED 03/14/2012 &
INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

LOCHMUELLER GROUP

PLANS PREPARED BY: Lochmueller Group, Inc (317) 222-3880 PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE
N/A
DESIGNATION
2101733

SURVEY BOOK	SHEET
ELECTRONIC BOOK	1 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 12, 2024 - 3:37pm User: Steven Parks Steven
File: \\ch\dfs\Projects\Noblesville\2101733\CAD\Misc\DWG\SN_60_Title Sheet.dwg

UTILITIES

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Noblesville, IN 46062
dei-dline@duke-energy.com
Phone: 317-776-5320

Duke Transmission
Zach Boston
1000 E Main St.
Plainfield, IN 46168
dei-tline-coord@duke-energy.com
Phone: 317-838-1053

SEWER

City of Noblesville
Kirk Staley
197 W. Washington St.
Noblesville, IN 46060
kstaley@noblesville.in.us
Phone: 317-776-6353

811
Know what's below.
Call before you dig.

GENERAL NOTES

All earth shoulders, median areas and cut and fill slopes shall be plain or mulch seeded except where sodding is specified.

All HMA shoulders shall have corrugations installed per INDOT standard drawings

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE SHEET
2	INDEX AND GENERAL NOTES
3 - 4	TYPICAL CROSS SECTIONS
5	MAINTENANCE OF TRAFFIC
6 - 10	PLAN & PROFILE
11 - 19	ROUNDABOUT GEOMETRICS
20 - 21	PAVEMENT MARKING AND SIGNAGE
22	LANDSCAPE PLANS
23 - 25	STRUCTURE DATA TABLE
26 - 45	CROSS SECTIONS

Removed for brevity

REVISIONS

SHEET NO.	DATE	REVISED

TRAFFIC DATA, 156th Street

A.A.D.T.	(2025)	1200 V.P.D.
A.A.D.T.	(2045)	1530 V.P.D.
D.H.V.	(2045)	153 V.P.H.
DIRECTIONAL DISTRIBUTION		50 % EB
TRUCKS		8.9 % A.A.D.T.

DESIGN DATA

DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION(NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	URBAN (SUBURBAN)
TERRAIN	LEVEL
ACCESS CONTROL	NONE

Date: Apr 12, 2024, 3:32pm User Name: Mark Hagan
File: I:\ec\dwg\Products\Des\2101733\300\401MscDMSDSht_RD_Index.dwg

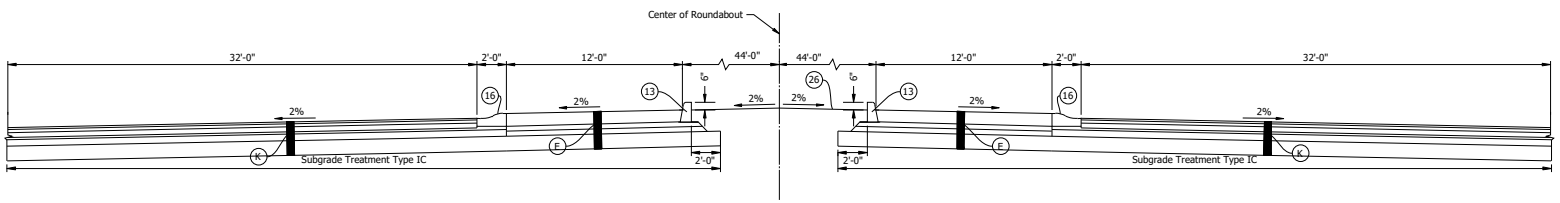
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

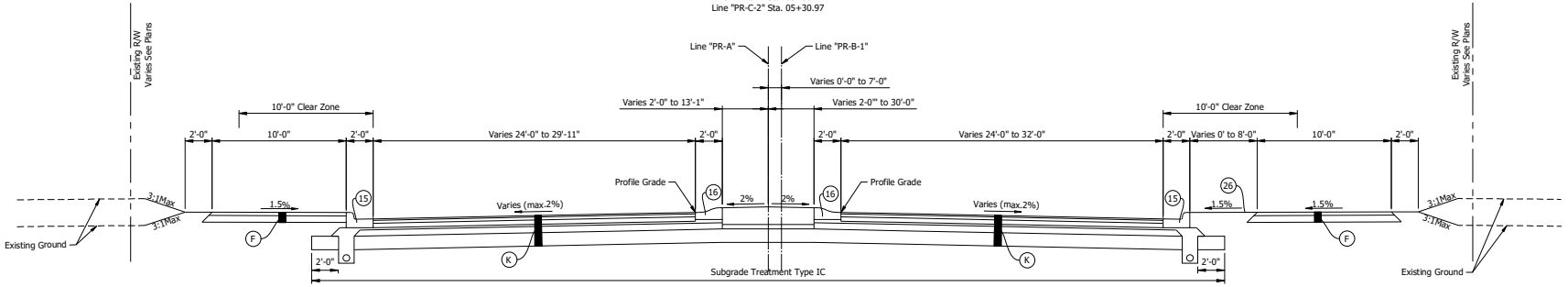
INDEX AND GENERAL NOTES

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	2 of 45
CONTRACT	PROJECT
EN-359	----



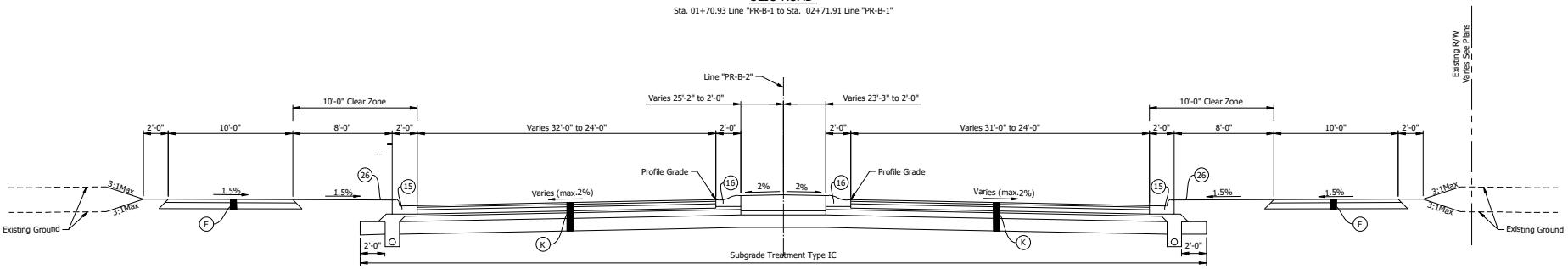
TYPICAL SECTION - ROUNDABOUT

Radial Around
Line "PR-B-1" Sta. 03+45.91
Line "PR-B-2" Sta. 03+45.91
Line "PR-C-1" Sta. 05+30.71
Line "PR-C-2" Sta. 05+30.97



TYPICAL SECTION - SPLITTER ISLAND
OLIO ROAD

Sta. 01+70.93 Line "PR-B-1 to Sta. 02+71.91 Line "PR-B-1"



TYPICAL SECTION - SPLITTER ISLAND
OLIO ROAD

Sta. 04+20.91 Line "PR-B-2 to Sta. 06+65.25 Line "PR-B-2"

(E) Concrete Truck Apron:
10" P.C.C.P (Decorative) on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on

(F) HMA for Sidewalk:
330 LB/SYS HMA Surface, Type B (Placed in One Lift), on
6" Compacted Aggregate NO.53, on
Subgrade Treatment, Type III

(K) HMA Pavement:
165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 3, 64, Intermediate, 19mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
200 LB/SYS QCQA-HMA, 3, 76, Intermediate, OG 19mm, on
660 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
Subgrade Treatment, Type IC

(R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
Milling, Asphalt, 1½ in.

(W) HMA Widening, Type C, Consisting of
165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19mm, on
300 LB/SYS QCQA-HMA, 2, 64, Base, 19mm, on
6 IN. Compacted Aggregate NO.53, on
Subgrade Treatment, Type I

(15) Curb and Gutter, Concrete, Modified, Type II

(16) Curb, Integral B Concrete

(26) Sodding

(13) Curb, Integral, Concret

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

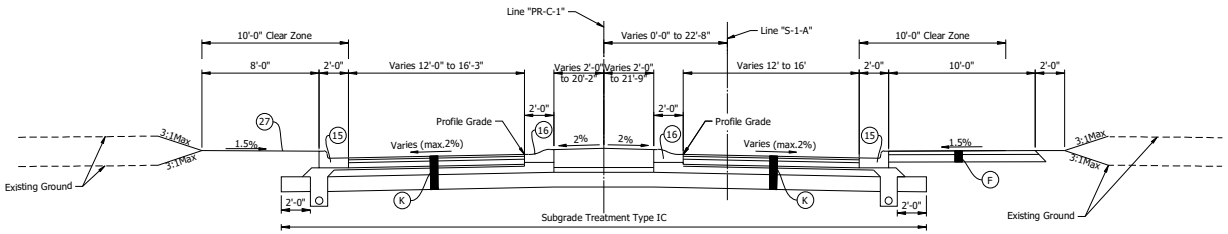
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

TYPICAL CROSS SECTIONS
LINE "PR-B-1" & LINE "PR-B-2"

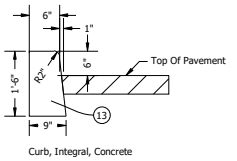
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	3 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 12, 2024, 3:37pm User Name: NickMain
File: \\noblesville.local\Public\Projects\Des\2021\2328370\Civil\Roadway\Plan Sheets\PR_RD_Typicals.dwg - (TYP 01)

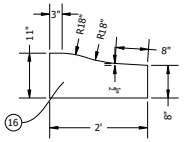


TYPICAL SECTION - SPLITTER ISLAND
156TH STREET

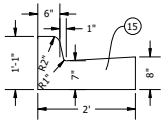
Sta. 02+40.46 Line "PR-C-1 to Sta. 03+21.87 Line "PR-C-1"
Sta. 03+61.89 Line "PR-C-1 to Sta. 04+40.01 Line "PR-C-1"



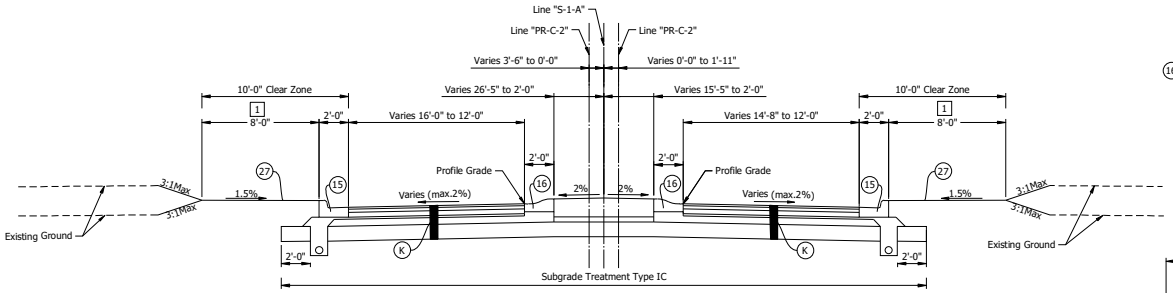
Curb, Integral, Concrete



Curb, Integral B Concrete



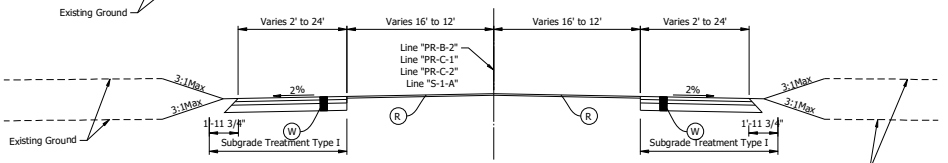
Curb and Gutter, Concrete, Modified Type II



[1] Multi-use Path from Sta. 06+20.97 to Sta. 06+62.00

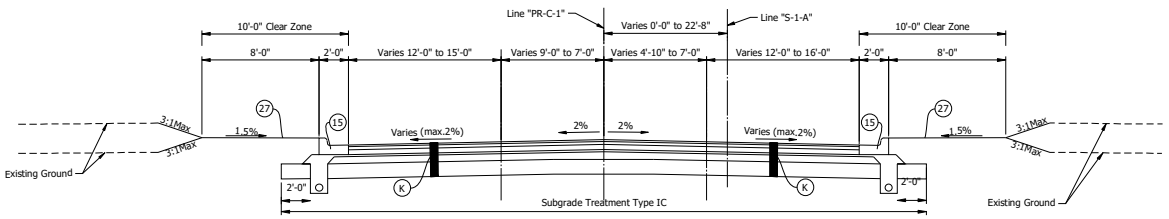
TYPICAL SECTION - SPLITTER ISLAND
156TH STREET

Sta. 06+20.97 Line "PR-C-2 to Sta. 07+58.28 Line "PR-C-2"



TYPICAL SECTION - INCIDENTAL

Sta. 06+65.25 Line "PR-B-2 to Sta. 09+55.37 Line "PR-B-2"
Sta. 01+00.00 Line "PR-C-1 to Sta. 02+00.00 Line "PR-C-1"
Sta. 07+58.28 Line "PR-C-2 to Sta. 09+08.28 Line "PR-C-2"



TYPICAL SECTION - FULL DEPTH
156TH STREET

Sta. 02+00.00 Line "PR-C-1 to Sta. 02+40.46 Line "PR-C-1"
Sta. 03+21.87 Line "PR-C-1 to Sta. 03+61.89 Line "PR-C-1"

(E) Concrete Truck Apron:
10" P.C.C.P (Decorative) on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
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330 LB/SYS HMA Surface, Type B (Placed in One Lift), on
6" Compacted Aggregate NO.53, on
Subgrade Treatment, Type III

(K) HMA Pavement:
165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 3, 64, Intermediate, 19mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
200 LB/SYS QCQA-HMA, 3, 76, Intermediate, OG 19mm, on
660 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
Subgrade Treatment, Type IC

(R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
Milling, Asphalt, 1½ in.
(W) HMA Widening, Type C, Consisting of
165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19mm, on
300 LB/SYS QCQA-HMA, 2, 64, Base, 19mm, on
6 IN. Compacted Aggregate NO.53, on
Subgrade Treatment, Type I

(15) Curb and Gutter, Concrete, Modified, Type II
(16) Curb, Integral B Concrete
(26) Sodding
(13) Curb, Integral, Concrete

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

TYPICAL CROSS SECTIONS
LINE "PR-B-2", LINE "PR-C-1" & LINE "PRC-2"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	4 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 12, 2024, 3:33pm User Name: Mark Hagan
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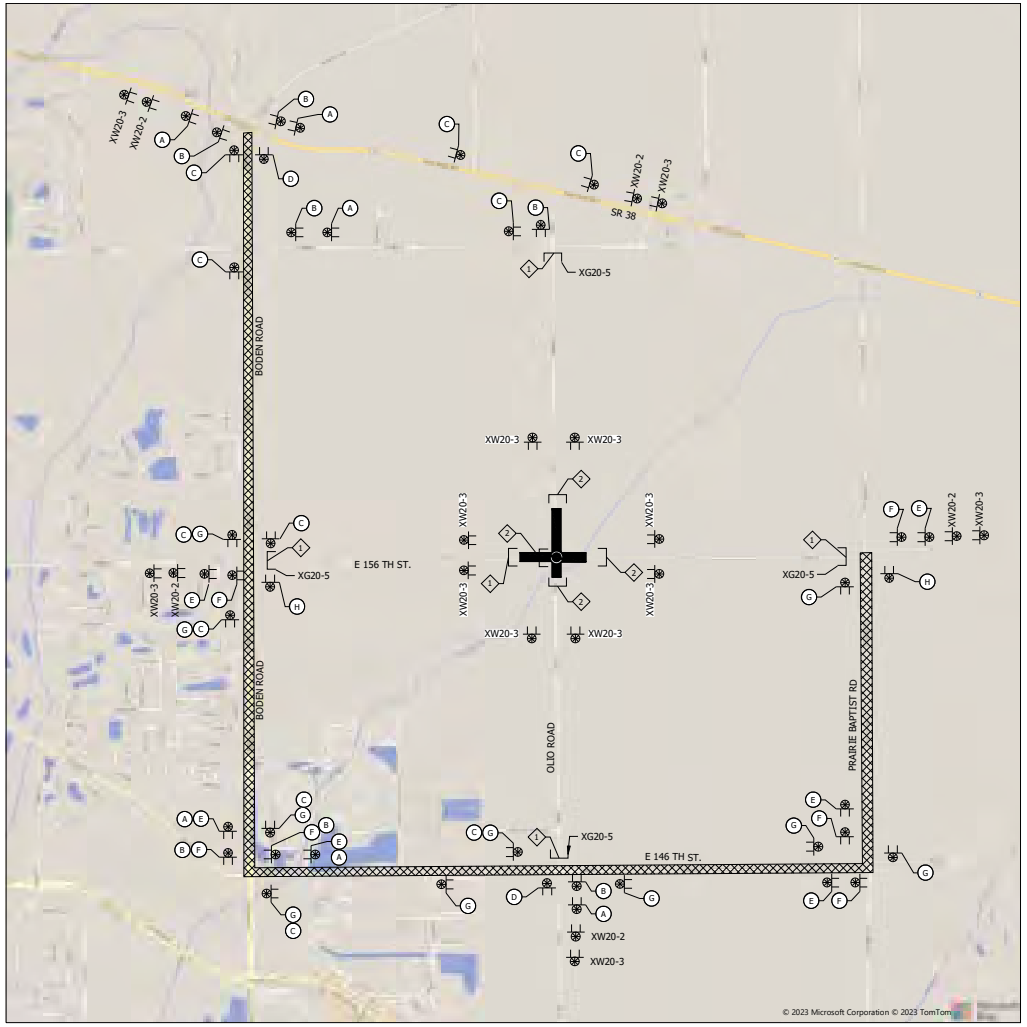

Not To Scale

CONSTRUCTION SIGN SCHEDULE

SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
R11-2	"ROAD CLOSED" SIGN	48 x 30		5
R11-4	"ROAD CLOSED TO THRU TRAFFIC" SIGN	60 x 30		4
XG20--5	"ROAD CLOSED AFTER " SIGN	60 x 36		4
XM4-10 (L or R)	"DETOUR" SIGN	48 x 18		4
XW20-2	"DETOUR AHEAD" SIGN	48 x 48	A	4
XW20-3	"ROAD CLOSED AHEAD" SIGN	48 x 48	A	12
			TOTAL TYPE "A" SIGNS	16

Detour Route Marker Assemblies	50	Req'd.
Road Closure Sign Assemblies	9	Req'd.
Type III-A Barricades	120	LFT
Type III-B Barricades	96	LFT

LEGEND:

156TH ST CLOSED ON OR AFTER_____ XG20-5

OLIO RD CLOSED ON OR AFTER_____ XG20-5

DETOUR XM4-10 (R or L)

DETOUR AHEAD XW20-2

ROAD CLOSED AHEAD XW20-3

ROAD CLOSED R11-2

ROAD CLOSED TO THRU TRAFFIC R11-4

A DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

B DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

C DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

D END DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

E DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

F DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

G DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

H END DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

1 Road Closure Sign Assembly w/ Type III-B Barricade (24 LFT) And R11-4 And XM4-10 (L or R)

2 Road Closure Sign Assembly W/ Type III-A Barricade (24 LFT) And R11-2

Construction Zone

Detour Route

GENERAL NOTES

1. All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
2. See INDOT Std. Dwg. 801-TCDT-01 for sign spacing requirements and additional notes.
3. See INDOT Std. Dwg. 801-TCLG-01 for standard notes.
4. Type B construction warning lights shall be used with all signs located on road closure sign assemblies. Type A construction warning lights shall be used on all other construction signs.
5. Contractor shall maintain access to all commercial and private properties during construction.
6. XG20-5 signs shall be installed a minimum of 14 days prior to closing the road and removed when the road is closed to traffic.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

MAINTENANCE OF TRAFFIC
OLIO ROAD & 156TH ST DETOUR

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	5 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 17, 2024 - 3:29pm User Name: Noel Hayes
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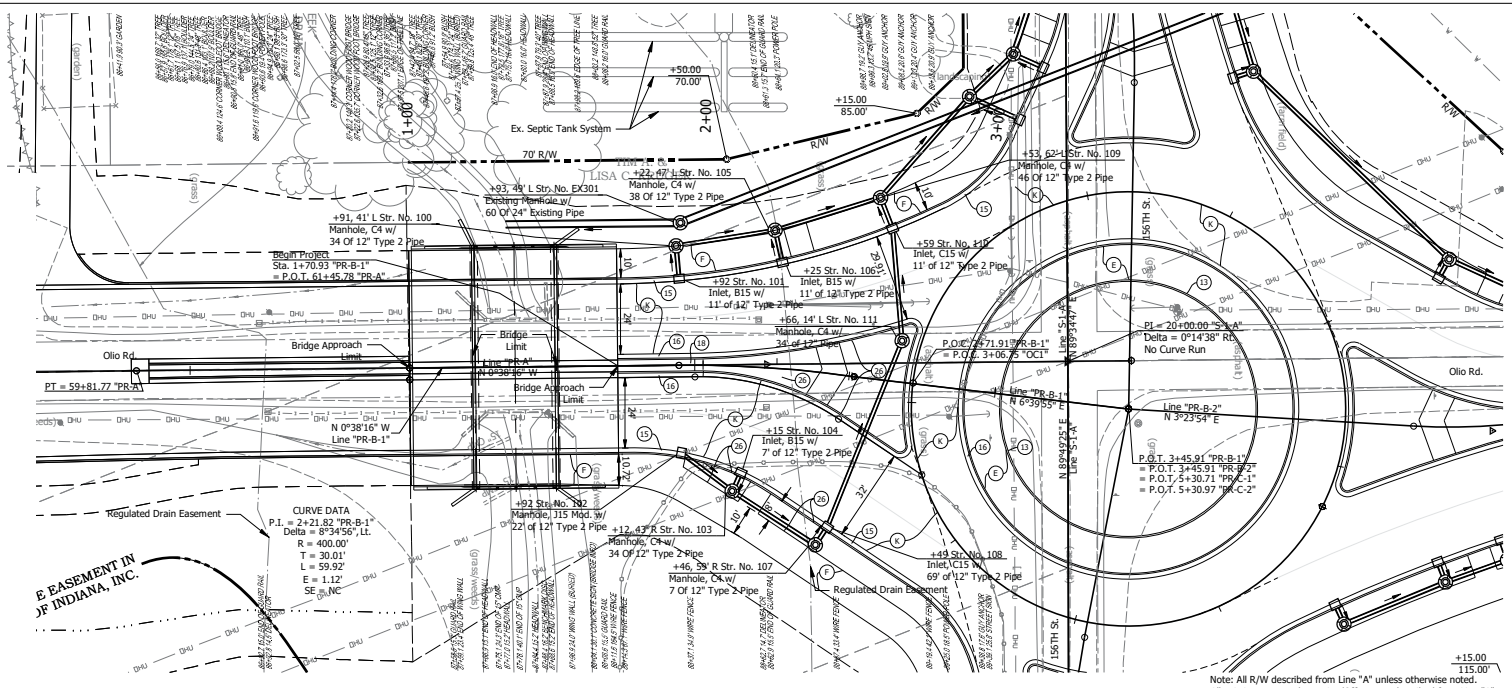

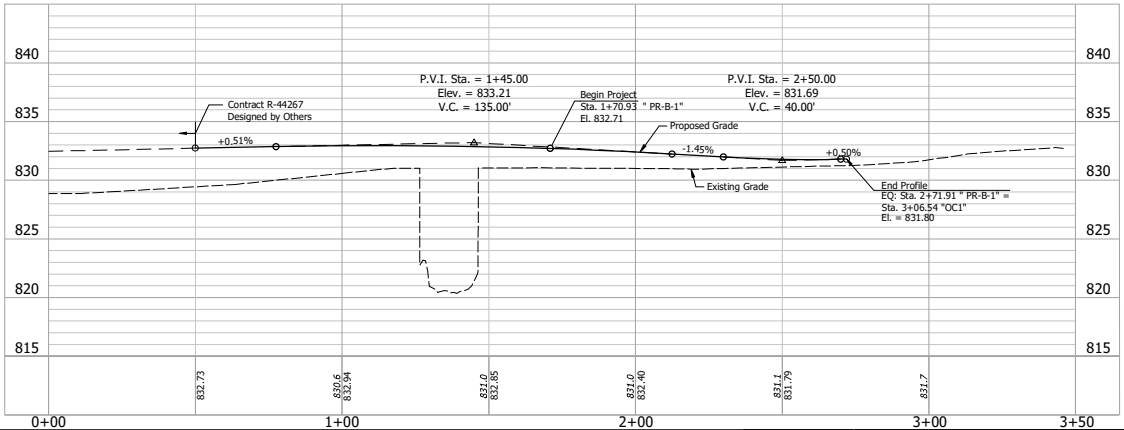

LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm
- (F) HMA for Sidewalk 330 LB/SYS HMA Surface, Type B (Placed in One Lift), on 6 in. Compacted Aggregate, NO.53, on Subgrade Treatment, Type III
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IC
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm, on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm, on 6 in.Compacted Aggregate NO.53, on Subgrade Treatment, Type I
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- (16) Curb, Integral B, Concrete, Modified
- (17) Center Curb, D, Concrete
- (18) PCCP, 13" (Decorative), on 8" Compacted Aggregate, No. 53, on Subgrade Treatment, Type IC
- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE- LINE "PR-B-1"
STA. 1+00 TO STA. 3+46

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	6 of 45
CONTRACT	PROJECT
EIN-359	----

Date: Apr 15, 2024 - 4:59pm User Name: Noel Adam
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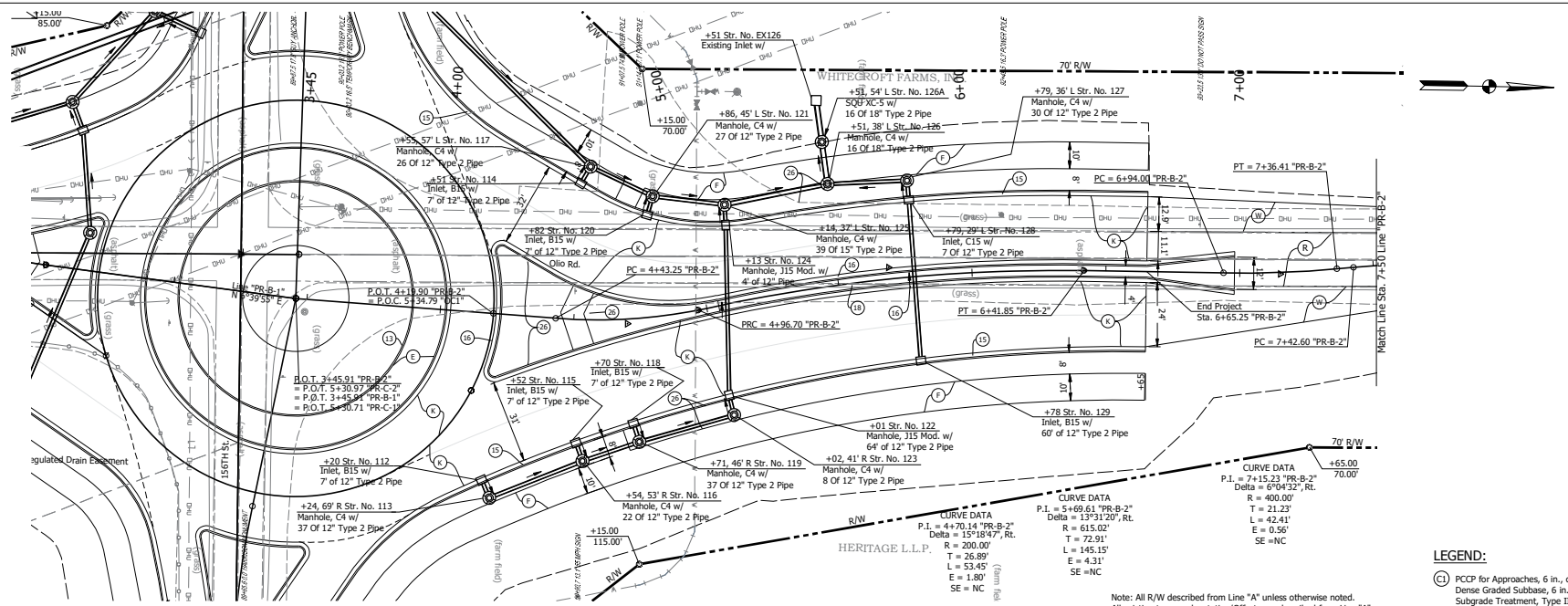

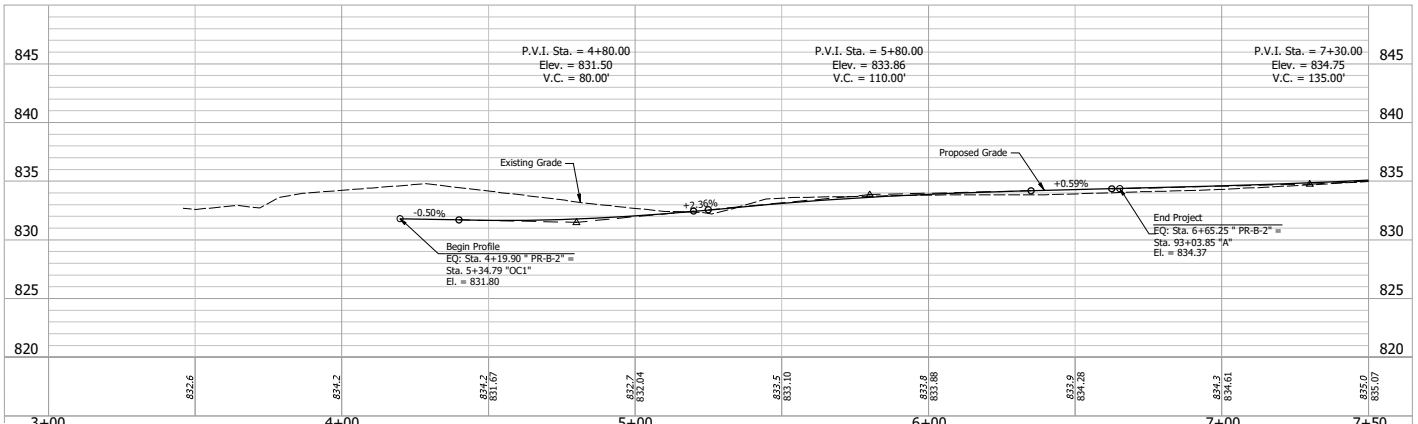

LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
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- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm, on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm, on 6 in.Compacted Aggregate NO.53, on Subgrade Treatment, Type I
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- (16) Curb, Integral B, Concrete, Modified
- (17) Center Curb, D, Concrete
- (18) PCCP, 13" (Decorative), on 8" Compacted Aggregate, No. 53, on Subgrade Treatment, Type IC
- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: EWA | DRAWN: EWA

CHECKED: JNH | CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-B-2"
STA. 3+46 TO STA. 7+50

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	7 of 45
CONTRACT	PROJECT
EIN-359	----

Date: Apr 15, 2024 - 5:08pm User Name: Noel Adam
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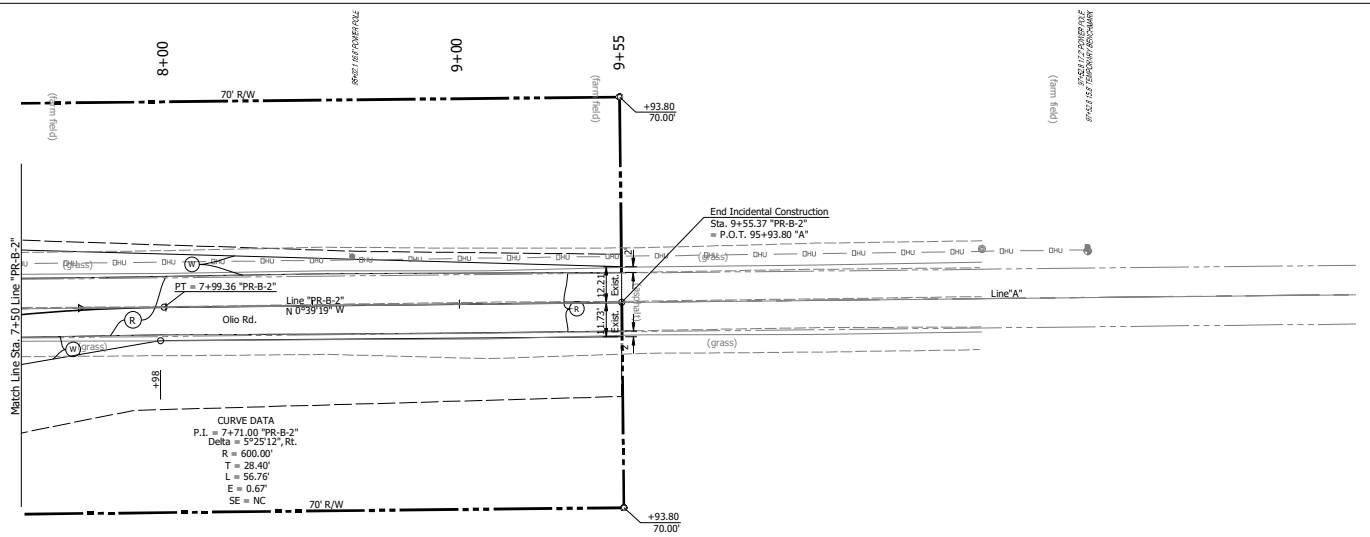

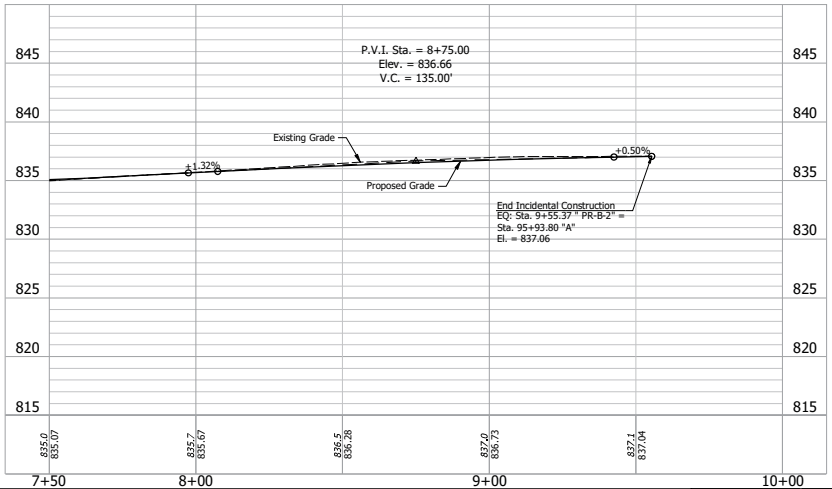

Note: All R/W described from Line "A" unless otherwise noted.
All existing topography station/Offsets are described from Line "A"

LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
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- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-B-2"
STA. 7+50 TO STA. 9+55

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	8 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 15, 2026 - 8:08pm User Name: Noah Adam
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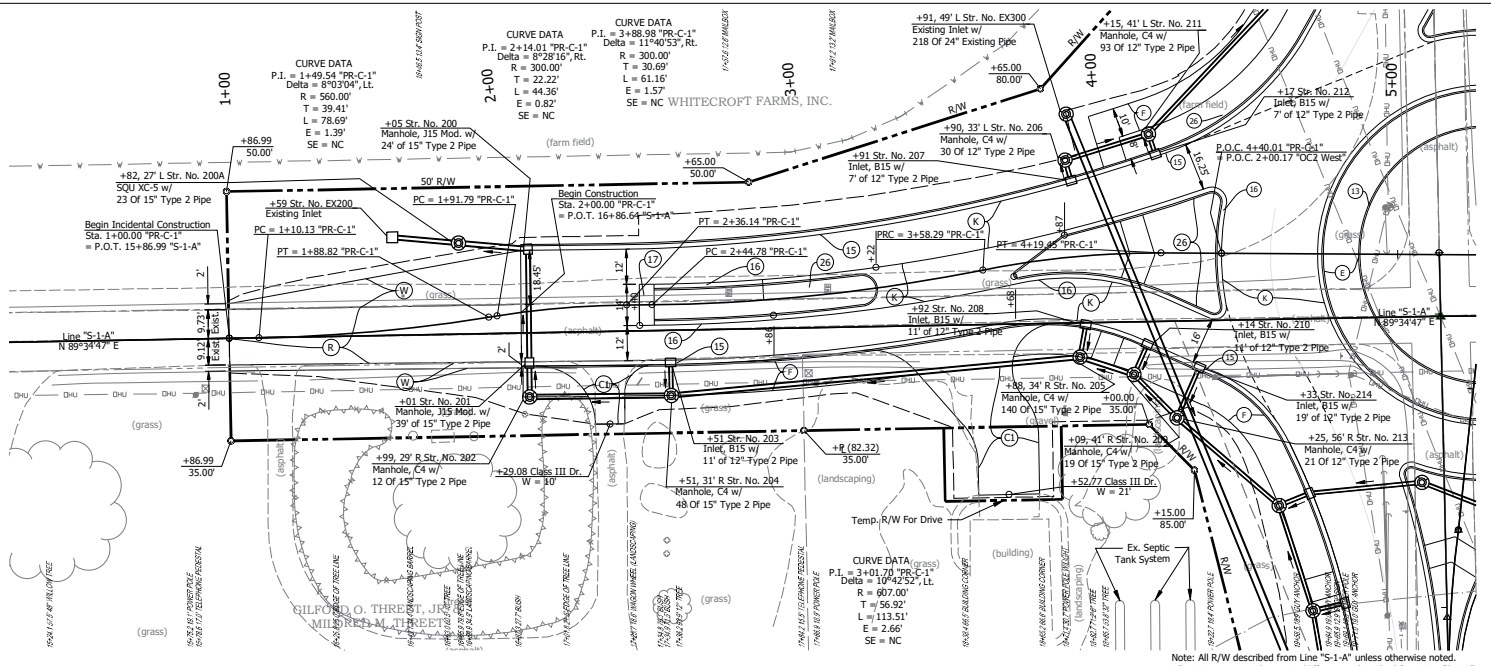
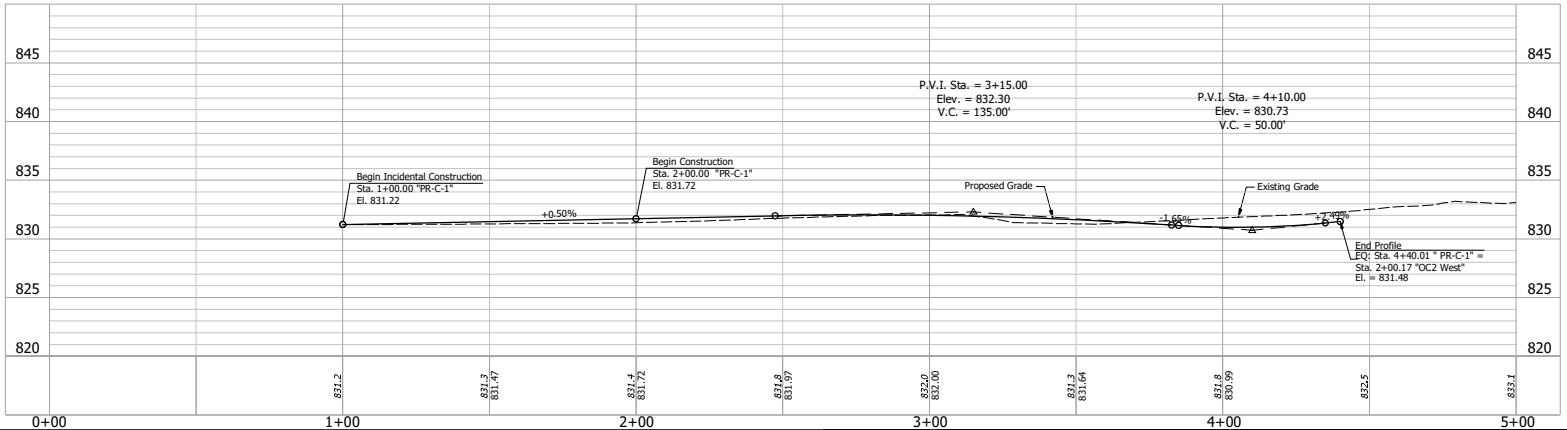




LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm
- (F) HMA for Sidewalk 330 LB/SYS HMA Surface, Type B (Placed in One Lift), on 6 in. Compacted Aggregate, NO.53, on Subgrade Treatment, Type III
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IC
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm, on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm, on 6 in.Compacted Aggregate NO.53, on Subgrade Treatment, Type I
- (13) Curb, Integral, Concrete
- (15) Curb and Gutter, Concrete, Modified, Type II
- (16) Curb, Integral B, Concrete, Modified
- (17) Center Curb, D, Concrete
- (18) PCCP, 13" (Decorative), on 8" Compacted Aggregate, No. 53, on Subgrade Treatment, Type IC
- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

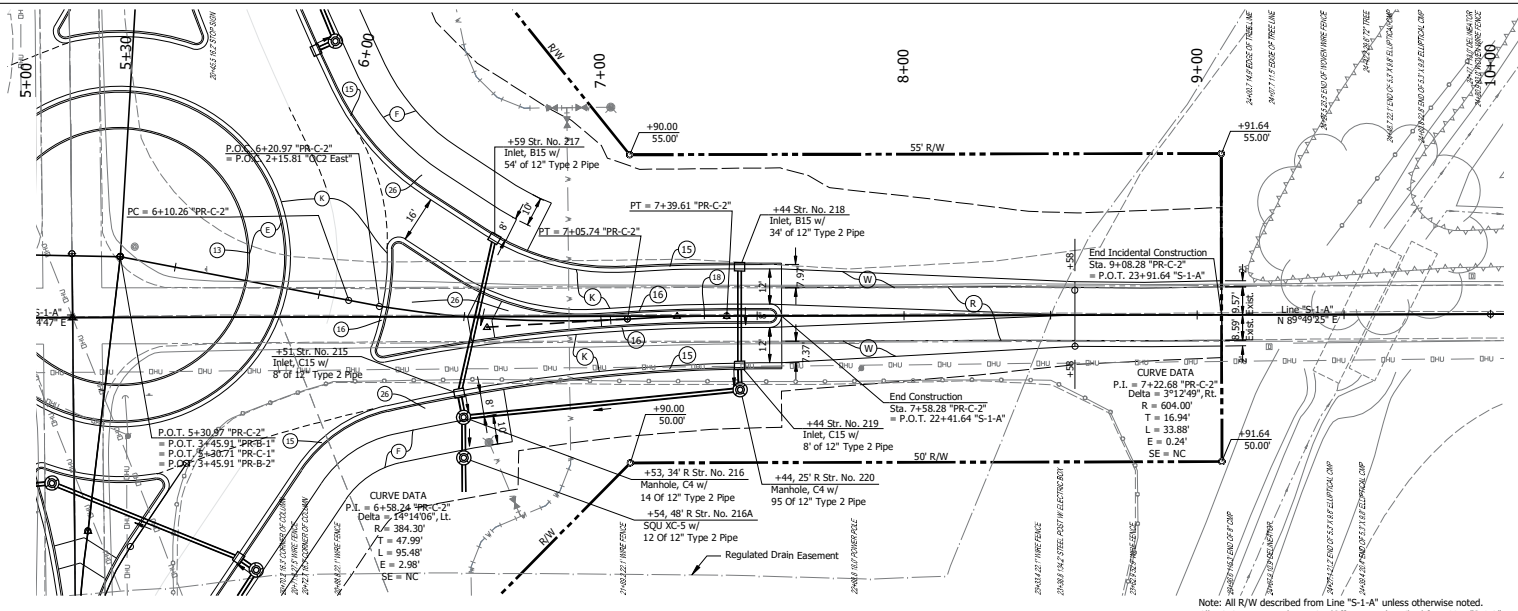
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

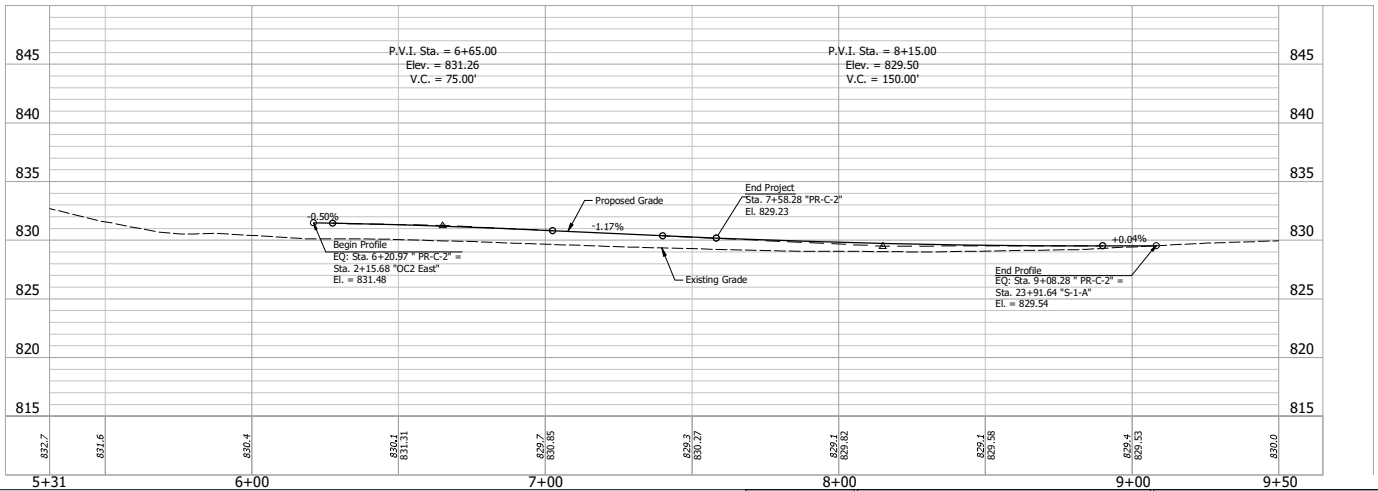
PLAN & PROFILE- LINE "PR-C-1"
STA. 1+00 TO STA. 5+31

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	9 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 15, 2026 - 5:08pm User Name: Noel Adam
File: L:\Projects\Active\Projects\2021\21-2967\CAD\P&PSht_80_Plan & Profile.dwg (PR-C-1 (1))



Note: All R/W described from Line "S-1-A" unless otherwise noted.
All existing topography station/Offsets are described from Line "S-1-A"



LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm
- (F) HMA for Sidewalk 330 LB/SYS HMA Surface, Type B (Placed in One Lift), on 6 in. Compacted Aggregate, NO.53, on Subgrade Treatment, Type III
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IC
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm, on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm, on 6 in.Compacted Aggregate NO.53, on Subgrade Treatment, Type I
- (13) Curb, Integral, Concrete
- (15) Curb and Gutter, Concrete, Modified, Type II
- (16) Curb, Integral B, Concrete, Modified
- (17) Center Curb, D, Concrete
- (18) PCCP, 13" (Decorative), on 8" Compacted Aggregate, No. 53, on Subgrade Treatment, Type IC
- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: EWA DRAWN: EWA

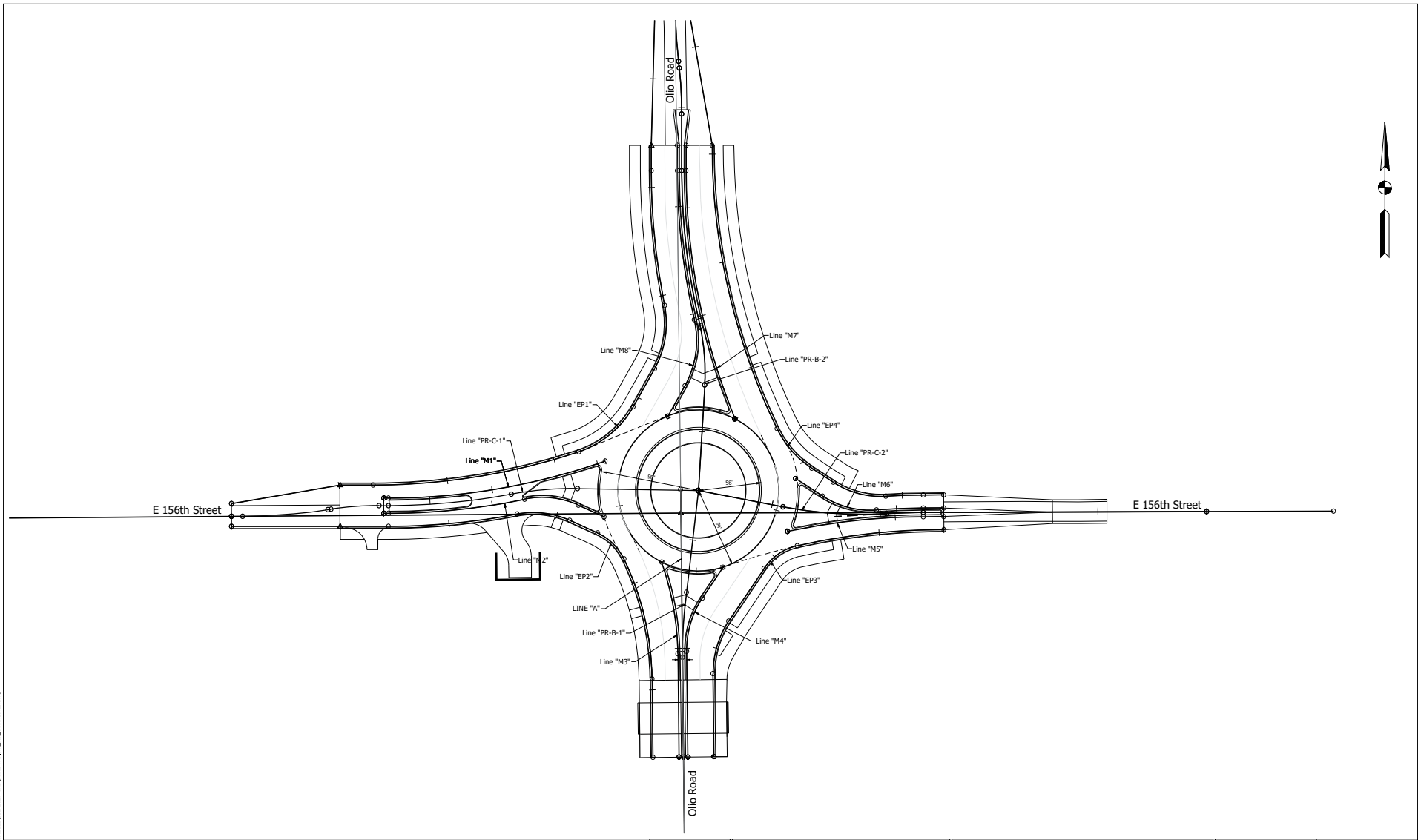
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-C-2"
STA. 5+31 TO STA. 8+68

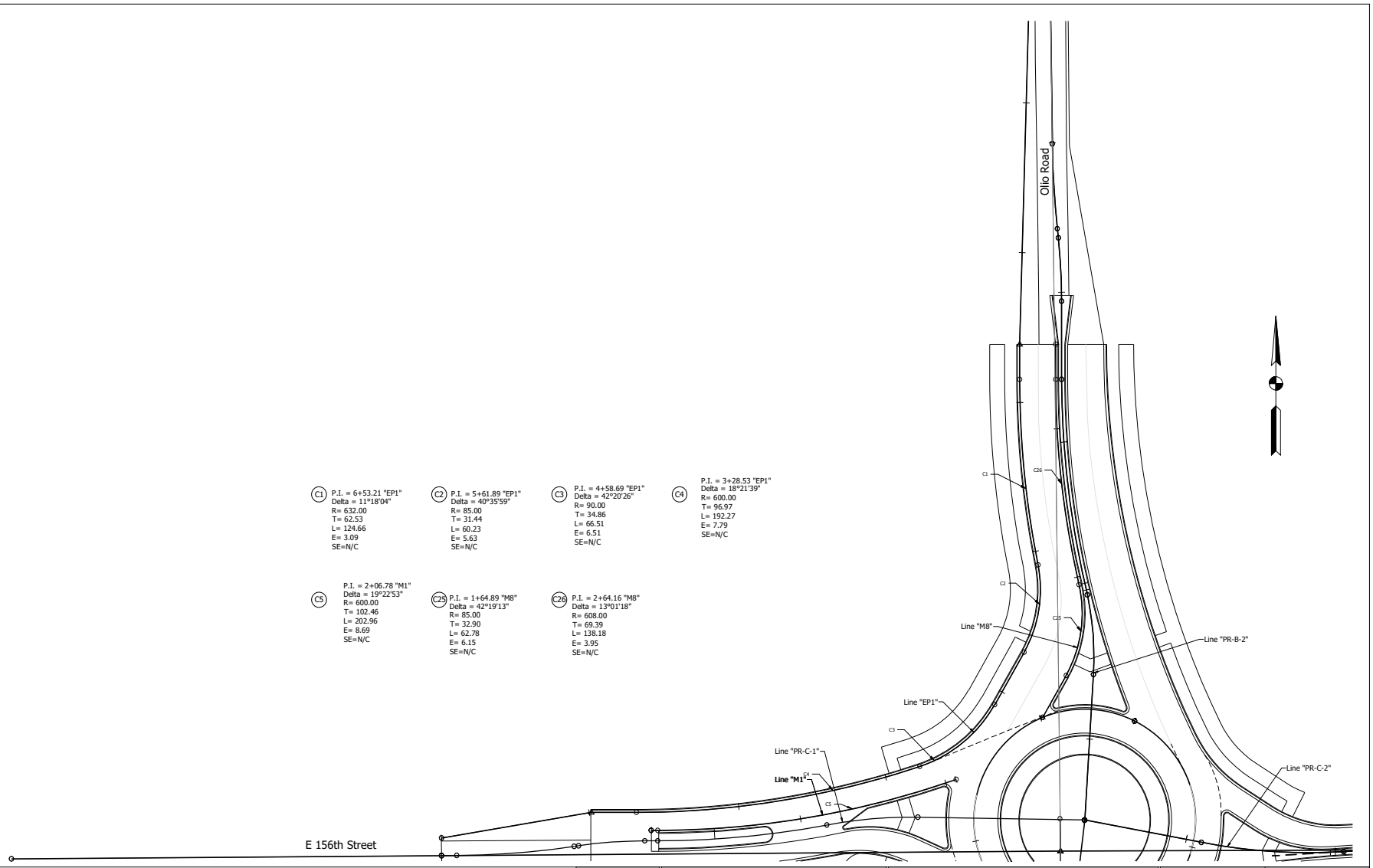
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
1" = 5'	2101733
SURVEY BOOK	SHEET
ELECTRONIC	10 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 15, 2026 - 5:00pm User Name: Noah Adam
File: L:\Active\Projects\Des#2101733\2-Design\2-CAD\Plat\SN1_BD_Plan & Profile.dwg (PR-C-2 (1))



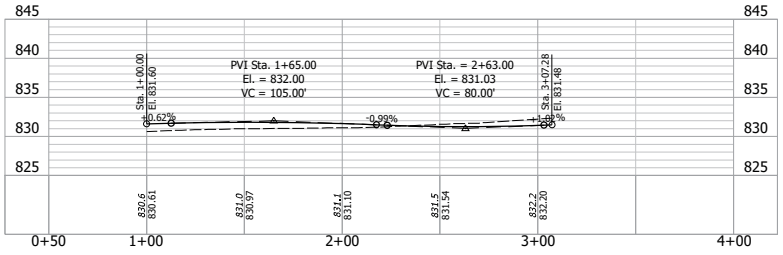
Date: Apr 12, 2014, 3:57pm User Name: Mark Hagan
File: I:\Drafting\Production Jobs\2021\12-2500\2140\Misc\WB\SHL_RD_Geometrics.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE: 1" = 40' / BRIDGE FILE: N/A VERTICAL SCALE: N/A / DESIGNATION: 2101733
DESIGNED: EWA	DRAWN: EWA	ROUNDABOUT GEOMETRICS OVERALL DETIAL	SURVEY BOOK / SHEET ELECTRONIC: 11 of 45 CONTRACT / PROJECT: EN-359 / ----
CHECKED: JNH	CHECKED: JNH		

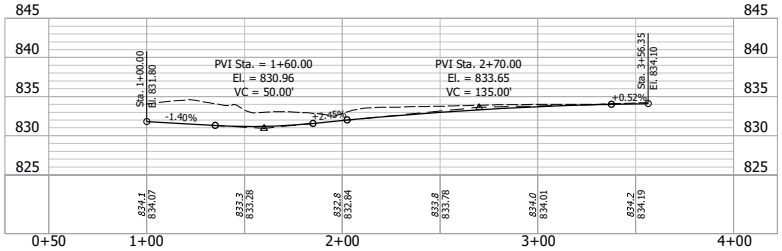


Date: Apr 12, 2024 2:57pm User: Mark Wehr Design
File: I:\IN\Noblesville\Production Files\140241.12-300\CAD\Misc\DWG\Sht_R0_Geometrics.dwg

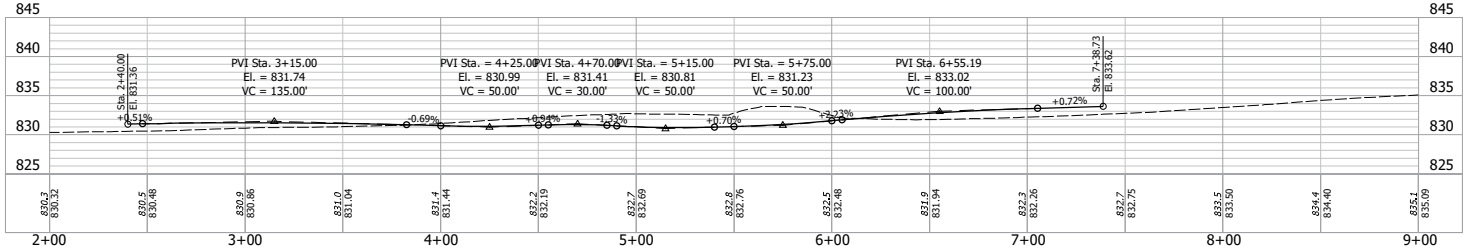
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE 1" = / VERTICAL SCALE 1" = / BRIDGE FILE N/A / DESIGNATION 2101733
DESIGNED: EWA	DRAWN: EWA	ROUNDABOUT GEOMETRICS DETAIL	SURVEY BOOK / ELECTRONIC / CONTRACT / EN-359 / SHEET 12 of 45 / PROJECT ----
CHECKED: JNH	CHECKED: JNH		



PROFILE - LINE "M1"
Sta. 1+00.00 to 3+24.52

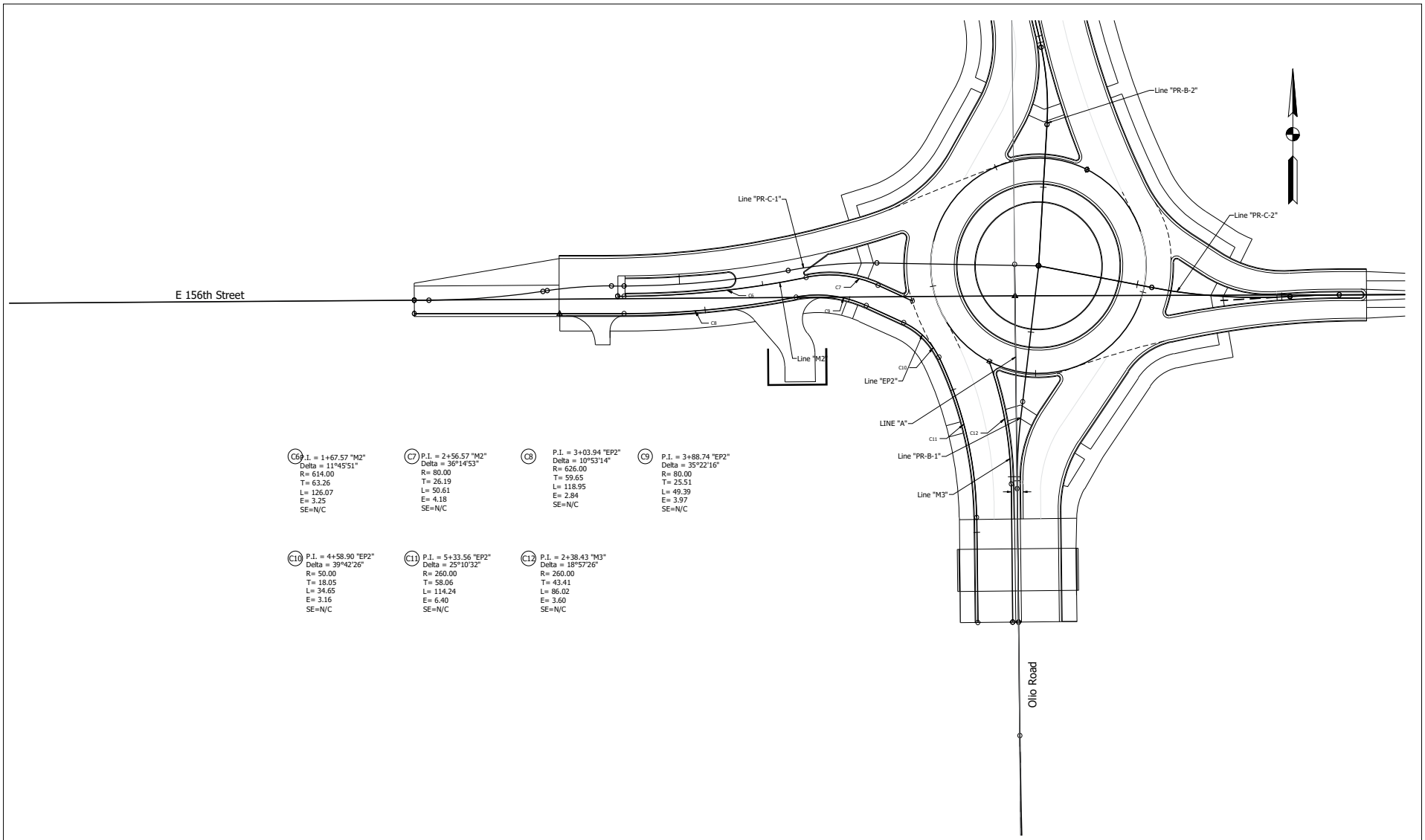


PROFILE - LINE "M8"
Sta. 1+00.00 to 3+56.35



PROFILE - LINE "EP1"
Sta. 1+00.00 to 10+17.69

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
		VERTICAL SCALE 1" = 5'	DESIGNATION 2101733
DESIGNED: EWA DRAWN: EWA CHECKED: JNH CHECKED: JNH	ROUNDABOUT GEOMETRICS LINE "M1", LINE "EP1", LINE "M8"	SURVEY BOOK ELECTRONIC	SHEET 13 of 45
		CONTRACT EN-359	PROJECT ----



Date: Apr 12, 2024, 3:39pm User Name: Mark Vinson
File: I:\AS-Built Products\Projects\2021\21-307\750\01 MicroSIM\GIS\N_80_Geometrics.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

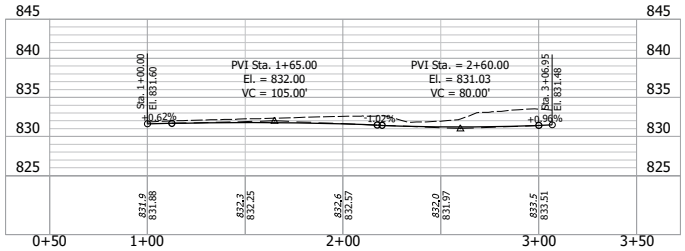
DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

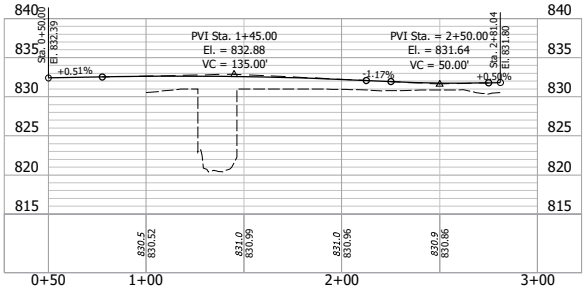
CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

ROUNDABOUT GEOMETRICS DETAIL

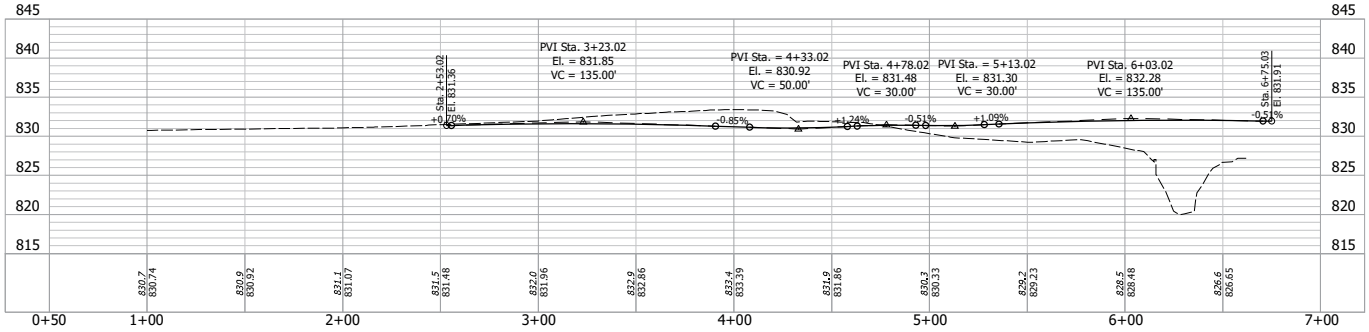
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	14 of 45
CONTRACT	PROJECT
EN-359	----



PROFILE - LINE "M2"
Sta. 1+00.00 to 3+24.35



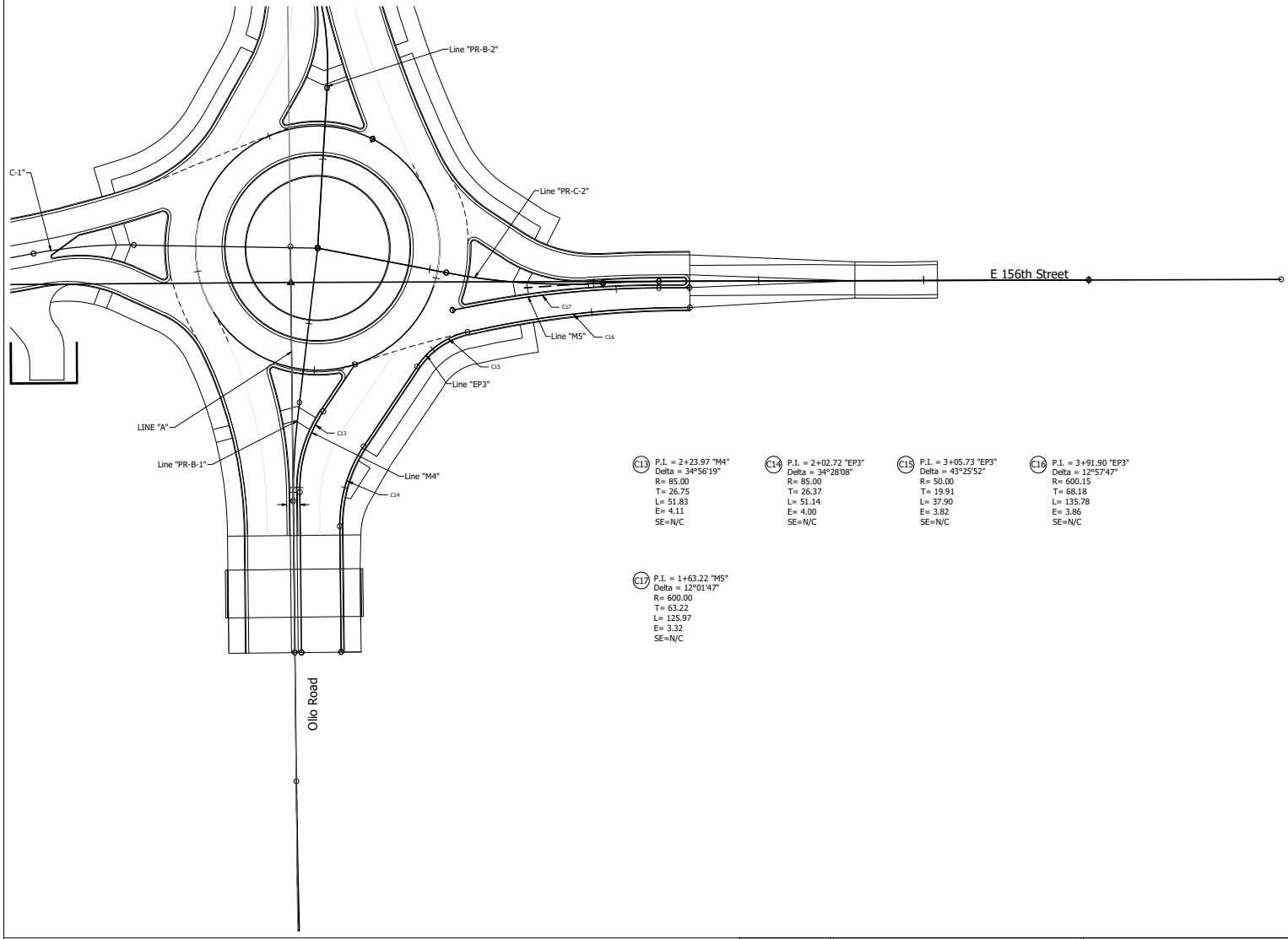
PROFILE - LINE "M3"
Sta. 1+00.00 to 2+81.04



PROFILE - LINE "EP2"
Sta. 1+00.00 to 6+49.47

Date: Apr 12, 2024 - 3:39pm User Name: Noah Klein
File: L:\Active\Projects\Projects\2021\21-2067\CAD\Hoosiervia\SW_RD_Geometrics_ProfRev.dwg - (LINE EP2 M2 M3)

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
				VERTICAL SCALE 1" = 5'	DESIGNATION 2101733
	DESIGNED: EWA	DRAWN: EWA	ROUNDABOUT GEOMETRICS LINE "M2", LINE "EP2", LINE "M3"	SURVEY BOOK ELECTRONIC	SHEET 15 of 45
	CHECKED: JNH	CHECKED: JNH		CONTRACT EN-359	PROJECT ----



C13 P.I. = 2+23.97 "M4"
Delta = 34°56'19"
R= 85.00
T= 26.75
L= 51.83
E= 4.11
SE=N/C

C14 P.I. = 2+02.72 "EP3"
Delta = 34°28'08"
R= 85.00
T= 26.37
L= 51.14
E= 4.00
SE=N/C

C15 P.I. = 3+05.73 "EP3"
Delta = 43°25'52"
R= 50.00
T= 19.91
L= 37.90
E= 3.82
SE=N/C

C16 P.I. = 3+91.90 "EP3"
Delta = 12°57'47"
R= 600.15
T= 68.18
L= 135.78
E= 3.86
SE=N/C

C17 P.I. = 1+63.22 "M5"
Delta = 12°01'47"
R= 600.00
T= 63.22
L= 125.97
E= 3.32
SE=N/C

Date: Apr 12, 2024 - 4:08pm User Name: Mark Ungan
File: I:\Active Production Files\2021\21-3073\3D Misc\DWG\SN_RD_Geometrics.dwg

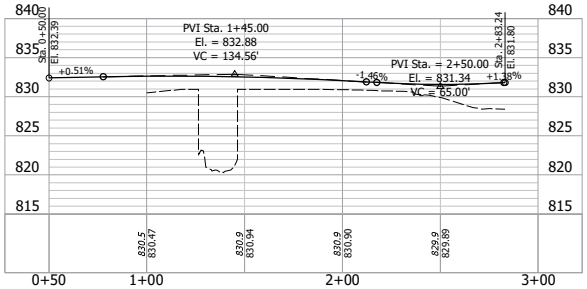
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

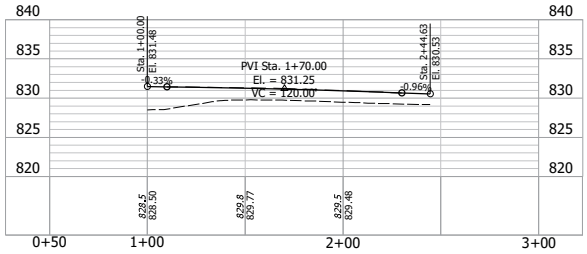
ROUNDABOUT GEOMETRICS DETAIL

DESIGNED: EWA	DRAWN: EWA
CHECKED: JNH	CHECKED: JNH

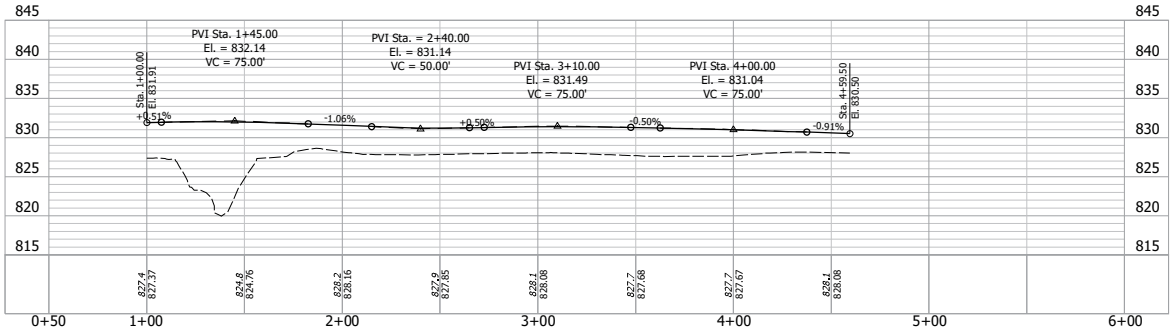
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	16 of 45
CONTRACT	PROJECT
EN-359	----



PROFILE - LINE "M4"
Sta. 1+00.00 to 2+83.24



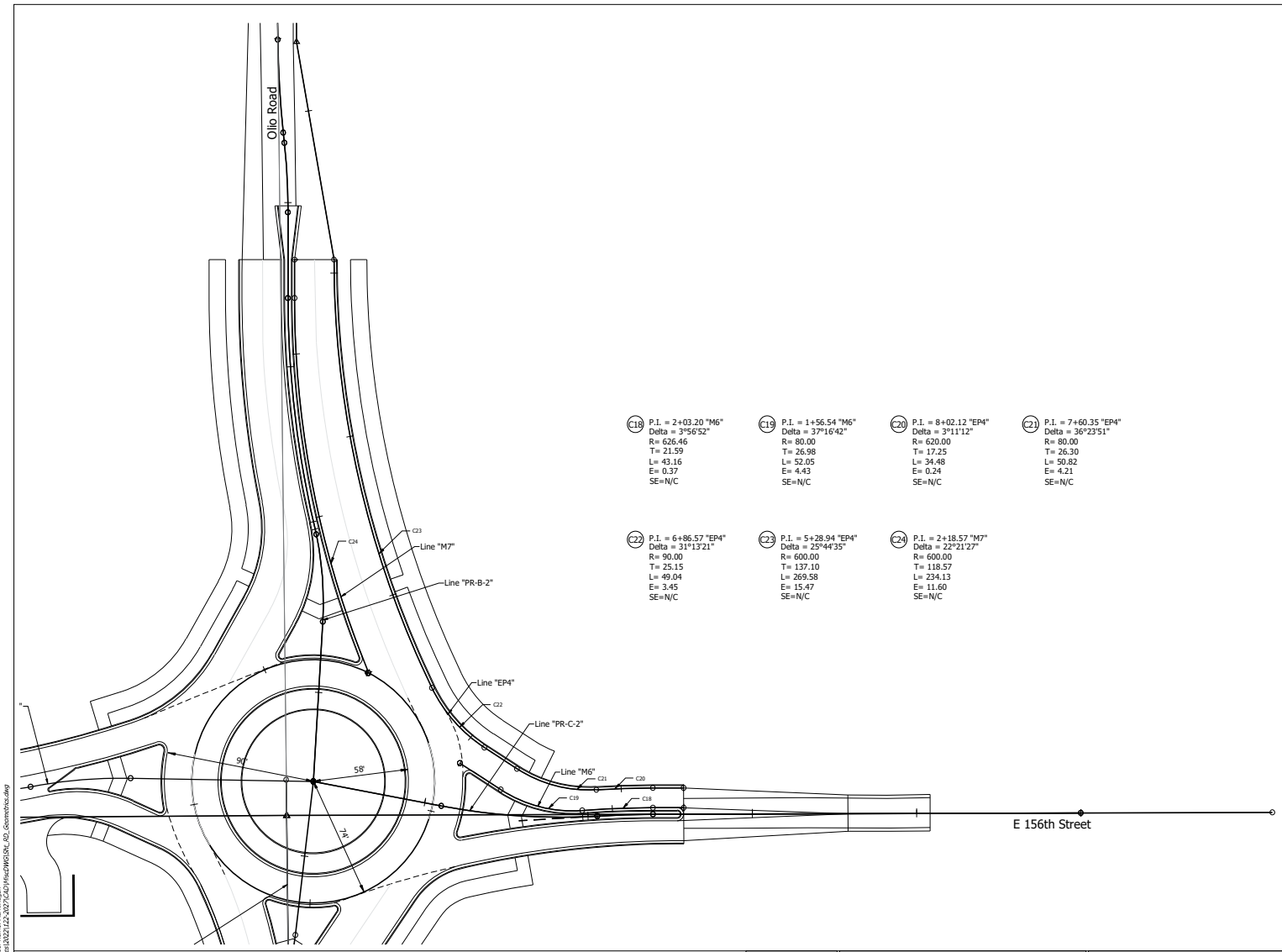
PROFILE - LINE "M5"
Sta. 1+00.00 to 2+44.63



PROFILE - LINE "EP3"
Sta. 1+00.00 to 5+69.59

		RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
				VERTICAL SCALE 1" = 5'	DESIGNATION 2101733
		DESIGNED: EWA DRAWN: EWA CHECKED: JNH CHECKED: JNH	ROUNDABOUT GEOMETRICS LINE "M4", LINE "EP3", LINE "M5"	SURVEY BOOK ELECTRONIC	SHEET 17 of 45
				CONTRACT EN-359	PROJECT ----

Date: Apr 12, 2024 - 4:00pm User Name: Noah Klein
File: L:\Active\Projects\Des 2101733\2-Design\CAD\Hoods\INGSIM_RD_Geometrics_Profiles.dwg - (LINE EP3 M4 M5)



C18 P.I. = 2+03.20 "M6"
Delta = 3°56'52"
R= 626.46
T= 21.59
L= 43.16
E= 0.37
SE=N/C

C19 P.I. = 1+56.54 "M6"
Delta = 37°16'42"
R= 80.00
T= 26.98
L= 52.05
E= 4.43
SE=N/C

C20 P.I. = 8+02.12 "EP4"
Delta = 3°11'12"
R= 620.00
T= 17.25
L= 34.48
E= 0.24
SE=N/C

C21 P.I. = 7+60.35 "EP4"
Delta = 36°23'51"
R= 80.00
T= 26.30
L= 50.82
E= 4.21
SE=N/C

C22 P.I. = 6+86.57 "EP4"
Delta = 31°13'21"
R= 90.00
T= 25.15
L= 49.04
E= 3.45
SE=N/C

C23 P.I. = 5+28.94 "EP4"
Delta = 25°44'35"
R= 600.00
T= 137.10
L= 269.58
E= 15.47
SE=N/C

C24 P.I. = 2+18.57 "M7"
Delta = 22°21'27"
R= 600.00
T= 118.57
L= 234.13
E= 11.60
SE=N/C

Date: Apr 12, 2024 4:07pm User Name: Mark Ulman
File: I:\Active\Production Files\2021\21-307340\Misc\DWG\SN_R0_Geometrics.dwg

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

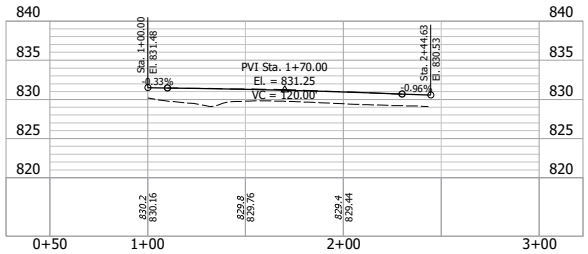
DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

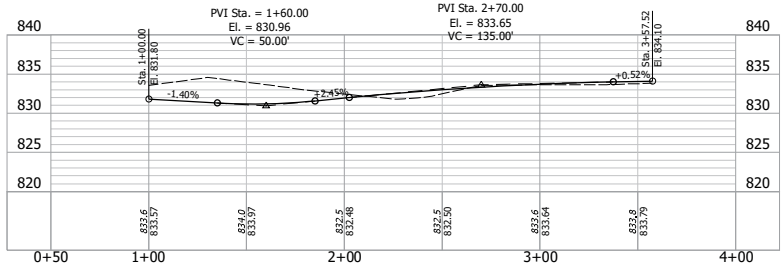
CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

ROUNDABOUT GEOMETRICS DETAIL

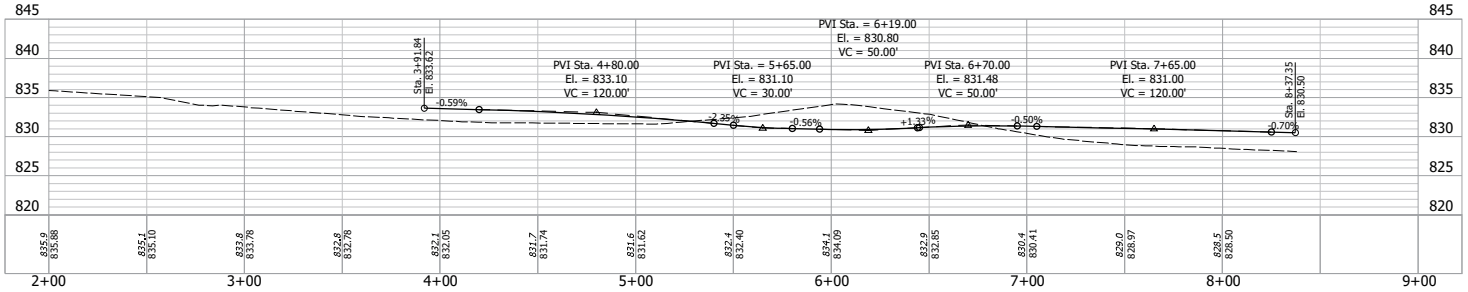
HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	2101733
SURVEY BOOK	SHEET
ELECTRONIC	18 of 45
CONTRACT	PROJECT
EN-359	----



PROFILE - LINE "M6"
Sta. 1+00.00 to 2+43.45



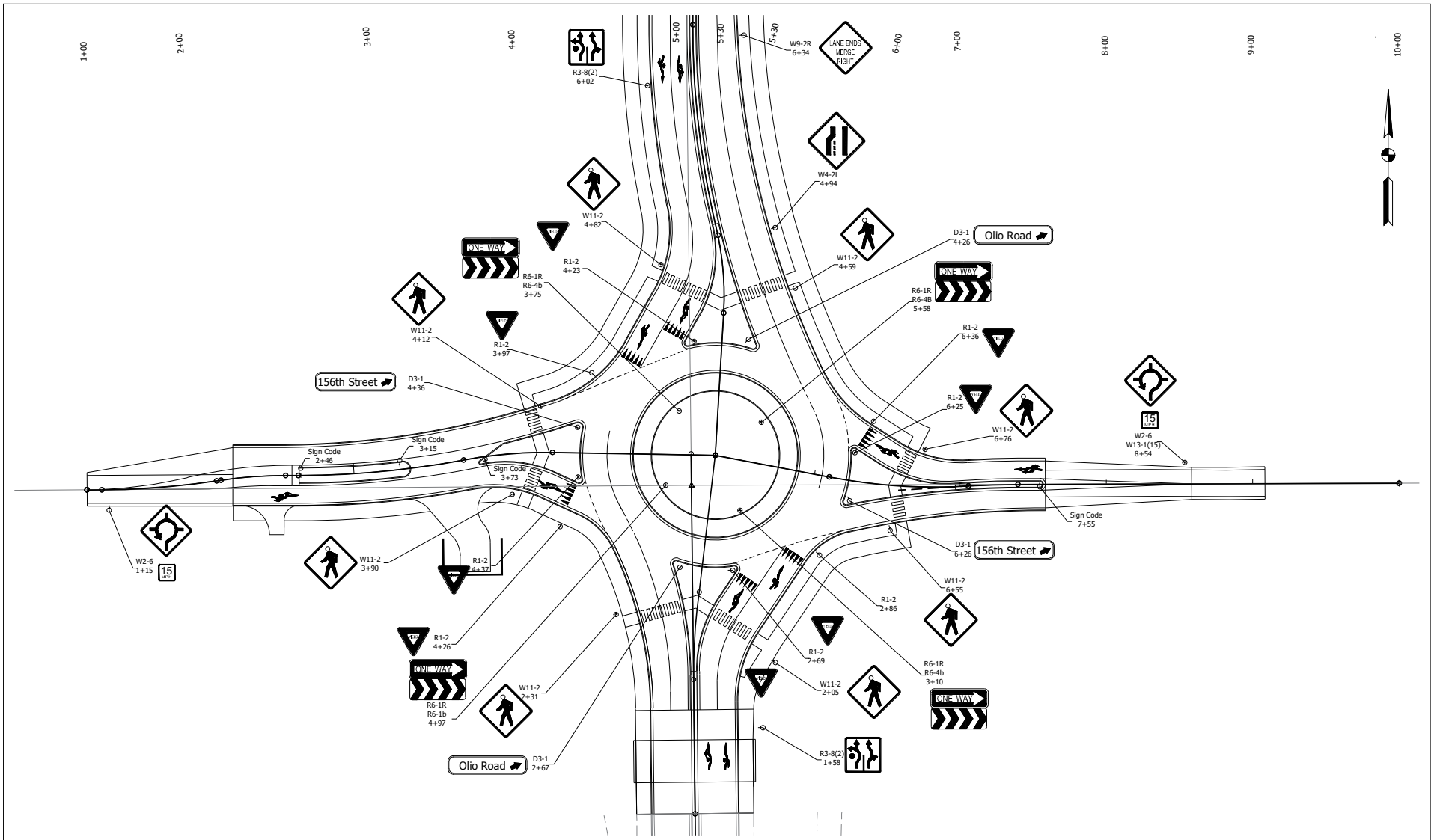
PROFILE - LINE "M7"
Sta. 1+00.00 to 3+57.52



PROFILE - LINE "EP4"
Sta. 1+00.00 to 9+47.15

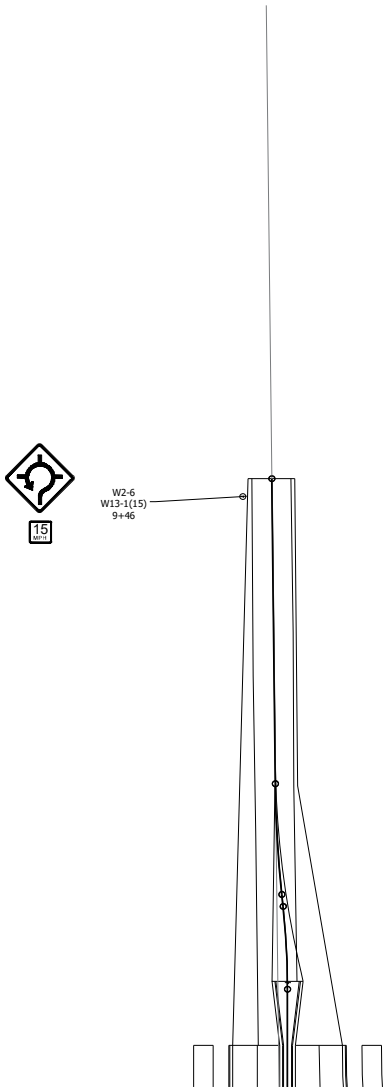
Date: Apr 12, 2024, 4:02pm User Name: Mark Hagen
File: L:\Jobs\Projects\Noblesville\2021\2021-0704\Misc\NG\Site_RD_Geometrics_Profiles.dwg - LINE EP4 M6 M7)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE 1" = 30'	BRIDGE FILE N/A
			VERTICAL SCALE 1" = 5'	DESIGNATION 2101733
DESIGNED: EWA	DRAWN: EWA	ROUNDABOUT GEOMETRICS LINE "M5", LINE "EP4", LINE "M7"	SURVEY BOOK ELECTRONIC	SHEET 19 of 45
CHECKED: JNH	CHECKED: JNH		CONTRACT EN-359	PROJECT ----



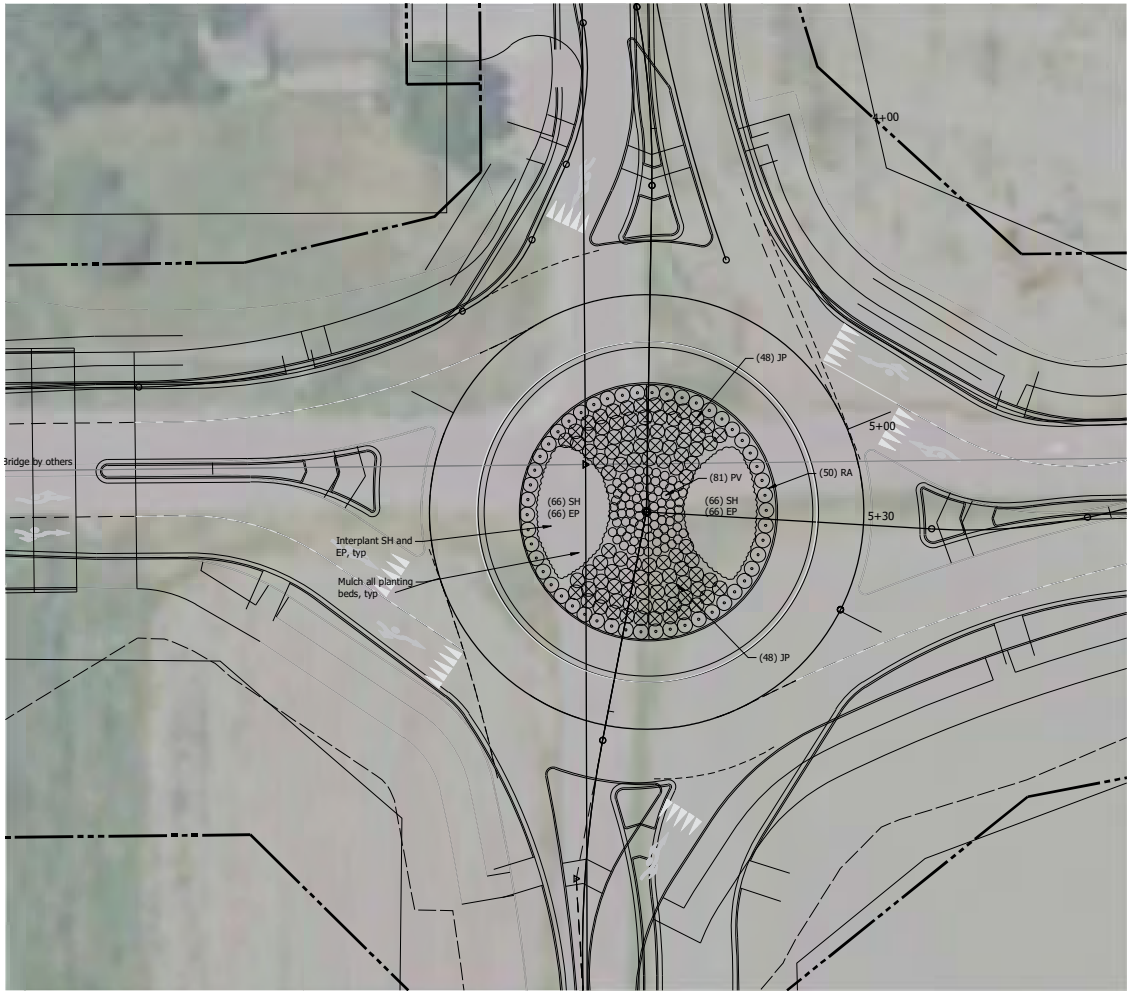
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE: 1" = 30'	BRIDGE FILE: N/A
		VERTICAL SCALE: N/A	DESIGNATION: 2101733
DESIGNED: EWA DRAWN: EWA	PAVEMENT MARKING AND SIGNAGE PLAN	SURVEY BOOK	SHEET
CHECKED: JNH CHECKED: JNH		ELECTRONIC	20 of 45
		CONTRACT	PROJECT
		EN-359	----

Date: Apr 12, 2024 - 4:07pm User Name: Drew Ungan
File: L:\2016\Production\Final\102212A-2027\3D\SignPaintMarkSht_RD_Pavement Markings.dwg



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		CITY OF NOBLESVILLE, INDIANA BOARD OF PUBLIC WORKS & SAFETY	HORIZONTAL SCALE: 1" = 30 / VERTICAL SCALE: N/A; BRIDGE FILE: N/A / DESIGNATION: 2101733
DESIGNED: EWA	DRAWN: EWA	PAVEMENT MARKING AND SIGNAGE PLAN	SURVEY BOOK: ELECTRONIC; SHEET: 21 of 45
CHECKED: JNH	CHECKED: JNH		CONTRACT: EN-359; PROJECT: ----

Date: Apr 12, 2024 - 4:07pm User Name: Drew Ungan
File: I:\2021\06\Production Files\102121.24.20275\3D\SignsPvmtMrkgSht_RD_Pavement Markings.dwg



LEGEND:

DECIDUOUS SHADE TREE

SMALL VERTICAL EVERGREEN

SHRUB/NATIVE GRASS

SHRUB OR PERENNIAL MASS

PROFESSIONAL LANDSCAPE ARCHITECT:
LAURIE HARRINGTON, PLA, ASLA, LEED BD+C
IN • 2100049
LOCHMUELLER GROUP

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

LANDSCAPE PLAN

HORIZONTAL SCALE	BRIDGE FILE
1" =	N/A
VERTICAL SCALE	DESIGNATION
1" =	2101733
SURVEY BOOK	SHEET
ELECTRONIC	22 of 45
CONTRACT	PROJECT
EN-359	----

Date: Apr 12, 2024 - 4:47pm User Name: Mark Adam
File: \\Mott\Root\Projects\Indy\Des\2021\21-2937\CAD\Sheet\CTD Landscape Plans.dwg <LP-XX (4#)>

PROJECT	DESIGNATION
EN-359-026.2203	----
CONTRACT	BRIDGE FILE
----	29-00170

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

STRUCTURE INFORMATION

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
29-00170	Continuous Reinforced Concrete Slab	1 Span: 26'-6" Skew: 00°00'00" Rt.	Sand Creek	1+35.93 "PR-B-1"

BRIDGE PLANS

FOR SPANS OVER 20 FEET
HAMILTON COUNTY BRIDGE #170
OLIO RD. OVER SAND CREEK
WAYNE TOWNSHIP, HAMILTON COUNTY, INDIANA

PB-##-####

Bridge Replacement on Olio Road Over Sand Creek
Located 0.04 miles south of 156th St.
Sections 14 & 13, T18N, R5E, Wayne Township, Hamilton County

TRAFFIC DATA

A.A.D.T.	(2025)	4,300 V.P.D.
A.A.D.T.	(2045)	5,300 V.P.D.
D.H.V.	(---)	530 V.P.H.
DIRECTIONAL DISTIBUTION		52%
TRUCKS		3.6% A.A.D.T.
		4.4% D.H.V.

DESIGN DATA

DESIGN SPEED	45 M.P.H.
PROJECT DESIGN CRITERIA	RECONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL AGENCY COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

PROJECT LOCATION SHOWN BY ★
HAMILTON COUNTY

LATITUDE: 40°00'57"N LONGITUDE: 85°55'09"W

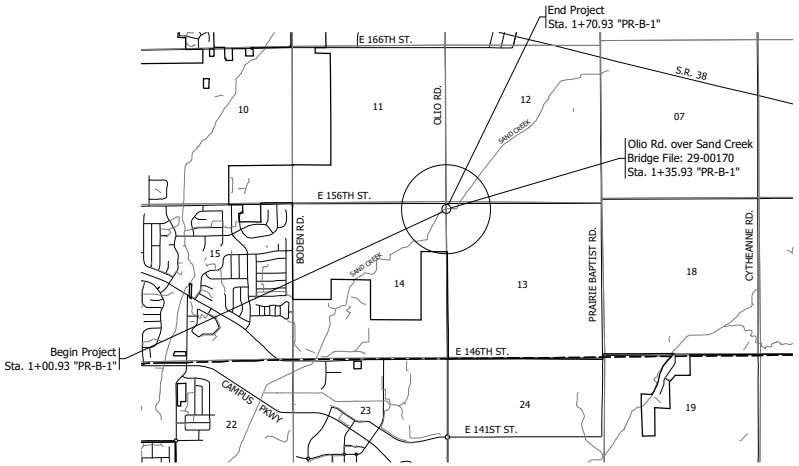
BRIDGE LENGTH:	0.013	MI.
ROADWAY LENGTH:	0.195	MI.
TOTAL LENGTH:	0.208	MI.
MAX. GRADE:	1.47	%

HUC (12): 0512020109

APPROVED BY:
CITY OF NOBLESVILLE BOARD OF PUBLIC WORKS & SAFETY

Date: _____

Jack Martin	President
John Elmer	Member
Laurie Dyer	Member
Rick Taylor	Member
John Distlear	Member
Evelyn Lees	Clerk
Alison Krupski	City Engineer



VICINITY MAP

SCALE: 1"=2000'

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

LOCHMUELLER GROUP

PLANS PREPARED BY: LOCHMUELLER GROUP, INC. (317) 222-3880 PHONE NUMBER

CERTIFIED BY: _____ --- DATE

BRIDGE FILE	
29-00170	
DESIGNATION	

SURVEY BOOK	SHEET
ELECTRONIC	1 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

Date: Apr 15, 2024 - 2:17pm User: Myers, Donald Wayne
File: I:\Projects\Noblesville\2021\2021.1027.NOTR.Olio\00\Plan Sheets\N_RD_Title Sheet.dwg

UTILITIES

COMMUNICATIONS:

AT&T Distribution
Brad Bailey
5870 N. Collage Ave.
Indianapolis, IN 46220
bb3525@att.com
(317) 459-4769

Windstream
Scott Builta
5020 Smythe Dr.
Evansville, IN 47715
donald.builta@windstream.com
(217) 876-7194 ext. 240

ELECTRIC:

Duke Energy
Don McDuffy
100 S. Mill Creek Road
Noblesville, IN 46062
dei-dline-coord@duke-energy.com
(317) 776-5320

Duke Transmission
Zach Boston
1000 E. Main St.
Plainfield, IN 46168
dei-tline-coord@duke-energy.com
(317) 838-1053

INDEX

SHEET NO.	SUBJECT
1	TITLE
2	INDEX AND GENERAL NOTES
3	TYPICAL CROSS SECTIONS
4	MAINTENANCE OF TRAFFIC
#	PLAN AND PROFILE
6	LAYOUT
7 - 8	GENERAL PLAN

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: WSH DRAWN: RHK
CHECKED: BAC CHECKED: BAC

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

INDEX

HORIZONTAL SCALE	BRIDGE FILE
NONE	29-00170
VERTICAL SCALE	DESIGNATION
NONE	----
SURVEY BOOK	SHEET
ELECTRONIC	2 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

Date: Apr 15, 2024 2:51pm User Name: Randy Kitsse
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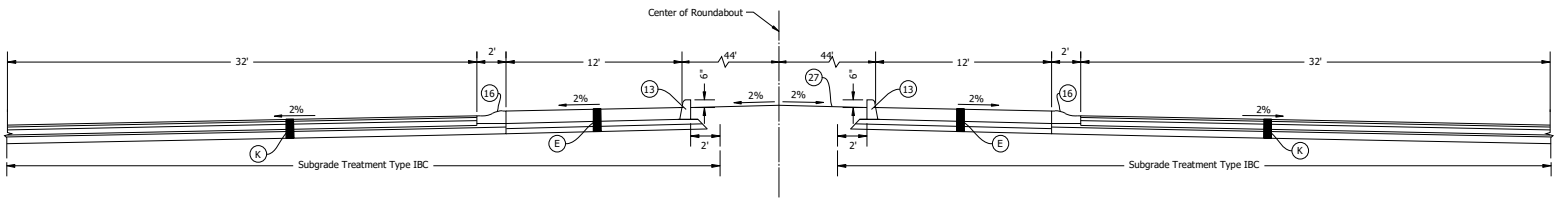
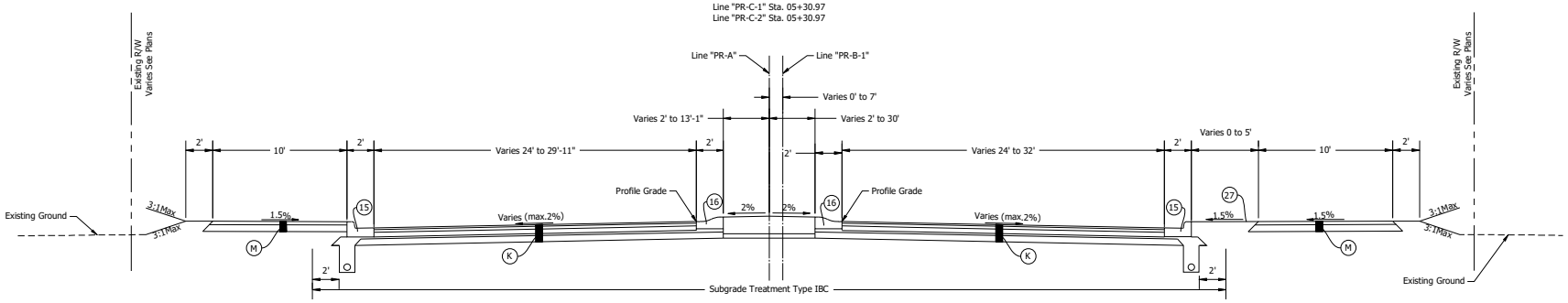


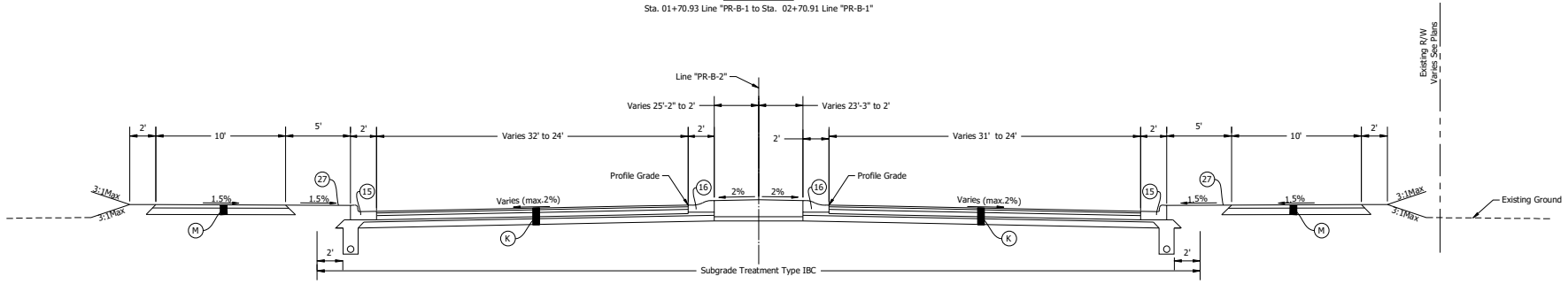
TYPICAL SECTION - ROUNDABOUT

Radial Around
Line "PR-B-1" Sta. 03+45.91
Line "PR-B-1" Sta. 03+45.91
Line "PR-C-1" Sta. 05+30.97
Line "PR-C-2" Sta. 05+30.97



TYPICAL SECTION - SPLITTER ISLAND
OLIO ROAD

Sta. 01+70.93 Line "PR-B-1 to Sta. 02+70.91 Line "PR-B-1"



TYPICAL SECTION - SPLITTER ISLAND
OLIO ROAD

Sta. 04+20.91 Line "PR-B-2 to Sta. 06+65.28 Line "PR-B-2"

FOR INFORMATION ONLY

(E) Concrete Truck Apron:
10" P.C.C.P (Decorative) on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on

(M) HMA Trail/Path:
330 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
6" Compacted Aggregate for Base Type 'O' NO.53 on
Subgrade Treatment, Type III

(R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
Milling, Asphalt, 1½ in.

(K) HMA Pavement:
165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 3, 64, Intermediate, 19mm, on
440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
200 LB/SYS QCQA-HMA, 3, 76, Intermediate, OG 19mm, on
660 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on
Subgrade Treatment, Type IC

(13) Curb, Integral, Concrete

(W) HMA Widening, Type C, Consisting of
165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on
275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19mm, on
300 LB/SYS QCQA-HMA, 2, 64, Base, 19mm, on
6 IN. Compacted Aggregate NO.53, on
Subgrade Treatment, Type I

(16) Curb, Integral B Concrete

(15) Curb and Gutter, Concrete, Modified, Type II

(27) Seed Mixture, Type 'U'

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

TYPICAL CROSS SECTIONS
LINE "PR-B-1" & LINE "PR-B-2"

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'-0"	29-00170
VERTICAL SCALE	DESIGNATION
N/A	----
SURVEY BOOK	SHEET
ELECTRONIC	3 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

Date: Apr 15, 2024, 3:52pm User Name: BandyA0base
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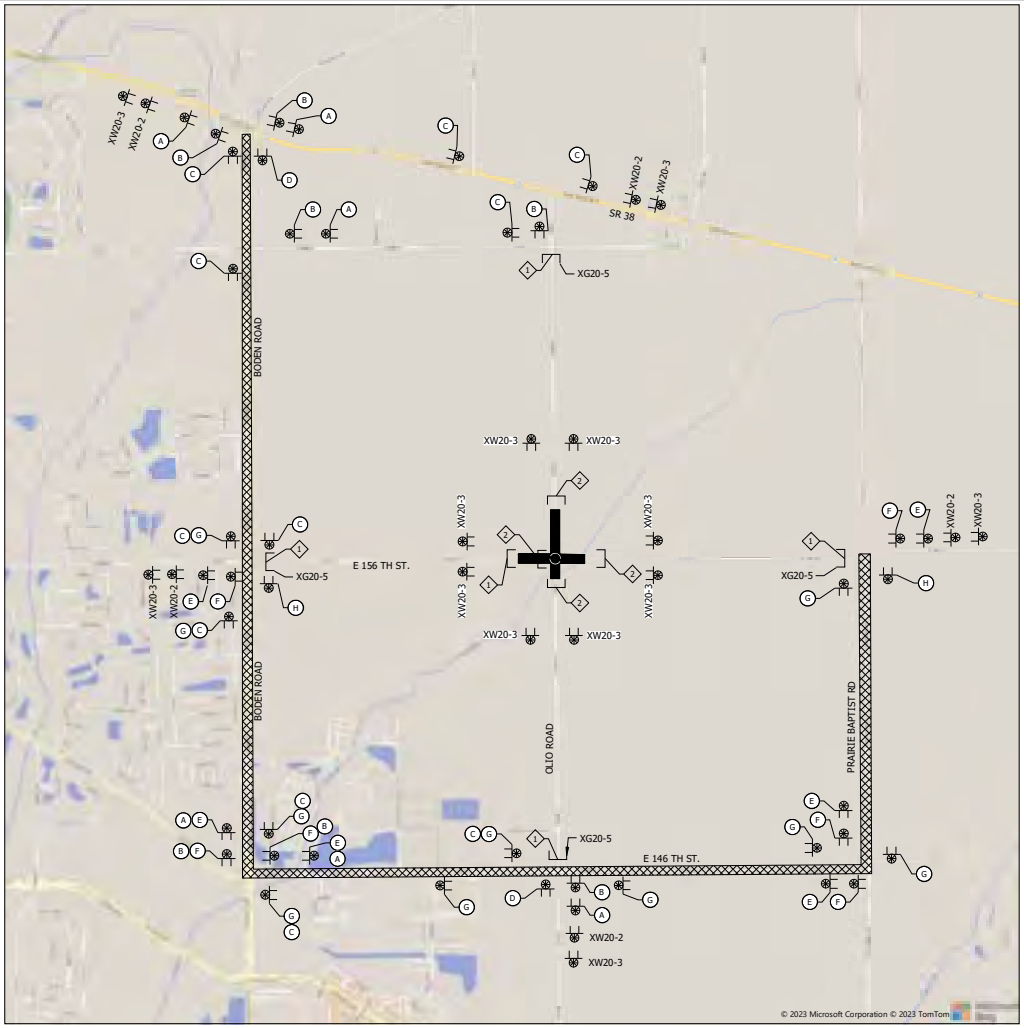


FOR INFORMATION ONLY

Not To Scale

CONSTRUCTION SIGN SCHEDULE

SIGN NO.	DESCRIPTION	SIZE (IN)	TYPE	QUANTITY
R11-2	"ROAD CLOSED" SIGN	48 x 30		5
R11-4	"ROAD CLOSED TO THRU TRAFFIC" SIGN	60 x 30		4
XG20--5	"ROAD CLOSED AFTER " SIGN	60 x 36		4
XM4-10 (L or R)	"DETOUR" SIGN	48 x 18		4
XW20-2	"DETOUR AHEAD" SIGN	48 x 48	A	4
XW20-3	"ROAD CLOSED AHEAD" SIGN	48 x 48	A	12
			TOTAL TYPE "A" SIGNS	16

Detour Route Marker Assemblies	50	Req'd.
Road Closure Sign Assemblies	9	Req'd.
Type III-A Barricades	120	LFT
Type III-B Barricades	96	LFT

LEGEND:

156TH ST CLOSED ON OR AFTER_____ XG20-5

OLIO RD CLOSED ON OR AFTER_____ XG20-5

DETOUR XM4-10 (R or L)

DETOUR AHEAD XW20-2

ROAD CLOSED AHEAD XW20-3

ROAD CLOSED R11-2

ROAD CLOSED TO THRU TRAFFIC R11-4

Ⓐ DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

Ⓑ DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

Ⓒ DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

Ⓓ END DETOUR OLIO RD. 24"x12" OLIO RD 21"X15"

Ⓔ DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

Ⓕ DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

Ⓖ DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

Ⓗ END DETOUR 156TH ST 24"x12" 156TH ST 21"X15"

① Road Closure Sign Assembly w/ Type III-B Barricade (24 LFT) And R11-4 And XM4-10 (L or R)

② Road Closure Sign Assembly W/ Type III-A Barricade (24 LFT) And R11-2

Construction Zone

Detour Route

GENERAL NOTES

1. All maintenance of traffic devices, signs and pavement markings shall conform to the latest edition of the Indiana MUTCD.
2. See INDOT Std. Dwg. 801-TCDT-01 for sign spacing requirements and additional notes.
3. See INDOT Std. Dwg. 801-TCLG-01 for standard notes.
4. Type B construction warning lights shall be used with all signs located on road closure sign assemblies. Type A construction warning lights shall be used on all other construction signs.
5. Contractor shall maintain access to all commercial and private properties during construction.
6. XG20-5 signs shall be installed a minimum of 14 days prior to closing the road and removed when the road is closed to traffic.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: EWA DRAWN: EWA

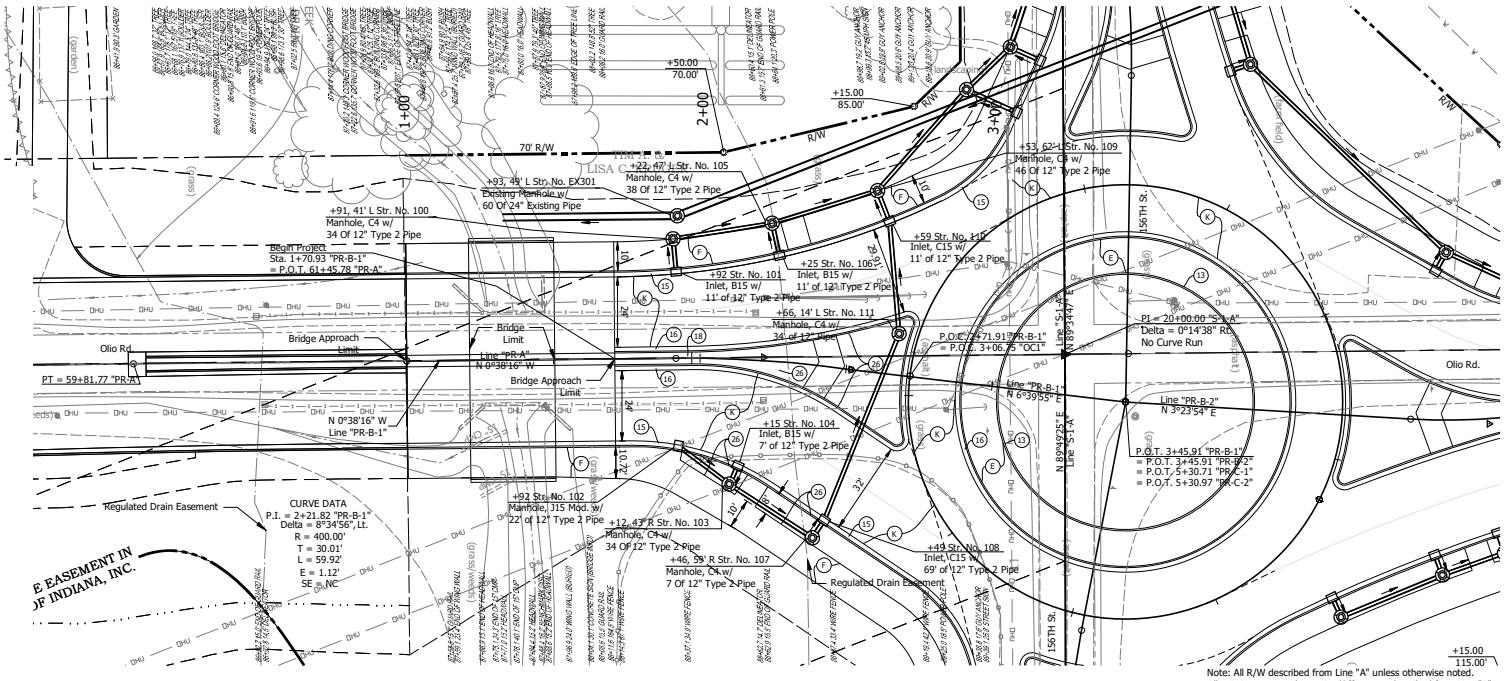
CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

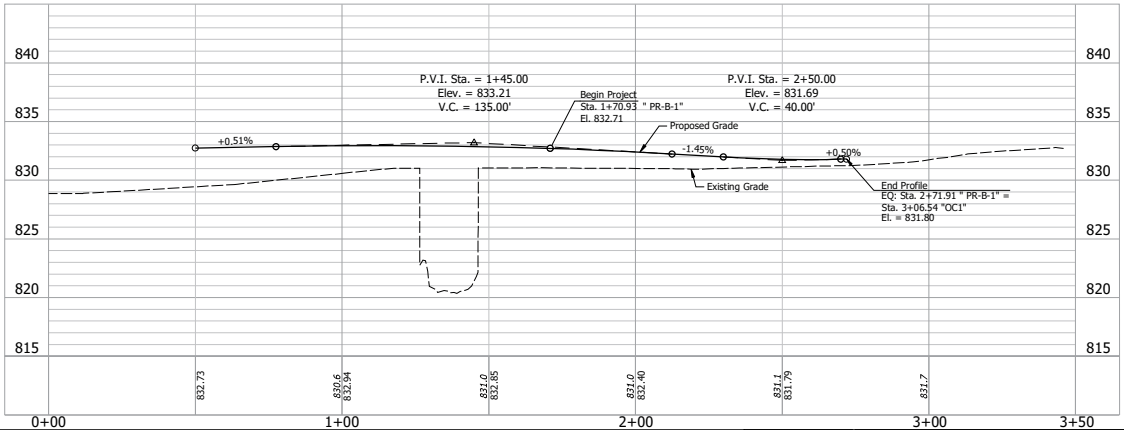
MAINTENANCE OF TRAFFIC
OLIO ROAD

HORIZONTAL SCALE	BRIDGE FILE
N/A	29-00170
VERTICAL SCALE	DESIGNATION
N/A	---
SURVEY BOOK	SHEET
ELECTRONIC	4 of 8
CONTRACT	PROJECT
---	EN-359-026.2203

Date: Apr 15, 2024, 2:52pm User Name: Randy Kilbane
File: \\ach.for.local\Production\Files\p\2021\22-202754\2180\Work\PCS\04_ROL_MOT.dwg - (MOT: Olio Rd & 156St St.)



Note: All R/W described from Line "A" unless otherwise noted.
All existing topography station/Offsets are described from Line "A".



FOR INFORMATION ONLY

LEGEND:

- (C1) PCCP for Approaches, 6 in., on Dense Graded Subbase, 6 in., on Subgrade Treatment, Type II
- (E) Concrete Truck Apron: 10" PCCP (Decorative) on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm, on 440 LB/SYS QCQA-HMA, 3, 64, Base, 25mm
- (F) HMA for Sidewalk 330 LB/SYS HMA Surface, Type B (Placed in One Lift), on 6 in. Compacted Aggregate, NO.53, on Subgrade Treatment, Type III
- (K) HMA Pavement 165 LB/SYS QCQA-HMA, 3,70, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 3,64, Intermediate, 19mm, on 440 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on 200 LB/SYS QCQA-HMA, 3,76, Intermediate, OG 19mm, on 660 LB/SYS QCQA-HMA, 3,64, Base, 25mm, on Subgrade Treatment, Type IC
- (R) 165 LB/SYS QCQA-HMA, 3, 70, Surface, 9.5mm, on Milling, Asphalt, 1½ in.
- (W) HMA Widening, Type C Consisting of 165 LB/SYS QCQA-HMA, 2, 64, Surface, 9.5mm, on 275 LB/SYS QCQA-HMA, 2, 64, Intermediate, 19.0mm, on 300 LB/SYS QCQA-HMA, 2, 64, Base, 19.0mm, on 6 in.Compacted Aggregate NO.53, on Subgrade Treatment, Type I
- (13) Curb, Integral, Concrete
- (15) Curb and Gutter, Concrete, Modified, Type II
- (16) Curb, Integral B, Concrete, Modified
- (17) Center Curb, D, Concrete
- (18) PCCP, 13" (Decorative), on 8" Compacted Aggregate, No. 53, on Subgrade Treatment, Type IC
- (26) Sodding

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: EWA DRAWN: EWA

CHECKED: JNH CHECKED: JNH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

PLAN & PROFILE - LINE "PR-B-1"
STA. 1+00 TO STA. 3+46

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	29-00170
VERTICAL SCALE	DESIGNATION
1" = 5'	----
SURVEY BOOK	SHEET
ELECTRONIC	5 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

Date: Apr 15, 2026 - 3:37pm User Name: Brady Wilson
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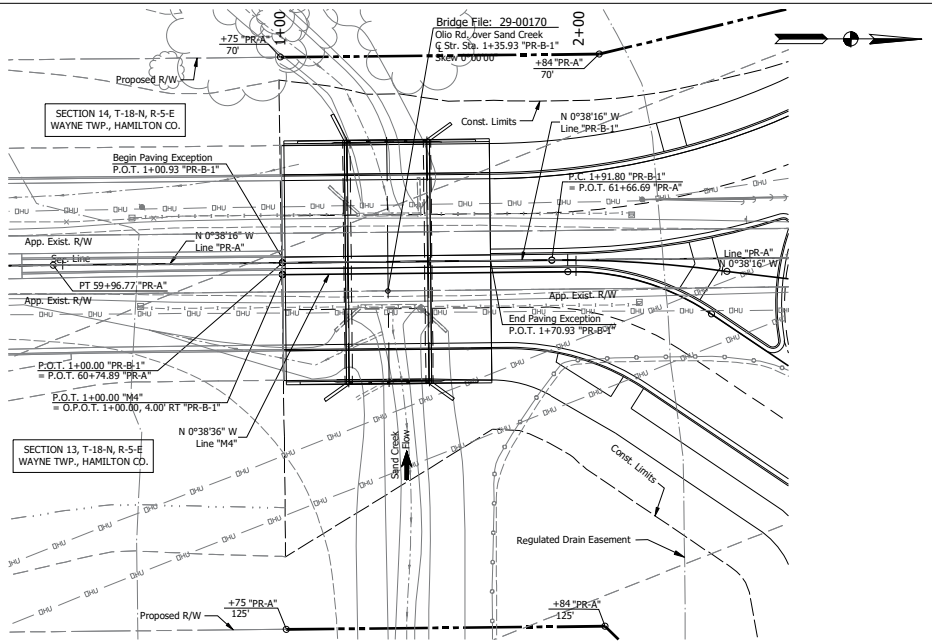
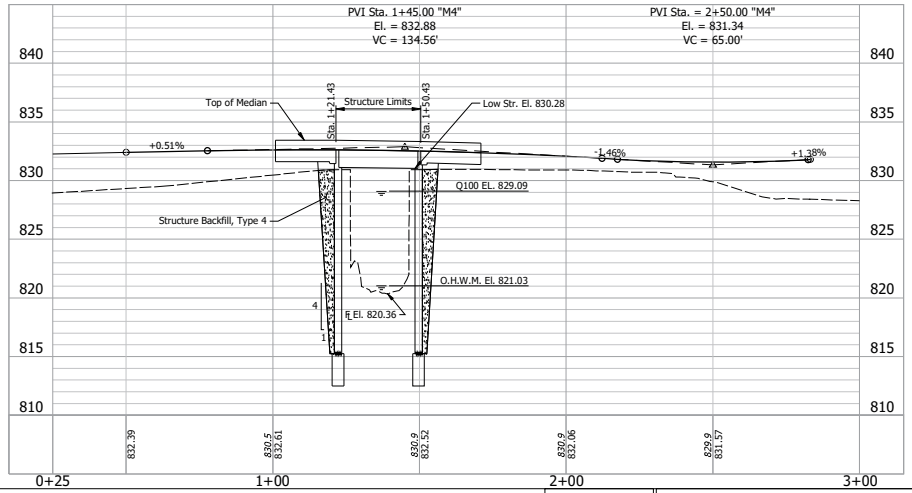




EXISTING STRUCTURE

The existing structure (29-00170) is a single span precast concrete arch box culvert built in 1992. The bridge span length is 20.00' with a 32.13' total clear roadway width.

Existing structure to be removed.

HYDRAULIC DATA

DRAINAGE AREA	=2.94 $mi.^2$
PROPOSED WATERWAY AREA	=275.14 $ft.^2$
Q100 DISCHARGE	=600 $ft.^3$/sec.
Q100 ELEVATION	=829.09 ft.
Q100 HEADWATER ELEVATION	=829.62 ft.
ROAD OVERFLOW	=0.0 $ft.^2$
Q100 VELOCITY	=4.85 ft/sec
MIN. LOW STRUCTURE ELEVATION	=830.28 ft.

SCOUR DATA

Q100 PEAK DISCHARGE	=600 $ft.^3$/sec
Q100 MAXIMUM VELOCITY	=3.13 ft./sec
Q100 CONTRACTION SCOUR	=0.96 ft.
Q100 TOTAL SCOUR	=0.96 ft.
Q100 LOW SCOUR ELEVATION	=821.94 ft.
FLOWLINE ELEVATION	=822.90 ft.

REINFORCED CONCRETE SLAB BRIDGE
1 SPAN: 26'-6"
CLEAR ROADWAY: 56'-0"
SKEW: 00°00'00" RT.
OLIO RD. OVER SAND CREEK
HAMILTON COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: WSH DRAWN: RHK

CHECKED: BAC CHECKED: WSH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

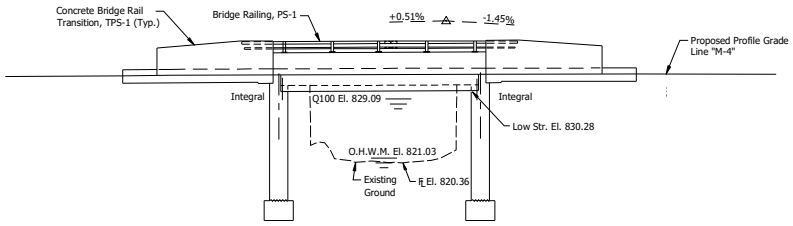
LAYOUT

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	29-00170
VERTICAL SCALE	DESIGNATION
1" = 5'	----
SURVEY BOOK	SHEET
ELECTRONIC	6 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

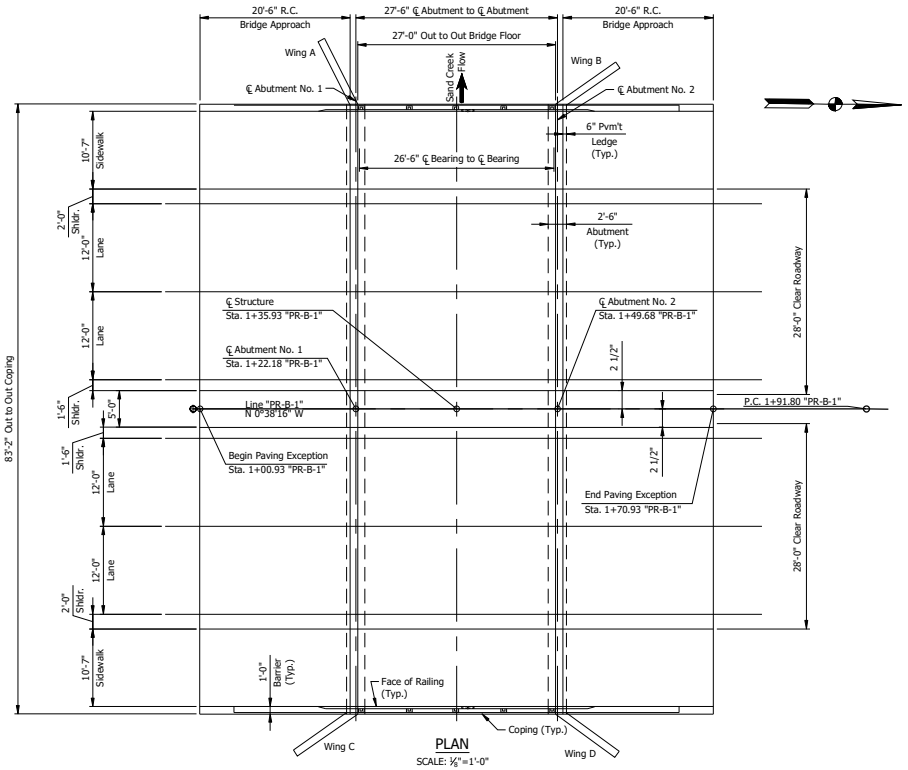
Date: Apr 15, 2021 - 3:47pm - User Name: Brady Wilson
File: I:\Projects\Projects\2021\EN-21-0026\Design\Set-Sht_B2_Layout.dwg - (Layout)

VERTICAL CURVE INFORMATION
PVI = 1+45.00 "PR-B-1"
EL. = 833.21
V.C. = 135'
G_1 = +0.51%
G_2 = -1.45%

STRUCTURE TO BE BUILT TO A 135' VERTICAL CURVE



ELEVATION
SCALE: ⅛"=1'-0"



PLAN
SCALE: ⅛"=1'-0"

DESIGN STRESSES

Class C Concrete: f'c= 4,000 psi

Reinforcing Steel (Grade 60): fy= 60,000 psi

DESIGN DATA

Live Load: Designed for HL-93 Loading, in accordance with the AASHTO LRFD Bridge Design Specifications, Ninth Edition, 2020.

Dead Load: Actual weight plus 35 lb/ft^2 for future wearing surface and 15 lb/ft^2 for permanent metal deck forms.

Bridge Slab: Designed with a 1'-5 ½" structural depth plus ½" sacrificial wearing surface.

GENERAL NOTES

1. Reinforcing steel covering shall be 2 ½" in top and 1" minimum in bottom of floor slab, and 2" in all other parts, unless noted.
2. Concrete requirements: Concrete in Superstructure to be Class "C". Concrete in Abutments to be Class "A". Concrete in Footings to be Class "B".
3. Surface seal exposed faces of concrete barrier railing. Estimated Quantity = 805 SFT.

REINFORCED CONCRETE SLAB BRIDGE
1 SPAN: 26'-6"
CLEAR ROADWAY: 56'-0"
SKEW: 00°00'00"
OLIO RD. OVER SAND CREEK
HAMILTON COUNTY

Date: Apr 15, 2024, 2:54pm User Name: BandyAlbaze
File: V:\Production\Fresh\2021\2127-2027\Civil\[B93]Plan Set\SN_RD_Gen Plan.dwg - (General Plan 01)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

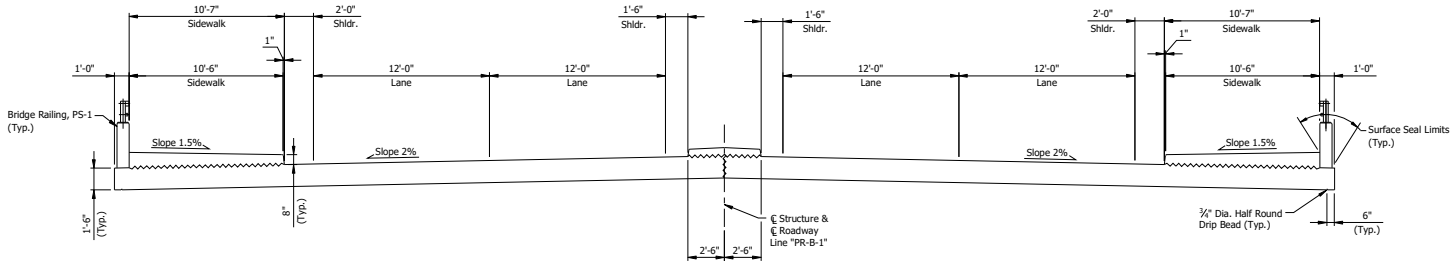
DESIGNED: WSH | DRAWN: RHK
CHECKED: BAC | CHECKED: WSH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	29-00170
VERTICAL SCALE	DESIGNATION

SURVEY BOOK	SHEET
ELECTRONIC	7 of 8
CONTRACT	PROJECT
----	EN-359-026.2203



BRIDGE TYPICAL SECTION

SCALE: ¼"=1'-0"

Date: Apr 15, 2024, 2:54pm User Name: RandyKilgore
File: V:\Production\Final\2021\2127.2027\Civil\Plot\Plan Set\SN_A0_Gen Plan.dwg - (General Plan 01)

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: WSH DRAWN: RHK

CHECKED: BAC CHECKED: WSH

CITY OF NOBLESVILLE, INDIANA
BOARD OF PUBLIC WORKS & SAFETY

GENERAL PLAN

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	29-00170
VERTICAL SCALE	DESIGNATION

SURVEY BOOK	SHEET
ELECTRONIC	8 of 8
CONTRACT	PROJECT
----	EN-359-026.2203

Categorical Exclusion

Appendix C

Early Coordination

February 6, 2023

Re: Des. No.: 2101733 Sample Early Coordination Letter
Added Travel Lanes
Local Project
Olio Road, 146th Street to 156th Street
City of Noblesville, Hamilton County, Indiana

To whom it may concern:

The City of Noblesville, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT) – Greenfield District, proposes to proceed with the aforementioned added travel lanes project along Olio Road (Des. No. 2101733).

This letter is part of the early coordination phase of the environmental review. At this time, we are requesting comments from your area of expertise regarding any possible environmental effects (social and natural) associated with this project. **Please use the above Des. No. and project description in your reply.** Your comments will be incorporated into the formal environmental study. Your cooperation in this endeavor is appreciated.

Project Location and Existing Conditions
The proposed project is located in the City of Noblesville along Olio Road from 146th Street to 156th Street in Hamilton County, Indiana. Specifically, the project is located in Sections 11, 12, 13, and 14, Township 18 North, Range 5 East; in Wayne Township as depicted on the Riverwood Quadrangle U. S. Geological Survey 1:24,000 scale quadrangle. Adjacent land use consists of residential and agricultural areas. Please see attachments for maps and photographs of the proposed project area.

Olio Road is functionally classified as a major collector. The typical cross-section of Olio Road is two 10-foot wide through travel lanes (one in each direction) and 0 to 2-foot wide aggregate shoulders. The existing speed limit along Olio Road is 55 miles per hour.

Bridge #29-00170 carries Olio Road over Sand Creek. The concrete bridge was built in 1992 and is not considered historic. The INDOT Bridge Inspection Report dated September 16, 2021, identified hairline cracks on the midspan and headwall. The structure is 22 feet long with a deck width of 32.1 feet. The typical section on the bridge consists of two 11-foot travel lanes (one in each direction).

Bridge #29-00277 consists of dual culverts that carry Sand Creek under 156th Street. The steel culverts are 10 feet wide and 21 feet long. The INDOT Bridge Inspection Report dated September 22, 2021 identified significant deflection at the midspan of both culverts and rust at the flowline.

3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268
PHONE: 317.222.3878 • TOLL FREE: 800.423.7422

Purpose and Need

The need for the project stems from inadequate capacity for the projected vehicular demand along Olio Road between 146th and 156th Street. According to the City of Noblesville Road Impact Fee, Zone Improvement Plan developed in December 2020, this segment of Olio Road will experience capacity issues within the next 10 years. Capacity of a roadway is commonly reported as a level of service (LOS) from A to F, with LOS A being the best performing (free flow with >92% minimum speed of 45 mph) and LOS F being the worst performing (breakdown flow with 1.0-67% minimum speed of 35 mph). The City of Noblesville has established a minimum acceptable LOS of D for intersections and E for roadway segments. This portion of Olio Road is currently operating at an LOS B in the AM and PM peak hour. Development of the area is anticipated to decrease the LOS from a B to an F in the next 10 years.

A secondary need is due to the insufficient geometric design for a major collector roadway. Presently, Olio Road between 146th Street and 156th Street, which is partially within the urban area boundary of Noblesville, consists of two 10-foot-wide travel lanes with 0 to 2-foot-wide aggregate shoulders. Additionally, the Indianapolis Metropolitan Planning Organization (IMPO) Traffic Count Map for this section of Olio Road estimated in 2019 an average annual daily traffic (AADT) volume of 5,253. Given these parameters, and per Figure 53-8 of the Indiana Design Manual, the desired geometric design for a collector is 12-foot-wide lanes (11-foot-wide minimum) with an 8-foot-wide paved shoulder or 2-foot-wide curb. This section of Olio Road fails to meet the minimum geometric design requirements for this classification of a roadway.

The purpose of the project is to address the inadequate capacity within the Olio Road corridor between 146th Street and 156th Street and obtain a minimum acceptable LOS of E during the design year of 2045. In addition, the purpose of the project is to bring this section of Olio Road up to current geometric design standards for a major collector roadway.

Proposed Project

It is proposed that Olio Road will be widened from a two-lane road into a four-lane boulevard. The road will consist of four (4) 12-foot lanes with a 20-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. The design speed of the new road will be 45 mph to match the existing posted speed limit. The bridge over Sand Creek (Bridge #29-00170) will be replaced as part of the project as well. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths, one (1) 4-foot median, two (2) 1-foot barrier rails, and two (2) 7-inch curbs. It is anticipated that the new bridge will have an out-to-out coping of 83 feet and 2 inches. In addition, construction of a roundabout is proposed at the intersection of 156th Street and Olio Road. Bridge #29-00277 will not be impacted as a part of this project.

The maintenance of traffic (MOT) is anticipated to involve a closure of Olio Road and a detour. The detour route will be determined as design progresses. Access will be maintained for property

owners during construction of the project. The MOT will be implemented per the *Indiana Design Manual* guidelines.

Construction is anticipated to begin in Fiscal Year (FY) 2027.

Right-of-Way (ROW)
The ROW acquisition is anticipated to be approximately 27 acres of permanent ROW. Some tree clearing may be needed.

Environmental Resources
A Red Flag Investigation (RFI) was performed for a 0.5-mile radius around the project area. Several "Red Flags" were identified within the 0.5-mile search radius; however, not all will impact the proposed project. Primary concerns include the Noblesville Airport, several water resources, and a petroleum well.

Lochmueller Group conducted a field investigation of the project area on September 14, 2022. The field investigation identified two streams and several wetlands within the project area. A *Waters of the U.S. Determination Report* will be prepared for this project.

Cultural Resources
Coordination will occur with INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. This includes determining an area of potential effect (APE), assessing effects on potential historic resources, and making recommendations on eligibility determinations. The results of this investigation will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence as appropriate.

Range-wide Informal Programmatic Consultation
Hamilton County is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). The U.S. Fish and Wildlife Service (USFWS) Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB) will be completed for this project.

The northern long-eared bat (*Myotis septentrionalis*) is federally endangered, not federally threatened.

Early Coordination
This letter is part of the early coordination review process. You are asked to review this information and provide any comments you may have relative to anticipated impacts of the project on areas in which you have jurisdiction or special expertise. We will incorporate your comments into a study of the project's environmental impacts. To facilitate the development of this project, you are asked to reply within **30 calendar days** of receipt of this letter. If no response is received by that date, it will be assumed you have no comments at the present time. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request.

If you have any questions regarding this project, please feel free to contact me at (317) 222-3880 or at sbeaupre@lochgroup.com. Additionally, should you want to contact the sponsor of this project, the City of Noblesville, please contact the Assistant City Engineer, Jim Hellmann, P.E.,, at 317-776-6330 or at JHellmann@noblesville.in.us.

Thank you in advance for your input.

Sincerely,

Samantha Beaupre
Environmental Specialist
Lochmueller Group, Inc.

Attachments:

- General Location Map
- USGS Topographic Map
- Red Flag Investigation Maps
- Photo Location Maps
- Photographs

Removed to avoid duplication; see Appendices B & E

Distribution List:

- Natural Resources Conservation Service, Indianapolis Office
- U.S. Army Corps of Engineers, Louisville District Regulatory Branch
- U.S. Department of Housing and Urban Development, Chicago Regional Office
- U.S. Coast Guard, 8th District
- Federal Highway Administration – Indiana Division
- National Park Service, Midwest Regional Office
- Indiana Department of Natural Resources, Division of Fish and Wildlife
- Indiana Department of Natural Resources, Oil and Gas Division
- INDOT, Office of Aviation
- INDOT, Environmental Services
- INDOT Greenfield District Office, Environmental Section Manager
- INDOT Greenfield District Office, Project Manager
- Indiana Geological & Water Survey
- Indianapolis Metropolitan Planning Organization
- Hamilton County Board of Commissioners
- Hamilton County Council

- Hamilton County Highway Department
- Wayne Township Trustee
- Hamilton County Surveyor's Office (MS4 Coordinator)
- Hamilton County Emergency Management Agency
- Hamilton County Sheriff's Department
- Noblesville School District
- Hamilton County Floodplain Administrator
- Noblesville City Engineer
- Noblesville Mayor's Office
- Noblesville Common Council
- Noblesville Police Department
- Noblesville Emergency Medical Services

Additional recipients:
Noblesvillle MS4 Coordinator- sent July 16, 2024
Ruoff Music Center- sent on July 18, 2024

From: Lewandowski, Tyler
To: Samantha Beaupre
Cc: Trevor Wieseke
Subject: RE: Olio Road Added Travel Lane Project (Des. No. 2101733) Early Coordination Letter
Date: Monday, February 6, 2023 2:31:39 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png
image007.png
image008.png
image009.png
image010.png

EXTERNAL

Good afternoon,

After review, no tall structure permit is required for the project if all equipment being used is under 100 feet in height. Please let our office know if you have any further questions.

Thank you,

Tyler Lewandowski
Project Manager
INDOT Office of Aviation
(317) 495-4875
tlewandowski@indot.in.gov
www.aviation.indot.in.gov

From: Samantha Beaupre <SBeaupre@lochgroup.com>
Sent: Monday, February 6, 2023 1:36 PM
Cc: Trevor Wieseke <TWieseke@lochgroup.com>
Subject: Olio Road Added Travel Lane Project (Des. No. 2101733) Early Coordination Letter

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

Good Afternoon,

Please see the attached early coordination letter for a proposed added travel lane project along Olio Road in Hamilton County, Indiana (Des. No. 2101733). Please contact me with any comments or concerns.

Thank you!

Samantha Beaupre

THIS IS NOT A PERMIT

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

DNR #: ER-25344 **Request Received:** February 6, 2023

Requestor:
Lochmueller Group Inc
Samantha Beaupre
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268

Project: Olio Road added travel lanes from 146th to 156th Street, bridge (#29-00170) replacement over Sand Creek, and new roundabout at 156th Street, City of Noblesville; Des #2101733

County/Site info: Hamilton

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) Project Design:
The proposed project design should be revisited to reduce impacts to fish, wildlife, and botanical resources where possible. The road will consist of four (4) 12-foot lanes with a 20-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. This amounts to a significantly wider transportation corridor in an area that is generally rural in nature. Essentially there will be an approximately 88 foot wide transportation corridor between 146th Street and 156th Street. When designing a roadway, the goal should be to disturb as narrow an area as possible to help minimize negative impacts. Where significant impacts to fish, wildlife or botanical resources are likely due to the roadway's width, the roadway width should be reduced to help avoid those impacts whenever possible. For example, the width of the median could be reduced significantly to reduce the overall width and impact of the proposed transportation corridor.

Maintaining or improving wildlife movement under roads is a priority concern for the Division of Fish & Wildlife for the ecological health of wildlife populations in terms of movement and dispersal, habitat connectivity, and to avoid unnecessary wildlife mortality on roads. Facilitating wildlife passage ability under roads means less wildlife crossing traffic lanes and consequently reduced driving hazards. We encourage improving fish and wildlife passage conditions, when possible. Additionally, any proposed landscaping along the corridor should consider the use of native trees,

Attachments: A - Bridge Exemption Criteria

shrubs, grasses, and wildflowers to offset impacts to these resources as a result of the proposed project.

It is also important to note that there are many studies which indicate that building new roadways or widening existing roadways actually creates or induces more traffic and congestion. It is understood that the proposed project is also intended to improve motorist safety in addition to adding capacity. The DFW recommends at a minimum considering the potential negative impacts of increasing capacity into the planning process. It appears that pedestrian facilities are being considered for inclusion. Including these types of transportation alternatives is recommended for inclusion in a project of this type to potentially offset some of the negative impacts of induced demand / traffic. The following is a link to a Federal Highway Administration Office of Planning webpage that discusses the basics of induced travel - https://www.fhwa.dot.gov/planning/itfaq.cfm.

2) Stream Crossing Design:
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; and have stream depth, channel width, and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

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. Upgrading wildlife passage for replacement/rehabilitated structures is recommended whenever possible to improve wildlife/vehicle safety. White-tailed deer passage must be incorporated into all new structures where no structure previously existed. Minimum structure dimensions for white-tailed deer passage are 20 feet of width clearance (overall span of the structure) and 8 feet of height clearance measured from the OHWM. Bank lines must be maintained or restored within structures to allow for wildlife passage above the ordinary high water mark. All wildlife passage designs must include a smooth level pathway a minimum of 1-3 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The width and location of the wildlife pathway is dependent on the wildlife species using the area.

There are a number of techniques and materials for incorporating wildlife passage into the design of a crossing structure if maintaining or restoring banklines is not possible. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:
https://www.fs.usda.gov/wildlifecrossings/library/index.php,
https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/,
https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf,
https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems.

Attachments: A - Bridge Exemption Criteria

3) Bank Stabilization:
Some form of bank 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.

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. Information about bioengineering techniques can be found at the following link to a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization:
https://efotg.sc.egov.usda.gov/references/public/IA/Chapter-16_Streambank_and_Shoreline_Protection.pdf.

4) Trees & Riparian Habitat:
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 Habitat Mitigation Guidelines (and plant lists) can be found online at:
https://www.in.gov/nrc/files/IB-17.pdf.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing trees that are 10" diameter-at-breast height (dbh) or greater by planting five trees, 1" to 2" in dbh, for each tree which is removed that is 10" dbh or greater. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. If floodway impacts to forested wetland and non-wetland habitat areas combine to be 0.10 acres or more, mitigation should be done and coordinated with the biologist, as needed.

5) Wetland Habitat:
Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program (https://www.in.gov/idem/wetlands/2344.htm) and the US Army Corps of Engineers (USACE) 404 program (https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/). Impacts to wetland habitat should be mitigated at the appropriate ratio, if required (see guidelines above).

Attachments: A - Bridge Exemption Criteria

6) LED 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 required:
https://www.darksky.org/our-work/lighting/lighting-for-citizens/led-guide/.

7) Drainage & Stormwater Management:
The DFW recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain 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 drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). 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 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. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits inchannel disturbance and the clearing 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, access bridges, causeways, cofferdams, diversions, or pumparounds.
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 construction/demolition materials or debris to fall or otherwise enter the waterway. Any incidental fallen material or debris in the waterway must be removed within 24 hours using best management practices, particularly lifting material out of the waterway and not dragging it across the streambed whenever possible.
11. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the

Attachments: A - Bridge Exemption Criteria

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:** March 8, 2023

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

Attachments: A - Bridge Exemption Criteria

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street, Room 2.102D
St. Louis, MO 63103
Staff Symbol: (dwb)
Phone: (314) 269-2379
Fax: (314) 269-2737
ryan.d.christensen@uscg.mil

16211
April 14, 2023

Ms. Samantha Beaupre
Lochmueller Group, Inc.
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268

Subj: DES No. 2101733, Added Travel Lanes Olio Road, Sand Creek, Noblesville, Hamilton County, IN

Dear Ms. Beaupre:

This is in response to your email dated February 17, 2023 and corresponding information requesting whether the Coast Guard will require a permit and navigational lighting for the referenced bridge project. We have examined the proposed project area with regard to its status as a navigable water of the United States for purposes of Coast Guard bridge jurisdiction.

Our examination indicates that there is no sufficient factual support for concluding that Sand Creek at the project location, has current or historic navigation occurring on this waterway. Since this is the case, a Coast Guard bridge permit or exemption will not be required for the referenced bridge project.

In consideration of the uses of the waterway, bridge lighting is not required.

Sincerely,

ERIC A. WASHBURN
Bridge Supervisor, Western Rivers
By direction of the District Commander

Organization and Project Information

Project ID:
Des. ID: 2101733
Project Title: Olio Road Added Travel Lanes
Name of Organization: Lochmueller Group
Requested by: Samantha Beaupre

Environmental Assessment Report

1. Geological Hazards:
   - Moderate liquefaction potential
   - Floodway
2. Mineral Resources:
   - Bedrock Resource: High Potential
   - Sand and Gravel Resource: Low Potential
3. Active or abandoned mineral resources extraction sites:
   - Petroleum Exploration Wells

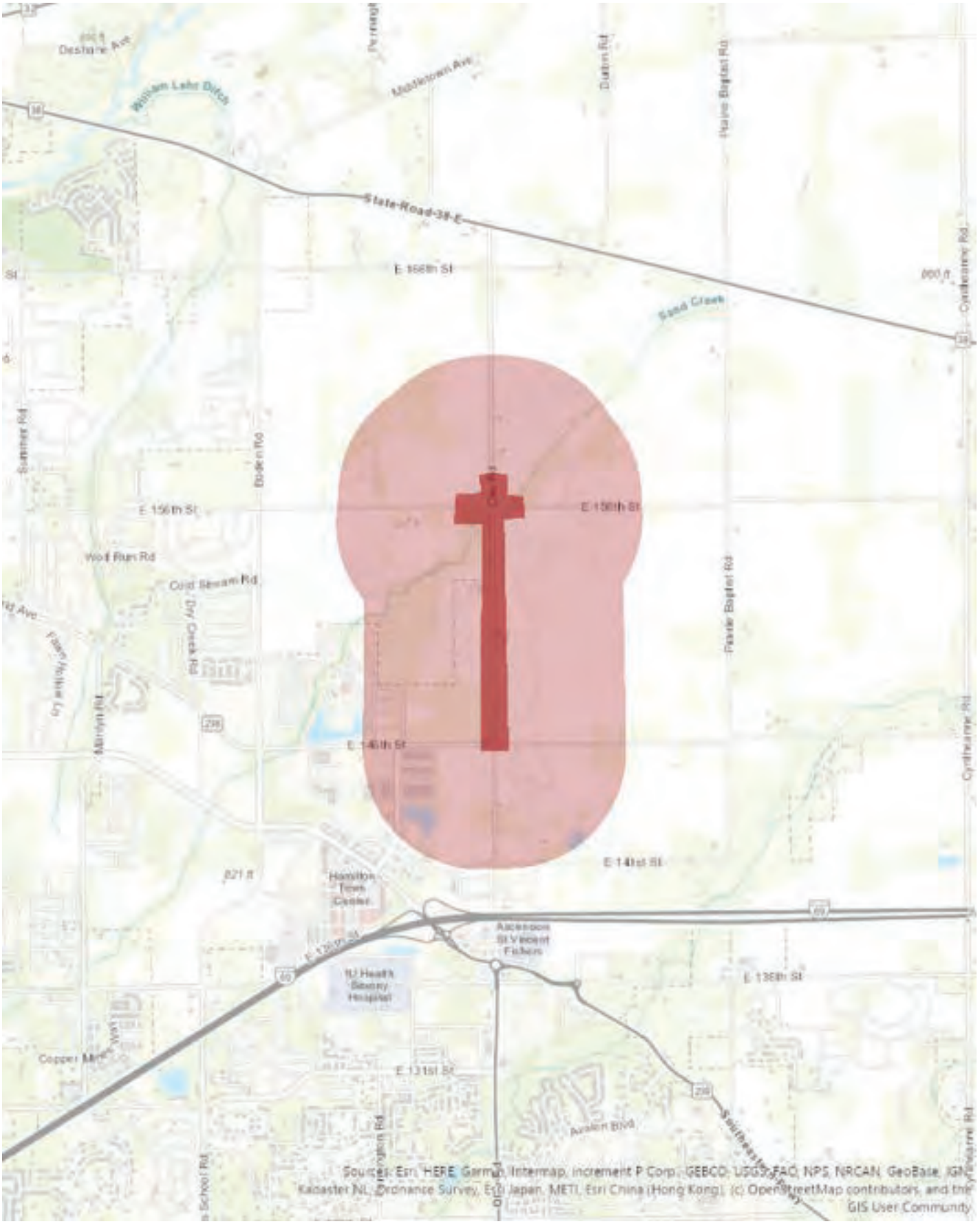
*Map layers from the Indiana Geological and Water Survey and Indiana Map

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: December 11, 2023



United States Department of Agriculture
Farm Production and Conservation
Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, Indiana 46278
317-295-5800

December 12, 2023

Samantha Beaupre
3502 Woodview Trace, Suite 150
Indianapolis, Indiana 46268

Dear Ms. Beaupre:

The proposed Travel Lane Project in the City of Noblesville, Hamilton County Indiana (Des. No. 2101733), as referred to in your letter received November 14, 2023, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact John Allen at 317-295-5859 or john.allen@usda.gov.

Sincerely,

JOHN ALLEN Digitally signed by JOHN ALLEN
Date: 2023.12.13 15:28:09 -05'00'

JOHN ALLEN
State Soil Scientist

Only permanent ROW acreage has a potential impact to prime farmland--therefore the numbers in part IV are from the permanent ROW shapefiles that were provided. A conservative ROW estimate was used during early coordination. THe ROW amounts have since been reduced.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*

3. Date of Land Evaluation Request: 11/14/23
4. Sheet 1 of 1
1. Name of Project: Olio Road (Des. No. 2101733)
5. Federal Agency Involved: FHWA
2. Type of Project: Added Travel Lanes
6. County and State: Hamilton County, IN

PART II *(To be completed by NRCS)*

1. Date Request Received by NRCS
2. Person Completing Form: JRA
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☒ NO ☐
4. Acres Irrigated | Average Farm Size: 218 ac
5. Major Crop(s): Corn
6. Farmable Land in Government Jurisdiction: Acres: 175655 % 68
7. Amount of Farmland As Defined in FPPA: Acres: 169413 % 66
8. Name Of Land Evaluation System Used: LESA
9. Name of Local Site Assessment System
10. Date Land Evaluation Returned by NRCS: 12/13/2023

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment ____			
	Corridor A	**Corridor B**	**Corridor C**	**Corridor D**
A. Total Acres To Be Converted Directly	25.6			
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0			
C. Total Acres In Corridor	25.6			
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	12.34			
B. Total Acres Statewide And Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.007			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	45			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	87			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — **Maximum Points**				
1. Area in Nonurban Use — 15	15			
2. Perimeter in Nonurban Use — 10	10			
3. Percent Of Corridor Being Farmed — 20	20			
4. Protection Provided By State And Local Government — 20	0			
5. Size of Present Farm Unit Compared To Average — 10	5			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	5			
8. On-Farm Investments — 20	5			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	0			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	60	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	87	0	0	0
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	60	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	147	0	0	0

1. Corridor Selected: **Corridor A**
2. Total Acres of Farmlands to be Converted by Project: 25.6
3. Date Of Selection: 11/14/23
4. Was A Local Site Assessment Used? YES ☐ NO ☑

5. Reason For Selection:

Corridor A represents the least possible impacts while meeting the project's purpose and need.

Signature of Person Completing this Part: **Samantha Beaupre** DATE: **11/14/23**

NOTE: Complete a form for each segment with more than one Alternate Corridor

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

In Reply Refer To: 09/04/2024 18:15:48 UTC
Project Code: 2024-0026016
Project Name: Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN

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

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through IPaC by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see Migratory Bird Permit | What We Do | U.S. Fish & Wildlife Service (fws.gov).

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code 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

Project Code: 2024-0026016

Project Name: Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The City of Noblesville, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT) Greenfield District, intends to proceed with the following added travel lanes project along Olio Road, from 146th Street to 156th Street in Hamilton County, Indiana. The total length of the project is 0.93 mile (4,910 feet) along Olio Road.

The proposed project involves the widening from a two-lane road into a four-lane boulevard. The road will consist of four (4) 12-foot lanes with a 16-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. Bridge #29-00170 over Sand Creek will be replaced as part of the project. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths, one (1) 4-foot median, two (2) 1-foot barrier rails, and two (2) 13-inch tall curbs. It is anticipated that the new bridge will have an out-to-out coping of 83 feet and 2 inches. In addition, construction of a roundabout is proposed at the intersection of 156th Street and Olio Road. One other bridge within the project area, Bridge #29-00277, will not be impacted as part of the project.

The project is anticipated to require approximately 27 acres of permanent right-of-way (ROW). Suitable summer bat habitat is located near and within the project area. The dominant species in the project area are silver maple (Acer saccharinum) and river birch (Betula nigra). Approximately 0.55 acre of tree clearing will be required within 100 feet of the roadway during the inactive season. Adjacent land use is rural and consists of residential and agricultural land. Permanent lighting will likely be installed around the constructed roundabout. Use of temporary lighting may be necessary if night work is required. Construction is anticipated to begin in Fiscal Year (FY) 2027.

A review of the USFWS databased completed September 8, 2022 by INDOT Greenfield District did not indicate the presence of endangered bat species or their hibernacula within 0.5 mile of the project area. An inspection of Bridge #29-00170 occurred on September 14, 2022 by Lochmueller Group, and there was no evidence of bats.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.0101378,-85.91898966845866,14z

Counties: Hamilton County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 3 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.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], 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.

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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 *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

BIRDS

NAME	STATUS
Whooping Crane *Grus americana* Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758	Experimental Population, Non-Essential

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRITICAL HABITATS

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

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Lochmueller Group
Name: Samantha Beaupre
Address: 3502 Woodview Trace
Address Line 2: Suite 150
City: Indianapolis
State: IN
Zip: 46268
Email sbeaupre@lochgroup.com
Phone: 3172223880

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

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

In Reply Refer To: January 09, 2024
Project code: 2024-0026016
Project Name: Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN

Subject: Concurrence verification letter for the 'Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated January 09, 2024 to verify that the **Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) 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. **At least one of the qualification interview questions indicated an activity or portion of your project is consistent with a not likely to adversely affect determination therefore, the overall determination for your project is, may affect, and is not likely to adversely affect (NLAA) the endangered Indiana bat (*Myotis sodalis*) and/or the endangered northern long-eared bat (*Myotis septentrionalis*)**. Consultation with the Service pursuant to section 7(a)(2) of ESA (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

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/culvert or structure removal, replacement, and/or maintenance activities: If your initial bridge/culvert or structure assessment documented signs of bat use or occupancy, or an assessment failed to detect Indiana bats and/or NLEBs, yet are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of any potential take. In these instances, potential incidental take of Indiana bats and/or NLEBs is covered under the Incidental Take Statement in the 2018 FHWA, FRA, FTA PBO (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.

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:
If your initial bridge/culvert or structure assessments failed to detect Indiana bats and/or NLEB use or occupancy, yet bats are later detected prior to, or during construction, please submit the Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form (User Guide Appendix E) to this Service Office within 2 working days of the incident. In these instances, potential incidental take of Indiana bats and/or NLEBs may be exempted provided that the take is reported to the Service.

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.

The following species may occur in your project area and **are not** covered by this determination:

- Monarch Butterfly *Danaus plexippus* Candidate
- Tricolored Bat *Perimyotis subflavus* Proposed Endangered
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

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

NAME

Des. No. 2101733 - Olio Road Added Travel Lanes - Hamilton County, IN

DESCRIPTION

The City of Noblesville, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT) Greenfield District, intends to proceed with the following added travel lanes project along Olio Road, from 146th Street to 156th Street in Hamilton County, Indiana. The total length of the project is 0.93 mile (4,910 feet) along Olio Road.

The proposed project involves the widening from a two-lane road into a four-lane boulevard. The road will consist of four (4) 12-foot lanes with a 16-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. Bridge #29-00170 over Sand Creek will be replaced as part of the project. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths, one (1) 4-foot median, two (2) 1-foot barrier rails, and two (2) 13-inch tall curbs. It is anticipated that the new bridge will have an out-to-out coping of 83 feet and 2 inches. In addition, construction of a roundabout is proposed at the intersection of 156th Street and Olio Road. One other bridge within the project area, Bridge #29-00277, will not be impacted as part of the project.

The project is anticipated to require approximately 27 acres of permanent right-of-way (ROW). Suitable summer bat habitat is located near and within the project area. The dominant species in the project area are silver maple (Acer saccharinum) and river birch (Betula nigra). Approximately 0.55 acre of tree clearing will be required within 100 feet of the roadway during the inactive season. Adjacent land use is rural and consists of residential and agricultural land. Permanent lighting will likely be installed around the constructed roundabout. Use of temporary lighting may be necessary if night work is required. Construction is anticipated to begin in Fiscal Year (FY) 2027.

A review of the USFWS databased completed September 8, 2022 by INDOT Greenfield District did not indicate the presence of endangered bat species or their hibernacula within 0.5 mile of the project area. An inspection of Bridge #29-00170 occurred on September 14, 2022 by Lochmueller Group, and there was no evidence of bats.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.0101378,-85.91898966845866,14z

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 endangered 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 amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) 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 User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

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

    No

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

    Yes

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

    Yes

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

    No

23. Does the project include slash pile burning?

    No

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

    Yes

25. 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

26. 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

    - *2101733_Olio Road_Bat Inspection Form.pdf https://ipac.ecosphere.fws.gov/project/UK4EUPC2WBBIPIIGNRBVSUGJW4/projectDocuments/135835894*

27. 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

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

    No

29. 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

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

    Yes

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

    Yes

32. Will the project install *any* new or replace any existing **permanent** lighting in addition to the lighting already indicated for habitat removal (including the removal or trimming of trees) or bridge/structure removal, replacement or maintenance activities?

    Yes

33. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting (other than the lighting already indicated for habitat removal (including the removal or trimming of trees) or bridge/structure removal, replacement or maintenance activities) will be installed or replaced?

    Yes

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?

    Yes

35. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season[1]?

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

    Yes

36. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season[1]?

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

    Yes

37. 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

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

    No

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

40. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season

41. 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.

42. 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.

43. 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

44. **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

45. **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

46. **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

47. **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

48. **Lighting AMM 2**
Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1] to rate the amount of light emitted in unwanted directions?

[1] Refer to The BUG System—A New Way To Control Stray Light

Yes

49. **Lighting AMM 2**
Will the **permanent** lighting used during removal of suitable habitat and/or the removal/ trimming of trees within suitable habitat be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

Yes

50. **Lighting AMM 1**
Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

51. **Lighting AMM 2**
Does the lead agency use the BUG (Backlight, Uplight, and Glare) system developed by the Illuminating Engineering Society[1] to rate the amount of light emitted in unwanted directions?

[1] Refer to The BUG System—A New Way To Control Stray Light

Yes

52. **Lighting AMM 2**
Will the **permanent** lighting (other than any lighting already indicated for tree clearing or bridge/structure removal, replacement or maintenance activities) be designed to be as close to 0 for all three BUG ratings as possible, with a priority of "uplight" of 0 and "backlight" as low as practicable?

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.

   0.55

4. Please describe the proposed bridge work:

   Bridge #29-00170 over Sand Creek will be replaced as part of the project. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths, one (1) 4-foot median, two (2) 1-foot barrier rails, and two (2) 13-inch tall curbs. It is anticipated that the new bridge will have an out-to-out coping of 83 feet and 2 inches.

5. Please state the timing of all proposed bridge work:

   Fall of 2026

6. Please enter the date of the bridge assessment:

   September 14, 2022

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

TREE REMOVAL AMM 1

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

LIGHTING AMM 1

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

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.

LIGHTING AMM 2

When installing new or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those transportation

agencies using the BUG system developed by the Illuminating Engineering Society, be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable.

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.

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.

DETERMINATION KEY DESCRIPTION: FHWA, FRA, FTA PROGRAMMATIC CONSULTATION FOR TRANSPORTATION PROJECTS AFFECTING NLEB OR INDIANA BAT

This key was last updated in IPaC on October 30, 2023. 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 endangered **northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

This decision key should only be used to verify project applicability with the Service's amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) 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.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Delaney Weston
Address: 32 S Broadway
City: Greenfield
State: IN
Zip: 46140
Email dweston@indot.in.gov
Phone: 3174673901

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
September 14, 2022 12:00 PM	2101733	Olio Road	Hamilton
Federal Structure ID 29-00170	**Structure Coordinates (latitude and longitude)** Lat: 40.01572 Long: -85.91923	**Structure Height (approximate)** 8.3 ft.	**Structure Length** 22 ft.

Structure Type (check one)

Bridge Construction Style

○ Cast-in-place		○ Pre-stressed Girder	
○ Flat Slab/Box		○ Steel I-beam	
○ Truss		○ Covered	
○ Parallel Box Beam		○ Other:	

Culvert Type

⊙ Box	
○ Pipe/Round	
○ Other:	

Other Structure

○

Structure Material (check all that apply)

Deck Material	*Beam Material*	*End/Back Wall Material*
☐ Metal	☐ None	☐ Concrete
☐ Concrete	☐ Concrete	☐ Timber
☐ Timber	☐ Steel	☐ Stone/Masonry
☐ Open grid	☐ Timber	☐ Other:
☐ Other:	☐ Other:	

Culvert Material

☐ Metal
☒ Concrete
☐ Plastic
☐ Stone/Masonry
☐ Other:

Creosote Evidence

○ Yes ⊙ No ○ Unknown

Notes:

Crossings Traversed (check all that apply)

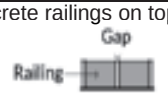
☐ Bare ground	☒ Open vegetation
☒ Rip-rap	☐ Closed vegetation
☒ Flowing water	☐ Railroad
☐ Standing water	☐ Road/trail - Type:
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

☒ Agricultural	☐ Grassland
☐ Commercial	☐ Ranching
☐ Residential-urban	☐ Riparian/wetland
☒ Residential-rural	☐ Mixed use
☐ Woodland/forested	☐ Other:

Areas Assessed (check all that apply)

Check all areas that apply. If an area is not present in the structure, check the "not present" box.
Document all bat indicators observed during the assessment. Include the species present, if known, and provide photo documentation as indicated.

Area (check if assessed)	Assessment Notes	Evidence of Bats (include photos if present)
☒ All crevices and cracks: **Bridges/culverts:** rough surfaces or imperfections in concrete **Other structures:** soffits, rafters, attic areas	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Concrete surfaces (open roosting on concrete)	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Spaces between concrete end walls and the bridge deck	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Crack between concrete railings on top of the bridge deck 	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☐ Vertical surfaces on concrete I-beams	☒ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Spaces between walls, ceiling joists	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ Weep holes, scupper drains, and inlets/pipes	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All guiderails	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species
☒ All expansion joints	☐ Not present	☐ Visual - live # dead # ☐ Guano ☐ Staining ☐ Audible ☐ Odor ☐ Photos ☐ Species

Name: Samantha Beaupre

Signature: Samantha Beaupre

Categorical Exclusion

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

ADDED TRAVEL LANES PROJECT

Finding/800.11(e) Documentation

Olio Road from 146th Street to 156th Street

Fall Creek and Wayne Townships
Hamilton County, Indiana

Des. No. 2101733
DHPA No. 30058

LOCHMUELLER GROUP

Lochmueller Group, Inc.

3502 Woodview Trace, Suite 150

Indianapolis, Indiana 46268

Phone: 317.222.3880

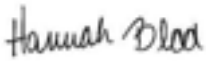
Added Travel Lanes Project
Olio Road from 146th Street to 156th Street
Fall Creek and Wayne Townships, Hamilton County, Indiana
Des. No. 2101733
DHPA No. 30058

Finding/800.11(e) Documentation

Prepared For:

City of Noblesville
Federal Highway Administration

Prepared By:



Hannah Blad

Lochmueller Group
3502 Woodview Trace, Suite 150
Indianapolis, IN 46268

Date
November 7, 2024

FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (FOR HISTORIC PROPERTIES) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECTS
ELIGIBILITY DETERMINATIONS
EFFECT FINDING

ADDED TRAVEL LANES PROJECT
OLIO ROAD FROM 146TH STREET TO 156TH STREET
FALL CREEK AND WAYNE TOWNSHIPS, HAMILTON COUNTY, INDIANA
DES. NO.: 2101733

AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))

The Area of Potential Effects (APE) for this project encompasses all resources immediately adjacent to the project area and those that may not be immediately adjacent but that have a proximate viewshed of the project area. The project area encompasses the area required to support the purpose and need of the project. Due to the flat nature of the area, a 1000-foot buffer from the project area was used as the APE to encompass all proposed activities and their effects to adjacent properties. The Archaeological APE is defined as the 19.65-hectares survey area approximately 1.8 kilometers in length encompassing Olio Road and all intersections within the project limits, which was investigated for the presence of archaeological resources. See Appendix A for maps of the project area and APE.

ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR Section 800.4(c)(2))

There are no properties currently listed in the National Register of Historic Places (NRHP) within the APE.

There are two properties recommended eligible for listing in the NRHP within the APE:

Wiseman Farm (Indiana Historical Sites and Survey Inventory [IHSSI] #057-541-40032). The Wiseman Farm consists of a c. 1920 Bungalow/Craftsman style dwelling, a c. 1920 well house, a c. 1920 gambrel barn, a c. 1920 front gabled barn, and a new chicken house built in the late 1990s on a c. 1920 foundation. The Wiseman Farm also retains additional Contributing features that support the property's significance within the local agricultural context during the period of significance. Within the barn lot (a former livestock grazing area/feed lot), west of the two barns, a c. 1920 formed concrete water trough stands next to the concrete foundation of the windmill that once filled it. A small orchard (mature apple trees) grows in the southeast part of the parcel. The fence line surrounding the tillable acreage west of the barn lot is galvanized mild steel woven wire with alternating wood posts and steel T-posts consistent with fencing commonly available from the 1920s through the 1940s. The Wiseman Farm is recommended eligible for listing in the NRHP under Criterion A for its association with local agricultural history and under Criterion C for its architectural merit.

Hair-Whitaker Farm (Lochmueller #4). The Hair-Whitaker Farm is composed of a collection of preserved agricultural outbuildings from the twentieth century, with only two structures on the property not built c. 1920. In total, there are six (6) structures on the Hair-Whitaker Farm property, and all are Contributing to the historical significance of the farm. The farmhouse on the property is a c. 1920 cross-gabled farmhouse that sits on a concrete block foundation. The farm also contains a c. 1920 shed, a c. 1920 gable barn, a c. 1920 gambrel barn, a c. 1950 pole barn, and a c. 1930 WPA style outhouse. The Hair-Whitaker Farm is recommended eligible for the NRHP under Criterion A for its significance to local agricultural history and under Criterion C for architectural merit.

EFFECT FINDING

Wiseman Farm (IHSSI #057-541-40032) – No Adverse Effect
Hair-Whitaker Farm (Lochmueller #4) – No Adverse Effect

INDOT, acting on FHWA's behalf, has determined a "No Adverse Effect" finding is appropriate for this undertaking.

INDOT respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

Wiseman Farm (IHSSI #057-541-40032) - This undertaking will convert property from the Wiseman Farm (IHSSI #057-541-40032), 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 FHWA hereby intends to issue a "de minimis" finding for the Wiseman Farm (IHSSI #057-541-40032), pursuant to SAFETEA-LU, thereby satisfying FHWA's responsibilities under Section 4(f) for this historic property.

Hair-Whitaker Farm (Lochmueller #4) – This undertaking will not convert property from Hair-Whitaker Farm (Lochmueller #4), 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 Hair-Whitaker Farm (Lochmueller #4).

Matthew S. Coon, for FHWA
Manager
INDOT Cultural Resources

November 19, 2024
Approval Date

FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO ADVERSE EFFECT
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR 800.5(c)

ADDED TRAVEL LANES PROJECT
OLIO ROAD FROM 146TH STREET TO 156TH STREET
FALL CREEK AND WAYNE TOWNSHIPS, HAMILTON COUNTY, INDIANA
DES. NO.: 2101733

1. DESCRIPTION OF THE UNDERTAKING

The City of Noblesville, with funding from the Federal Highway Administration (FHWA) and administrative oversight from the Indiana Department of Transportation (INDOT) proposes to proceed with an added travel lanes project (Des. No. 2101733). The FHWA is providing funding and is the lead federal agency for this Section 106 undertaking. The proposed undertaking is on Olio Road from 146th Street to 156th Street in Hamilton County, Indiana. It is within Fall Creek and Wayne Township, Riverwood USGS Topographic Quadrangle, in Section 11, 14, and 23, Township 18 North, Range 5 East. Adjacent land use consists of residential and agricultural areas. Please see maps and photographs of the project area in Appendices A and B.

Olio Road is functionally classified as a major collector. The typical cross-section of Olio Road is two 10-foot wide through travel lanes (one in each direction) and 0- to 2-foot-wide aggregate shoulders. The existing speed limit along Olio Road is 55 miles per hour.

Bridge #29-00170 carries Olio Road over Sand Creek. The concrete bridge was built in 1992 and is not considered historic. The INDOT Bridge Inspection Report dated September 16, 2021, identified hairline cracks on the midspan and headwall. The structure is 22 feet long with a deck width of 32.1 feet. The typical section on the bridge consists of two 11-foot travel lanes (one in each direction).

The need for the project stems from inadequate capacity for the projected vehicular demand along Olio Road between 146th and 156th Street. According to the *City of Noblesville Road Impact Fee, Zone Improvement Plan* developed in December 2020, this segment of Olio Road will experience capacity issues within the next 10 years. Capacity of a roadway is commonly reported as a level of service (LOS) from A to F, with LOS A being the best performing (free flow with >92% minimum speed of 45 mph) and LOS F being the worst performing (breakdown flow with 1.0-67% minimum speed of 35 mph). The City of Noblesville has established a minimum acceptable LOS of D for intersections and E for roadway segments. This portion of Olio Road is currently operating at an LOS B in the AM and PM peak hour. Development of the area is anticipated to decrease the LOS from a B to an F in the next 10 years.

A secondary need is due to the insufficient geometric design for a major collector roadway. Presently, Olio Road between 146th Street and 156th Street, which is partially within the urban area boundary of Noblesville, consists of two 10-foot-wide travel lanes with 2-foot-wide aggregate shoulders. Additionally, the Indianapolis Metropolitan Planning Organization (IMPO) Traffic Count Map for this section of Olio Road estimated in 2019 an average annual daily traffic (AADT) volume of 5,253. Given these parameters, and per Figure 53-8 of the Indiana Design Manual, the desired geometric design for a collector is 12-foot-wide lanes (11-foot-wide minimum) with an 8-foot-wide paved shoulder or 2-foot-wide curb. This section of Olio Road fails to meet the minimum geometric design requirements for this classification of a roadway.

The purpose of the project is to address the inadequate capacity within the Olio Road corridor between 146th Street and 156th Street and obtain a minimum acceptable LOS of E during the design year of 2045. In addition, the purpose of the project is to bring this section of Olio Road up to current geometric design standards for a major collector roadway.

It is proposed that the road will be widened from a two-lane road into a four-lane boulevard. The road will consist of four (4) 12-foot lanes with a 20-foot raised grass median. The roadway will have curb and gutter and two (2) 10-foot multi-use paths on each side of the road. The design speed of the new road will be 45 mph to match the existing posted speed limit. The bridge over Sand Creek will be replaced as part of the project as well. The proposed bridge will consist of four (4) 12-foot lanes with two (2) 2-foot shoulders and two (2) 10-foot multi-use paths. It is anticipated that the new bridge will be approximately 21-feet 8-inches long by 52-feet wide with an out-to-out coping of 75-feet. In addition, the intersection of 156th Street and Olio Road will be converted into a roundabout. It is anticipated that lighting will be installed at this intersection around the roundabout, though the amount of lighting and the location of the lighting is not currently known at this time. No lighting is planned for anywhere else within the project area. It is also anticipated that the utility poles on the west side of Olio Road will be moved within the right-of-way (ROW), though their exact locations are currently not known. The depth of excavation is anticipated to be around 18 feet for the construction of the bridge, 8 feet for the utility pole relocation work, and 18 inches for the curb and gutter work.

Since the distribution of the effects report on August 9, 2024, the right-of-way (ROW) has been further refined. It is anticipated that 16.84 acres of permanent and 10.11 acres of temporary ROW will be acquired along with 4.79 acres of a drainage easement.

The APE for this project encompasses all resources immediately adjacent to the project area and those that may not be immediately adjacent but that have a proximate viewshed of the project area. The project area encompasses the area required to support the purpose and need of the project. Due to the flat nature of the area, a 1000-foot buffer from the project area was used as the APE to encompass all proposed activities and their effects to adjacent properties. The Archaeological APE is defined as the 19.65-hectares survey area approximately 1.8 kilometers in length encompassing Olio Road and all intersections within the project limits, which was investigated for the presence of archaeological resources. Please see Appendix A, page 3 for a map of the aboveground APE.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

The NRHP, Indiana Register of Historic Sites and Structures (State Register), the State Historic Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM), and the Indiana Historic Sites and Structures Inventory (IHSSI) were consulted by Blad and Quigg prior to and following the field review. Hamilton County was surveyed between 1990 and 1991 for the IHSSI. The resulting *Hamilton County Interim Report* (1992) was also reviewed. No resources already listed in the NRHP were located within the APE. One previously surveyed resource that appears in the *Interim Report* is located within the APE: IHSSI #057-541-40032 (Wiseman Farm, Contributing). No cemeteries are located within the APE for this project.

The *Indiana Historic Bridge Inventory Volume 2: Listing of Historic and Non-Historic Bridges* (February 2009) by Mead & Hunt was reviewed. No bridges eligible for listing in the NRHP are located within the project area.

Early coordination was initiated with an email to consulting parties on November 10, 2022. The email asked consulting parties to review the early coordination letter attached to the email and via IN SCOPE, which is INDOT's Section 106 document website http://erms12c.indot.in.gov/Section106Documents/. A hard copy of these materials was mailed to the SHPO. The complete list of those who agreed to be consulting parties throughout the Section 106 process is shown in bold below and in Appendix C, pages 1-2.

- **State Historic Preservation Officer**
- Hamilton County Commissioners
- Hamilton County Highway Engineer
- Hamilton County Historian
- Hamilton County Historical Society
- Noblesville Preservation Alliance

- **Indiana Landmarks, Central Regional Office**
- Mayor of Noblesville
- Indianapolis Metropolitan Planning Organization
- Noblesville City Engineer
- Noblesville Common Council
- Hamilton County Council
- Paul & Nancy Radcliff
- Heritage LLP
- **Delaware Nation of Oklahoma**
- **Delaware Tribe of Indians**
- **Eastern Shawnee Tribe of Oklahoma**
- **Miami Tribe of Oklahoma**
- Peoria Tribe of Indians of Oklahoma
- Pokagon Band of Potawatomi Indians
- **Shawnee Tribe**

In an email dated November 12, 2022, the Delaware Tribe of Indians responded to the early coordination letter stating, "… we determined that there are no known religious or culturally significant sites within the selected project area. We have no objection to the proposed project." See Appendix D, pages 8-9 for a copy of this communication.

In a letter dated November 17, 2022, the Miami Tribe of Oklahoma responded to the early coordination letter stating that, "[t]he Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site." See Appendix D, page 10 for a copy of this communication.

In a letter dated December 8, 2022, the SHPO staff responded to the early coordination letter suggesting two additional consulting parties that they thought should be invited to participate including the Noblesville Common Council and the Hamilton County Council. In that same letter, the SHPO staff asked that property owners be invited as soon as possible if right-of-way is planned to be taken from adjacent historic properties. See Appendix D, pages 11-12 for a copy of this communication.

In a letter dated December 19, 2022, the Eastern Shawnee responded to the early coordination letter stating, "… the project proposes No Adverse Effect or endangerment to known sites of interest to the Eastern Shawnee Tribe." See Appendix D, page 13 for a copy of this communication.

An early coordination email was sent to the Noblesville Common Council and the Hamilton County Council on December 20, 2022. See Appendix D, pages 14-15 for a copy of this communication.

In an email dated December 20, 2022, Indiana Landmarks (Central Regional Office) accepted consulting party status for the proposed project. See Appendix D, pages 16-20 for a copy of this communication.

In a letter dated December 20, 2022, the Delaware Nation of Oklahoma responded to the early coordination letter stating, "… the proposed project should have no adverse effect on any known cultural or religious sites of interest to the Delaware Nation." See Appendix D, page 21 for a copy of this communication.

No additional responses were received from consulting parties in response to the early coordination materials.

Gary Francis Quigg, Lochmueller Group historian who meets the Secretary of the Interior's Professional Qualification Standards, performed a site inspection of the project area on December 20, 2022, and documented resources that will be at least 50 years of age at the time of the project letting within the APE. The APE was investigated for the existence of any historic properties, structures, objects, or districts listed in

or eligible for listing in the NRHP. The historians walked the APE, taking photographs of all resources meriting a Contributing or higher rating. Non-Contributing resources or those that did not meet the age requirements were noted but not documented other than in general view photographs. Within the APE is one (1) previously surveyed property that appears in the *Interim Report*. Four (4) newly identified aboveground resources were recorded within the APE. One (1) previously surveyed IHSSI property that is no longer extant was located within the APE.

An HPR, based on the results of the December 20, 2022, aboveground field survey, was completed (Blad, July 19, 2023) and provided boundaries for the two (2) recommended NRHP-eligible properties: Wiseman Farm (IHSSI #057-541-40032) and Hair-Whitaker Farm (Lochmueller #4). Please see Appendix E, pages 1-3, for a summary of the HPR.

A Phase Ia archaeological reconnaissance survey was conducted by Cultural Resource Analysts, Inc. (CRA) between December 5 and 8, 2022. The field reconnaissance yielded four (4) previously undocumented sites within or adjacent to the survey area: 12H1974-12H1977. All four (4) sites are historic scatters associated with structures appearing on historic maps. More specifically, Site 12H1974 dates to the twentieth century, Sites 12H1975 and 12H1976 date between the late nineteenth and twentieth centuries, and Site 12H1977 dates between the mid-nineteenth and early twentieth centuries. The portions of sites 12H1974, 12H1975, and 12H1977 within the survey area were recommended as not eligible for listing in the NRHP and no further work is recommended for those portions within the survey area. Portions of those sites outside the survey area have been marked "Environmentally Sensitive Area Do Not Disturb" on the plans. The small portion of Site 12H1976 where an anomalous shovel test occurred will be outside the construction limits for the undertaking and as such no ground disturbance will occur at that location. No ground disturbing activities will occur near that area and it has been marked on the plans as "Environmentally Sensitive Area Do Not Disturb." See Appendix E, pages 4-5 for a summary of the Phase Ia archaeological reconnaissance survey.

The HPR and Phase Ia were uploaded to IN SCOPE, and an email was sent to consulting parties notifying them of the availability of the reports online on July 19, 2023. Hard copies of these materials were also mailed to the SHPO and the property owners of the historic properties (Paul & Nancy Radcliff and Heritage LLP) that same day.

In a letter dated August 2, 2023, the Miami Tribe of Oklahoma responded to the HPR and Phase Ia archaeology report stating, "[t]he Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site." See Appendix D, page 28 for a copy of the communication.

In a letter dated August 21, 2023, the SHPO staff concurred with the conclusions in the HPR, noting that, "[t]he area of potential effects ("APE") proposed in the HPR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur." Concurrence from the SHPO staff was also provided in this letter for the Phase 1a archaeological investigation report. SHPO staff did ask that the survey area for Site 12H1976 be clearly marked on the plans so that the unsurveyed portion is avoided by all ground-disturbing activities. In addition, SHPO staff asked for additional clarification between conflicting wording used in the Phase Ia archaeology report and the distribution letter. They requested to know if Site 12H1976 will be avoided by all construction activities or if a certain depth of excavation will be allowed within its boundaries. See Appendix D, pages 29-31 for a copy of the communication.

In regard to the questions SHPO asked in their letter dated August 21, 2023, it should be noted that the report distribution letter that accompanied the HPR and Phase Ia archaeology report was incorrect in noting that, "For Site 12H1976 it is recommended that no work deeper than 17 cm below ground level occur or the area will require additional work." It should have stated that based on the recommendations made by CRA, that the majority of Site 12H1976 has a lack of research potential but that one small area at Site 12H1976 had an anomalous shovel test, which could represent an intact sub-plow zone feature, and it is recommended that that specific area of the site be avoided by ground disturbing activities that may go deeper than 17 centimeters (cm). In addition, that portion of the site is outside the construction limits for the project. No

ground disturbing activities will occur near that area and it has been marked on the plans as "Environmentally Sensitive Area Do Not Disturb."

In an email dated August 30, 2023, the Shawnee Tribe responded to the HPR and Phase Ia archaeology report stating that, "[t]he Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project." See Appendix D, page 32 for a copy of the communication.

No additional comments were received from consulting parties regarding HPR or Phase Ia.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

Wiseman Farm (IHSSI #057-541-40032). The Wiseman Farm consists of a c. 1920 Bungalow/Craftsman style dwelling, a c. 1920 well house, a c. 1920 gambrel barn, a c. 1920 front gabled barn, and a new chicken house built in the late 1990s on a c. 1920 foundation. The Wiseman Farm also retains additional Contributing features that support the property's significance within the local agricultural context during the period of significance. Within the barn lot (a former livestock grazing area/feed lot), west of the two barns, a c. 1920 formed concrete water trough stands next to the concrete foundation of the windmill that once filled it. A small orchard (mature apple trees) grows in the southeast part of the parcel. The fence line surrounding the tillable acreage west of the barn lot is galvanized mild steel woven wire with alternating wood posts and steel T-posts consistent with fencing commonly available from the 1920s through the 1940s. The Wiseman Farm is recommended eligible for listing in the NRHP under Criterion A for its association with local agricultural history and under Criterion C for its architectural merit.

Hair-Whitaker Farm (Lochmueller #4). The Hair-Whitaker Farm is composed of a collection of preserved agricultural outbuildings from the twentieth century, with only two structures on the property not built c. 1920. In total, there are six (6) structures on the Hair-Whitaker Farm property, and all are Contributing to the historical significance of the farm. The farmhouse on the property is a c. 1920 cross-gabled farmhouse that sits on a concrete block foundation. The farm also contains a c. 1920 shed, a c. 1920 gable barn, a c. 1920 gambrel barn, a c. 1950 pole barn, and a c. 1930 WPA style outhouse. The Hair-Whitaker Farm is recommended eligible for the NRHP under Criterion A for its significance to local agricultural history and under Criterion C for architectural merit.

4. DESCRIBE THE UNDERTAKING'S EFFECT ON HISTORIC PROPERTIES

Wiseman Farm (IHSSI #057-541-40032) – No Adverse Effect

The proposed undertaking will encroach upon the recommended NRHP boundary of the Wiseman Farm. Within the recommended NRHP boundary for the historic property, a portion of the drive (approximately 21 feet) leading to the farmhouse from Olio Road will be reconstructed. Approximately 0.01 acre of temporary ROW will be needed from the recommended NRHP boundary for this work. In addition to the drive reconstruction, the eastern portion of the NRHP boundary (along Olio Road) will be graded for the construction of a sidewalk. As noted above, a 10-foot-wide multi-use path will be constructed along the project area. No portion of the multi-use path will be built within the recommended NRHP boundary, but grading for the sidewalk will take place within the recommended NRHP boundary. No lighting will be installed adjacent to or in front of the Wiseman Farm next to the multi-use path. Finally, three (3) utility poles are currently located within the recommended NRHP boundary. It is anticipated that the utility poles will need to be moved within the proposed ROW, though their exact locations are not known at this time. Approximately 0.09 acre of permanent ROW will be needed from the recommended NRHP boundary for this work. As for the fence, which is a contributing feature, no proposed work is anticipated to impact the fence line.

In addition to the work occurring within the NRHP recommended boundary for the property, work occurring outside the boundary will also be visible from the historic property. The existing roadway profile, two-lanes with 0- to 2-foot-wide aggregate shoulders will be expanded into a four-lane boulevard with a 20-foot raised

grass median. Additional proposed work includes curb and gutter work and the construction of two (2) 10-foot multi-use paths on each side of the road. Due to the proposed work, additional drainage work including a large basin will be constructed on the east side of the expanded Olio Road. It is assumed that the roundabout and the construction of the new bridge over Sand Creek will not be visible from the recommended NRHP boundary due to the distance and other residential properties between the intersection and the historic property. See Appendix F, page 5-6 for plans showing the proposed work within and adjacent to the recommended boundary of the Wiseman Farm.

The project will have "No Adverse Effect" to this resource because the proposed changes will not alter the Wiseman Farm in a manner that would diminish its historic integrity or its eligibility for listing in the NRHP. Please see Appendix A, page 4 for a map of the historic property and Appendix B, page 8-21 for photographs of this resource.

Hair-Whitaker Farm (Lochmueller #4) – No Adverse Effect

The proposed undertaking will not encroach upon the recommended NRHP boundary of the Hair-Whitaker Farm. No work will take place within or adjacent to the recommended NRHP boundary. It is anticipated that design work for the undertaking (i.e., the construction of a roundabout and the associated lighting, road widening, and HMA overlay) will take place approximately 650 feet south of the recommended NRHP boundary for this historic property.

The project will have "No Adverse Effect" to this resource because the proposed changes will not alter the Hair-Whitaker Farm in a manner that would diminish its historic integrity or its eligibility for listing in the NRHP. Please see the APE map in Appendix A, page 3 for an aerial view of how far the work will be from the historic property, Appendix A, page 5 for a map of the historic property, Appendix B, page 25-30 for photographs of this resource.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT – INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

According to 36 CFR 800.5(a)(1), "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association."

Examples of an Adverse Effect:
Per 36 CFR 800.5(a)(2)(i), the undertaking will result in the "Physical destruction of or damage to all or part of the property."

Per 36 CFR 800.5(a)2(ii), the undertaking will cause "Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties and/or other applicable guidelines."

Per 36 CFR 800.5(a)2(iii), the undertaking will result in the "Removal of the property from its historic location."

Per 36 CFR 800.5(a)2(iv), the undertaking will result in a "Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance."

Per 36 CFR 800.5(a)2(v), the undertaking will cause the "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features."

Per 36 CFR 800.5(a)2(vi), the undertaking will result in the "Neglect of a property which causes its deterioration…"

Per 36 CFR 800.5(a)2(vii), the undertaking will cause the "Transfer, lease, or sale of property out of Federal ownership or control…"

The following discusses potential effects to Wiseman Farm (IHSSI #057-541-40032) and Hair-Whitaker Farm (Lochmueller #4). Please see maps and photographs of these resources in Appendices A and B.

Wiseman Farm (IHSSI #057-541-40032) – According to 36 CFR 800.5(a)(1) the criteria of adverse effect do not apply. The undertaking will alter the existing setting within the property beyond its present condition, but it will only alter a small portion and not in such a way as to diminish the property's historic integrity or its eligibility for listing in the NRHP.

Per 800.5(a)(2)(i), the undertaking will not result in the "Physical destruction of or damage to all or part of the property." The project will reconstruct the existing drive of the historic property and grading will take place for the construction of a sidewalk, which will be outside the recommended NRHP boundary. Temporary and permanent ROW will be acquired from within the recommended NRHP boundary for the proposed work, but this work will not diminish the historic integrity of the property or its eligibility for listing in the NRHP.

Per 36 CFR 800.5(a)2(ii), the undertaking will not cause "Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties and/or other applicable guidelines." The project will reconstruct the existing drive of the historic property and grading will take place for the construction of a multi-use path, which will be outside the recommended NRHP boundary. Temporary and permanent ROW will be acquired from within the recommended NRHP boundary. Additional work outside the recommended NRHP boundary includes the construction of four lanes with a central grassy median and a multi-use path on the east side of the new road, but this work will not diminish the historic integrity of the property or its eligibility for listing in the NRHP. None of the structures associated with the historic property will be affected by this undertaking. The road will be widened to the east side of the property, the road will not be moved closer to the property, and the wide median will partially maintain the existing look of the road with two lanes still adjacent to the property.

Per 36 CFR 800.5(a)2(iii), the undertaking will not result in the "Removal of the property from its historic location." No portion of the property will be removed from its historic location.

Per 36 CFR 800.5(a)2(iv), the undertaking will not result in a "Change of the character of the property's use or of physical features within the property setting that contribute to its historic significance." The project will reconstruct the existing drive of the historic property and grading will take place for the construction of a sidewalk, which will be outside the recommended NRHP boundary. Temporary and permanent ROW will be acquired from within the recommended NRHP boundary for the proposed work, but this work will not diminish the historic integrity of the property or its eligibility for listing in the NRHP.

Per 36 CFR 800.5(a)2(v), the undertaking will not cause the "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features." Outside the recommended NRHP boundary, the roadway will be reconstructed changing the existing two-lane road into four lanes with a central grassy median. Multi-use paths will be constructed on both sides of the widened road. The road will be widened to the east side of the property, away from the property, and the wide raised grass median will partially maintain the existing look of the road with two lanes still adjacent to the property. In addition, a drainage detention pond will be constructed on the east side of Olio Road. It is assumed that this detention pond will be visible from the historic property, and it is assumed that during heavy rain events water will be visible in the detention pond. Sand Creek is located on the west and north ends of the historic property boundary and as such standing water has been part of the view of the farm since it was built. Though the detention pond will introduce water in a new location from the historic property boundary, it will not be a

constant feature. A noise report has been prepared for this undertaking; it was noted in the report that there will be a slight noise level reduction at this property by 2045 from the reported 2022 level, likely because the road is shifting to the east away from the property.

Per 36 CFR 800.5(a)2(vi), the undertaking will not cause the "Neglect of a property which causes its deterioration…"

Per 36 CFR 800.5(a)2(vii), the undertaking will not cause the "Transfer, lease, or sale of property out of Federal ownership or control…" Ownership of the historic resource will not change as a result of this project.

Hair-Whitaker Farm (Lochmueller #4) – According to 36 CFR 800.5(a)(1) the criteria of adverse effect do not apply. The undertaking will not alter the existing setting within the recommended NRHP boundary beyond its present condition.

Per 800.5(a)(2)(i), the undertaking will not result in the "Physical destruction of or damage to all or part of the property." No proposed work will take place within the recommended NRHP boundary.

Per 36 CFR 800.5(a)2(ii), the undertaking will not cause "Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties and/or other applicable guidelines." No proposed work will take place within the recommended NRHP boundary.

Per 36 CFR 800.5(a)2(iii), the undertaking will not result in the "Removal of the property from its historic location." No portion of the property will be removed from its historic location.

Per 36 CFR 800.5(a)2(iv), the undertaking will not result in a "Change of the character of the property's use or of physical features within the property setting that contribute to its historic significance." No proposed work will take place within the recommended NRHP boundary.

Per 36 CFR 800.5(a)2(v), the undertaking will not cause the "Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features." Generally, what is visible from the historic property will remain the same following the completion of the undertaking. Approximately 650 feet south of the southern edge of the recommended NRHP boundary, design work for the undertaking will occur (i.e., construction of a roundabout and the associated lighting, road widening, and HMA overlay). Some of these elements may be distantly visible, but, other than the new lighting, may not be clearly distinguishable from the existing modern intersection. This property was not included in the noise report prepared for this undertaking due to its location too far north from the project area.

Per 36 CFR 800.5(a)2(vi), the undertaking will not cause the "Neglect of a property which causes its deterioration…"

Per 36 CFR 800.5(a)2(vii), the undertaking will not cause the "Transfer, lease, or sale of property out of Federal ownership or control…" Ownership of the historic resource will not change as a result of this project.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

The following is a summary of the comments of the consulting parties following the distribution of the early coordination materials and HPR/Phase Ia (November 2022 through August 2023). These comments have been previously presented in detail above in "Section 2. Efforts to Identify Historic Properties" and the correspondence may be viewed in Appendix D, pages 1-32:

- November 10, 2022: Early coordination materials sent to consulting parties.

- November 12, 2022: Delaware Tribe of Indians accepted consulting party status and provided no objection to the project.

- November 17, 2022: Miami Tribe of Oklahoma accepted consulting party status and provided no objection to the project at this time.

- December 8, 2022: A letter from the SHPO suggesting two additional consulting parties that they thought should be invited to participate including the Noblesville Common Council and the Hamilton County Council. In addition, they noted that if ROW is to be taken from the historic properties their owners should be invited as soon as possible.

- December 19, 2022: Eastern Shawnee Tribe of Oklahoma accepted consulting party status and provided a finding of No Adverse Effect.

- December 20, 2022: Early coordination letters were sent to the Noblesville Common Council and the Hamilton County Council.

- December 20, 2022: Indiana Landmarks (Central Regional Office) accepted consulting party status.

- December 20, 2022: Delaware Nation of Oklahoma accepted consulting party status and provided a finding of No Adverse Effect.

- July 19, 2023: A HPR (Blad, July 19, 2023) and a Phase Ia (Travis, May 5, 2023) were sent to consulting parties for their review.

- August 2, 2023: Maimi Tribe of Oklahoma provided no objection to the project at this time.

- August 21, 2023: A letter from the SHPO staff concurred with the conclusions in the HPR. Concurrence from the SHPO staff was also provided in this letter regarding the Phase 1a archaeological field reconnaissance survey report. SHPO asked that the archaeology Site 12H1976 be marked on plans so that the unsurveyed portions are avoided by construction activities. In addition, the SHPO asked for clarification regarding Site 12H1976 and the discrepancies between the report distribution letter and the Phase Ia report.

- August 30, 2023: Shawnee Tribe provided a finding of No Historic Properties Affected.

Revisions to certain design elements resulted in portions of the proposed road design to exceed the survey area used in the preparation of the Archaeology Report. As such, an Addendum Archaeology Report was prepared. The new proposed design did not exceed the APE for this undertaking and so no additional above-ground reconnaissance was needed. CRA conducted additional fieldwork on November 8, 2023, and no archaeological resources were located during the addendum investigation. See Appendix E, pages 6-8 for a summary of the Addendum Phase Ia archaeological reconnaissance survey.

An Effects Report noting the current findings for the overall project and for each historic property was prepared (Blad, August 9, 2024). The Effects Report and Addendum Phase Ia Report (Rusche and Kelley, August 5, 2024) were uploaded to IN SCOPE and sent to consulting parties on August 9, 2024. See Appendix E, page 9-11 for a summary of the Effects Report.

In a letter dated August 28, 2024, the Miami Tribe of Oklahoma responded to the Effects Report and Phase Ia Addendum stating that, “[t]he Miami Tribe offers no objection to the above-referenced project at this time, as we are not currently aware of existing documentation directly linking a specific Miami cultural or historic site to the project site.” See Appendix D, page 39 for a copy of this communication.

In an email dated October 9, 2024, the Shawnee Tribe responded to the Effects Report and Phase Ia Addendum stating in part, "[t]he Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project." See Appendix D, pages 40-41 for a copy of the correspondence.

In a letter dated October 9, 2024, the SHPO staff responded to the Effects Report and Phase Ia Addendum. SHPO staff concurred with the findings of the effects report but stated that, " … we request that if lighting becomes a part of this project, or future projects, that our office be provided with this updated information as this may add to the visual impacts of the project on the Wiseman Farm (IHSSI #057-541-40032)." In addition to their comments on the effects report, the SHPO staff reviewed and approved the Phase Ia Addendum. See Appendix D, pages 42-43 for a copy of the correspondence.

No other consulting party comments were received following the distribution of the Effects Report and Addendum Phase Ia report.

A public notice will be published in the *Hamilton County Reporter* newspaper seeking the views of the public regarding the effects of the proposed project on the historic elements within the APE. Comments from the public will be accepted for 30 days following the publication of the notice. If any substantive comments are received during this period, this document will be revised to include them.

APPENDICES

A – Maps
B – General Photographs
C – Consulting Parties List
D – Consulting Parties Correspondence
E – Historic Property Report Summary, Phase Ia Archaeological Report Summaries & Effects Report Summary
F – Preliminary Field Check Plans

Section 106 800.11(e)

Appendix A

Maps

Sources:

1,000 500 0 1,000 Feet

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.

Des. No. 2101733
Road Widening Project
Olio Road from 146th Street to 156th Street
Fall Creek and Wayne Townships, Hamilton County, Indiana

Area of Potential Effects Map

- APE
- Construction Limits
- Existing ROW
- Drainage Easement
- Permanent ROW
- Temporary ROW
- National Register Sites
- Historic Districts
- Cemeteries

County Survey Sites RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

Historic Bridges RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

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

100 50 0 100 Feet

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Des. No. 2101733
Road Widening Project
Olio Road from 146th Street to 156th Street
Fall Creek and Wayne Townships, Hamilton County, Indiana

Recommended NRHP Boundary Map
Wiseman Farm (IHSSI #057-541-40032)

- APE
- Recommended NRHP Boundary
- Proposed Design
- Construction Limits
- Existing ROW
- Permanent ROW
- Temporary ROW
- National Register Sites
- Historic Districts
- Cemeteries

County Survey Sites
RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

Historic Bridges
RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

Sources:

100 50 0 100 Feet

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.

Des. No. 2101733
Road Widening Project
Olio Road from 146th Street to 156th Street
Fall Creek and Wayne Townships, Hamilton County, Indiana

Recommended NRHP Boundary Map Hair-Whitaker Farm (Lochmueller #4)

- Recommended NRHP Boundary
- APE
- Proposed Design
- Construction Limits
- Existing ROW
- Permanent ROW
- Temporary ROW
- National Register Sites
- Historic Districts
- Cemeteries

County Survey Sites
RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown

Historic Bridges
RATING
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown