FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	United States Highway (U.S.) 41 / Lake County
Designation Number(s):	1700025
Project Description/Termini:	U.S. 41 Roadway Project. The termini extend along U.S. 41 from 3.29 miles south of U.S. 231 to U.S. 231. The incidental construction limits will extend along U.S. 41 from 3.35 miles south of U.S. 231 to U.S. 231 (3.35 miles).

	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 11, 2026
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: Ashley Taylor, 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 May 15, 2019 and again on May 6, 2024, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. Sample copies of the Notice of Entry letters are included in Appendix G, G1 to G2.

A stakeholder meeting was held on December 11, 2020 to discuss the proposed changes to the U.S. 41 corridor between Cedar Lake and U.S. 231 (Appendix G, G3 to G4). Representatives from the Indiana Department of Transportation (INDOT), Lake County Highway Department, and Troyer Group were present. Access along the corridor, visibility concerns at the intersections of U.S. 41 and 117th and 119th Streets, developments along U.S. 41, and a general environmental update were discussed.

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: INDOT INDOT District: LaPorte

Local Name of the Facility: U.S. 41 / Wicker Avenue

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

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

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 is due to overall deficient safety performance along the U.S. 41 corridor based on the occurrence of traffic accidents. According to the traffic data collected from 2013 to 2015 (Appendix I, I13 to I14), there were 80 crashes within the project limits. These crashes resulted in ten fatal or incapacitating injury crashes, 32 non-incapacitating injury crashes, and 38 property damage only crashes. The index of crash frequency (ICF) and index of crash cost (ICC) were calculated for this corridor. The ICF and ICC values are calculated using Road Hazard Analysis Tool (RoadHAT), which is a crash analysis tool that is compliant with the Highway Safety Manual methodology and is calibrated for Indiana roadways. The ICF and ICC compare the crash frequency and crash cost for the roadway to other roadways with similar volumes and roadway classification throughout Indiana. The index values represent the number of standard deviations above or below the statewide average for the corresponding facility type (intersection, segment, or ramp). The higher the ICF value, the stronger the evidence for the location to be classified as a high frequency crash location. The higher the ICC value, the stronger the evidence that crash costs are higher than expected due to the incidence of higher severity crashes. An ICF or ICC value greater than 2.0 is generally indicative of a high crash location. The ICF and ICC were 2.27 and 1.39, respectively; therefore, this roadway segment has an elevated crash frequency compared to other similar roadways. No horizontal or vertical deficiencies were identified throughout this corridor nor were any crashes attributed to roadside safety conditions.

Purpose: The purpose of the project is to improve the safety of the corridor with a goal of reducing the ICC to 1.24.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Lake Municipality: Town of St. John and Town of Cedar Lake

Limits of Proposed Work: Incidental construction limits will extend along U.S. 41 from 3.35 miles south of U.S. 231 to U.S. 231.

Total Work Length: 3.29 Mile(s) Total Work Area: 51.6 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 INDOT LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a roadway improvement project (Des. No. 1700025) along U.S. 41 in Lake County, Indiana.

Location: The proposed project is located in Lake County, along U.S. 41 from U.S. 231 to 3.29 miles south of U.S. 231, within the Town of St. John and the Town of Cedar Lake. The incidental construction limits will extend along U.S. 41 from 3.35 miles south of U.S. 231 to U.S. 231. Specifically, the project is located in Sections 8, 9, 16, 17, 20, 21, 28, and 29, Township 34 North, Range 9 West in Hanover Township as depicted on the St. John and Lowell U.S. Geological Survey 1:24,000 scale quadrangle map (Appendix B, B2).

Existing Conditions: U.S. 41 is a north-south route functionally classified as a principal arterial roadway (Appendix B, B14). The typical cross section of U.S. 41 consists of four 12-foot-wide travel lanes (two northbound and two southbound) with 1- to 4-foot-wide paved outside shoulders. Right turn lanes are present along northbound U.S. 41 at U.S. 231 and West (W.) 133rd Avenue. Right turn lanes are present along southbound U.S. 41 at W. 123rd Avenue, W. 124th Avenue, and W. 133rd Avenue. A left turn lane is present along northbound U.S. 41 at U.S. 231. The posted speed limit within the project area varies between 35 to 55 miles per hour. Signalized intersections are located at the intersections of 1) U.S. 41 and U.S. 231 and 2) U.S. 41 and W. 133rd Avenue. Drainage is conveyed along U.S. 41 via a series of concave drainage ditches which are connected via culverts eventually draining

toward an unnamed tributary (UNT) to West Creek. There are a total of 163 culverts located within the project area. Refer to Appendix I, I1 to I4 for a summary of all culvert numbers, structure types, and dimensions. Pedestrian facilities are absent from the majority of this corridor with the exception of the following areas: the west side of U.S 41 and W. 123rd Avenue, the west side of U.S. 41 and W. 124th Avenue, the intersection of U.S. 41 and W. 133rd Avenue, and the northeast quadrant of U.S. 41 and U.S. 231.

Adjacent land use consists of maintained and unmaintained roadside vegetation, wooded areas, natural areas, residential areas, and commercial areas (Appendix B, B3 to B13).

According to the traffic data collected from 2013 to 2015 (Appendix I, I13 to I14), there were 80 crashes within the project limits between 2013 and 2016. These crashes resulted in ten fatal or incapacitating injury crashes, 32 non-incapacitating injury crashes, and 38 property damage only crashes. Additionally, this segment of U.S. 41 has an elevated ICF compared to other similar roadways.

Preferred Alternative: The proposed project will establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL will be 12 to 14 feet wide and will terminate approximately 0.08 mile south of U.S. 231 at the northern end of the project area and approximately 0.27 mile south of W. 133rd Avenue at the southern end of the project area. In order to establish the TWLTL, U.S. 41 will be widened in both directions throughout the length of the proposed construction area. The typical cross section along U.S. 41 will consist of four travel lanes (two northbound and two southbound), a 12- to 14-foot-wide TWLTL, and 4-foot-wide paved outside shoulders. The two travel lanes in each direction will include one 12-foot-wide travel lane and one 11- to 12-foot-wide travel lane. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound U.S. 41 at W. 133rd Avenue. Outside shoulders will be widened to 8 feet between W. 125th Avenue and U.S. 231. Concrete curb and gutter will be added beginning north of W. 135th Place and ending north of W. 125th Avenue. Variable depths of pavement milling and filling will occur throughout the project area. Driveways along U.S. 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Of the 163 structures located within the project area, there are 105 culverts which will be replaced in-kind, extended to accommodate roadway widening, and/or adjusted to grade. Refer to the *Bridges and/or Small Structures* section of this Categorical Exclusion (CE) document for more details. Traffic signals at U.S. 231 and W. 133rd Place will be replaced. Existing curb ramps located at the intersection of U.S. 41 and W. 133rd Avenue will be upgraded with detectable warning surfaces, and one new curb ramp will be installed in the northwest quadrant as a refuge. Existing sidewalk panels located adjacent to the curb ramps will be replaced, as necessary. Existing signs throughout the corridor will be relocated and/or replaced as necessary to accommodate the widened pavement. New pavement markings will be installed. Existing permanent lighting will be replaced in-kind as part of the utility relocation. Refer to Appendix I, I1 to I4 for a summary of all proposed culvert work. Additionally, new permanent lighting will be installed in the northwest, southwest, and southeast quadrants of the intersection of U.S. 41 and W. 133rd Avenue. The existing permanent lighting in the northeast quadrant of this intersection will be replaced in-kind. The project plans are located in Appendix B, B14 to B98.

The project is anticipated to require a total of 18.90 acres of new permanent right-of-way (ROW) and 6.09 acres of reacquired ROW in order to widen the roadway and construct the TWLTL. The project is anticipated to require a total of 0.69 acre of temporary ROW in order to facilitate construction access and reconstruct driveways throughout the corridor. The project is anticipated to permanently impact a total of 2,203.8 linear feet of stream habitat in order to widen the roadway and reconstruct adjacent ditches. This includes approximately 839.9 linear feet of likely jurisdictional waterways and 1,363.9 linear feet of likely non-jurisdictional waterways. The project is anticipated to permanently impact a total of 1.310 acres of wetlands in order to widen the roadway and reconstruct adjacent ditches. All temporary impacts to streams and wetlands will be contained within the permanent impact footprint. Approximately 22 acres of terrestrial habitat will be impacted, including approximately 3.5 acres of tree clearing in order to widen the roadway and construct the TWLTL. The project will minimize impacts to streams, wetlands, and terrestrial habitat by limiting the extent of the construction limits to what is necessary to achieve the purpose and need of the project. The project will minimize impacts to the Biesecker Prairie Nature Preserve by prohibiting work outside of the construction limits, identifying the preserve as a sensitive natural area, applying time of year restrictions for work to minimize impacts to rare insects, and working with the Indiana Department of Natural Resources (IDNR) to protect any threatened and endangered plant species. Avoidance of these impacts is not practicable to meet the purpose and need of the project. Mitigation for impacts to streams and wetlands is anticipated.

The maintenance of traffic (MOT) plan is expected to utilize phased construction to allow continued flow of traffic throughout construction. Pedestrian MOT will be provided at the intersection of U.S. 41 and W. 133rd Avenue. Refer to the *Maintenance of Traffic (MOT) During Construction* section for more details.

The preferred alternative will meet the purpose and need by reducing the ICC to at least 1.24 within this segment of U.S. 41.

Logical Termini/Independent Utility:
The termini of the project occur along U.S. 41 from 3.29 miles south of U.S. 231 to U.S. 231 (3.29 miles in length). The termini of the project provide the logical beginning and end points and encompass only that area necessary to complete the roadway

improvements. The termini coincide with the segment of U.S. 41 that was examined as part of the crash analysis, which exhibits an elevated ICC and ICF. The beginning and end points encompass the elevated crash areas as well as the areas to tie into the segments of U.S. 41 both north and south of this project. Additionally, a TWLTL is already established along U.S. 41, north of the U.S. 231 intersection. 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 improvements to the existing roadway. This alternative would not address the identified safety concerns along this corridor. 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.

Multiple alternatives (including the preferred alternative and the two additional alternatives described below) were presented to the IDNR Division of Nature Preserves (DNP) in order to minimize and/or avoid impacts, including ROW acquisition, to the Biesecker Prairie Nature Preserve (Appendix I, I16 to I20). Ultimately, the IDNR DNP issued a letter honoring the apparent ROW for U.S. 41 as noted on the Lake County roadway maps, dated 1928 (Appendix C, C17). IDNR DNP had previously claimed the western extent of the Biesecker Nature Preserve property extended to the roadway centerline, which necessitated consideration of additional avoidance alternatives. Upon clarifying the extent of the existing apparent ROW, the preferred alternative as described above would no longer involve new permanent ROW acquisition from the Biesecker Prairie Nature Preserve. Therefore, the alternatives described below were discarded.

No Additional ROW from Biesecker Prairie Nature Preserve Alternative (Appendix I, I18): This alternative would utilize the existing ROW along the northern portion of Biesecker Prairie Nature Preserve. The roadway alignment would be shifted six feet off the centerline beginning 600 feet south of the Biesecker Prairie Nature Preserve parcel. The alignment shift and reduced lane and shoulder widths are atypical and may cause driver confusion in the area. This inability to grade slightly at the southern end of the parcel would require more detention on the northern section of the parcel and subsequent utility pole relocations. Additionally, this shift would require an additional two feet of disturbance on the west side of the roadway and add approximately $50,000 dollars to the project in excavation and pavement costs. This alternative would meet the purpose and need of the project. However, due to the change in alignment, this alternative was considered less safe compared to the preferred alternative. Therefore, this alternative was discarded from further consideration.

Temporary ROW from Biesecker Prairie Nature Preserve Alternative (Appendix I, I19): This alternative would require temporary ROW from along the southwestern portion of Biesecker Prairie Nature Preserve. This alternative is similar to the “No Additional ROW” alternative described above including the roadway realignment, reduced shoulders, and additional costs but would allow for temporary ROW between the existing utility poles and roadway for grading. This alternative would meet the purpose and need of the project. However, due to the change in alignment, this alternative was considered less safe and would result in an increased impact to Biesecker Prairie Nature Preserve compared to the preferred alternative. Therefore, this alternative was discarded from further consideration.

No other alternatives were considered for this project.

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

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

ROADWAY CHARACTER:

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

Name of Roadway: U.S. 41 – from approximately 100 feet south of U.S. 41 and W. 135th Place to W. 129th Avenue
Functional Classification: Principal Arterial
Current ADT: 17,460 VPD (2023) Design Year ADT: 25,945 VPD (2046)
Design Hour Volume (DHV): 1,537 Truck Percentage (%): 8.0
Designed Speed (mph): 35 Legal Speed (mph): 35

	Existing		Proposed	
Number of Lanes:	4		5	
Type of Lanes:	Through lanes (2 NB, 2 SB)		Through lanes (2 NB, 2 SB), Two-Way Left-Turn lane (1)	
Pavement Width:	24	ft.	34	ft.
Shoulder Width:	8	ft.	0	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	6	ft.	6	ft.

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

Name of Roadway: U.S. 41 – from W. 129th Avenue to U.S. 231
Functional Classification: Principal Arterial
Current ADT: 19,891 VPD (2023) Design Year ADT: 29,556 VPD (2046)
Design Hour Volume (DHV): 2,081 Truck Percentage (%): 8.0
Designed Speed (mph): 45-55 Legal Speed (mph): 45-55

	Existing		Proposed	
Number of Lanes:	4		5	
Type of Lanes:	Through lanes (2 NB, 2 SB)		Through lanes (2 NB, 2 SB), Two-Way Left-Turn lane (1)	
Pavement Width:	24	ft.	36-38	ft.
Shoulder Width:	8	ft.	5-8	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

Setting:	X	Urban	X	Suburban	X	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): Refer to Structure Summary Table (Appendix I, I1 to I4) Sufficiency Rating: N/A
(Rating, Source of Information)

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.

There are a total of 163 culverts located within the project area. Of these structures, there are 105 culverts which will be replaced in-

kind, extended as part of the roadway widening, and/or adjusted to grade. No work is anticipated to occur to the remaining culverts, which will remain in their current condition. Refer to Appendix I, I1 to I4 for a summary of all culvert numbers, structure types, dimensions, and proposed work types. None of the culverts exhibited wood, stone, or brick structures or parts therein. The culverts are not considered historic.

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.		
Provisions will be made for through-traffic dependent businesses.		
Provisions will be made to accommodate any local special events or festivals.		
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 be completed in phases and require closing one lane in each direction and maintaining one travel lane in each direction throughout the duration of the project, as well as a pedestrian MOT at 133rd Avenue (Appendix B, B25 to B29). Signage and barricades will be in place notifying motorists of the lane closures.

Phase 1 will occur along U.S. 41 between W. 135th Place and W. 133rd Avenue. Phase 1 will involve closing the western lanes/shoulders and shifting traffic onto the eastern portion of the pavement with temporary pavement markings. The typical cross section will include maintaining one 10-foot-wide travel lane in each direction (northbound and southbound) with minimum 2-foot-wide shoulders. Phase 1 is anticipated to be in place for approximately two months.

Phase 2 will occur along U.S. 41 between W. 135th Place and W. 133rd Avenue. Phase 2 will include work in the middle of the roadway. The typical cross section will include one 12-foot-wide travel lane in each direction (northbound and southbound), which is separated by 32 feet of pavement including barricades in order to construct portions of storm sewer crossings. Phase 2 is anticipated to be in place for approximately two weeks.

Phase 3 will occur along U.S. 41 between W. 135th Place and W. 133rd Avenue. Phase 3 will involve closing the eastern lanes/shoulders and shifting traffic onto the western portion of the pavement with temporary pavement markings. The typical cross section will include maintaining one 12-foot-wide travel lane in each direction (northbound and southbound) with minimum 2-foot-wide shoulders. Phase 3 is anticipated to be in place for approximately two months.

Phase 4 will occur along U.S. 41 between W. 133rd Avenue and U.S. 231. Phase 4 will involve closing the western lanes/shoulders and shifting traffic onto the eastern portion of the pavement with temporary pavement markings. The typical cross section will include maintaining one 10-foot-wide travel lane in each direction (northbound and southbound) with minimum 2-foot-wide shoulders. Phase 4 is anticipated to be in place for approximately two months.

Phase 5 will occur along U.S. 41 between W. 133rd Avenue and U.S. 231. Phase 5 will include work in the middle of the roadway. The typical cross section will include one 12-foot-wide travel lane in each direction (northbound and southbound), which is separated by 32 feet of pavement including barricades in order to construct portions of storm sewer crossings. Phase 5 is anticipated to be in place for approximately two weeks.

Phase 6 will occur along U.S. 41 between W. 133rd Avenue and U.S. 231. Phase 6 will involve closing the eastern lanes/shoulders and shifting traffic onto the western portion of the pavement with temporary pavement markings. The typical cross section will include maintaining one 12-foot-wide travel lane in each direction (northbound and southbound) with minimum 2-foot-wide shoulders. Phase 6 is anticipated to be in place for approximately two months.

Phase 7 will occur along U.S. 41 between W. 135th Place and W. 133rd Avenue. Phase 7 will include work in the middle of the roadway. The typical cross section will include one 12-foot-wide travel lane in each direction (northbound and southbound), which is separated by 32 feet of pavement including barricades in order to construct raised concrete curb medians. Phase 7 is anticipated to be in place for approximately two weeks.

The pedestrian MOT will include the use of temporary curb ramps and pedestrian access mats located further east of the U.S. 41 and W. 133rd Avenue intersection while curb ramp work is occurring (Appendix B, B29). This detour will run parallel to the existing sidewalk and be a total of 160 feet in length.

Access to adjacent properties will be maintained throughout project construction. The MOT will be implemented per the *Manual on Uniform Traffic Control Devices (MUTCD)* guidelines.

The closures/lane restrictions 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. 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 firm commitment is included in the *Environmental Commitments* section of this document.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 1,291,620 (2024) Right-of-Way: $ 1,808,380 (2025) Construction: $ 16,232,950 (2027)

Anticipated Start Date of Construction: Spring of 2028

RIGHT OF WAY:

	Amount (acres)		
Land Use Impacts	Permanent	Temporary	Reacquisition
Residential	8.85	0.38	2.01
Commercial	4.82	0.30	1.05
Agricultural	0	0.01	0
Forest	2.23	0.004	2.42
Wetlands	0.49	0.0003	0.61
Other: Roadside vegetation	2.51	0	0
Other:	0	0	0
TOTAL	18.90	0.69	6.09

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.

Existing ROW extends approximately 45 to 80 feet east and west of the U.S. 41 centerline. Existing ROW is comprised of maintained and unmaintained roadside vegetation, wooded areas, wetland areas, natural areas, residential areas, and commercial areas.

The project requires approximately 18.90 acres of new permanent ROW, 0.69 acre of temporary ROW, and 6.09 acres of ROW re-acquisition (Appendix B, B3 to B8). The new permanent ROW will extend approximately 50 to 100 feet east of the U.S. 41 centerline and approximately 50 to 80 feet west of the U.S. 41 centerline. New permanent ROW will be obtained from residential (8.85 acres), commercial (4.82 acres), forested (2.23 acres), wetlands (0.49 acres), and roadside vegetation (2.51 acres).

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. This firm commitment is included in the *Environmental Commitments* section of this document.

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 April 20, 2021 (Appendix C, C1 to C2). Re-coordination letters were sent on October 11, 2024, December 10, 2024, January 2, 2025, and May 6, 2025 due to the scope of the project changing from the original early coordination letter as well as the amount of time that passed since the original letter (Appendix C, C3 to C6).

Agency	Date Sent	Date Response Received	Appendix
FHWA - Indiana Division	April 20, 2021; October 11, 2024	No response received	N/A
National Park Service, Midwest Regional Office	October 11, 2024	No response received	N/A
U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS)	October 11, 2024; May 6, 2025	May 13, 2025	Appendix C, C25 to C26
U.S. Department of Housing and Urban Development, Chicago Regional Office	April 20, 2021; October 11, 2024	No response received	N/A
U.S. Army Corps of Engineers (USACE), Chicago District	April 20, 2021; October 11, 2024	No response received	N/A
INDOT LaPorte District Office, Environmental Section Manager	April 20, 2021; October 11, 2024	No response received	N/A
INDOT LaPorte District Office, Project Manager	October 11, 2024	No response received	N/A
INDOT ESD	October 11, 2024	No response received	N/A
INDOT Utilities and Railroads	April 20, 2021; October 11, 2024	No response received	N/A
IDNR, Division of Fish and Wildlife (DFW)	April 20, 2021; October 11, 2024	May 19, 2021; October 15, 2024	Appendix C, C19 to C22
IDNR, DNP	April 20, 2021; October 11, 2024	April 20, 2021; May 12, 2021; May 23, 2024; February 28, 2025	Appendix C, C9 to C17
Indiana Geological and Water Survey (IGWS)	April 20, 2021; October 11, 2024	October 11, 2024	Appendix C, C7 to C8
Northwest Indiana Regional Planning Commission (NIRPC)	April 20, 2021; October 11, 2024	No response received	N/A
Lake County Highway Department	April 20, 2021; October 11, 2024	October 21, 2024	Appendix C, C23 to C24
Lake County Board of Commissioners	April 20, 2021; October 11, 2024	No response received	N/A
Lake County Drainage Board	April 20, 2021; October 11, 2024	No response received	N/A
Lake County Council	October 11, 2024	No response received	N/A
Lake County Surveyor	October 11, 2024	No response received	N/A
Hanover Township Trustee, Lake County	October 11, 2024	No response received	N/A
Lake County Sheriff Department	October 11, 2024	No response received	N/A
Lake County 911 Department	October 11, 2024	No response received	N/A
Lake County MS4 Coordinator	October 11, 2024	No response received	N/A
Lake County Health Department	October 11, 2024	No response received	N/A
Town of Cedar Lake Clerk-Treasurer	October 11, 2024	No response received	N/A
Town of Cedar Lake Police Department	October 11, 2024	No response received	N/A
Town of Cedar Lake Fire Department	October 11, 2024	No response received	N/A
Town of Cedar Lake Town Manager	April 20, 2021; December 10, 2024	April 22, 2021	Appendix C, C18

Town of Cedar Lake Town Council	April 20, 2021; October 11, 2024	No response received	N/A
Town of Cedar Lake MS4 Coordinator	October 11, 2024	No response received	N/A
Town of St. John Clerk-Treasurer	October 11, 2024	No response received	N/A
Town of St. John Fire Department	October 11, 2024	No response received	N/A
Town of St. John Police Department	October 11, 2024	No response received	N/A
Town of St. John Town Council	April 20, 2021; October 11, 2024	No response received	N/A
Town of St. John Floodplain Administrator	April 20, 2021; October 11, 2024	No response received	N/A
Town of St. John MS4 Coordinator (Public Works)	October 11, 2024	No response received	N/A
Hanover Community School Corporation	October 11, 2024	No response received	N/A
Bethel Community Bible Church – Cedar Lake	April 20, 2021; October 11, 2024	No response received	N/A
Lucky Brothers New Fuel Station	October 11, 2024	No response received	N/A
Birchwood Farms	October 11, 2024	No response received	N/A
Palmira Sub - Circuit 6906 Extension Phase 2	October 11, 2024	No response received	N/A
11127 Wicker Ave Self Storage	October 11, 2024	No response received	N/A
Indiana Dept. of Environmental Management (IDEM)	April 20, 2021	No response received	N/A
U.S. Fish and Wildlife Service (USFWS), Northern Indiana Sub-Office	April 20, 2021	May 11, 2021; June 2, 2025	Appendix C, C58 to C59; C82 to C85
Cedar Gardens Mobile Home Park – Wellhead Protection Area Administrator	January 2, 2025	No response received	N/A

The Lake County Highway Department responded on October 21, 2024 and requested additional information regarding intersection improvements at the intersections of U.S. 41 and 117th Avenue and 119th Avenue (Appendix C, C23 to C24). A follow-up response was provided on November 5, 2024 and indicated a review of the existing crash data at the intersections did not indicate a need for additional lighting or lane reconfigurations; therefore, additional lighting and reconfiguration is currently not planned for the 117th Avenue and 119th Avenue intersections. Dedicated left-turn lanes and updated pavement markings with modern reflectivity will be constructed at each intersection, which will greatly improve safety.

All applicable recommendations are included in the *Environmental Commitments* section of this 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: 2,606 (2,960 including encapsulated portions) Linear feet

Total impacted stream(s): 2,036.8 (2,203.8 including encapsulated portions) 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 U.S., appendix reference)
UNT 1	Ephemeral	34	34	41.411863, -87.469929; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11

Stream Name	Classification	Total Size in Project Area (linear feet)	Impacted linear feet	Comments (i.e., location, flow direction, likely Water of the U.S., appendix reference)
UNT 1 to West Creek	Intermittent	1,085 (140 encapsulated)	839.9 (0 encapsulated)	41.407332, -87.470275; north along west side of U.S. 41 before flowing northeast beneath U.S. 41; likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 2 to West Creek	Ephemeral	19	19	41.408745, -87.469888; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 2	Ephemeral	222	222	41.405660, -87.469902; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 3	Ephemeral	180	180	41.404023, -87.469913; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 4	Ephemeral	334 (77 encapsulated)	334 (92 encapsulated)	41.401783, -87.469897; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 5	Ephemeral	133	114.9	41.393756, -87.469881; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 6	Ephemeral	24	14.3	41.392555, -87.469886; south along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 3 to West Creek	Intermittent	7	0	41.388106, -87.469623; east from east side of U.S. 41; likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 7	Ephemeral	201 (56 encapsulated)	119.7 (35 encapsulated)	41.385184, -87.469844; south along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 8	Ephemeral	80 (29 encapsulated)	51 (40 encapsulated)	41.381539, -87.469829; north along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 9	Ephemeral	126	126	41.374977, -87.469840; south along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 10	Ephemeral	149 (9 encapsulated)	149 (0 encapsulated)	41.374662, -87.469862; south along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 11	Ephemeral	76	0	41.373082, -87.470231; south along west side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11
UNT 12	Ephemeral	290 (43 encapsulated)	0 (0 encapsulated)	41.373055, -87.469800; south along east side of U.S. 41; not likely Water of U.S.; Appendix F, F4 to F6 and F11

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 September 3, 2024 Red Flag Investigation (RFI) report (Appendix E, E1 to E23), there are 93 streams, rivers, watercourses, or other jurisdictional features within the 0.5-mile search radius. There are seven streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. That number was updated to 15 streams by the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, and Stormwater Office (EWPSO) on April 3, 2025. Please refer to Appendix F, F1 to F53, for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that two likely jurisdictional streams, 13 likely non-jurisdictional streams, and 30 non-

jurisdictional roadside ditches (RSDs) are present within the project area. The USACE makes all final determinations regarding jurisdiction.

Likely Jurisdictional Features

UNT 1 to West Creek: UNT 1 to West Creek, also identified as West Creek Lat 2, is an intermittent stream which enters the project area from the west, just south of W 117th Avenue, flows north along the west side of U.S. 41, crosses under U.S. 41 via CLV-041-045-257.55, and progresses northeast out of the project area to the east. The ordinary high water mark (OHWM) is 7.5 feet wide by 0.8 feet deep. The quality of UNT 1 to West Creek is excellent due to morphology and substrate complexity, moderate sinuosity, moderately complex riparian areas, and the presence of extensive headwater wetlands. The stream maintains a direct downstream connection to the Kankakee River via West Creek and Singleton Ditch. Therefore, the stream would likely be considered jurisdictional under Section 404 of the Clean Water Act. Approximately 1,085 linear feet of UNT 1 to West Creek is located within the project area, including 945 linear feet of unencapsulated stream and 140 linear feet of encapsulated stream. Approximately 839.9 linear feet of UNT 1 to West Creek will be permanently impacted due to widening the roadway and relocating the ditches. All temporary impacts to UNT 1 to West Creek will be contained within the permanent impact footprint. The portions of UNT 1 to West Creek located outside the construction limits will be labeled “Environmentally Sensitive Area - Do Not Disturb” on the project plans. This firm commitment is included in the *Environmental Commitments* section of this document.

UNT 3 to West Creek: UNT 3 to West Creek is an intermittent stream which begins east of U.S. 41 and north of 127th Place, flows west to east for 7 linear feet, and exits the project area to the east. The OHWM is 2.8 feet wide by 0.7 feet deep. The quality of UNT 3 to West Creek is poor due to encapsulation west of the stream, erosion at the culvert outlet, and poor riparian areas with the presence of invasive species. The stream maintains a downstream connection to the Kankakee River. While the downstream connectivity of UNT 3 to West Creek could not be field verified, it was determined to have connectivity via aerial imagery and National Hydrography Dataset (NHD) flowlines. The stream eventually drains to UNT 1 to West Creek, which eventually drains to the Kankakee River. Therefore, the stream would likely be considered jurisdictional under Section 404 of the Clean Water Act. Approximately 7 linear feet of UNT 3 to West Creek is located within the project area. No permanent or temporary impacts to UNT 3 to West Creek are anticipated. UNT 3 to West Creek will be labeled “Environmentally Sensitive Area - Do Not Disturb” on the project plans. This firm commitment is included in the *Environmental Commitments* section of this document.

Likely Non-Jurisdictional Features

UNT 2 to West Creek as well as UNTs 1 through 12 exhibited a defined bed and bank with minimal in-channel vegetation. However, these streams exhibited ephemeral flow and did not exhibit a relatively permanent downstream connection to any relatively permanent water (RPW). Therefore, these features would likely not be considered Waters of the U.S. and would not be subject to USACE jurisdiction under Section 404 of the Clean Water Act. Refer to Appendix F, F11 for a list of all stream features including length within the project area and likely jurisdictional status. A total of 1,363.9 linear feet of likely non-jurisdictional streams will be impacted. The total amount of encapsulation of non-jurisdictional streams will increase by approximately 26 linear feet. No permits or mitigation are anticipated for impacts to these likely non-jurisdictional streams.

A total of 30 RSD features were identified within the project area. The features were located in constructed roadside drainage swales, lacked a defined bed and bank, and did not meet all three wetland indicators to be considered wetlands. The RSDs were categorized as either vegetated, concrete-lined, riprap-lined, or some combination of the three. These features would not be considered Waters of the U.S. and would not be subject to USACE jurisdiction under Section 404 of the Clean Water Act. Refer to Appendix F, F12 to F13 for a list of all RSD features including the length, flow direction, and type.

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.

One impaired stream segment, UNT 1 to West Creek, is located within the project area. The UNT segment is listed as impaired for *E. coli* and impaired biotic communities (IBC). Concerning *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. Concerning IBC, best management practices (BMPs) will be used to avoid further degradation to the stream. This firm commitment is included in the *Environmental Commitments* section of this document.

A USACE Section 404 Individual Permit is anticipated due to the combination of impacts to likely jurisdictional streams and wetlands. An Indiana Department of Environmental Management (IDEM) Section 401 Individual Permit is anticipated due to impacts to likely jurisdictional streams. Mitigation will likely be required and will be determined during permitting. Additionally, UNT 1 to West Creek is a regulated drain and will require a Lake County Regulated Drain Permit. The project will minimize impacts to UNT 1 to West Creek by limiting the extent of the construction limits to what is necessary to achieve the purpose and need of the project. Avoidance of these impacts is not practicable to meet the purpose and need of the project.

The IDNR DFW responded on May 19, 2021 with recommendations regarding minimizing impacts to streams, such as placing riprap only at the toe of the slope up to the OHWM; minimizing inchannel and sediment disturbance; time of year restrictions on stream disturbance; not constructing any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds; riprap size restrictions; and not depositing construction debris into the stream (Appendix C, C19 to C21). The IDNR DFW responded on October 15, 2024 and indicated the previous recommendations are sufficient (Appendix C, C22). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

Open Water Feature(s)	**Presence**	**Impacts** Yes	**Impacts** 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 E23), there are 33 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 May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group. Therefore, no impacts are expected.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPSO on April 3, 2025. Please refer to Appendix F, F1 to F53 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that no open water features are present within the project area. The USACE makes all final determinations regarding jurisdiction.

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

Total wetland area: 1.570 Acre(s) Total wetland area impacted: 1.310 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 U.S., appendix reference)
A	Palustrine, Emergent (PEM)	0.012	0	41.421481, -87.470298; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
B	PEM	0.025	0	41.4214375, -87.4698884; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
C	PEM	0.002	0	41.421063, -87.470613; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
D	PEM	0.008	0	41.420841, -87.470299; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
E	PEM	0.026	0.008	41.420347, -87.470362; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
F	PEM	0.134	0.134	41.420364, -87.470256; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
G	PEM	0.105	0.043	41.41876786, -87.46992666; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
H	PEM	0.026	0.021	41.415005, -87.470249; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments (i.e., location, likely Water of the U.S., appendix reference)
I	PEM	0.055	0.055	41.413548, -87.470258; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
J	PEM	0.105	0.105	41.412312, -87.470258; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
K	PEM	0.038	0.038	41.40957237, -87.47024111; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
L	PEM	0.060	0.060	41.40812999, -87.4699157; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
M	PEM	0.004	0.0004	41.40649744, -87.4698101; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
N	PEM	0.008	0.008	41.40622742, -87.46990278; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
O	PEM	0.039	0.039	41.40498207, -87.469917; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
P	PEM	0.059	0.024	41.40425702, -87.47035829; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
Q	PEM	0.017	0.017	41.40255914, -87.4698986; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
R	PEM	0.240	0.240	41.39883011, -87.47029373; likely Water of the U.S.; Appendix F, F6 to F9 and F14 to F19
S	PEM	0.090	0.090	41.39693591, -87.46983765; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
T	Palustrine, Scrub-Shrub (PSS)	0.192	0.192	41.39580879, -87.47030152; likely Water of the U.S.; Appendix F, F6 to F9 and F14 to F19
U	PEM	0.081	0.078	41.39596635, -87.46981547; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
V	Palustrine, Emergent, Persistent, Seasonally Flooded (PEM1C)	0.054	0.054	41.39527349, -87.46976751; Class II isolated wetland; Appendix F, F6 to F9 and F14 to F19
W	PEM	0.005	0.005	41.39240063, -87.46985717; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
X	PEM	0.031	0.028	41.38911452, -87.47021894; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
Y	Palustrine, Forested, Broad-leaved Deciduous, Seasonally flooded/saturated (PFO1E)	0.080	0	41.38445294, -87.47026398; Class II isolated wetland; Appendix F, F6 to F9 and F14 to F19
Z	PEM	0.016	0.013	41.38205343, -87.47021023; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
AA	PEM	0.010	0.010	41.38164923, -87.46984647; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
BB	PEM	0.010	0.010	41.38059039, -87.47016132; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
CC	PEM	0.004	0.004	41.37863363, -87.4701877; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
DD	PEM	0.010	0.010	41.37499118, -87.47019312; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19
EE	PEM	0.024	0.024	41.37409054, -87.47020781; Class I isolated wetland; Appendix F, F6 to F9 and F14 to F19

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination	X	April 3, 2025
Wetland Delineation	X	April 3, 2025
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 September 3, 2024 RFI report (Appendix E, E1 to E23), there are 114 wetlands within the 0.5-mile search radius. There are four wetlands within or adjacent to the project area. That number was updated to 31 wetlands by the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT EWPSO on April 3, 2025. Please refer to Appendix F, F1 to F53 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that 31 wetlands including 27 Class I isolated wetlands, two Class II isolated wetlands, and two likely jurisdictional wetlands are located within the project area. The USACE makes all final determinations regarding jurisdiction.

Class I Isolated Wetlands

Wetlands located within roadside drainage swales were all considered to be poor-quality PEM wetlands (Wetlands A through Q, S, U, W through X, and AA through EE). These wetlands do not abut a RPW. The only potential direct connection to a RPW would exist only during precipitation events or through a drainage structure. Therefore, these wetlands would likely be considered non-jurisdictional under Section 404 of the Clean Water Act. According to IDEM, under stipulations provided in IC 13-18-22, Wetlands A through Q, S, U, W through Z, and AA through EE would likely be considered Class I wetlands due to being located within a roadside ditch (https://www.in.gov/idem/waterways/information-about/state-regulated-wetlands-program/frequently-asked-questions/). A total of 0.824 acres of Class I Isolated Wetlands will be permanently impacted in order to widen the roadway and relocate adjacent ditches. All temporary impacts to these wetlands will be contained within the permanent impact footprint. Wetlands A, B, C, and D will not be permanently or temporarily impacted by this project. Refer to the summary table above for specific impacts to each wetland.

Class II Isolated Wetlands

Wetland V is a 0.054-acre emergent wetland located 375 feet north of W. 123rd Avenue and east of U.S. 41. Wetland V would be classified as a PEM1C wetland within the project area, but is located within a palustrine, scrub-shrub, broad-leaved deciduous/ emergent, persistent, seasonally flooded (PSS1/EM1C) National Wetlands Inventory (NWI) polygon. Wetland V does not directly abut any RPW within or outside of the project area. Therefore, Wetland V would not likely be subject to USACE jurisdiction under Section 404. Wetland V would likely be considered a Class II isolated wetland based on its status as a wetland dominated by native species and more than minimally disturbed by human activity (https://www.in.gov/idem/waterways/information-about/state-regulated-wetlands-program/frequently-asked-questions/). Based on a qualitative assessment of Wetland V, this wetland would be considered excellent quality based on its large size, vegetative structure, and prevalence of native species. Approximately 0.054 acre of Wetland V will be permanently impacted in order to widen the roadway and relocate adjacent ditches. All temporary impacts to Wetland V will be contained within the permanent impact footprint.

Wetland Y is a 0.080-acre forested wetland located west of U.S. 41 and south of W. 129th Avenue. Wetland Y would be classified as a PFO1E wetland. Wetland Y does not directly abut any RPW within or outside of the project area. Therefore, Wetland Y would not likely be subject to USACE jurisdiction. Wetland Y would likely be considered a Class II isolated wetland based on its status as a wetland dominated by native species and more than minimally disturbed by human activity or development (https://www.in.gov/idem/waterways/information-about/state-regulated-wetlands-program/frequently-asked-questions/). Based on a qualitative assessment,

Wetland Y would be considered excellent quality due to relatively high diversity, large size, and multiple vegetative strata. Wetland Y will not be permanently or temporarily impacted as a result of this project.

Likely Jurisdictional Wetlands
A total of 0.432 acre of likely jurisdictional wetlands (which will be permitted through the USACE Section 404 of the Clean Water Act) will be impacted as a result of this project including 0.240 acre of Wetland R and 0.192 acre of Wetland T. Wetland R is a 0.240-acre emergent wetland situated mostly along the roadside; a portion of the wetland extends west outside the project area and away from the roadway. Wetland T is a 0.192-acre scrub-shrub wetland situated along the roadside and extends west outside the project area. Both wetlands are located west of U.S. 41 and north of W. 123rd Avenue. Both wetlands are part of the same wetland complex but were considered separate due to a difference in vegetative community within the project area. Ultimately, Wetlands R and T would be considered abutting a RPW and maintain a downstream connection with the Kankakee River. Therefore, Wetlands R and T would likely be considered jurisdictional under Section 404 of the Clean Water Act. Based on a qualitative assessment, Wetland R would be considered poor quality due to the presence of invasive species and Wetland T would be considered excellent quality due to complex structure, large size, and native species presence. Approximately 0.240 acre of Wetland R and 0.192 acre of Wetland T will be permanently impacted in order to widen the roadway and relocate adjacent ditches. All temporary impacts to Wetlands R and T will be contained within the permanent impact footprint.

Refer to Appendix F, F14 to F19 for a summary of all wetlands including their locations, quality, and type of wetland.

The No Build Alternative was considered and while it would avoid all wetland impacts, this alternative would not address the purpose and need of the project. Therefore, this alternative was dismissed from further consideration. Wetland impacts have been minimized to the greatest extent possible to achieve the purpose and need of the project.

A total of 1.310 acre of wetland impacts are anticipated including 0.824 acre of likely Class I isolated wetlands, 0.054 acre of likely Class II isolated wetlands, and 0.432 acre of likely jurisdictional wetlands subject to USACE Section 404 of the Clean Water Act will be impacted as a result of this project. A USACE Section 404 Individual Permit is anticipated due to the combination of impacts to likely jurisdictional streams and wetlands. An IDEM Isolated Wetland Individual Permit is anticipated due to the impacts to Class I and Class II isolated wetlands totaling greater than 0.1 acre. Mitigation will likely be required and will be determined during permitting.

Wetlands A, B, C, D, and Y will be labeled “Environmentally Sensitive Area - Do Not Disturb” on the project plans. The portions of Wetlands E, G, H, M, P, U, X, and Z located outside the construction limits will be labeled “Environmentally Sensitive Area - Do Not Disturb” on the project plans. Impacts to all wetlands must be confined to those areas within the construction limits. These firm commitments are included in the *Environmental Commitments* section of this document.

The IDNR DFW responded on May 19, 2021 with recommendations to coordinate with IDEM and the USACE for required permitting for wetland impacts and to avoid excavating and placing fill in any riparian wetland (Appendix C, C19 to C21). The IDNR DFW responded on October 15, 2024 and indicated the previous recommendations are sufficient (Appendix C, C22). 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 Acre(s) Total tree clearing: 3.5 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, the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group, the aerial maps of the project area (Appendix B, B3 to B8), and coordination with the IDNR Division of Nature Preserves (DNP) (Appendix C, C9 to C17), there is maintained and unmaintained roadside vegetation, wooded areas, prairie areas, and residential and commercial lawns.

Biesecker Prairie Nature Preserve is a high-quality natural community representing dry-mesic prairie and mesic prairie (Appendix C, C9 to C17). This high-quality remnant black soil prairie hosts an impressive diversity of native fauna and flora including many

endangered, threatened, or rare (ETR) species. The Waters of the U.S. Report included field observations of a small area of prairie/wetland habitat near the southwest corner of the nature preserve, which was selected as part of the field investigation for wetland delineation to limit disturbance to the preserve and not necessarily to show the vegetation quality of the preserve. The following plant species were observed, but are not necessarily representative of the entire western edge of the preserve or the preserve as a whole: pin oak (*Quercus palustris*), green ash (*Fraxinus pennsylvanica*), annual blue grass (*Poa annua*), Canada goldenrod (*Solidago canadensis*), button eryngo (*Eryngium yuccifolium*), troublesome sedge (*Carex molesta*), Kentucky blue grass (*Poa pratensis*), tall false rye grass (*Schedonorus arundinaceus*), bristly dewberry (*Rubus hispidus*), green bulrush (*Scirpus atrovirens*), openfield sedge (*Carex conoidea*), and common milkweed (*Asclepias syriaca*). Refer to the *Protected Species* section of this document for more information regarding identified ETR species and associated commitments.

Mowed roadside vegetation is characterized by tall fescue (*Schedonorus arundinaceus*), white clover (*Trifolium repens*), Kentucky bluegrass (*Poa pratensis*), and narrowleaf plantain (*Plantago lanceolata*). Unmaintained herbaceous vegetation is characterized by Indianhemp (*Apocynum cannabinum*), tall fescue (*Schedonorus arundinaceus*), foxtail barley (*Hordeum jubatum*), poverty rush (*Juncus tenuis*), cut-leaf teasel (*Dipsacus laciniatus*), gray dogwood (*Cornus racemosa*), white avens (*Geum canadense*), curly dock (*Rumex crispus*), tall goldenrod (*Solidago altissima*), reed canarygrass (*Phalaris arundinacea*), Fuller's teasel (*Dipsacus fullonum*), northern evening primrose (*Oenothera parviflora*), common milkweed (*Asclepias syriaca*), Canada thistle (*Cirsium arvense*), and Virginia creeper (*Parthenocissus quinquefolia*).

The palustrine wetland habitat is characterized by common reed (*Phragmites australis*), troublesome sedge (*Carex molesta*), annual bluegrass (*Poa annua*), green bulrush (*Scirpus atrovirens*), openfield sedge (*Carex conoidea*), narrowleaf cattail (*Typha angustifolia*), cursed buttercup (*Ranunculus sceleratus*), softstem bulrush (*Schoenoplectus tabernaemontani*), creeping bentgrass (*Agrostis stolonifera*), and reed canarygrass (*Phalaris arundinacea*).

Approximately 3.5 acres of tree clearing will be necessary throughout the corridor to accommodate the widening of the roadway and associated TWLTL. The dominant tree species to be removed include eastern cottonwood (*Populus deltoides*), black locust (*Robinia pseudoacacia*), shagbark hickory (*Carya ovata*), white oak (*Quercus alba*), bur oak (*Quercus macrocarpa*), white spruce (*Picea glauca*), white mulberry (*Morus alba*), silver maple (*Acer saccharinum*), Siberian elm (*Ulmus pumila*), black walnut (*Juglans nigra*), green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), sandbar willow (*Salix interior*), pin oak (*Quercus palustris*), and box elder maple (*Acer negundo*). All tree clearing will occur within 100 feet of the existing roadway and will take place during the bat inactive season. Impacts to terrestrial habitat have been minimized to the greatest extent possible, while still meeting the project's purpose and need. Avoidance of these impacts is not practicable to meet the purpose and need of the project. Mitigation for tree clearing is not anticipated.

The IDNR DFW responded on May 19, 2021 with recommendations to use bioengineering techniques to stabilize banks, reseed disturbed areas, minimize erosion, potential mitigation requirements, and tree clearing time of year restrictions (Appendix C, C19 to C21). The IDNR DFW responded on October 15, 2024 and indicated the previous recommendations are sufficient (Appendix C, C22). The IDNR DNP responded on May 12, 2021 with recommendations to survey the projected impact zone footprint for the presence of threatened and endangered (T&E) species. The United States Fish and Wildlife Service (USFWS) responded on May 11, 2021 with recommendations to work closely with the IDNR DNP to address possible impacts to Biesecker Prairie Nature Preserve, a rare natural habitat (Appendix C, C58 to C59). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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 E23), completed by Lochmueller Group on September 3, 2024, the IDNR Lake County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR DFW early coordination response letter dated May 19, 2021 (Appendix C, C19 to C21), the Natural Heritage Program's Database has been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare has been reported to occur in the project vicinity. According to the IDNR DNP early coordination response letter dated May 12, 2021, the Natural Heritage Program's Database has been checked, and the following species and high-quality natural communities (refer to the table below) were identified within 0.5 mile of the project area (Appendix C, C10 to C14). The IDNR DNP also responded on April 20, 2021 and indicated the proposed project is adjacent to Biesecker Prairie Nature Preserve, a State dedicated site, and a highly sensitive and important natural area (Appendix C, C9). The IDNR DNP expressed they have great concerns that the proposed project may impact the nature preserve.

Amphibian	**Insects (cont.)**
blue-spotted salamander (*Ambystoma laterale*)	unarmed wainscot (*Leucania inermis*)
Bird	slant-lined owlet (*Macrochilo absorptalis*)
osprey (*Pandion haliaetus*)	Louisiana macrochilo (*Macrochilo louisiana*)
High Quality Natural Community	blurry-patched nola moth (*Nola cilicoides*)
dry-mesic prairie	Beer's blazing star borer moth (*Papaipema beeriana*)
mesic prairie	Culver's root borer (*Papaipema sciata*)
Insects	silphium borer moth (*Papaipema silphii*)
dorsal-striped elephant hopper (*Bruchomorpha dorsata*)	many-lined cordgrass moth (*Photedes enervata*)
eyed elephant hopper (*Bruchomorpha oculata*)	included cordgrass borer (*Photedes includens*)
Indiangrass Flexamia (*Flexamia reflexus*)	prairie tarachidia (*Ponometia binocula*)
lobed paraphlepsius leafhopper (*Paraphlepsius lobatus*)	bunchgrass skipper (*Problema byssus*)
little bluestem Polyamia (*Polyamia caperata*)	northern flower moth (*Schinia septentrionalis*)
Kansas prairie leafhopper (*Prairiana kansana*)	smokey Sonia moth (*Sonia fulminana*)
red-legged spittle bug (*Prosapia ignipectus*)	regal fritillary (*Speyeria idalia*)
yellow meadow ant (*Lasius flavus*)	**Reptile**
funerary dagger moth (*Acronicta funeralis*)	smooth green snake (*Opheodrys vernalis*)
New Jersey tea leaf-tier (*Ancylis semiovana*)	plains garter snake (*Thamnophis radix*)
pink streak (*Dargida rubripennis*)	**Vascular Plant**
mottled duskywing (*Erynnis martialis*)	earleaf foxglove (*Agalinis auriculata*)
two-striped sunflower borer (*Eucosma bilineana*)	Mead's milkweed (*Asclepias meadii*)
giant silphium Eucosma (*Eucosma giganteana*)	hairy-fruit sedge (*Carex trichocarpa*)
two-spotted skipper (*Euphyes bimacula*)	Hill's thistle (*Cirsium hillii*)
Leonard's skipper (*Hesperia leonardus*)	downy gentian (*Gentiana puberulenta*)
tufted sedge moth (*Hypocoena inquinata*)	grooved yellow flax (*Linum sulcatum*)
salt marsh wainscot (*Leucania amygdalina*)	

The IDNR DNP indicated it is expected that all precautions are taken to not impact the systems and features protected within the Biesecker Prairie Nature Preserve (Appendix C, C10 to C14). The following recommendations were provided by the IDNR DNP and are included as firm commitments in the *Environmental Commitments* section of this CE document.

- To protect any rare insect occurrences that are documented from within or adjacent to the projected impact zone footprint, it is preferred that project work occur outside of peak wildlife nesting season: May, June, and July. The remaining rare insect occurrences do not occur precisely at the project site. Therefore, if project activities are limited to only within the proposed project area, no impacts are expected on these occurrences.
- To protect any T&E vascular plant occurrences that are documented from within or adjacent to the project impact zone footprint, surveys should be conducted by qualified personnel for the species prior to work zones being occupied or equipment movement within. If the species are identified, the area should be flagged and taped off to lessen the possibility of impact to the T&E species. If none of the reported species are identified in the project footprint, or they are identified and protected, then no impact is expected on the T&E plant species documented. For the remaining T&E vascular plant occurrences that are historical or do not occur precisely at the project site, no impacts are expected on these occurrences if

project activities are limited to only within the proposed project area.

During ongoing coordination with the IDNR DNP, an additional response letter dated May 23, 2024 was provided (Appendix C, C15 to C16). Within this response, the IDNR DNP indicated the affected area (referring to the southwestern portion of the preserve where ROW acquisition was proposed), though lower in natural area quality, is still an integral part of the preserve and ongoing restoration work is occurring to increase the quality of that area. The IDNR DNP also indicated Biesecker Prairie Nature Preserve has been recognized as a significant natural area for over 60 years and provides a large block ecosystem area for the conservation of pollinator species, like bees and butterflies. This high-quality remnant black soil prairie hosts an impressive diversity of native fauna and flora, including a reintroduction of a federal threatened species, Mead's milkweed (*Asclepias meadii*). Dr. Rob Jean, a biologist with Environmental Solutions, Inc., and an expert on the bee species of Indiana, recognizes Biesecker Prairie Nature Preserve as a high conservation value area for bee species.

An INDOT 0.5-mile bat review occurred on June 13, 2020, and again on January 23, 2024, and the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area.

Indiana Bat and Northern Long-Eared Bat
Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C27 to C40). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). Other species were generated in the IPaC species list along with the Indiana bat and northern long-eared 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. Due to the large project area, the culverts were not all inspected on the same day. Culvert inspections occurred on May 30, 2024, June 10, 2024, and June 12, 2024, and no evidence of bat or bird use was identified (Appendix C, C57). USFWS Bridge/Structure Assessments shall take place no earlier than two years prior to the start of construction. If construction will begin after May 30, 2026, inspection of the structures by a qualified individual must be performed. Inspections of the structures should check for presence of bats/bat indicators and/or presence of birds. The results of the inspections must indicate no signs of bats or birds. If signs of bats or birds are documented during these inspections, the INDOT District Environmental Manager must be contacted immediately. This firm commitment is included in the *Environmental Commitments* section of this document.

An effect determination key was completed on October 4, 2024, and based on the responses provided, the project was found to "Not Likely Adversely Affect (NLAA)" the Indiana bat and/or the NLEB (Appendix C, C41 to C56). INDOT reviewed and verified the effect finding on October 4, 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 ensuring all operators, employees, and contractors are aware of all FHWA/FRA/FTA environmental commitments (General AMM 1); directing temporary lighting away from suitable habitat (Lighting AMM 1); using downward-facing, full cut-off lens lights, and for 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 (Lighting AMM 2); modifying the project to avoid tree removal (Tree Removal AMM 1); applying time of year restrictions to when trees can be removed (Tree Removal AMM 2); ensuring tree removal is limited to that specified in the project plans (Tree Removal AMM 3); and not removing documented Indiana bat or NLEB roosts or trees within 0.25 mile of roosts (Tree Removal AMM 4). AMMs and/or commitments are included as firm commitments in the *Environmental Commitments* section of this document.

Other Federally Listed Species
The official species list generated from IPaC indicated six other species present within the project area: whooping crane (*Grus americana*), salamander mussel (*Simpsonaias ambigua*), monarch butterfly (*Danaus plexippus*), rusty patched bumble bee (RPBB) (*Bombus affinis*), western regal fritillary (*Argynnis idalia occidentalis*), eastern prairie fringed orchid (EPFO) (*Platanthera leucophaea*), and Mead's milkweed (*Asclepias meadii*).

- 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. No critical habitat has been designated for this species.
- The salamander mussel is listed as proposed endangered. There is proposed critical habitat for this species; however, the project location does not overlap the critical habitat.
- The monarch butterfly is listed as proposed threatened. There is proposed critical habitat for this species; however, the project location does not overlap the critical habitat.
- The western regal fritillary is listed as proposed threatened. No critical habitat has been designated for this species.

The project will not jeopardize the continued existence of any of these proposed species.

The RPBB, EPFO, and Mead's milkweed were considered as part of this project. This project is located within a High Potential Zone (HPZ) for the RPBB. The USFWS responded on May 11, 2021, and indicated the Biesecker Prairie Nature Preserve is a rare natural habitat located in the southeast quadrant of the U.S. 41/U.S. 231 intersection (Appendix C, C58 to C59). The USFWS also indicated Mead's milkweed is present at this nature preserve and the area in the vicinity of the U.S. 41/U.S. 231 intersection is within the HPZ for the RPBB, while the remainder of the project area is within the primary dispersal zone for this species. A standard coordination letter was prepared and submitted for INDOT review on May 2, 2025. INDOT reviewed the standard coordination letter and submitted it to USFWS for review on May 5, 2025 (Appendix C, C60 to C81). On June 2, 2025, USFWS issued a concurrence letter with the "Not Likely to Adversely Affect" finding for the RPBB and Mead's Milkweed (Appendix C, C82 to C85). USFWS also recommends using a native seed mixture in the area within and adjacent to Biesecker Prairie Nature Preserve where practicable. This firm commitment is included in the *Environmental Commitments* section of this document. USFWS recommends avoiding wetland impacts and any unavoidable impacts should be compensated for in accordance with the USACE mitigation guidelines. Mitigation for wetland impacts is anticipated as part of this project.

The EPFO was added to the USFWS official species list after the initial standard coordination letter was reviewed by USFWS. Therefore, a separate standard coordination letter for the EPFO was prepared and submitted for INDOT review on January 21, 2026. INDOT reviewed the standard coordination letter and submitted it to USFWS for review on January 21, 2026 (Appendix C, C86 to C103). On February 4, 2026, USFWS issued a concurrence email with the "Not Likely to Adversely Affect" finding for the EPFO (Appendix C, C 104 to C105).

The following AMMs were proposed as part of the standard coordination letters, with which USFWS concurred on June 2, 2025 and February 4, 2026. These are included as firm commitments in the *Environmental Commitments* section of this document.

- No construction staging or parking is allowed within any part of the Biesecker Prairie Nature Preserve located outside of the proposed construction limits.
- Project plans shall identify the Biesecker Prairie Nature Preserve as a "Environmentally Sensitive Area – Do Not Disturb" on the plan sheets.
- Work between the existing edge of pavement and the Biesecker Prairie Nature Preserve will be limited to between August 1 and April 30 (outside of peak wildlife nesting season) to protect any rare insect occurrences that are documented from within or adjacent to the projected impact zone footprint.

Migratory Birds
Str. No. 607 (Driveway Pipe at 41.408201, -87.470290) and CV 041-045-257.55 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 firm commitment is included in the *Environmental Commitments* section of this document.

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 E23), there are no karst features identified within or adjacent to the project area. In the early coordination response dated October 11, 2024, the Indiana Geological and Water Survey (IGWS) did not indicate that karst features exist in the project area (Appendix C, C7 to C8). The IGWS did indicate a high liquefaction potential, a high potential for encountering bedrock resources, and a low potential for encountering sand and gravel resources. The IGWS also indicated the presence of a floodway within 0.5 mile of the project area. The features will not be affected because of the limited excavation associated with widening the pavement throughout this corridor, which is generally a highly developed, urban area. Response from IGWS has been communicated with the designer on October 11, 2024. No impacts are expected.

SECTION C – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area(s)	X		X
Source Water Protection Area(s)			
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 Lake 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 impact is expected.

Wellhead Protection Area and Source Water Area
IDEM's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on July 2, 2024 by Lochmueller Group. This project is not located within a Source Water Area. This project is located within the Cedar Garden's Mobile Home Park (MHP) Wellhead Protection Area (WHP). An early coordination letter was sent to the Cedar Garden MHP on January 2, 2025. No response was received. The features will not be affected because excavation is anticipated to be limited to areas adjacent to U.S. 41. The project will comply with IDEM's Wellhead Protection Guidance and INDOT's Standard Specifications pertaining to spill management. Best management practices (BMPs) shall be implemented.

Water Wells
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on December 11, 2024, by Lochmueller Group. Four unconsolidated wells are mapped within the project area. Numerous other wells are associated with adjacent properties throughout the corridor. The features will not be affected because the wells are shown beneath existing pavement and inside the sawcut line for the proposed roadway widening. The milling and overlay of existing pavement will not impact these resources. One well located near U.S. 41 and Frontage Road may be impacted if it is located beneath the existing Frontage Road approach drive. However, the topographic survey did not identify any resources here. 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 IDEM's municipal separate storm sewer system (MS4) boundaries map for Indiana (https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/) by Lochmueller Group on July 2, 2024, this project is located within three Urban Area Boundaries (UABs). Early coordination letters were sent on October 11, 2024, to the Lake County MS4 Coordinator, Town of Cedar Lake MS4 Coordinator, and the Town of St. John MS4 Coordinator. The MS4 coordinators did not

respond within the 30-day time frame. All required stormwater management control 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, the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group, the aerial maps of the project area (Appendix B, B3 to B8), and the project plans (Appendix B, B14 to B98), this project is located where there is a public water system. The public water system is anticipated to be affected near the intersection of U.S. 41 and W. 133rd Avenue. It is anticipated the water main lines at this location may need to be relocated unless it is determined the lines are located beneath the proposed excavation for this project. The water main lines elsewhere throughout the project area are out of conflict with the proposed work. Segments of the storm sewer and sanitary sewer may be replaced in areas where they cross beneath driveways. However, relocation of the facilities onto a new alignment is not anticipated. Utility coordination is ongoing.

Early coordination letters were sent on April 20, 2021, to the Lake County Highway Department, Town of St. John Town Council, Town of Cedar Lake Town Council and Town of Cedar Lake Town Manager. Re-coordination letters were sent on October 11, 2024, to the Lake County Highway Department, Town of St. John Town Council, and Town of Cedar Lake Town Council and then on December 10, 2024, to the Town of Cedar Lake Town Manager. The Town of Cedar Lake Town Manager responded on April 22, 2021, with recommendations to remedy any storm water drainage issues within the ROW of the project within the limits of the town of Cedar Lake (Appendix C, C18). The Lake County Highway Department responded on October 21, 2024, and did not provide any specific recommendations pertaining to the public water system (Appendix C, C23 to C24). All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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

If applicable, indicate the Floodplain Level?

Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ 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.

The IDNR Indiana Floodway Information Portal website (https://www.in.gov/dnr/water/surface-water/indiana-floodplain-mapping/indiana-floodplain-information-portal/) was accessed on December 11, 2024 by Lochmueller Group. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, F33). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

	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*) **94**
**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, the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group, and the aerial maps of the project area (Appendix B, B3 to B8), the project will convert 1.51 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on April 20, 2021 to the USDA NRCS. A re-coordination email was sent

on May 6, 2025 to the USDA NRCS due to an increase in permanent ROW. Early coordination responses received prior to this coordination were not included within the attachments due to the re-coordination email and assessment taking precedence over the original response. Coordination with NRCS resulted in a score of 94 on the NRCS AD-1006 Form (Appendix C, C24 to C25). 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	B-1, B-2, B-3, A-3, A-5	March 21, 2025; June 27, 2025	

Full 106 Effect Finding

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☐

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) ☐ Archaeology ☐ NRHP Bridge(s) ☐

Documentation Prepared (mark all that apply)		ESD Approval Date(s)	SHPO Approval Date(s)
APE, Eligibility and Effect Determination			
800.11 Documentation			
Historic Properties Report or Short Report			
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	X	July 31, 2020	July 31, 2020
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.

On June 27, 2025, the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Types 1, 2, and 3 under the Minor Projects Programmatic Agreement, (Appendix D, D1 to D8). Lochmueller Group determined that this project also falls within the guidelines of Category A, Types 3 and 5 under the MPPA (Appendix D, D9 to D10).

- A-3: Replacement, repair, lining, or extension of culverts and other drainage structures that do not exhibit wood, stone or brick structures or parts therein and are in previously disturbed soils.
- A-5: Repair, in-kind replacement or upgrade of existing lighting, signals, signage, and other traffic control devices in previously disturbed soils.
- B-1: Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, under certain conditions.
- B-2: Installation of new lighting, signals, signage and other traffic control devices under certain conditions.
- B-3: Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration, and deceleration lanes) and shoulder widening under certain conditions.

Because the project will occur within undisturbed soil, an archaeological records check and Phase Ia reconnaissance survey of the project area was completed on July 31, 2020 (Appendix D, D11 to D13). A review of the Indiana State Historic Architectural and Archaeological Research Database (SHAARD and SHAARD Geographic Information System (GIS)) indicated no previously recorded archaeological sites mapped within or immediately adjacent to the project area. A 73-acre survey area was examined through the excavation of shovel probe and visual inspection of areas of disturbance. One new archaeological site, 12La726, was identified within the project area. The site does not appear to represent a unique site type in the region and does not appear to be eligible for the National Register of Historic Places (NRHP). No further archaeological work is recommended. INDOT CRO approved the archaeology report on July 31, 2020. The below firm commitment is included in the *Environmental Commitments* section of this CE document as a condition of INDOT CRO approval.

- Any portion of site 12La726 located outside of the current project R/W must be avoided by all ground disturbing activities. The project limits at the site location should be marked for avoidance on the ground during construction, and the area outside of the project limits should be marked on the plan sheet as "Environmentally Sensitive Area – Do Not Disturb."

No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

	Presence	Use	
Parks and Other Recreational Land		**Yes**	**No**
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	X		X
Historic Properties			
Site eligible and/or listed on the NRHP			

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	
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 E23), there are seven potential 4(f) resources located within the 0.5-mile search radius. According to additional research and by the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group, there is one 4(f) resource, Biesecker Prairie Nature Preserve, located within the project area.

Biesecker Prairie Nature Preserve
The Biesecker Prairie Nature Preserve is a 34.265 acre parcel located within the southeast quadrant of the intersection of U.S. 41 and U.S. 231. The preserve was dedicated on August 19, 1992 to the IDNR and is under the administration of the IDNR DNP. The preserve contains high-quality dry prairie and prairie swale communities in addition to several rare plant and animal species. While no dedicated parking currently exists on-site, the property is open to the public. Meanwhile, the master plan includes provisions to allow for a parking lot, foot trails, foot bridges, boardwalks, trail markers, interpretive signs, observation sites, and stream crossings to be installed within the preserve in the future. Since the property is publicly owned and open to the public, it is considered a Section 4(f) resource. Although the deeds have not yet been properly recorded, it was determined that apparent existing ROW extends to the existing utility poles and ROW monument markers along the western edge of the nature preserve. The IDNR DNP responded on February 28, 2025, indicating the IDNR DNP will honor the apparent existing ROW as noted on the Lake County roadmaps, dated 1928, up to the utility poles and ROW monument markers (Appendix C, C17). The project will not use this resource by taking new permanent ROW and will not indirectly use the resource in such a way that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Access to the Biesecker Prairie Nature Preserve will be maintained throughout construction. Additionally, no temporary ROW will be acquired from the nature preserve. Therefore, no 4(f) use is expected.

The IDNR DNP responded on April 20, 2021, May 12, 2021, and May 23, 2024, with recommendations regarding minimizing impacts to Biesecker Prairie Nature Preserve and associated ETR species (Appendix C, C9 to C16). Additionally, no new permanent or temporary ROW may be acquired from the nature preserve. Refer to the *Protected Species* section for more information pertaining to the ETR species present at this nature preserve. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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 58 properties in Lake County (Appendix I, I15). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts 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)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP: Page 273 of 567 (Appendix H, H2 to H3)

Name of MPO (if applicable): NIRPC

Location in TIP (if applicable): Incorporated via Amendment 26-00 STIP (Appendix H, H1)

Level of MSAT Analysis required?

Level 1a [ ] Level 1b [X] Level 2 [ ] 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 the Fiscal Year (FY) 2026-2030 NIRPC Transportation Improvement Program (TIP) and INDOT FY 2024-2028 Statewide Transportation Improvement Program (STIP) (Appendix H, H1 to H3).

Attainment Status
This project is located in Lake County, which is currently a nonattainment 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. Lake County is also currently a maintenance area for Ozone, under the 2008 Ozone 8-hour standard according to the EPA Green Book (https://www3.epa.gov/airquality/greenbook/anayo_in.html). The project's design concept and scope are accurately reflected in both the NIRPC 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.

Mobile Source Air Toxic (MSAT)
The purpose of this project is to improve safety throughout this corridor of U.S. 41 by constructing a two-way left turn lane (TWLTL) throughout the corridor. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES5 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 the possibility of even minor MSAT emissions from this project.

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: N/A

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.

This project is a Type III project. In accordance with 23 CFR 772 and the current *Indiana Department of Transportation Traffic Noise Analysis Procedure*, this action does not require a formal noise analysis.

SECTION 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 project complies with local and regional development patterns and will have an overall negligible impact on community cohesion and community events. The project is not anticipated to impact the local tax base or property values. The roadway improvements will have a positive community impact by reducing the number of crashes throughout this segment of U.S. 41.

According to the Indiana Festivals website (https://indianafestivals.org/), the St. John Festival and St. John Oktoberfest are recurring festivals, which are anticipated to occur during summer (July) and fall (September) of each year. The proposed construction activities may temporarily increase travel time for those traveling to the St. John area via U.S. 41 due to decreases in the number of lanes open. However, the MOT will phase construction and allow for one travel lane in each direction to remain open throughout the duration of the project. These impacts are anticipated to be minimal and temporary in nature. After construction is complete, it is anticipated the travel time will either remain the same or be improved as a result of the proposed roadway project.

Americans with Disabilities Act (ADA) transition plans were identified for the Town of Cedar Lake (https://cedarlakein.gov/Documents/TownDocuments/General/2023_ADA_Compliance_Plan.pdf), Lake County (https://lakecountyin.gov/departments/economic-devl/document-and-reference-materials/?f=/departments/economic-devl/document-and-reference-materials/Lake%20County%20Con%20Plan%202023-2027%20and%20FY2023%20Annual%20Action%20Plan.pdf#view=Fit), and INDOT (https://www.in.gov/indot/files/21-ADA-Transition-Plan.pdf). No ADA transition plans were identified for the Town of St. John. The ADA transition plans did not specifically identify targeted areas of improvement along this segment of U.S. 41. Curb ramps will be installed and/or upgraded in all four quadrants of U.S. 41 and W. 133rd Avenue. No other sidewalk or curb ramp work will occur as part of this project. The curb ramps installed as part of this project shall be constructed in accordance with the Public Right-of-Way Accessibility Guidelines (PROWAG). Pedestrian MOT will include the use of temporary curb ramps and pedestrian access mats located further east and west of the U.S. 41 and W. 133rd Avenue intersection while curb ramp work is occurring (Appendix B, B29).

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 E23), there are two religious facilities, one cemetery, four recreational facilities, one pipeline segment, one railroad segment, two trail segments, and one managed land located within the 0.5 mile of the project. There are three public facilities within or adjacent to the project area, which was confirmed by the site visits on May 30 & 31, 2024 and June 10, 11, & 15, 2024 by Lochmueller Group.

Bethel Community Bible Church is a religious facility located adjacent to the west side of U.S. 41 near the southern terminus of the project area. No ROW will be obtained from this facility. Biesecker Prairie Nature Preserve is a recreational facility and managed land located on the east side of U.S. 41 near the northern terminus of the project area. No ROW will be obtained from this facility. The MOT may indirectly impact these facilities by increasing travel time throughout this U.S. 41 corridor. However, all impacts are anticipated to be minimal and temporary in nature. 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.

One pipeline segment, owned by the Northern Indiana Public Service Company (NIPSCO), extends parallel to the east side of U.S. 41, north of 129th Street. Other utilities present within the project area include NIPSCO electric, water, and sewer for the Town of Cedar Lake and Town of St. John; Comcast; AT&T; Level 3 Communications, LLC; Centurylink; and Intelligent Fiber Network. Utility coordination is ongoing to minimize impacts and identify any potential relocations. Refer to the *Drinking Water Resources* section of

this CE document for impacts related to water resources. Additional utility impacts include relocating overhead electric lines along both sides of U.S. 41, north of 127th Place. NIPSCO underground gas lines are also anticipated to be relocated due to conflict with the storm sewer between 133rd Avenue and 129th Avenue. It is anticipated the utilities will be relocated within the proposed ROW. Subsurface utility engineering (SUE) is underway and will identify any additional utility conflicts. Utility coordination is ongoing.

An early coordination letter was sent to Bethel Community Bible Church, IDNR DNP, and INDOT Utilities and Railroads on April 20, 2021 and October 11, 2024. Bethel Community Bible Church and INDOT Utilities and Railroads did not respond within the 30-day time frame. The IDNR DNP responded on April 20, 2021, May 12, 2021, May 23, 2024, and February 28, 2025 with recommendations regarding minimizing impacts to Biesecker Prairie Nature Preserve and associated ETR species (Appendix C, C9 to C17). Additionally, no ROW may be acquired from the nature preserve. Refer to the *Protected Species* section for more information. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

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: N/A Businesses: N/A Farms: N/A Other: N/A

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): September 9, 2020; September 3, 2024

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 GIS and available public records, the RFI was completed on September 2, 2020 by The Troyer Group and INDOT Site Assessment and Management (SAM) provided their concurrence on September 9, 2020 (Appendix E, E8 to E23). Due to greater than three years between the approval of the original RFI and approval of the NEPA document, a RFI addendum was determined to be necessary. A RFI addendum was completed on September 3, 2024 by Lochmueller Group and INDOT SAM provided their concurrence on September 3, 2024 (Appendix E, E1 to E7).

Three Resource Conservation and Recovery Act (RCRA) generator/Treatment, Storage, and Disposal (TSD) facilities, two state cleanup sites, seven underground storage tank (UST) sites, eight leaking underground storage tank (LUST) sites, two brownfields, four institutional control sites, and 19 National Pollutant Discharge Elimination System (NPDES) facilities are located within 0.5 mile of the project area. One UST site, five LUST sites, one brownfield, four institutional control sites, and four NPDES facilities could affect the project area.

UST/Institutional Control/Brownfield: Mees Insurance Agency (a.k.a. CVS Store 6912, 13305 Wicker Avenue, AI ID 23130) is located within the project area at the southeast corner of U.S. 41 and W. 133rd Avenue. The site consists of three parcels, each represented by an Institutional Control boundary. An Environmental Restrictive Covenant (ERC) was recorded on the properties on March 13, 2013. The site is a former fuel station and automotive repair and is now a CVS. The site consists of three parcels. Three USTs were removed from the site in 1998, and petroleum contamination was encountered during the removal. A Limited Phase II Investigation was prepared for the site on October 26, 2011. Petroleum contamination above residential default closure levels was encountered in

soil near the west property line along the east side of U.S. 41, and lead was encountered in soil near the middle of the property. Benzene and lead were encountered in groundwater. An additional Phase II Preliminary Site Investigation was conducted on January 20, 2012. This Phase II documented arsenic in soil near U.S. 41 above RDCLs; however, those concentrations did not exceed the IDEM Direct Soil Contact screening level. Bis(2-ethylhexyl) phthalate was detected in groundwater above the RISC Residential DCL. The ERC restricts use of the site for residential purposes and restricts use or extraction of groundwater for any purpose other than environmental investigation/remediation. If dewatering is needed at this location, analysis for lead and VOCs may be necessary.

LUST: INDOT owns a site located on the on the northeast corner of U.S. 231 and U.S. 41, St. John, Lake County; Agency ID 22056. The site is a former INDOT facility. The IDEM issued a No Further Action Determination Pursuant to 1994 UST Branch Guidance letter, dated October 15, 2009; however, it appears as though residual soil and groundwater petroleum contamination remains on-site and may extend into U.S. 231. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

LUST: Sam Mcintyre (also known as MEC Furniture), 12615 Wicker Avenue, Cedar Lake, Lake County; Agency ID 19888, is located adjacent to the project area, east of U.S. 41, south of 126th Avenue. According to the NFA Determination issued by IDEM on February 15, 2007, contamination remains on-site and may extend into the project area. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

LUST: Ronald Ondra (also listed as Repair Service/Custom Auto Sales), 13203 Wicker Avenue, Cedar Lake, Lake County; Agency ID 22819, is adjacent to the eastern edge of the project area east of 132nd Avenue. IDEM issued a No Further Action letter, dated January 5, 2005; however, residual contamination appears to remain on-site adjacent to U.S. 41. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

LUST: Farmers Insurance Group, 133rd and U.S. 41, Cedar Lake, Lake County; Agency ID 21130, is located adjacent to project area. Correspondence from IDEM dated May 8, 1996, reports contaminated drinking water in this vicinity; which may be associated with the former Mees Insurance Agency site discussed above. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

Institutional Control/LUST: Amoco Ss 20123 (a.k.a. Lakeshore Petro BP Gas Station) (13302 Wicker Road, AI ID 16914) is located within the project area at the southwest corner of U.S. 41 and W. 133rd Avenue. The facility is an operating underground storage tank (UST) site. According to the No Further Action Approval Determination Pursuant to Remediation Closure Guide letter dated August 7, 2023, benzene and xylenes remain in the soil above the Remediation Closure Guide (RCG) residential direct contact screening levels (RDCLs). Benzene, MTBE, Napthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and xylenes remain in the groundwater above RCG residential tap water screening levels. An ERC was recorded on January 4, 2020. The ERC restricts the use or extraction of groundwater from the site for any purpose other than environmental investigation or remediation. If groundwater monitoring wells are encountered in the project area, they should be maintained in place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned. If dewatering is needed at this location, analysis for lead and VOCs may be necessary.

NPDES Facility: Lucky Brothers New Fuel Station St. John (10861 Wicker Avenue, Permit No. INRA03405) is located within the project area at the northeast terminus. The permit was issued May 15, 2019, and was set to expire May 14, 2024, but its status remains effective. Coordination with Ben Carroll, Hutton will occur.

NPDES Facility: Birchwood Farms (16th Avenue and Wicker Avenue, Permit No. INRA04007) is located adjacent to the west side of the project area, north of 126th Avenue. A permit was issued On August 2, 2019, and expires August 1, 2024. Coordinator with Todd Olthof, Hanover Development LLC will occur.

NPDES Facility: Palmira Sub - Circuit 6906 Extension Phase 2 (10307 White Oak Avenue, St. John, Permit No. INRA09155) is located within the project area at 117th Avenue. A permit was issued February 17, 2022, and expires February 16, 2027. Coordination with Rowan Mitton, NIPSCO, will occur.

NPDES Facility: 11127 Wicker Avenue Self-Storage Site (11127 Wicker Avenue, Permit No. INRA09436) is located adjacent to the east end of the project area, south of U.S. 231 and north of 117th Avenue. A permit was issued on April 1, 2022, and expires March 31, 2027. Coordination with Jon Hutto, Brandon Arnold, LLC, will occur.

Early coordination letters were sent to the Lucky Brothers New Fuel Station, Birchwood Farms, Palmira Sub – Circuit 6906 Extension Phase 2, and 11127 Wicker Avenue Self-Storage Site on October 11, 2024. No responses were received.

Part IV – Permits and Commitments

PERMITS CHECKLIST

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

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

Due to cumulative impacts to likely jurisdictional streams and wetlands, a USACE Section 404 Individual Permit and an IDEM Section 401 Individual Permit are anticipated to be required. Additionally, an IDEM Isolated Wetlands Individual Permit is anticipated due to impacts to isolated wetlands.

An IDEM Indiana Construction Stormwater General Permit (CSGP) is anticipated to be required because the project will disturb greater than one acre of terrestrial habitat.

A Lake County Regulated Drain permit will be required due to impacts to UNT 1 to West Creek.

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 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. (INDOT ESD and INDOT LaPorte 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 EWPSO)
4) 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)
5) LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
6) 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)
7) TREE REMOVAL AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
8) TREE REMOVAL AMM 2: Apply time of year restrictions (April 1 – September 30) for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS and IDNR DFW)
9) 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)
10) 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)
11) Str. No. 607 (Driveway Pipe at 41.408201, -87.470290) and CV 041-045-257.55 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)
12) USFWS Bridge/Structure Assessments shall take place no earlier than two years prior to the start of construction. If construction will begin after May 30, 2026, inspection of the structures (CV 041-045-256.70; CV 041.045.257.55; CLV-9687; Str. Nos. 607, 609, and 633 on plans) by a qualified individual must be performed. Inspections of the structures should check for presence of bats/bat indicators and/or presence of birds. The results of the inspections must indicate no signs of bats or birds. If signs of bats or birds are documented during these inspections, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD and INDOT LaPorte District)
13) One impaired stream segment, a UNT to West Creek, is located within the project area. The UNT segment is listed as impaired for *E. coli* and impaired biotic communities (IBC). Concerning *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. Concerning IBC, best management practices (BMPs) will be used to avoid further degradation to the stream. (INDOT SAM)
14) USFWS recommends using a native seed mixture in the area within and adjacent to Biesecker Prairie Nature Preserve where practicable. (USFWS)
15) No construction staging or parking is allowed within any part of the Biesecker Prairie Nature Preserve located outside of the proposed construction limits. (INDOT ESD and USFWS)

16) Project plans shall identify the Biesecker Prairie Nature Preserve as a “Environmentally Sensitive Area – Do Not Disturb” on the plan sheets. (INDOT ESD)
17) Work between the existing edge of pavement and the Biesecker Prairie Nature Preserve will be limited to between August 1 and April 30 (outside of peak wildlife nesting season) to protect any rare insect occurrences that are documented from within or adjacent to the projected impact zone footprint. (IDNR DNP and USFWS)
18) To protect any threatened and endangered (T&E) vascular plant occurrences that are documented from within or adjacent to the project impact zone footprint, surveys should be conducted by qualified personnel for the species prior to work zones being occupied or equipment movement within. If the species are identified, the area should be flagged and taped off to lessen the possibility of impact to the T&E species. If none of the reported species are identified in the project footprint, or they are identified and protected, then no impact is expected on the T&E plant species documented. For the remaining T&E vascular plant occurrences that are historical or do not occur precisely at the project site, no impacts are expected on these occurrences if project activities are limited to only within the proposed project area. (IDNR DNP)
19) Any portion of site 12La726 located outside of the current project R/W must be avoided by all ground disturbing activities. The project limits at the site location should be marked for avoidance on the ground during construction, and the area outside of the project limits should be marked on the plan sheet as “Environmentally Sensitive Area – Do Not Disturb.” (INDOT CRO)
20) Underground Storage Tank (UST)/Institutional Control/Brownfield: Mees Insurance Agency (a.k.a. CVS Store 6912, 13305 Wicker Avenue, AI ID 23130) is located within the project area at the southeast corner of U.S. 41 and W. 133rd Avenue. The site consists of three parcels, each represented by an Institutional Control boundary. An Environmental Restrictive Covenant (ERC) was recorded on the properties on March 13, 2013. The site is a former fuel station and automotive repair and is now a CVS. The site consists of three parcels. Three USTs were removed from the site in 1998, and petroleum contamination was encountered during the removal. A Limited Phase II Investigation was prepared for the site on October 26, 2011. Petroleum contamination above residential default closure levels was encountered in soil near the west property line along the east side of U.S. 41, and lead was encountered in soil near the middle of the property. Benzene and lead were encountered in groundwater. An additional Phase II Preliminary Site Investigation was conducted on January 20, 2012. This Phase II documented arsenic in soil near U.S. 41 above RDCLs; however, those concentrations did not exceed the IDEM Direct Soil Contact screening level. Bis(2-ethylhexyl)phthalate was detected in groundwater above the RISC Residential DCL. The ERC restricts use of the site for residential purposes and restricts use or extraction of groundwater for any purpose other than environmental investigation/remediation. If dewatering is needed at this location, analysis for lead and VOCs may be necessary. (INDOT SAM)
21) LUST: INDOT owns a site located on the on the northeast corner of U.S. 231 and U.S. 41, St. John, Lake County; Agency ID 22056. The site is a former INDOT facility. The IDEM issued a No Further Action Determination Pursuant to 1994 UST Branch Guidance letter, dated October 15, 2009; however, it appears as though residual soil and groundwater petroleum contamination remains on-site and may extend into U.S. 231. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. (INDOT SAM)
22) LUST: Sam Mcintyre (also known as MEC Furniture), 12615 Wicker Avenue, Cedar Lake, Lake County; Agency ID 19888, is located adjacent to the project area, east of U.S. 41, south of 126th Avenue. According to the NFA Determination issued by IDEM on February 15, 2007, contamination remains on-site and may extend into the project area. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary. (INDOT SAM)
23) LUST: Ronald Ondra (also listed as Repair Service/Custom Auto Sales), 13203 Wicker Avenue, Cedar Lake, Lake County; Agency ID 22819, is adjacent to the eastern edge of the project area east of 132nd Avenue. IDEM issued a No Further Action letter, dated January 5, 2005; however, residual contamination appears to remain on-site adjacent to U.S. 41. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary. (INDOT SAM)
24) LUST: Farmers Insurance Group, 133rd and U.S. 41, Cedar Lake, Lake County; Agency ID 21130, is located adjacent to project area. Correspondence from IDEM dated May 8, 1996, reports contaminated drinking water in this vicinity, which may be associated with the former Mees Insurance Agency site discussed above. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary. (INDOT SAM)
25) Institutional Control: Amoco Ss 20123 (a.k.a. Lakeshore Petro BP Gas Station) (13302 Wicker Road, AI ID 16914) is located within the project area at the southwest corner of U.S. 41 and W. 133rd Avenue. The facility is an operating underground storage tank (UST) site. According to the No Further Action Approval Determination Pursuant to Remediation Closure Guide letter dated August 7, 2023, benzene and xylenes remain in the soil above the Remediation Closure Guide (RCG) residential direct contact screening levels (RDCLs). Benzene, MTBE, Napthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and xylenes remain in the groundwater above RCG residential tap water screening levels. An ERC was recorded on January 4, 2020. The ERC restricts the use or extraction of groundwater from the site for any purpose other

than environmental investigation or remediation. If groundwater monitoring wells are encountered in the project area, they should be maintained in place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned. If dewatering is needed at this location, analysis for lead and VOCs may be necessary. (INDOT SAM)

26) NPDES Facility: Lucky Brothers New Fuel Station St. John (10861 Wicker Avenue, Permit No. INRA03405) is located within the project area at the northeast terminus. The permit was issued May 15, 2019 and was set to expire May 14, 2024, but its status remains effective. Coordination with Ben Carroll, Hutton will occur. (INDOT SAM)
27) NPDES Facility: Birchwood Farms (16th Avenue and Wicker Avenue, Permit No. INRA04007) is located adjacent to the west side of the project area, north of 126th Avenue. A permit was issued On August 2, 2019 and expires August 1, 2024. Coordinator with Todd Olthof, Hanover Development LLC will occur. (INDOT SAM)
28) NPDES Facility: Palmira Sub - Circuit 6906 Extension Phase 2 (10307 White Oak Avenue, St. John, Permit No. INRA09155) is located within the project area at 117th Avenue. A permit was issued February 17, 2022 and expires February 16, 2027. Coordination with Rowan Mitton, NIPSCO, will occur. (INDOT SAM)
29) NPDES Facility: 11127 Wicker Avenue Self-Storage Site (11127 Wicker Avenue, Permit No. INRA09436) is located adjacent to the east end of the project area, south of U.S. 231 and north of 117th Avenue. A permit was issued on April 1, 2022 and expires March 31, 2027. Coordination with Jon Hutto, Brandon Arnold, LLC, will occur. (INDOT SAM)
30) The portions of UNT 1 to West Creek located outside the construction limits will be labeled "Environmentally Sensitive Area - Do Not Disturb" on the project plans. (INDOT ESD)
31) UNT 3 to West Creek are anticipated. UNT 3 to West Creek will be labeled "Environmentally Sensitive Area - Do Not Disturb" on the project plans. (INDOT ESD)
32) Wetlands A, B, C, D, and Y will be labeled "Environmentally Sensitive Area - Do Not Disturb" on the project plans. The portions of Wetlands E, G, H, M, P, U, X, and Z located outside the construction limits will be labeled "Environmentally Sensitive Area - Do Not Disturb" on the project plans. Impacts to all wetlands must be confined to those areas within the construction limits. (INDOT ESD)

For Further Consideration

1) It is recommended that INDOT remedy any storm water drainage issues within the ROW of the project within the limits of the town of Cedar Lake. (Town of Cedar Lake Town Manager)
2) Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR DFW)
3) The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR DFW)
4) Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees) or by using the 1:1 replacement ratio based on area depending on the type of habitat impacted (individual canopy tree removal in an urban streetscape or park-like environment versus removal of habitat supporting a tree canopy, woody understory, and herbaceous layer). Impacts under 0.10 acre in an urban area may still involve the replacement of large diameter trees but typically do not require any additional mitigation or additional plantings beyond seeding and stabilizing disturbed areas. There are exceptions for high quality habitat sites however. (IDNR DFW)
5) Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR DFW)
6) Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)
7) 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 A: INDOT Supporting Documentation
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Response Letter (May 12, 2021)....C10-C14
Response Letter (May 23, 2024)....C15-C16
Response Letter (February 28, 2025)....C17
Cedar Lake Town Manager
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Lake County Highway Department
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Appendix G: Public Involvement

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Appendix H: Air Quality

Relevant page from the FY 2026-2030 NIRPC TIP H1
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Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Categorical Exclusion Level Thresholds

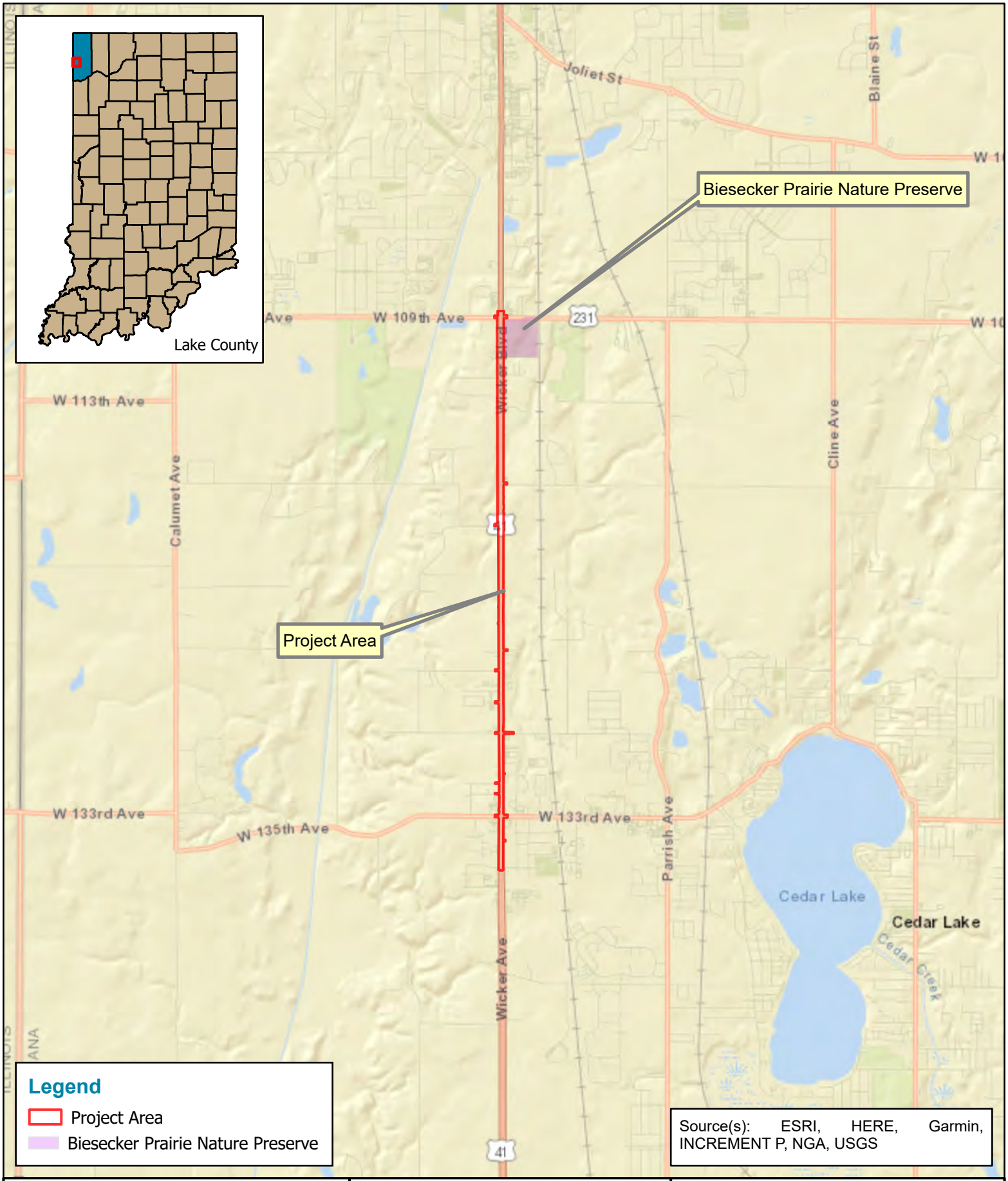
	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 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"
[redacted]	[redacted]	-	-	-	[redacted]
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 [redacted] 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.
[redacted]
[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
1690 Broadway Street
Building 19, Suite 410
Fort Wayne, IN 46802
Phone: (260) 494-1901

General Location Map

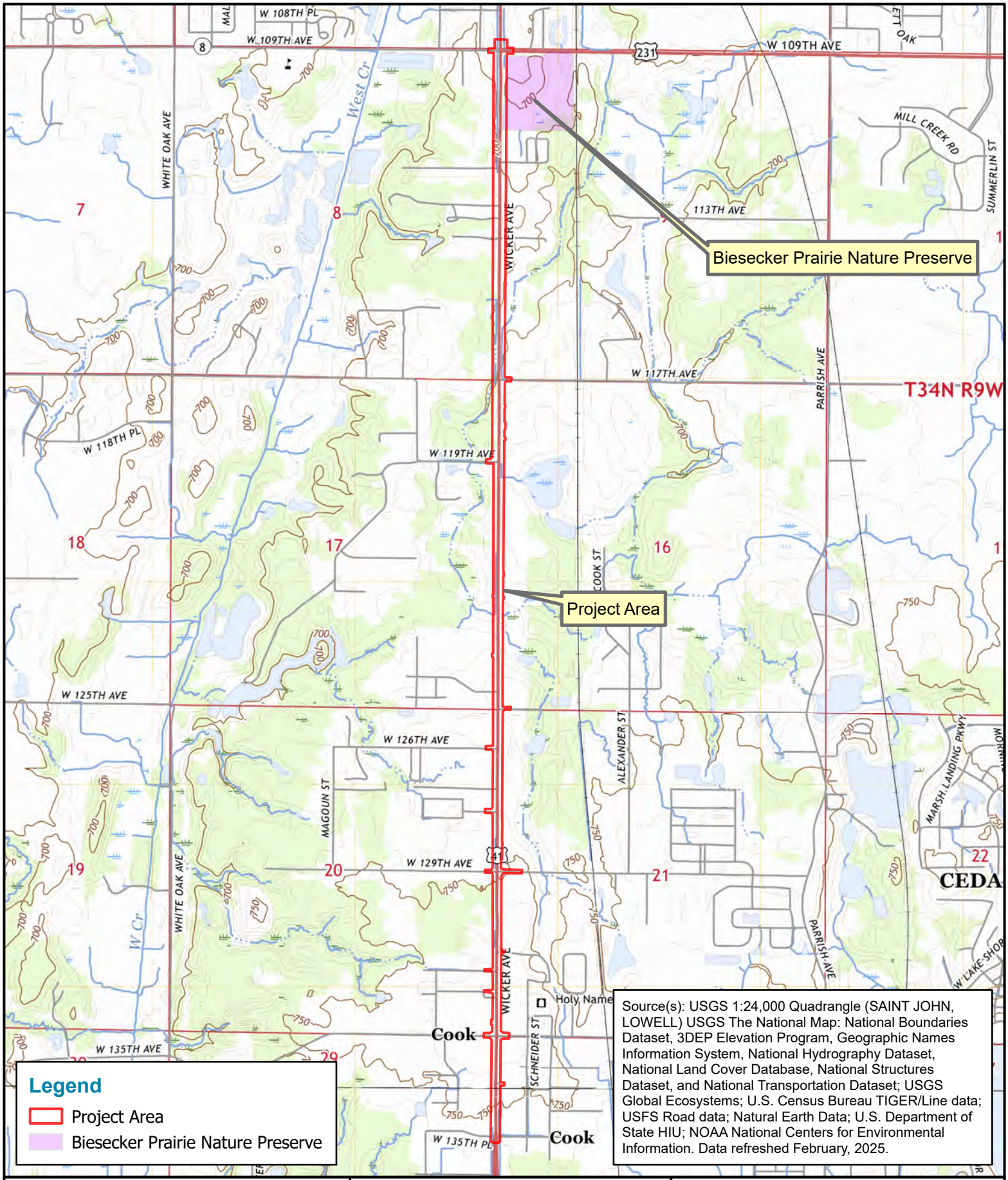
Des. No. 1700025

0 0.5 1 Miles

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.29 Mi. S. of US 231 to US 231
Roadway Project
Created: 5/19/2025, Ashley.Taylor



LOCHMUELLER GROUP
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Building 19, Suite 410
Fort Wayne, IN 46802
Phone: (260) 494-1901

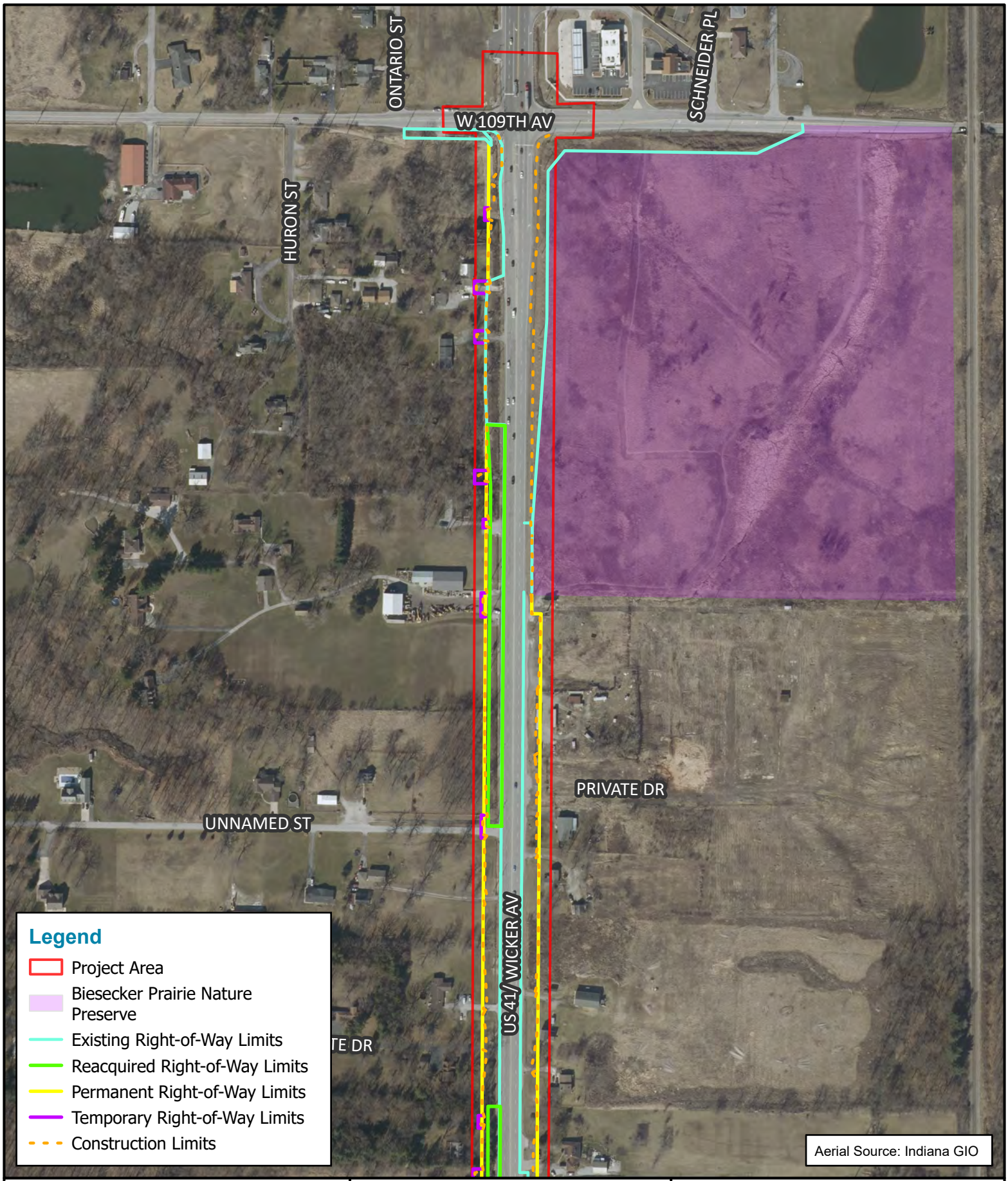
USGS Topographic Map (1:24,000)
Saint John and Lowell Quadrangles
Des. No. 1700025

0 1,000 2,000 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.29 Mi. S. of US 231 to US 231
Roadway Project
Created: 5/19/2025, Ashley.Taylor



LOCHMUELLER GROUP
1690 Broadway Street
Building 19, Suite 410
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Aerial Map (2024)

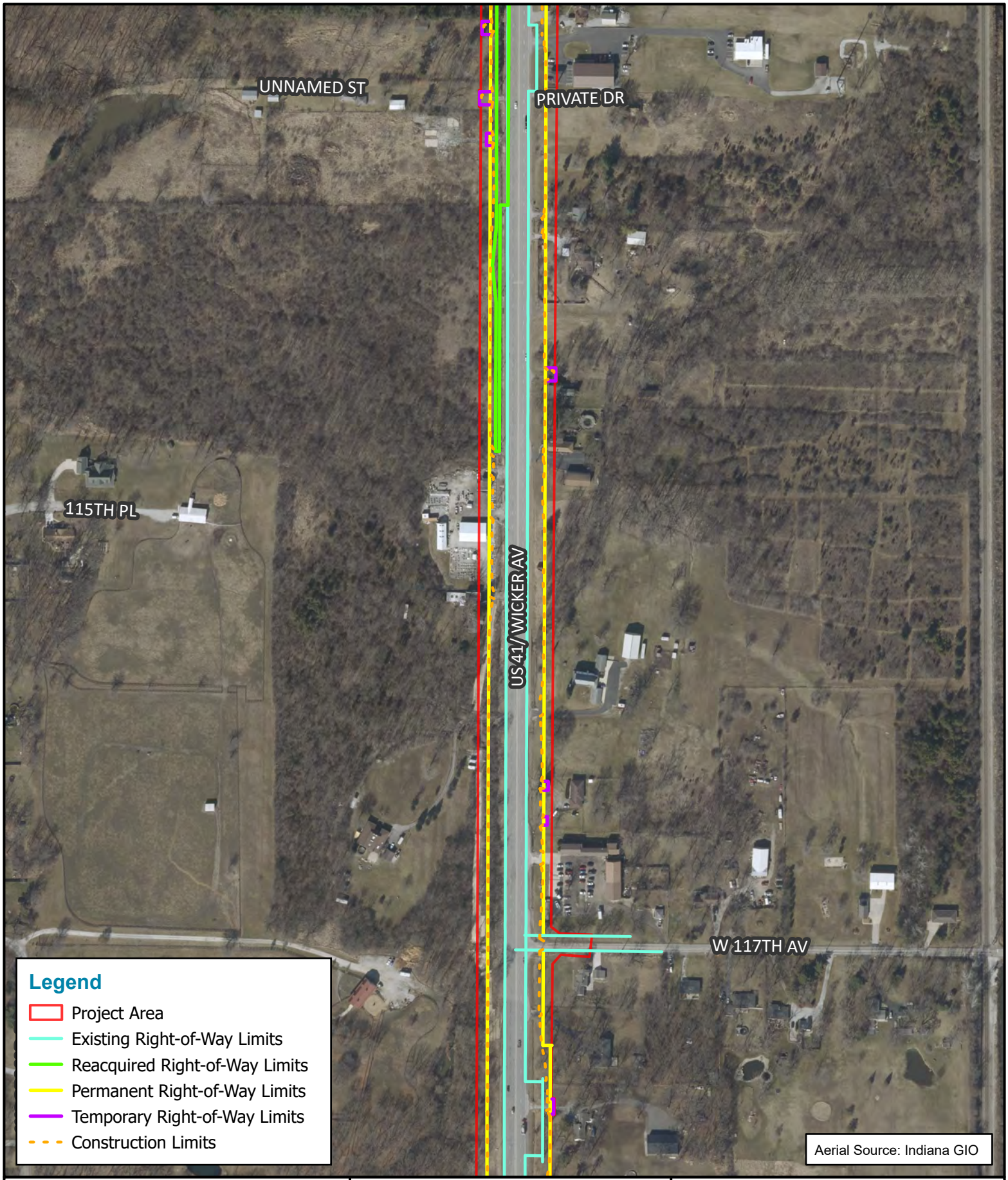
Des. No. 1700025

0 200 400 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.29 Mi. S. of US 231 to US 231
Roadway Project
Created: 6/23/2025, Ashley.Taylor



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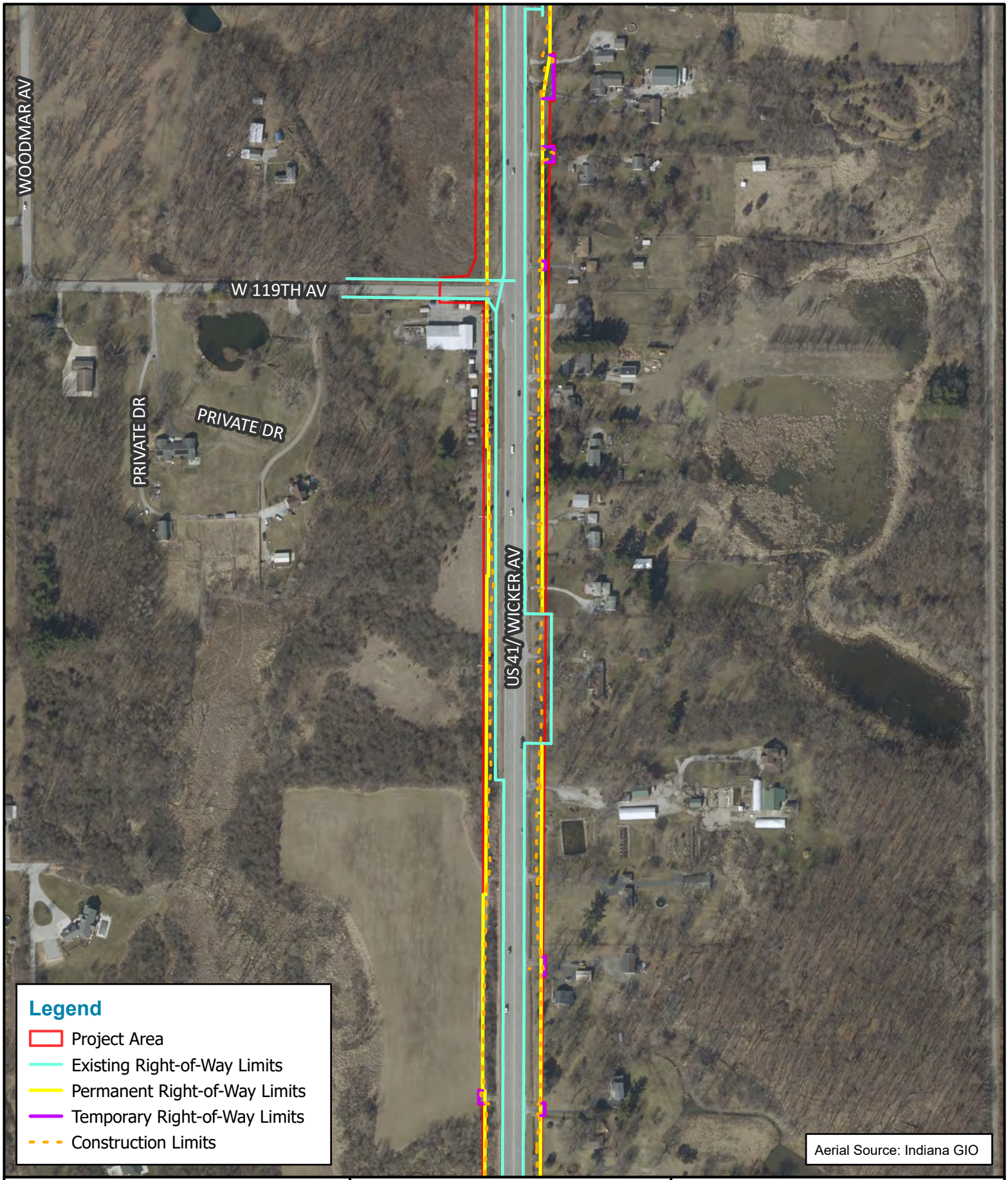

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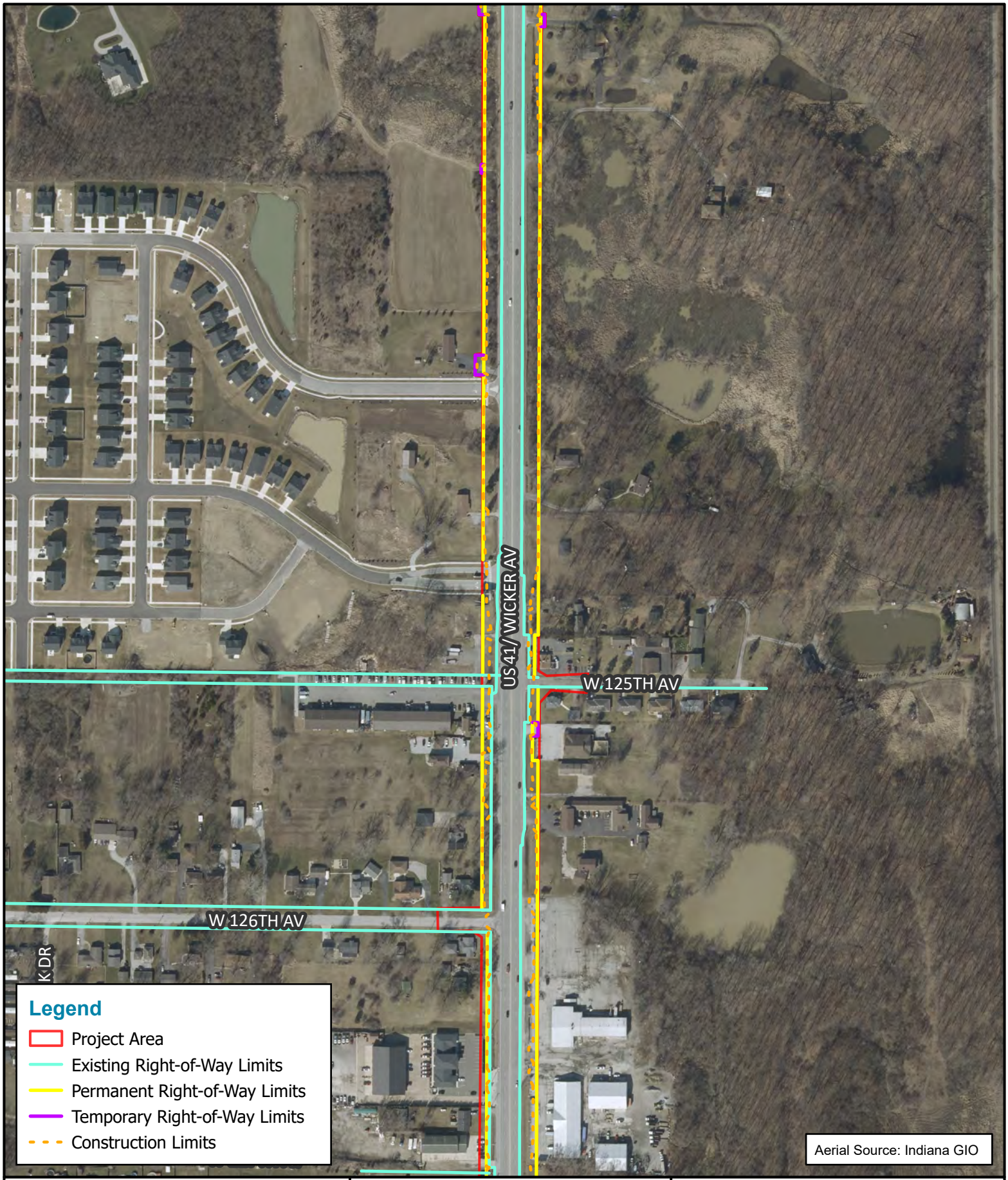

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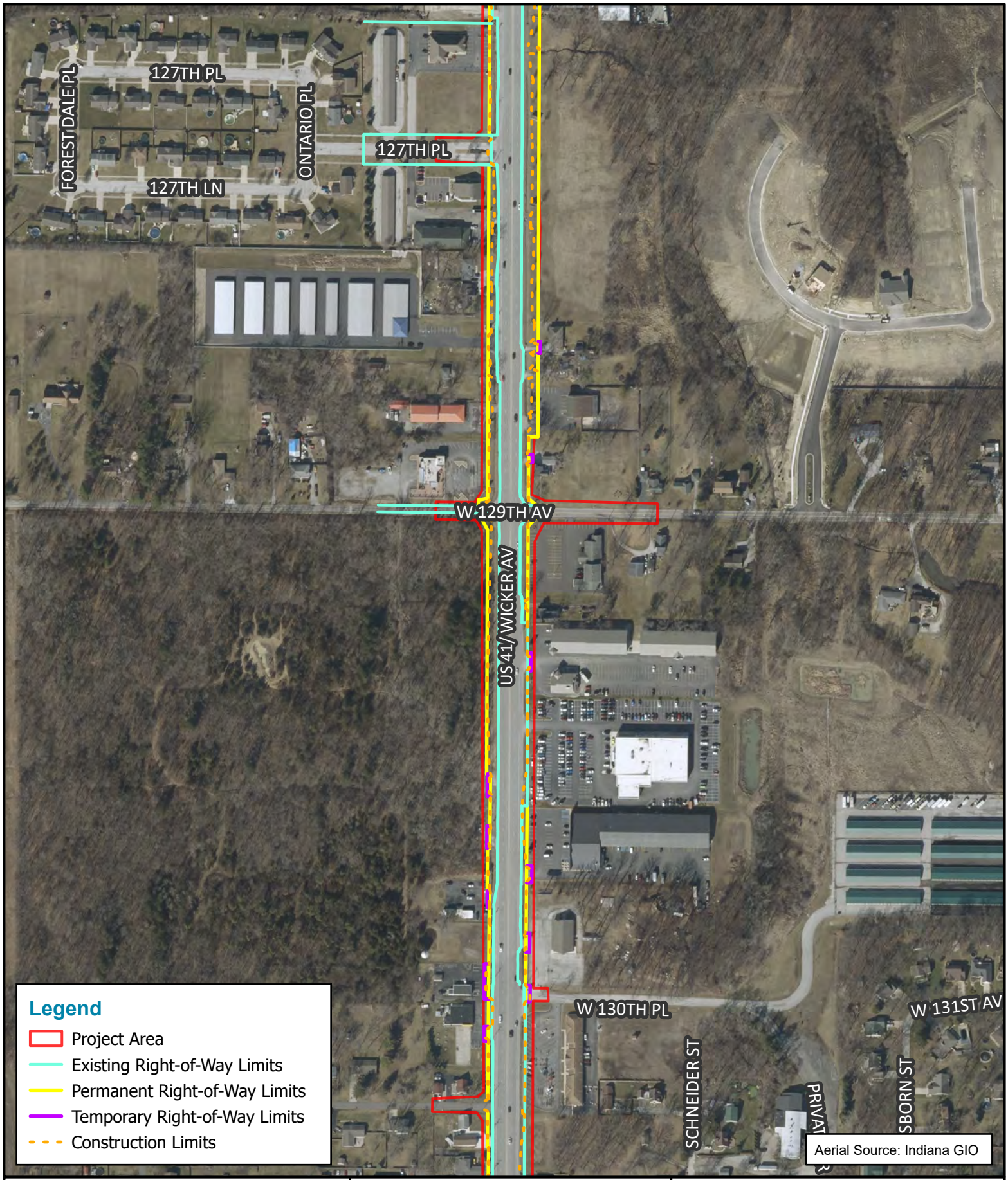

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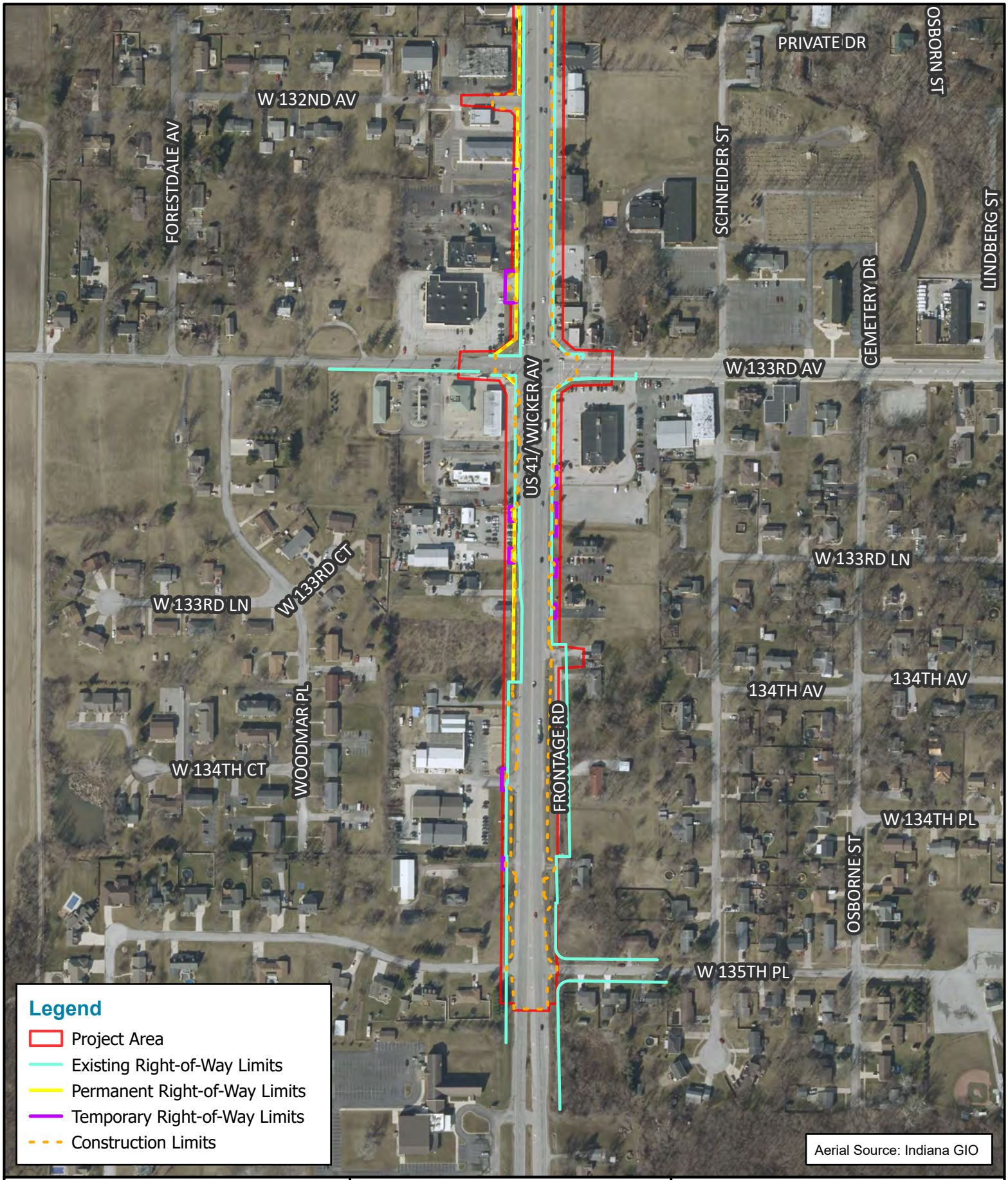

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Aerial Map (2024)

Des. No. 1700025

0 200 400 Feet

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County: Lake
Township: Hanover
State: Indiana

US 41 from 3.29 Mi. S. of US 231 to US 231
Roadway Project
Created: 6/23/2025, Ashley.Taylor

LOCHMUELLER GROUP
1690 Broadway Street
Building 19, Suite 410
Fort Wayne, IN 46802
Phone: (260) 494-1901

Photo Location Map

Des. No. 1700025

0 1,000 2,000 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.29 Mi. S. of US 231 to US 231
Roadway Project
Created: 5/19/2025, Ashley.Taylor

1. Looking south along the east side of U.S. 41 towards intersection with U.S. 41. Photo Taken: 6/15/24

2. Looking south along the east side of U.S. 41 along Biesecker Prairie Nature Preserve. Photo Taken: 5/30/24

3. Looking north along the east side of U.S. 41. along Biesecker Prairie Nature Preserve. Photo taken: 5/30/24

4. Looking south along the west side of U.S. 41. Photo taken: 5/31/24

5. Looking north along the west side of U.S. 41. Photo Taken: 5/31/24

6. Looking southwest at Structure No. CV 041-045-257.55 carrying UNT 1 to West Creek beneath U.S. 41. Photo Taken: 6/10/24

7. Looking northeast at Structure No. CV 041-045-257.55 carrying UNT 1 to West Creek beneath U.S. 41. Photo Taken: 6/10/24

8. Looking northeast (downstream) along UNT 1 to West Creek towards U.S. 41. Photo Taken: 6/10/24

9. Looking east along 119th Ave. towards intersection with U.S. 41. Photo Taken: 6/11/24

10. Looking north along the east side of U.S. 41. Photo Taken: 5/31/24

11. Looking southwest along the east side of U.S. 41. Photo Taken: 5/31/24

12. Looking south along the east side of U.S. 41. Photo Taken: 5/30/24

13. Looking south along the west side of the intersection of U.S. 41 and 129th Ave. Photo Taken: 6/11/24

14. Looking north along the east side of U.S. 41. Photo Taken: 5/30/24

15. Looking west along the south side of 133rd Ave. towards intersection with U.S. 41. Photo Taken: 5/30/24

16. Looking northwest along the east side of U.S. 41. Photo Taken: 5/30/24

Excerpt from:

DESIGNATION	BRIDGE FILE
1700025	
CONTRACT	
R-40609	

CULVERT ASSETS		
DES. NO.	CULVERT ASSET ID	WORK TYPE
1700025	CLV-041-045-257.55	REHAB
1700025	CLV-041-045-256.70	REHAB

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

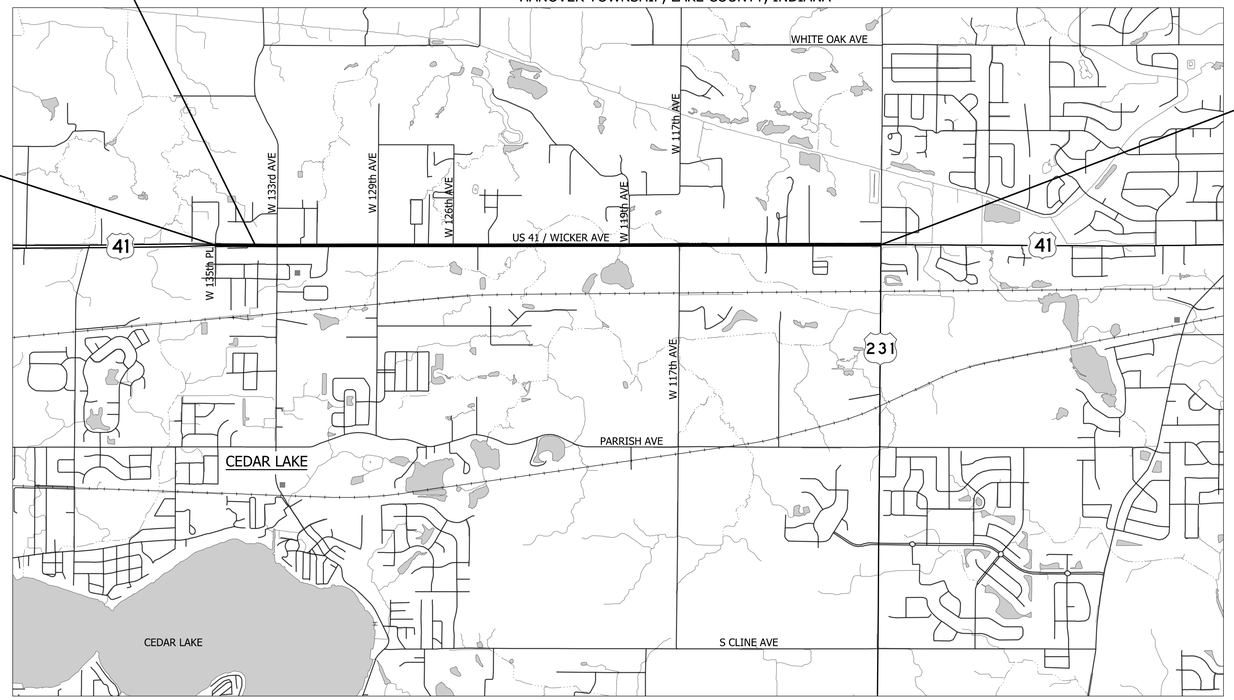
ROUTE: US 41 FROM: RP 255+15 TO: RP 258+40

DESIGNATION NO. 1700025

TRAFFIC DATA	US 41 STA. 540+93.00 "E-1" TO STA. 585+00.00 "E"	US 41 STA. STA. 585+00.00 "E" TO 619+59.67.00 "E"	US 41 STA. 619+59.67.00 "E" TO STA. 717+59.00 "E"
A.A.D.T. (2023)	17,460 V.P.D.	19,891 V.P.D.	19,891 V.P.D.
A.A.D.T. (2046)	25,945 V.P.D.	29,556 V.P.D.	29,556 V.P.D.
D.H.V (2046)	1537 V.P.H.	2081 V.P.H.	2081 V.P.H.
DIRECTIONAL DISTRIBUTION	51.3% NB	51.4% NB	51.4% NB
TRUCKS	9.0 % A.A.D.T.	9.0 % A.A.D.T.	9.0 % A.A.D.T.
	8.0 % D.H.V.	8.0 % D.H.V.	8.0 % D.H.V.
DESIGN DATA			
DESIGN SPEED	35 M.P.H.	45 M.P.H.	55 M.P.H.
PROJECT DESIGN CRITERIA	(3R) (NON-FREEWAY)	(3R) (NON-FREEWAY)	(3R) (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL	PRINCIPAL ARTERIAL
RURAL/URBAN	URBAN (INTERMEDIATE)	URBAN (SUBURBAN)	RURAL
TERRAIN	LEVEL	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE	NONE

STATION EQUATION
STA. 548+64.10 "E-1" (BK.) =
STA. 548+64.10 "E" (AH.)

TWO-WAY LEFT TURN LANE CONSTRUCTION AND HMA OVERLAY, MINOR STRUCTURAL, ON US 41
BEGINNING 3.29 MILES SOUTH OF US 231 AND ENDING AT US 231
ALL LOCATED IN SECTIONS 8, 9, 16, 17, 20, 21, 28 & 29, T-34-N, R-9-W,
HANOVER TOWNSHIP, LAKE COUNTY, INDIANA

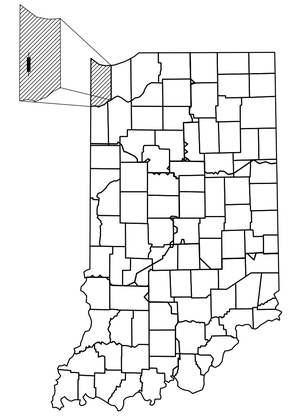


BEGIN PROJECT NO. 1700025
STA. 544+00.00 "E-1"

END PROJECT NO. 1700025
STA. 717+59.00 "E"

SCALE: 1" = 2000'

LOCATION MAP
LAKE CO.



PROJECT LOCATION SHOWN BY
LAKE CO.

BEGIN PROJECT:
LATITUDE: 41° 22' 25" N LONGITUDE: 87° 28' 12" W
END PROJECT:
LATITUDE: 41° 25' 16" N LONGITUDE: 87° 28' 12" W

BRIDGE LENGTH:	0.0	MI.
ROADWAY LENGTH:	3.29	MI.
TOTAL LENGTH:	3.29	MI.
MAX. GRADE:	EXIST. (3.6%)	%

HUC-14 DIGIT CODE: 07120001140010
HUC-14 DIGIT CODE: 07120001140020

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2026
TO BE USED WITH THESE PLANS

Michael Baker INTERNATIONAL

Michael Baker International, Inc.
3815 River Crossing Parkway, Suite 20
Indianapolis, IN 46240
Tel: 317-663-8430 Fax: 317-663-8410
www.mbakerintl.com

PLANS PREPARED BY: Michael Baker International, Inc. 317-663-8430 PHONE NUMBER

CERTIFIED BY: _____ DATE

RECOMMENDED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE
DESIGNATION
1700025
SHEETS
1 of 350
CONTRACT
R-40609

UTILITIES

ELECTRIC:

NIPSCO ELECTRIC (CROWN POINT)
DAVE SCHAAFSMA
801 EAST 86TH AVENUE
MERRILLVILLE, IN 46410
(219) 647-5271
utilitycoordination@nisource.com

GAS

NIPSCO GAS (CROWN POINT)
DAVE SCHAAFSMA
801 EAST 86TH AVENUE
MERRILLVILLE, IN 46410
(219) 647-5271
utilitycoordination@nisource.com

WATER AND SEWER

TOWN OF CEDAR LAKE PUBLIC WORKS
ED ROBINSON
8550 LAKE SHORE DRIVE
CEDAR LAKE, INDIANA 46303
(219) 374-7478
erobinsonclpw@yahoo.com

TOWN OF ST. JOHN
BOB PHYARAZAN
9350 HACK STREET
ST. JOHN, INDIANA 46373
(219) 365-4655
jmillis.peo@stjohnin.com

CABLE TV

COMCAST NORTH
JAY CASTELLO
4045 EDISON PARKWAY ROAD
MISHAWAKA, INDIANA 46545
(574) 252-2561
jay castello@cable.comcast.com

COMMUNICATIONS/FIBER OPTICS

AT&T - DISTRIBUTION
MATT SPINDLER
240 NORTH MERIDIAN STREET, ROOM 1791
INDIANAPOLIS, INDIANA 46204
(317) 265-3050
ms4822@att.com

AT&T - TRANSMISSION
KENNETH COLWELL
1010 NORTH SAINT MARY STREET
SAN ANTONIO, TX 78215
(630) 383-9249
kcl298@att.com

LEVEL 3 COMMUNICATIONS, LLC
NOW CENTURYLINK
LEVEL 3 COMMUNICATIONS NETWORK RELOCATION
(877) 366-8344 EXT.: 2
nationalrelo@centurylink.com

CENTURYLINK (CTLCL)
BRUCE EMERICK
213 WEST LAPORTE STREET
PLYMOUTH, INDIANA 46563
(574) 926-1247
joseph.megyesi@sprint.com

INTELLIGENT FIBER NETWORK
SHAWN WRIGHT
KEITH HAMM
5520 WEST 76TH STREET
INDIANAPOLIS, INDIANA 46268
(317) 777-7119
(317) 777-7583
swright@intelligentfiber.com
khamm@intelligentfiber.com

GENERAL NOTES

**	ALL EARTH SHOULDERS, MEDIAN AREAS, AND CUT AND FILL SLOPES SHALL BE PLAIN OR MULCH SEEDED EXCEPT WHERE SODDING IS SPECIFIED.
	THE FINAL CROSS SECTIONS OF THE GRADING CONTRACT WILL BE THE ORIGINAL CROSS SECTIONS OF THE PAVING CONTRACT. HOWEVER, PARTIAL OR COMPLETE CROSS SECTIONS SHALL BE TAKEN IF NECESSARY TO DETERMINE THE ACTUAL EXCAVATION QUANTITIES.
	THE PAPER RELOCATION WILL BE CROSS SECTIONED BY THE ENGINEER BEFORE CONSTRUCTION.
	THE EXISTING ASPHALT PAVEMENT LOCATED OUTSIDE THE CONSTRUCTION LIMITS, BETWEEN STA. _____ AND _____, SHALL BE REMOVED AS DIRECTED.
	THE QUANTITY OF PEAT EXCAVATION SHOWN ON THE PLANS HAS BEEN ESTIMATED ON THE BASIS OF THEORETICAL CROSS SECTIONS BY USING TREATMENT OF EXISTING FILLS, TREATMENT BY REMOVAL, OR TREATMENT BY DISPLACEMENT, WHERE EACH TREATMENT APPLIES.
	ALL LIMITED ACCESS RIGHT-OF-WAY (L.A. R/W) IS TO BE FENCED WITH CHAIN LINK TYPE FENCE (CLTF) OR FARM FIELD TYPE FENCE (FFTF) WHERE SPECIFIED IN THE PLANS.

** REPRESENTS GENERAL NOTES REQUIRED

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

INDIANA UNDERGROUND
1-800-382-5544 OR CALL 811
24 HOURS A DAY 7 DAYS A WEEK

INDEX

SHEET NO.	DRAWINGS INDEX	
1	TITLE	
2	INDEX AND GENERAL NOTES	
3-7	TYPICAL SECTIONS	
8-11	PLAT NO. 1	
12-14	SURVEY CONTROL	*Removed for brevity*
15-142	MAINTENANCE OF TRAFFIC	*Removed all pages except typical sections for brevity*
143-202	PLAN AND PROFILE	
204-206	CURB RAMP DETAILS	
207-237	PAVEMENT MARKING AND SIGNING DETAILS	*Removed for brevity*
238-239	LIGHTING DETAILS	
240-242	TRAFFIC SIGNAL PLANS	
243-245	APPROACH TABLE	
246-249	STRUCTURE DATA TABLE	*Removed for brevity; Refer to Appendix I, I1 to I4*
250-350	CROSS SECTIONS	

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

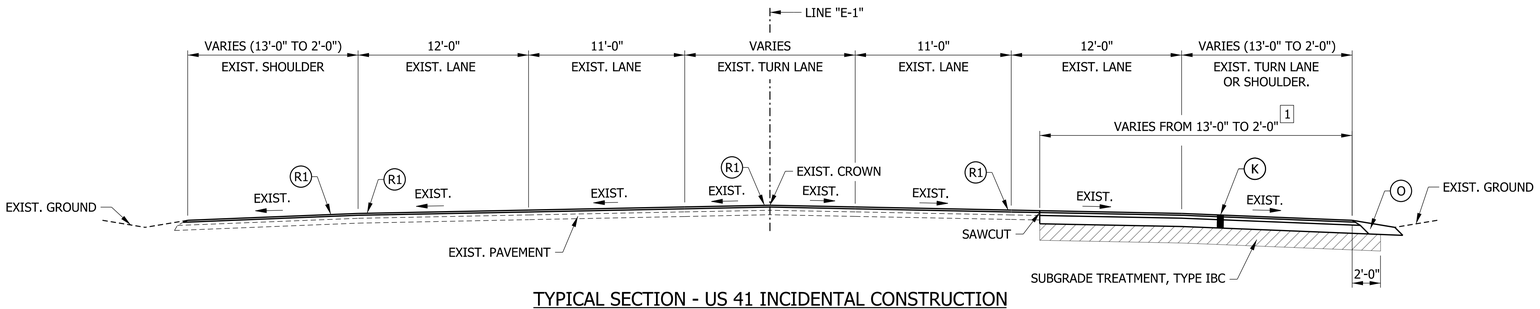
INDIANA
DEPARTMENT OF TRANSPORTATION

INDEX SHEET

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS
2 of 350
CONTRACT
R-40609

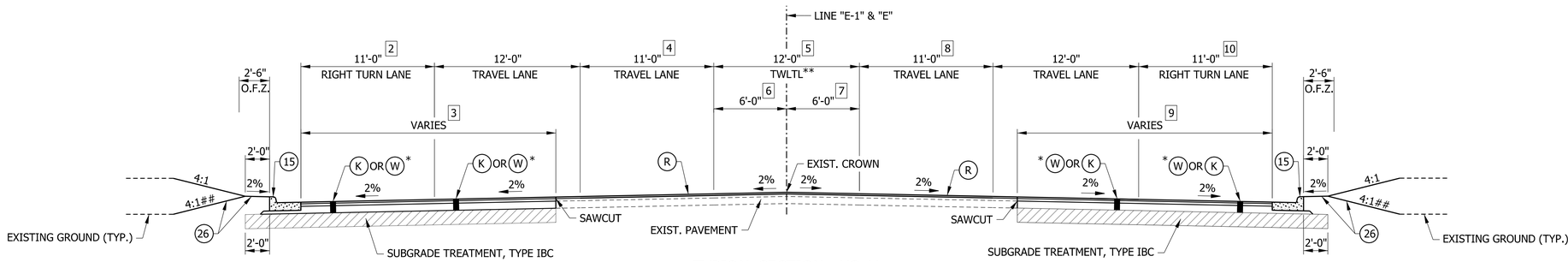
Mitchell, Wilcox
7/31/2025
model: INDEX Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_INDEX.dgn



TYPICAL SECTION - US 41 INCIDENTAL CONSTRUCTION

STA. 540+93.00 "E-1" TO STA. 544+00.00 "E-1"

1 (K) FROM STA. 543+85.00 "E-1" TO STA. 544+00.00 "E-1"



TYPICAL SECTION - US 41

STA. 544+00.00 "E-1" TO STA. 548+64.10 "E-1"
STA. 548+64.10 "E" TO STA. 617+30.00 "E"

2 EQUALS 0' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 0' FROM STA. 548+64.10 "E" TO 558+64.64 "E"
EQUALS 11' FROM STA. 558+54.64 "E" TO 561+00.00 "E"
VARIES FROM 11' @ STA. 561+00.00 "E" TO 0' @ STA. 562+00.00 "E"
EQUALS 0' FROM STA. 562+00.00 "E" TO STA. 612+91.51 "E"
VARIES FROM 0' @ STA. 612+91.51 "E" TO 9.94' @ STA. 613+68.16 "E"
VARIES FROM 9.94' @ STA. 613+68.16 "E" TO 12' @ STA. 614+66.11 "E"
EQUALS 12' FROM STA. 614+66.11 "E" TO STA. 616+52.94 "E"
VARIES FROM 12' @ STA. 616+52.94 "E" TO 2.75' @ STA. 617+30.00 "E"

3 EQUALS 4' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 4' FROM STA. 548+64.10 "E" TO 558+15.36 "E"
EQUALS 0' FROM STA. 558+15.36 "E" TO 558+54.64 "E"
EQUALS 6' FROM STA. 558+54.64 "E" TO 562+00.00 "E"
EQUALS 10' FROM STA. 562+00.00 "E" TO 574+50.00 "E"
VARIES FROM 10' @ STA. 574+50.00 "E" TO 12' @ STA. 575+50.00 "E"
EQUALS 4' FROM STA. 575+75.00 "E" TO STA. 587+02.00 "E"
VARIES FROM 4' @ STA. 587+02.00 "E" TO 6' @ STA. 587+92.00 "E"
EQUALS 6' FROM STA. 587+92.00 "E" TO STA. 612+91.51 "E"
VARIES FROM 6' @ STA. 612+91.51 "E" TO 15.94' @ STA. 613+68.16 "E"
VARIES FROM 15.94' @ STA. 613+68.16 "E" TO 18' @ STA. 614+66.11 "E"
EQUALS 18' FROM STA. 614+66.11 "E" TO STA. 616+52.94 "E"
VARIES FROM 18' @ STA. 616+52.94 "E" TO 8.75' @ STA. 617+30.00 "E"

4 EQUALS 11' FROM STA. 544+00.00 "E-1" TO STA. 548+64.10 "E-1"
EQUALS 11' FROM STA. 548+64.10 "E" TO STA. 587+02.00 "E"
VARIES FROM 11' @ STA. 587+02.00 "E" TO 12' @ STA. 587+92.00 "E"
EQUALS 12' FROM STA. 587+92.00 "E" TO STA. 617+30.00 "E"

5 EQUALS 12' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 12' FROM STA. 548+64.10 "E" TO 558+15.36 "E"
VARIES FROM 12' @ STA. 553+50.00 "E" TO 17' @ STA. 555+50.00 "E"
EQUALS 17' FROM STA. 555+50.00 "E" TO 565+00.00 "E"
VARIES FROM 17' @ STA. 565+00.00 "E" TO 12' @ STA. 566+50.00 "E"
EQUALS 12' FROM STA. 566+50.00 "E" TO 587+02.00 "E"
VARIES FROM 12' @ STA. 587+02.00 "E" TO 14' @ STA. 587+92.00 "E"
EQUALS 14' FROM STA. 587+92.00 "E" TO 617+30.00 "E"

6 EQUALS 6' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 6' FROM STA. 548+64.10 "E" TO 554+50.00 "E"
VARIES FROM 6' @ STA. 554+50.00 "E" TO 7.50' @ STA. 555+50.00 "E"
EQUALS 7.50' FROM STA. 555+50.00 "E" TO 565+00.00 "E"
VARIES FROM 7.50' @ STA. 565+00.00 "E" TO 6' @ STA. 566+00.00 "E"
EQUALS 6' FROM STA. 566+00.00 "E" TO 587+02.00 "E"
VARIES FROM 6' @ STA. 587+02.00 "E" TO 7' @ STA. 587+92.00 "E"
EQUALS 7' FROM STA. 587+92.00 "E" TO 617+30.00 "E"

7 EQUALS 6' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 6' FROM STA. 548+64.10 "E" TO 553+50.00 "E"
VARIES FROM 6' @ STA. 553+50.00 "E" TO 9.50' @ STA. 555+50.00 "E"
EQUALS 9.50' FROM STA. 555+50.00 "E" TO 565+00.00 "E"
VARIES FROM 9.50' @ STA. 565+00.00 "E" TO 6' @ STA. 566+50.00 "E"
EQUALS 6' FROM STA. 566+50.00 "E" TO 587+02.00 "E"
VARIES FROM 6' @ STA. 587+02.00 "E" TO 7' @ STA. 587+92.00 "E"
EQUALS 7' FROM STA. 587+92.00 "E" TO 617+30.00 "E"

8 EQUALS 11' FROM STA. 544+00.00 "E-1" TO STA. 548+64.10 "E-1"
EQUALS 11' FROM STA. 548+64.10 "E" TO STA. 587+02.00 "E"
VARIES FROM 11' @ STA. 587+02.00 "E" TO 12' @ STA. 587+92.00 "E"
EQUALS 12' FROM STA. 587+92.00 "E" TO STA. 617+30.00 "E"

9 EQUALS 10' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 10' FROM STA. 548+64.10 "E" TO 553+50.00 "E"
VARIES FROM 10' @ STA. 553+50.00 "E" TO 22.75' @ STA. 555+50.00 "E"
VARIES FROM 22.75' @ STA. 553+50.00 "E" TO 24.50' @ STA. 555+50.00 "E"
EQUALS 24.50' FROM STA. 555+50.00 "E" TO 556+98.50 "E"
EQUALS 6' FROM STA. 556+98.50 "E" TO 558+49.75 "E"
VARIES FROM 6' @ STA. 558+49.75 "E" TO 12' @ STA. 558+65.00 "E"
EQUALS 12' FROM STA. 558+65.00 "E" TO 559+80.00 "E"
EQUALS 4' FROM STA. 559+80.00 "E" TO 587+02.00 "E"
VARIES FROM 4' @ STA. 587+02.00 "E" TO 6' @ STA. 587+92.00 "E"
EQUALS 6' FROM STA. 587+92.00 "E" TO 617+30.00 "E"

10 EQUALS 0' FROM STA. 544+00.00 "E-1" TO 548+64.10 "E-1"
EQUALS 0' FROM STA. 548+64.10 "E" TO 553+50.00 "E"
VARIES FROM 0' @ STA. 553+50.00 "E" TO 11' @ STA. 554+50.00 "E"
EQUALS 11' FROM STA. 554+50.00 "E" TO STA. 557+41.18 "E"
VARIES FROM 11' @ STA. 557+41.18 "E" TO 0' @ STA. 559+01.28 "E"
EQUALS 0' FROM STA. 559+01.28 "E" TO STA. 617+30.00 "E"

LEGEND

(K) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA , 4, 58E, INTERMEDIATE, 19.0 MM ON
770 LB/SYD MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
QC/QA HMA, 4, 58S, BASE, 25.0 MM

(K1) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0 MM ON
880 LB/SYD QC/QA HMA, 4, 58S, BASE, 25.0 MM

(J) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 2, 58S, INTERMEDIATE, 25.0 MM ON
6 INCH MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
COMPACTED AGGREGATE, NO. 53

(R) HMA, MILL AND VARIABLE DEPTH OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM, ON
VARIABLE DEPTH QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0MM

(R1) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM

(R2) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM

(W) HMA WIDENING:
440 LB/SYD HMA INTERMEDIATE, TYPE D, ON
VARIABLE DEPTH HMA BASE, TYPE D (770 LB/SYD MIN.),
AS NEEDED TO MATCH ADJACENT PAVEMENT THICKNESS

(O) COMPACTED AGGREGATE NO. 53

(13) CONCRETE CURB, TYPE B

(15) COMBINED CONCRETE CURB AND GUTTER

(22) CONCRETE CENTER CURB, TYPE B

(26) SODDING, NURSERY

* (W) REQUIRED WHEN WIDTH IS 8' OR LESS
(K) REQUIRED WHEN WIDTH IS GREATER THAN 8'

** SEE LEFT TURN LANE W/ RAISED MEDIAN DETAILS FOR MORE INFORMATION OF INTERSECTIONS AT W 133RD AVE AND W 132ND AVE.

STANDARD OR SPECIAL DITCH MAY BE REQUIRED, SEE SPECIAL DITCH DETAILS FOR LOCATIONS.

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

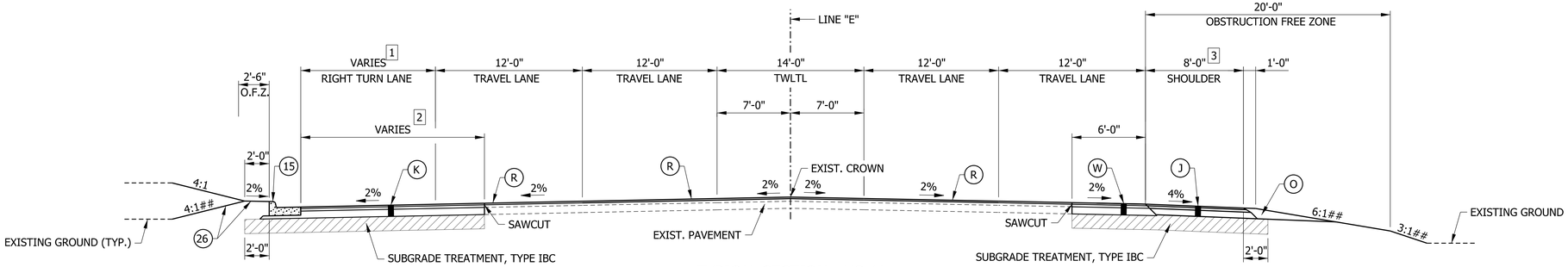
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
LINE "E-1" AND "E"

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	3 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_TYP_01.dgn



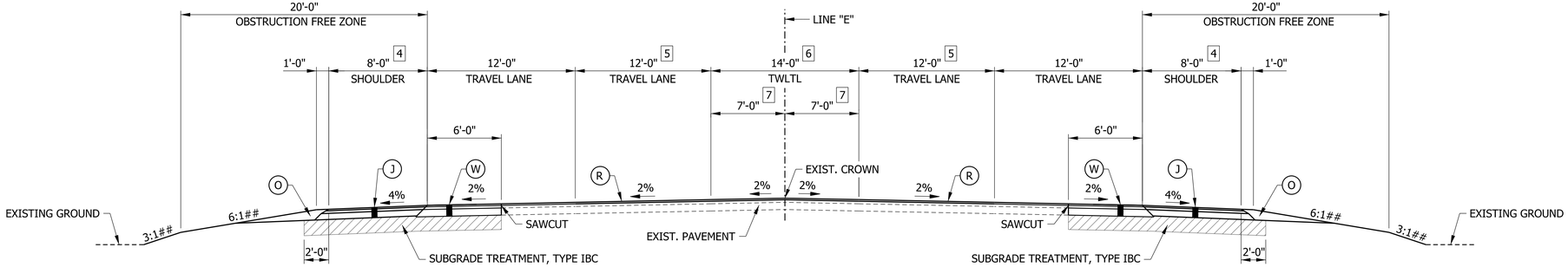
TYPICAL SECTION - US 41

STA. 617+30.00 "E" TO STA. 619+59.67 "E"

1 VARIES FROM 2.75' @ STA. 617+30.00 "E" TO 0' @ STA. 617+52.94 "E"
EQUALS 0' FROM STA. 617+52.94 "E" TO STA. 618+13.06 "E"
VARIES FROM 0' @ STA. 618+13.06 "E" TO 9.90' @ STA. 618+95.56 "E"
VARIES FROM 9.90' @ STA. 618+95.56 "E" TO 6.45' @ STA. 619+59.67 "E"

2 VARIES FROM 8.75' @ STA. 617+30.00 "E" TO 6' @ STA. 617+52.94 "E"
EQUALS 6' FROM STA. 617+52.94 "E" TO STA. 618+13.06 "E"
VARIES FROM 6' @ STA. 618+13.06 "E" TO 15.90' @ STA. 618+95.56 "E"
VARIES FROM 15.90' @ STA. 618+95.56 "E" TO 12.45' @ STA. 619+59.67 "E"

3 EQUALS 5' @ STA. 617+75.00 "E" TO STA. 618+50.00 "E"
EQUALS 10' FROM STA. 618+50.00 "E" TO STA. 619+59.67 "E"



TYPICAL SECTION - US 41

STA. 619+59.67 "E" TO STA. 640+30.00 "E"
STA. 646+40.00 "E" TO STA. 713+42.00 "E"

4 EQUALS 8' FROM STA. 619+59.67 "E" TO STA. 640+60.00 "E"
EQUALS 8' FROM STA. 646+40.00 "E" TO STA. 669+76.72 "E"
VARIES FROM 8' @ STA. 669+76.72 "E" TO 5' @ STA. 670+60.94 "E"
EQUALS 5' FROM STA. 670+60.94 "E" TO STA. 674+07.73 "E"
VARIES FROM 5' @ STA. 674+07.73 "E" TO 8' @ STA. 674+91.87 "E"
EQUALS 8' FROM STA. 674+91.87 "E" TO STA. 713+42.00 "E"

5 EQUALS 12' FROM STA. 619+59.67 "E" TO STA. 640+60.00 "E"
EQUALS 12' FROM STA. 646+40.00 "E" TO STA. 669+76.72 "E"
VARIES FROM 12' @ STA. 669+76.72 "E" TO 11' @ STA. 670+60.94 "E"
EQUALS 11' FROM STA. 670+60.94 "E" TO STA. 674+07.73 "E"
VARIES FROM 11' @ STA. 674+07.73 "E" TO 12' @ STA. 674+91.87 "E"
EQUALS 12' FROM STA. 674+91.87 "E" TO STA. 713+42.00 "E"

6 EQUALS 14' FROM STA. 619+59.67 "E" TO STA. 640+60.00 "E"
EQUALS 14' FROM STA. 646+40.00 "E" TO STA. 669+76.72 "E"
VARIES FROM 14' @ STA. 669+76.72 "E" TO 12.5' @ STA. 670+60.94 "E"
EQUALS 12.5' FROM STA. 670+60.94 "E" TO STA. 674+07.73 "E"
VARIES FROM 12.5' @ STA. 674+07.73 "E" TO 14' @ STA. 674+91.87 "E"
EQUALS 14' FROM STA. 674+91.87 "E" TO STA. 713+42.00 "E"

7 EQUALS 7' FROM STA. 619+59.67 "E" TO STA. 640+60.00 "E"
EQUALS 7' FROM STA. 646+40.00 "E" TO STA. 669+76.72 "E"
VARIES FROM 7' @ STA. 669+76.72 "E" TO 6.25' @ STA. 670+60.94 "E"
EQUALS 6.25' FROM STA. 670+60.94 "E" TO STA. 674+07.73 "E"
VARIES FROM 6.25' @ STA. 674+07.73 "E" TO 7' @ STA. 674+91.87 "E"
EQUALS 7' FROM STA. 674+91.87 "E" TO STA. 713+42.00 "E"

LEGEND

- (K) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA , 4, 58E, INTERMEDIATE, 19.0 MM ON
  770 LB/SYD MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
  QC/QA HMA, 4, 58S, BASE, 25.0 MM
- (K1) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0 MM ON
  880 LB/SYD QC/QA HMA, 4, 58S, BASE, 25.0 MM
- (J) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA, 2, 58S, INTERMEDIATE, 25.0 MM ON
  6 INCH MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
  COMPACTED AGGREGATE, NO. 53
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM, ON
  VARIABLE DEPTH QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0MM
- (R1) HMA, MILL AND OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM
- (R2) HMA, MILL AND OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM
- (W) HMA WIDENING:
  440 LB/SYD HMA INTERMEDIATE, TYPE D, ON
  VARIABLE DEPTH HMA BASE, TYPE D (770 LB/SYD MIN.),
  AS NEEDED TO MATCH ADJACENT PAVEMENT THICKNESS
- (O) COMPACTED AGGREGATE NO. 53
- (13) CONCRETE CURB, TYPE B
- (15) COMBINED CONCRETE CURB AND GUTTER
- (22) CONCRETE CENTER CURB, TYPE B
- (26) SODDING, NURSERY

* (W) REQUIRED WHEN WIDTH IS 8' OR LESS
(K) REQUIRED WHEN WIDTH IS GREATER THAN 8'

STANDARD OR SPECIAL DITCH MAY BE REQUIRED, SEE SPECIAL DITCH DETAILS FOR LOCATIONS.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

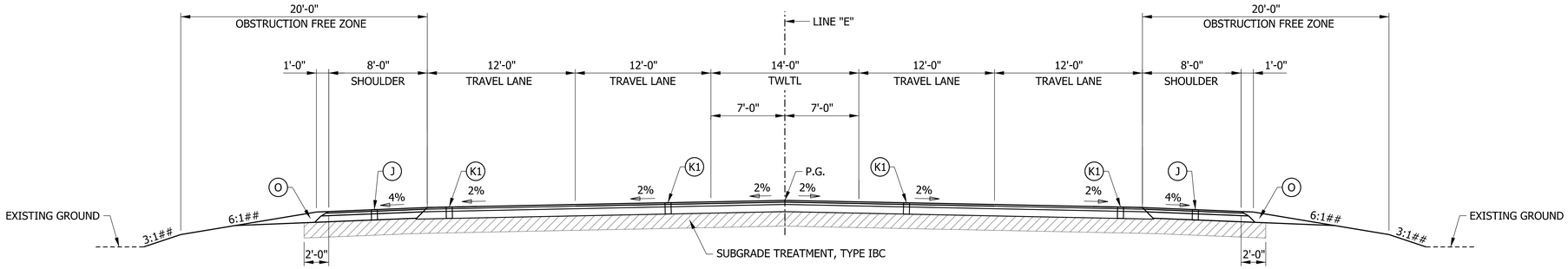
DESIGNED: MRW | DRAWN: JWM | CHECKED: LDW | CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION LINE "E"

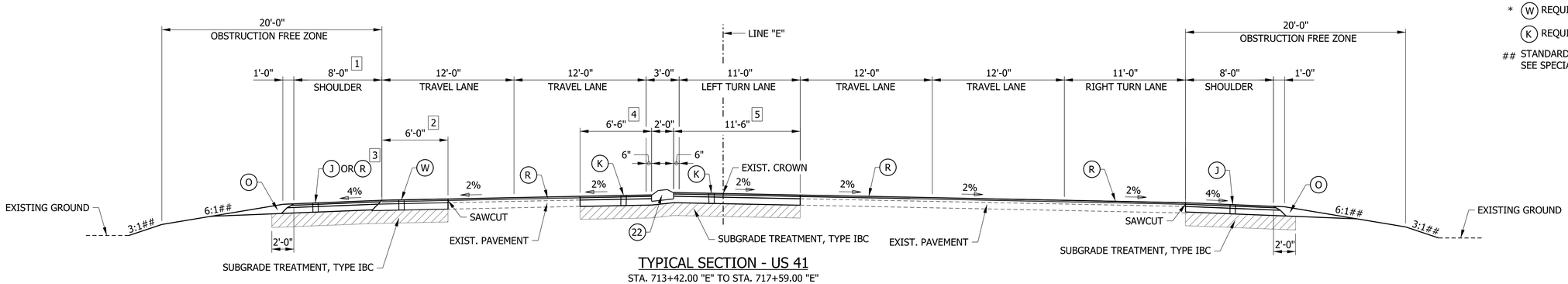
HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	4 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_TYP_02.dgn



TYPICAL SECTION - US 41

STA. 640+30.00 "E" TO STA. 646+40.00 "E"



TYPICAL SECTION - US 41

STA. 713+42.00 "E" TO STA. 717+59.00 "E"

1 EQUALS 8' FROM STA. 713+42.00 "E" TO STA. 715+30.59 "E"
VARIES FROM 8' @ STA. 715+30.59 "E" TO 12.67' @ STA. 716+18.00 "E"
VARIES FROM 12.67' @ STA. 716+18.00 "E" TO 8' @ STA. 716+53.22 "E"
EQUALS 8' FROM STA. 716+53.22 "E" TO STA. 717+59.00 "E"

2 EQUALS 6' FROM STA. 713+42.00 "E" TO STA. 714+57.60 "E"
EQUALS 0' FROM STA. 714+57.60 "E" TO STA. 717+59.00 "E"

3 (J) FROM STA. 713+42.00 "E" TO STA. 713+30.59 "E"
(R) FROM STA. 713+30.59 "E" TO STA. 717+59.00 "E"

4 EQUALS 0' FROM STA. 713+42.00 "E" TO STA. 713+50.00 "E"
EQUALS 0.5' FROM STA. 713+50.00 "E" TO STA. 715+00.00 "E"
EQUALS 6.5' FROM STA. 715+00.00 "E" TO STA. 717+24.00 "E"
EQUALS 0' FROM STA. 717+24.00 "E" TO STA. 717+59.00 "E"

5 EQUALS 0' FROM STA. 713+42.00 "E" TO STA. 713+50.00 "E"
EQUALS 11.5' FROM STA. 713+50.00 "E" TO STA. 716+00.00 "E"
EQUALS 6' FROM STA. 716+00.00 "E" TO STA. 716+50 "E"
EQUALS 0.5' FROM STA. 716+50.00 "E" TO STA. 717+24.00 "E"
EQUALS 0' FROM STA. 717+24.00 "E" TO STA. 717+59.00 "E"

LEGEND

(K) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA , 4, 58E, INTERMEDIATE, 19.0 MM ON
770 LB/SYD MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
QC/QA HMA, 4, 58S, BASE, 25.0 MM

(K1) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0 MM ON
880 LB/SYD QC/QA HMA, 4, 58S, BASE, 25.0 MM

(J) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 2, 58S, INTERMEDIATE, 25.0 MM ON
6 INCH MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
COMPACTED AGGREGATE, NO. 53

(R) HMA, MILL AND VARIABLE DEPTH OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM, ON
VARIABLE DEPTH QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0MM

(R1) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM

(R2) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM

(W) HMA WIDENING:
440 LB/SYD HMA INTERMEDIATE, TYPE D, ON
VARIABLE DEPTH HMA BASE, TYPE D (770 LB/SYD MIN.),
AS NEEDED TO MATCH ADJACENT PAVEMENT THICKNESS

(O) COMPACTED AGGREGATE NO. 53

(13) CONCRETE CURB, TYPE B

(15) COMBINED CONCRETE CURB AND GUTTER

(22) CONCRETE CENTER CURB, TYPE B

(26) SODDING, NURSERY

* (W) REQUIRED WHEN WIDTH IS 8' OR LESS
(K) REQUIRED WHEN WIDTH IS GREATER THAN 8'

STANDARD OR SPECIAL DITCH MAY BE REQUIRED, SEE SPECIAL DITCH DETAILS FOR LOCATIONS.

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

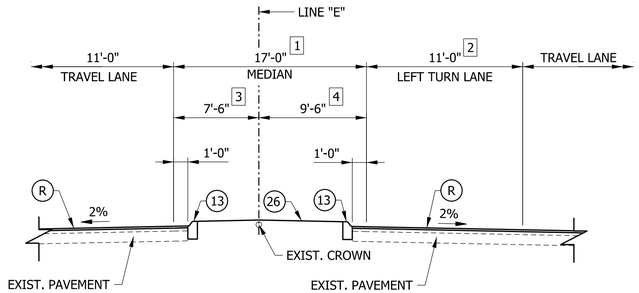
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	5 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_TYP_03.dgn



LEFT TURN LANE W/ RAISED MEDIAN DETAIL W/ CONCRETE CURB

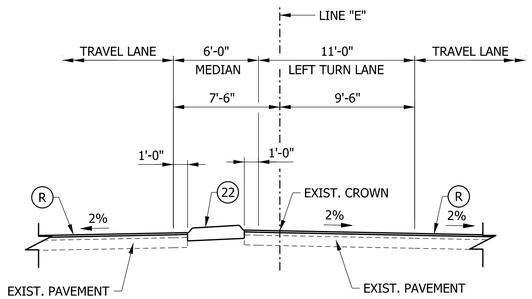
STA. 554+50.00 "E" TO STA. 555+50.00 "E"
STA. 563+00.00 "E" TO STA. 564+00.00 "E"

1 VARIES FROM 13.75' @ STA. 554+50.00 "E" TO 6' @ STA. 555+50.00 "E"
VARIES FROM 17' @ STA. 563+00.00 "E" TO 6' @ STA. 564+00.00 "E"

2 VARIES FROM 0' @ STA. 554+50.00 "E" TO 11' @ STA. 555+50.00 "E"
VARIES FROM 0' @ STA. 563+00.00 "E" TO 11' @ STA. 564+00.00 "E"

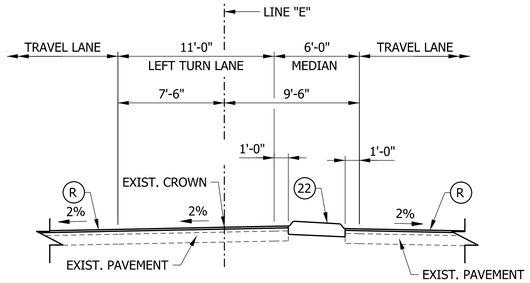
3 VARIES FROM 6' @ STA. 554+50.00 "E" TO 7.50' @ STA. 555+50.00 "E"

4 VARIES FROM 7.75' RT. @ STA. 554+50.00 "E" TO 1.50' LT. @ STA. 555+50.00 "E"
VARIES FROM 9.50' RT. @ STA. 563+00.00 "E" TO 1.50' LT. @ STA. 564+00.00 "E"



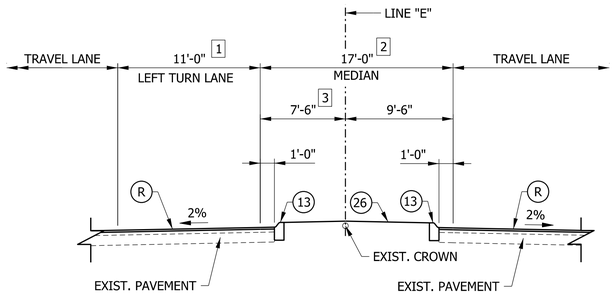
LEFT TURN LANE W/ RAISED MEDIAN DETAIL W/ CONCRETE CENTER CURB

STA. 555+50.00 "E" TO STA. 557+75.00 "E"
STA. 564+00.00 "E" TO STA. 564+00.00 "E"



LEFT TURN LANE W/ RAISED MEDIAN DETAIL W/ CONCRETE CENTER CURB

STA. 558+94.00 "E" TO STA. 561+00.00 "E"



LEFT TURN LANE W/ RAISED MEDIAN DETAIL W/ CONCRETE CURB

STA. 561+00.00 "E" TO STA. 563+00.00 "E"

1 VARIES FROM 11' @ STA. 561+00.00 "E" TO 0' @ STA. 562+00.00 "E"
EQUALS 0' FROM STA. 562+00.00 "E" TO STA. 563+00.00 "E"

2 VARIES FROM 6' @ STA. 561+00.00 "E" TO 17' @ STA. 562+00.00 "E"
EQUALS 17' FROM STA. 562+00.00 "E" TO STA. 563+00.00 "E"

3 VARIES FROM 3.50' RT. @ STA. 561+00.00 "E" TO 7.50' LT. @ STA. 562+00.00 "E"
EQUALS 7.50' FROM STA. 562+00.00 "E" TO STA. 563+00.00 "E"

LEGEND

(K) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA , 4, 58E, INTERMEDIATE, 19.0 MM ON
770 LB/SYD MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
QC/QA HMA, 4, 58S, BASE, 25.0 MM

(K1) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0 MM ON
880 LB/SYD QC/QA HMA, 4, 58S, BASE, 25.0 MM

(J) FULL DEPTH HMA:
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM ON
275 LB/SYD QC/QA HMA, 2, 58S, INTERMEDIATE, 25.0 MM ON
6 INCH MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
COMPACTED AGGREGATE, NO. 53

(R) HMA, MILL AND VARIABLE DEPTH OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM, ON
VARIABLE DEPTH QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0MM

(R1) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM

(R2) HMA, MILL AND OVERLAY:
ASPHALT MILLING, 1.5 IN.
165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM

(W) HMA WIDENING:
440 LB/SYD HMA INTERMEDIATE, TYPE D, ON
VARIABLE DEPTH HMA BASE, TYPE D (770 LB/SYD MIN.),
AS NEEDED TO MATCH ADJACENT PAVEMENT THICKNESS

(O) COMPACTED AGGREGATE NO. 53

(13) CONCRETE CURB, TYPE B

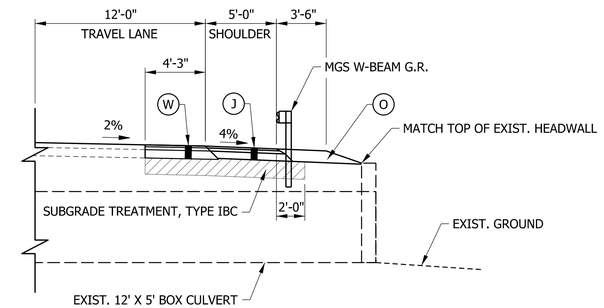
(15) COMBINED CONCRETE CURB AND GUTTER

(22) CONCRETE CENTER CURB, TYPE B

(26) SODDING, NURSERY

* (W) REQUIRED WHEN WIDTH IS 8' OR LESS
(K) REQUIRED WHEN WIDTH IS GREATER THAN 8'

STANDARD OR SPECIAL DITCH MAY BE REQUIRED, SEE SPECIAL DITCH DETAILS FOR LOCATIONS.



US 41 OVER EXIST. BOX CULVERT SHOULDER DETAIL

(DETAIL SHOWN TO THE RIGHT, MIRROR FOR THE LEFT)
STA. 672+50.00 "E" TO STA. 673+00.00 "E" - RT.
STA. 671+67.00 "E" TO STA. 672+17.00 "E" - LT.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

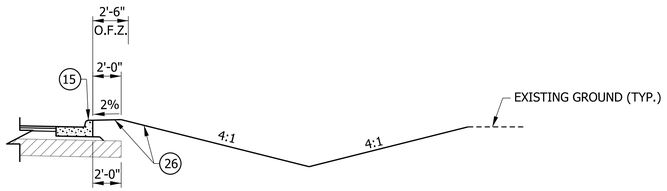
DESIGNED: MRW | DRAWN: JWM
CHECKED: LDW | CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
LINE "E"

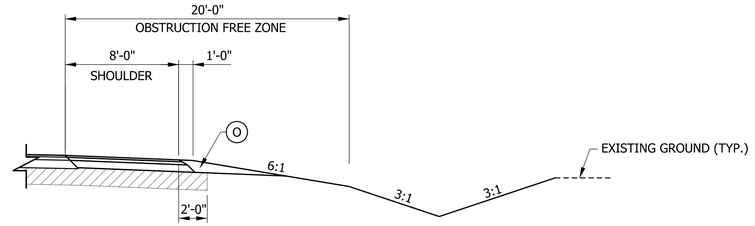
HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	6 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_TYP_04.dgn



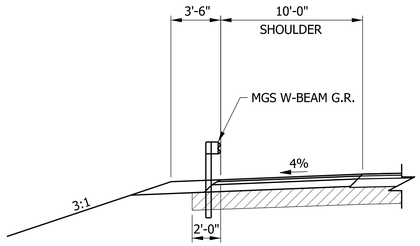
SPECIAL DITCH ADJACENT TO CURB & GUTTER DETAIL

(DETAIL SHOWN FOR THE RIGHT DITCH, MIRROR FOR LEFT DITCH)
STA. XXX+XX.XX "E" TO STA. XXX+XX.XX "E" - LT.



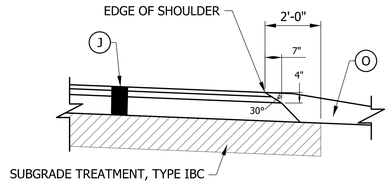
SPECIAL DITCH ADJACENT TO OPEN SHOULDER DETAIL

(DETAIL SHOWN FOR THE RIGHT DITCH, MIRROR FOR LEFT DITCH)
STA. XXX+XX.XX "E" TO STA. XXX+XX.XX "E" - LT.



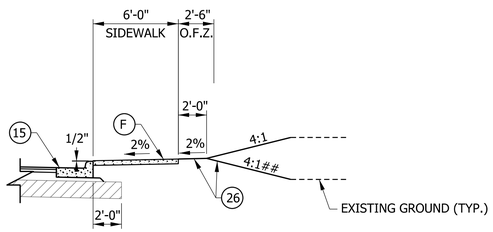
MGS W-BEAM G.R. DETAIL

(DETAIL SHOWN TO THE LEFT, MIRROR FOR THE RIGHT)
STA. 618+00.00 "E" TO STA. 625+00.00 E" - RT.
STA. 625+91.00 "E" TO STA. 629+00.00 E" - RT.
STA. 625+50.00 "E" TO STA. 629+00.00 E" - LT.



SAFETY EDGE DETAIL - REQUIRED FOR HMA PAVEMENT

SCALE: N.T.S.



SIDEWALK DETAIL

STA. 555+47.29 "E" TO STA. 557+41.18 "E" - RT.

LEGEND

- (K) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA , 4, 58E, INTERMEDIATE, 19.0 MM ON
  770 LB/SYD MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
  QC/QA HMA, 4, 58S, BASE, 25.0 MM
- (K1) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 4, 58E, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0 MM ON
  880 LB/SYD QC/QA HMA, 4, 58S, BASE, 25.0 MM
- (J) FULL DEPTH HMA:
  165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM ON
  275 LB/SYD QC/QA HMA, 2, 58S, INTERMEDIATE, 25.0 MM ON
  6 INCH MIN. (AS NEEDED TO MATCH ADJ. PVMT. THICKNESS)
  COMPACTED AGGREGATE, NO. 53
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM, ON
  VARIABLE DEPTH QC/QA HMA, 4, 58E, INTERMEDIATE, 19.0MM
- (R1) HMA, MILL AND OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA, 4, 58E, SURFACE, 9.5 MM
- (R2) HMA, MILL AND OVERLAY:
  ASPHALT MILLING, 1.5 IN.
  165 LB/SYD QC/QA HMA, 2, 58S, SURFACE, 9.5 MM
- (W) HMA WIDENING:
  440 LB/SYD HMA INTERMEDIATE, TYPE D, ON
  VARIABLE DEPTH HMA BASE, TYPE D (770 LB/SYD MIN.),
  AS NEEDED TO MATCH ADJACENT PAVEMENT THICKNESS
- (O) COMPACTED AGGREGATE NO. 53
- (13) CONCRETE CURB, TYPE B
- (15) COMBINED CONCRETE CURB AND GUTTER
- (22) CONCRETE CENTER CURB, TYPE B
- (26) SODDING, NURSERY
- (F) SIDEWALK, CONCRETE

* (W) REQUIRED WHEN WIDTH IS 8' OR LESS
(K) REQUIRED WHEN WIDTH IS GREATER THAN 8'

STANDARD OR SPECIAL DITCH MAY BE REQUIRED, SEE SPECIAL DITCH DETAILS FOR LOCATIONS.

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

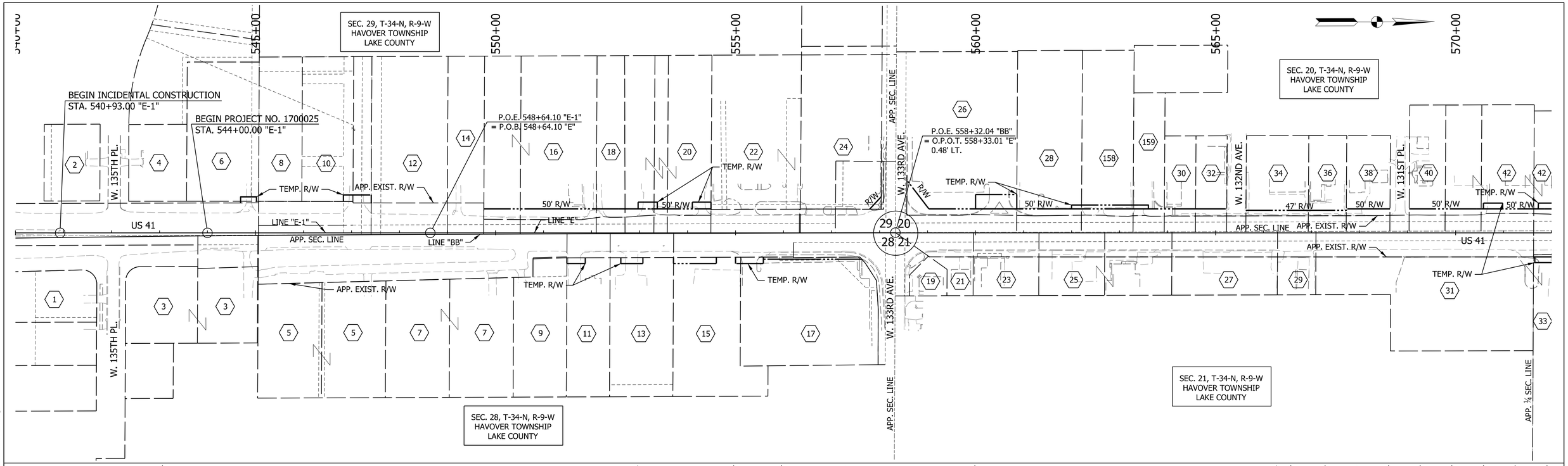
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	7 of 350
	CONTRACT
	R-40609

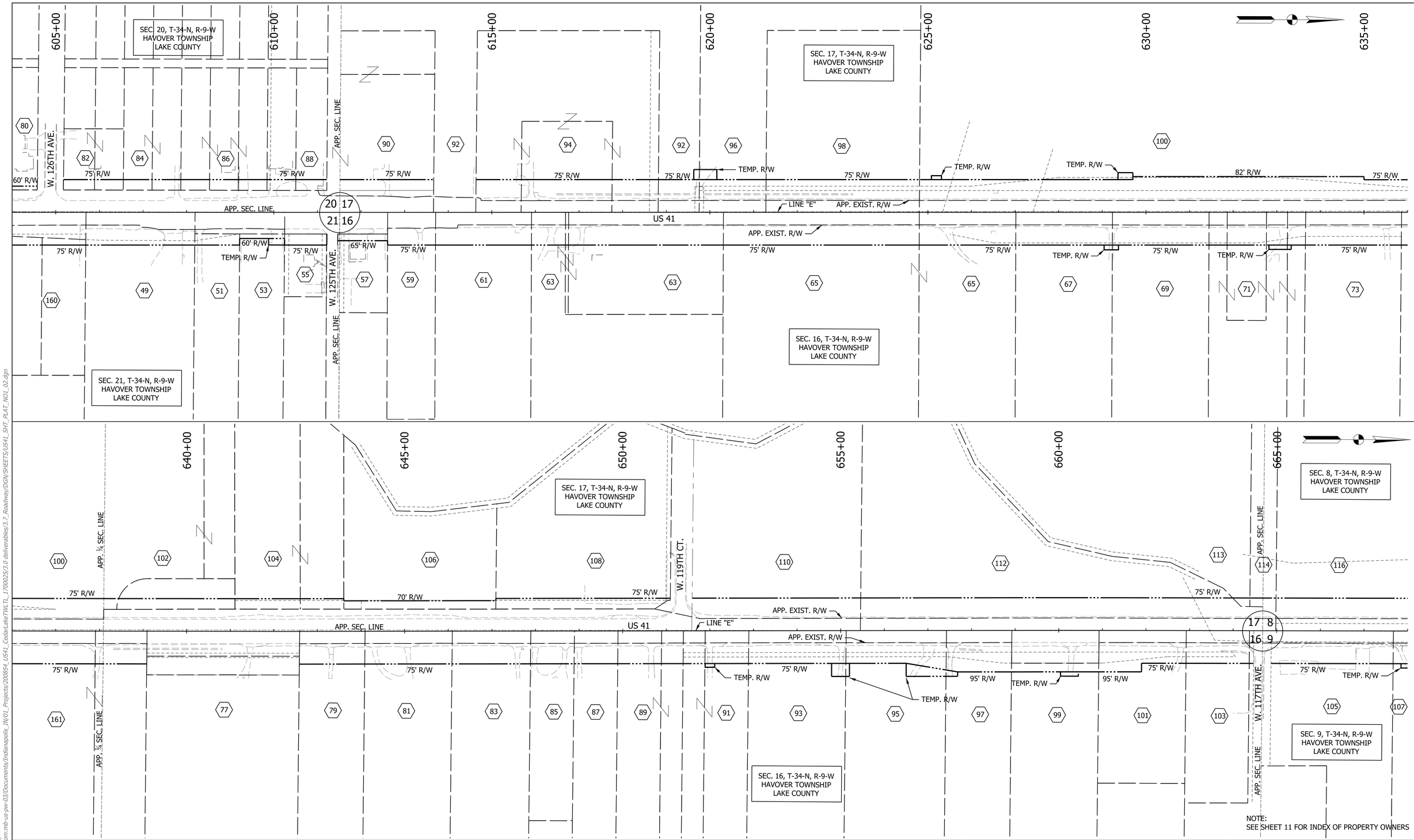
Mitchell Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_TYP_05.dgn



NOTE:
SEE SHEET 11 FOR INDEX OF PROPERTY OWNERS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100' / BRIDGE FILE
DESIGNED: MRW	DRAWN: JWM	PLAT NO. 1	VERTICAL SCALE N/A / DESIGNATION 1700025
CHECKED: LDW	CHECKED: MAE		SHEETS 8 of 350 / CONTRACT R-40609

Mitchell.Wilcox
7/31/2025
model:US41_SHT_PLAT_NO1_01
file:pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_PLAT_NO1_01.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

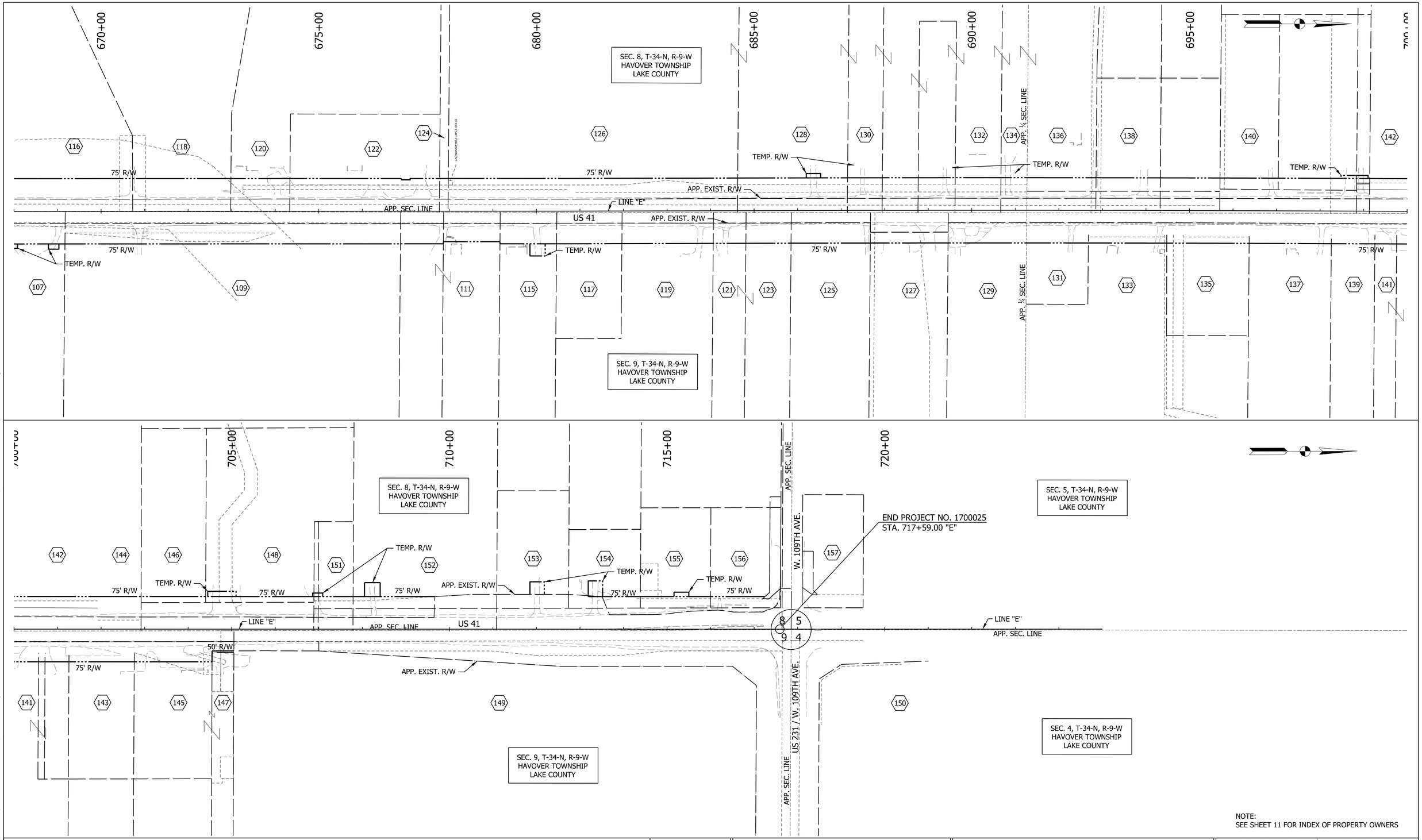
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	9 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
7/31/2025
model:US41_SHT_PLAT_NO1_02
file:pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_PLAT_NO1_02.dgn



NOTE:
SEE SHEET 11 FOR INDEX OF PROPERTY OWNERS

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100' / BRIDGE FILE
		VERTICAL SCALE N/A / DESIGNATION 1700025
DESIGNED: MRW DRAWN: JWM	PLAT NO. 1	SHEETS 10 of 350
CHECKED: LDW CHECKED: MAE		CONTRACT R-40609

Mitchell.Wilcox
7/31/2025
model:US41_SHT_PLAT_NO1_03
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INDEX NO.	PROPERTY OWNER
1	EDWARD & LUCY ALVRES, H/W
2	MICHAEL J. PHELPS & TAYLOR K. AHLGRAIN
3	THE CHICAGO TRUST COMPANY AS TRUSTEE UNDER TRUST #6388
4	JAMES A. & DOROTHY A. MACHURA, H/W
5	CLOVINA L. SNOOK & DEBORAH A. KOONCE TENANTS BY THE ENTIRETY WITH RIGHTS OF SURVIVORSHIP
6	GERALD C. STENGER, SR. AS TRUSTEE UNDER THE GERALD C. STENGER, SR. REVOCALBE LIVING TRUST
7	ANTHONY C. & MARIAN L. VISOVATTI TRUSTEES OF THE VISOVATTI FAMILY TRUST
8	J & R PROPERTY MANAGEMENT LLC
9	SCOTT A. & GRETCHEN A. GERSTENKORN, H/W
10	YANCEY'S HOUSE OF CARPET, INC.
11	WAYNE W. & JUDITH B. STOLL, TRUSTEES, OR THEIR SUCCESSORS IN TRUST UNDER THE STOLL JOINT TRUST
12	LEO AND SONS, INC.
13	SCOTT A. & GRETCHEN A. GERSTENKORN, H/W
14	TIMOTHY P. PRIM & JENNIFER L. VANBEEK J.T.F.R.O.S.
15	ARDT III, LLC
16	ILT PROPERTIES, LLC
17	FDG C41 IN CEDAR LAKE LLC
18	WAYNE WILLIAM STOLL JR., TRUSTEE, OR HIS SUCCESSORS IN TRUST UNDER THE WAYNE WILLIAM STOLL JR LIVING TRUST
19	VICTORIA LYNN VICARI
20	HENN AND SONS CONSTRUCTION SERVICES, INC.
21	DOROTHY M. & THOMAS H. WILLIAMS
22	MCDONALD'S USA, LLC
23	JOHN PAGOREK
24	B&F INVESTORS GROUP, LLC
25	FREDERICK R. & SHELLY R. FABER H/W
26	TEACHER'S RETIREMENT SYSTEM OF THE STATE OF KENTUCKY
27	RONALD D. ONDRA
28	JAMES & ANASTASIA XEROGLANNIS, H/W
29	MARTHA ALICE WRIGHT, TRUSTEE, OR HER SUCCESSORS IN TRUST, UNDER THE WRIGHT LIVING TRUST
30	GLORIA YOUNGS AS SUCCESSOR TRUSTEE UNDER WRITTEN TRUST AGREEMENT
31	COFHEN, INC.
32	JOVO & LJUBINKA RADLOVICH, A/K/A/ DJUBINKA RADLOVICH, H/W
33	HENN AND SONS CONSTRUCTION SERVICES, INC.
34	HITESH BHATT
35	MARIAN HOME ASSOCIATION, INC
36	SON NGUYEN
37	US 41 PROPERTIES LLC
38	ZBIGNIEW & MALGORZATA CZYZEWSKI, H/W
39	PSB/13007 WICKER, LLC
40	HOWE REI, LLC
41	R.E. SPURLOCK, INC.
42	MIDWAY, LLC
43	HAROLD G. & PAULINE G. McMILLION, H/W AS TENANTS BY ENTIRETIES
44	CEDAR LAKE BULK PLANT, INC
45	BURDAN BROTHERS BUILDING LLC
46	TIMOTHY J. SIMS
47	BOSILJKA MIHAJLOVIC, AS TRUSTEE, UNDER THE PROVISIONS OF A TRUST AGREEMENT
48	KAREN ANN McINTYRE NOVAK, CO-TRUSTEE OF THE SAMUAL B. McINTYRE RESIDUARY TRUST B
49	ABY, LLC
50	DAPAN INVESTEMENTS, LLC
51	HOWE REI, LLC
52	CLINT & MICHELLE JOHNSON, H/W
53	MILLE FIORI, LLC
54	JOHN & DARLENE BOERSMA, H/W TENANTS BY THE ENTIRETIES
55	GRANT E. & LOIS J. EASTLING REVOCABLE TRUST AS TRUSTEES, OR THE SUCCESSOR TRUSTEE UNDER THE GRANT E EASTLING and LOIS J. EASTLING REVOCABLE TRUST
56	ILLIANA STORAGE, LLC
57	SDH PROPERTIES LLC
58	JOHN J. KNIGHT
59	MICHAEL V. GEISHEIMER
60	MICHAEL E. MUNDO
61	DZ PROPERTIES, LLC
62	FADS GROUP, LLC
63	MARY & SALLY KALLAY, H/W
64	CEDAR LAKE LOT, LLC
65	MELTON E. & BETTY J. SMITH, H/W
66	TRUST P-3204
67	JAMES C. & BARBARA D. CITTA, H/W
68	12712 WICKER, LLC
69	ROGER D. & JOHANNA WYCKOFF, H/W
70	LUIS E. SERRANO
71	JOSEPH THOMAS PLAHTRIC
72	NANCY A. O'MALLEY & LINDA L. BROWNING 1/2 INTEREST EACH AS T.I.C.
73	RYLAND E. & TERESA A. PONTO, H/W
74	T & J LAND VENTURES, LLC
76	LINDEMULDER PROPERTIES, LLC
77	HARRY C. BEAMER SR. & OGALENE L. BEAMER, H/W
78	JANE & JASON STRATON
79	RODNEY C. & WANDA L. ASHCRAFT, H/W
80	LINDEMULDER PROPERTIES, LLC
81	FIRST BANK OF WHITING AS TRUSTEE UNDER THE PROVISIONS OF A CERTAIN TRUST AGREEMENT KNOWN AS TRUST NUMBER 1861
82	HOBART COMMONS, LLC
83	GERALD G. & BEVERLY MUELLER, H/W
84	THERON SACK, AS TRUSTEE, UNDER THE PROVISIONS OF THE SACK LIVING TRUST
85	CHRISTOPHER S. WHITE
86	MOMIR & SLADJANA J. KERIC, H/W
87	PAMELA J. DONALDSON, SOLE TRUSTEE OR HER SUCCESSORS IN TRUST UNDER THE PAMELA J. DONALDSON LIVING TRUST
88	C L LEASING, LLC
89	NOAH N. HAMBLIN
90	RICHARD H. HENN & ROBERT R. HENN J.T.R.O.S.
91	BRIAN T. KOLL & ELISE C. SPENCER H/W

INDEX NO.	PROPERTY OWNER
92	HANOVER FARMS INC.
93	JOSEPH H. & ETHEL M. BIEGEL, H/W
94	RICHARD STONE
95	CONRAD J. GALLO JR. - UNDIVIDED ONE-HALF INTEREST JOHN R. GALLO - UNDIVIDED ONE-HALF INTEREST AS TENANTS IN COMMON, AND NOT AS JOINT TENANTS
96	RICHARD C. & SUSAN J. SHEEHY, H/W
97	FIDUCIARY MANAGMENT CORPORATION AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED THE 30TH DAY OF JULY, 1993 KNOWN AS TRUST No. 10
98	FIRST NATIONAL BANK LOCATED AT 128 WEST LINCOLN HIGHWAY, FRANKFORT, IL 60423 AND AS TRUSTEE OF A CERTAIN TRUST DATED JULY 21, 2006 AND KNOWN AS TRUST No. 8790
99	ANDRIC REVOCABLE TRUST
100	FIRST NATIONAL BANK LOCATED AT 128 WEST LINCOLN HIGHWAY, FRANKFORT, IL 60423 AND AS TRUSTEE OF A CERTAIN TRUST DATED JULY 21, 2006 AND KNOWN AS TRUST No. 8790
101	JIMMIE D. & PEGGY L. WHITE, H/W
102	ROBERT W. & SANDRA L. PEIFER, TRUSTEES OR THEIR SUCCESSORS IN TRUST UNDER THE ROBERT AND SANDRA PEIFER LIVING TRUST
103	BBT CUSTOM HOMES, INC.
104	HOWARD L. & MAURA F. CARPENTER, H/W
105	RAE L. HUTCHINSON, ET. AL.
106	DIANE M. GLOWACKI
107	ELMER G. HAMBLIN & JUANITA A. HAMLIN LIVING TRUST
108	JAMES D. & LINDA R. WOZNIEWSKI, H/W
109	GAZEL A. MEHOK JR. & MARLENE MEHOK, H/W
110	NANCY L. BOWMAN-SPURLOCK AS TRUSTEE UNDER THE PROVISIONS OF THAT CERTAIN TRUST AGREEMENT DATED JULY 14, 1998, AS AMENDED ON MAY 29, 2002, AND FURTHER AMENDED AND RESTATED ON NOVEMBER 23, 2011
111	DAVID A. & ALYCE HARMENING TRUSTEES, OR THEIR SUCCESSORS IN TRUST UNDER THE DAVID A. HARMENING LIVING TRUST DATED JANUARY 6, 2010 UNDIVIDED ONE-HALF INTEREST & DAVID A. HARMENING, TRUSTEE OR HIS SUCCESSORS IN TRUST UNDER THE ALYCE HARMENING FAMILY TRUST A SUB-TRUST OF THE ALYCE HARMENING LIVING TRUST DATED JANUARY 6, 2010 UNDIVIDED ONE-HALF INTEREST
112	KENNETH & PAMELA J. SPURLOCK, H/W TENANTS BY ENTIRETIES
113	SHERYL L. BIRKETT AS TRUSTEE OF THE SHERYL L. BIRKETT TRUST
114	ANDREW T. BIRKETT 11739 WOODMAR STREET, CEDAR LAKE, INDIANA, 46303 AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED THE 18TH DAY OF FEBRUARY 2004 KNOWN AS THE ANDREW T. BIRKETT TRUST
115	GARY M. SPOLJARIC
116	DANIEL R. & MARIA A. NAPOLES, H/W
117	TERRY PHILLIPS & CYNTHIA PHILLIPS, TRUSTEES UNDER THE PROVISIONS OF THE PHILLIPS LIVING TRUST
118	EDWARD W. MICTHELL, et. al. AS JOINT TENANTS
119	TERRY PHILLIPS & CYNTHIA PHILLIPS, TRUSTEES UNDER THE PROVISIONS OF THE PHILLIPS LIVING TRUST
120	EDWARD W. & LYNETTE J. MITCHELL, H/W AS JOINT TENANTS
121	EGGERT SIGNATURE PROPERTIES, LLC
122	WILLIAM E. MITCHELL, et. al. AS J.T.R.O.S.
123	EGGERT SIGNATURE PROPERTIES, LLC
124	NANCY L. BOWMAN-SPURLOCK AS TRUSTEE UNDER THE PROVISIONS OF THAT CERTAIN TRUST AGREEMENT DATED JULY 14, 1998, AS AMENDED ON MAY 29, 2002, AND FURTHER AMENDED AND RESTATED ON NOVEMBER 23, 2011
125	EGGERT SIGNATURE PROPERTIES, LLC
126	ROBERT A. KUIPER TRUSTEE'S DEED
127	ILLIANA ACRES LLC
128	ROBERT A. KUIPER JR.
129	RICHARD K. & RENEE L. KOUDER, H/W TENANTS BY THE ENTIRETIES
130	ROBERT A. KUIPER JR.
131	SUZANNE N. ELLS
132	ROBERT A. KUIPER JR.
133	MARILYN J. PAJOR TRUSTEE OR HER SUCCESSOR IN INTEREST OF THE MARILYN J. PAJOR LIVING TRUST DATED APRIL 15, 2004 PARCEL III
134	ROBERT A. KUIPER JR.
135	MARILYN J. PAJOR TRUSTEE OR HER SUCCESSOR IN INTEREST OF THE MARILYN J. PAJOR LIVING TRUST DATED APRIL 15, 2004 PARCEL II
136	ROBERT A. KUIPER JR.
137	FIDUCIARY MANAGEMENT CORPORATION AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED THE 30TH DAY OF JULY, 1993 KNOWN AS TRUST No. 12
138	WESLEY N. JENKINS SR. & MARJORIE L. JENKINS AS TRUSTEES UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED FEBRUARY 8, 1994
139	JOHN & RAMONA DUSZYNSKI H/W
140	FIDUCIARY MANAGEMENT CORPORATION AS TRUSTEE LAND TRUST No. 10
141	BRANDON ARNOLD, LLC
142	TIMOTHY R. EINSPAHR
143	JAMES MANN
144	MARK SPEICHERT & NANCY L. SPEICHERT, TRUSTEES UNDER THE PROVISIONS OF THE SPEICHERT LIVING TRUST
145	BRANDON ARNOLD, LLC
146	MARK SPEICHERT & NANCY L. SPEICHERT, TRUSTEES UNDER THE PROVISIONS OF THE SPEICHERT LIVING TRUST
147	BRANDON ARNOLD, LLC
148	K. C. T. T. PROPERTIES, LLC
149	STATE OF INDIANA DEPARTMENT OF NATURAL RESOURCES
150	HUTTON ST. JOHN ST, LLC
151	RONNY JOE & GEORJEAN MARGARET WOOSLEY, H/W
152	WILLIAM J. BRANT JR. & ASSOCIATES
153	VIOLET A. JACKSON
154	DANIEL J. DAWSON
155	WHITE/PETERMAN PROPERTIES, INC.
156	JAMES & VIRGINA WILTHAM H/W
157	MANGA PVC, LLC
158	JAMES & ANASTASIA XEROGIANNIS, TRUSTEES OR THEIR SUCCESSORS IN TRUST, UNDER THE JAMES AND ANASTASIA XEROGIANNIS LIVING TRUST
159	ELMER A. & BETTIE E. GARD, H/W
160	CEDAR LAKE COMMERCIAL, LLC
161	SPEICHERT, CARL G.

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

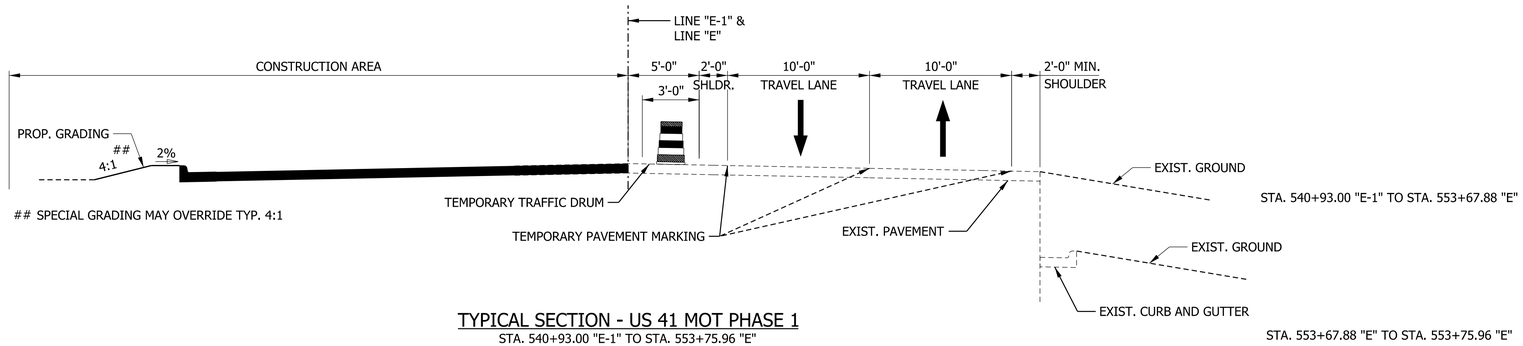
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAT NO. 1
(INDEX OF PROPERTY OWNERS)

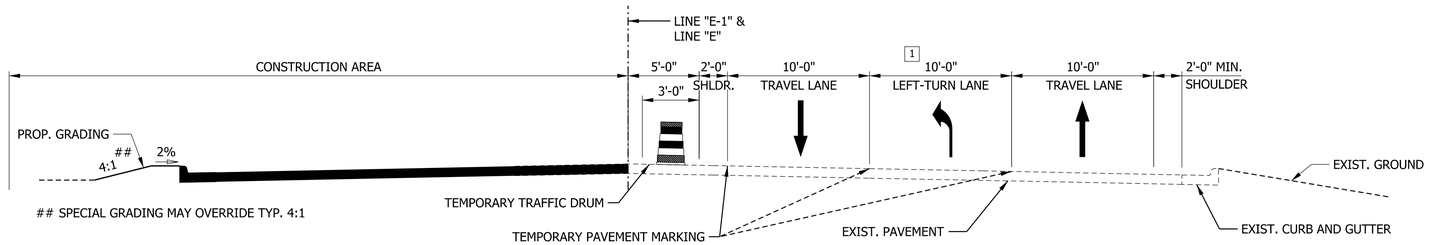
HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	11 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model:US41_SHT_PLAT_NO1_03
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_PLAT_NO1_04.dgn



TYPICAL SECTION - US 41 MOT PHASE 1

STA. 540+93.00 "E-1" TO STA. 553+75.96 "E"



TYPICAL SECTION - US 41 MOT PHASE 1 - LEFT-TURN

STA. 553+75.96 "E-1" TO STA. 558+33.00 "E"

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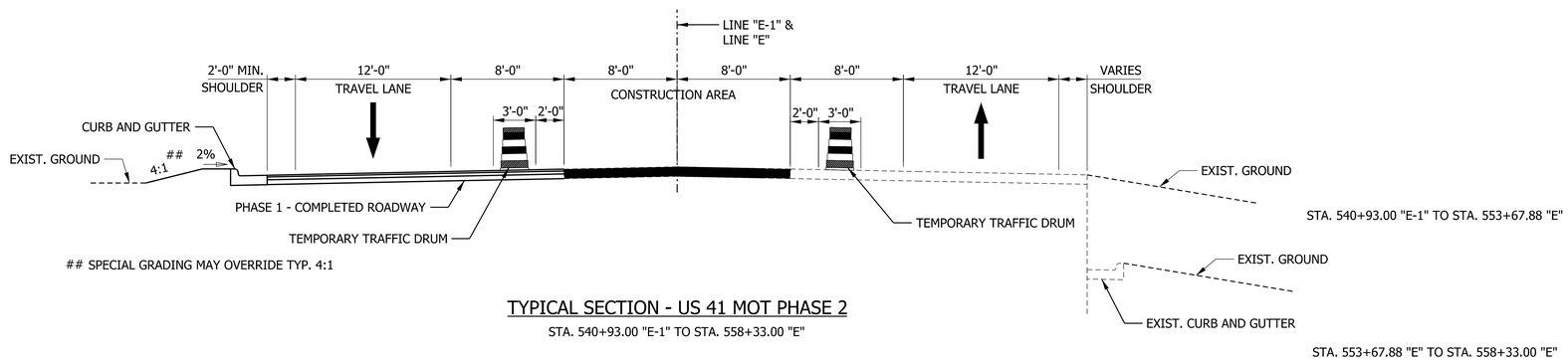

TYPICAL SECTION - US 41 MOT PHASE 2

STA. 540+93.00 "E-1" TO STA. 558+33.00 "E"

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL MOT SECTIONS
US 41

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025

	SHEETS
	15 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: Untitled Sheet
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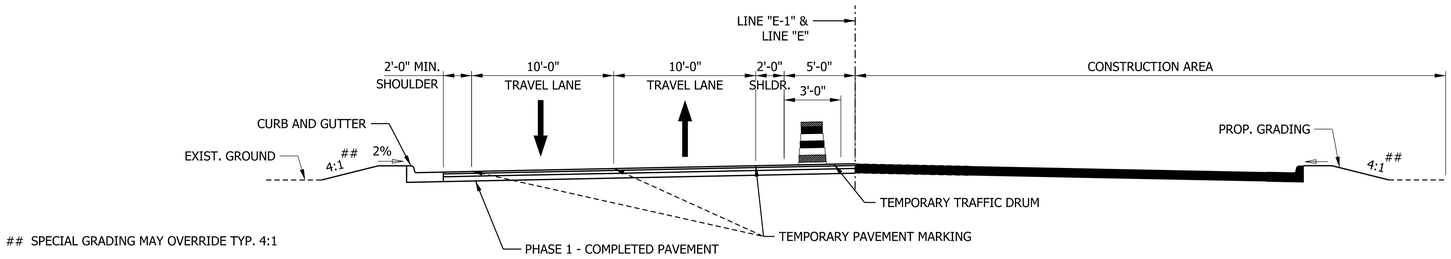
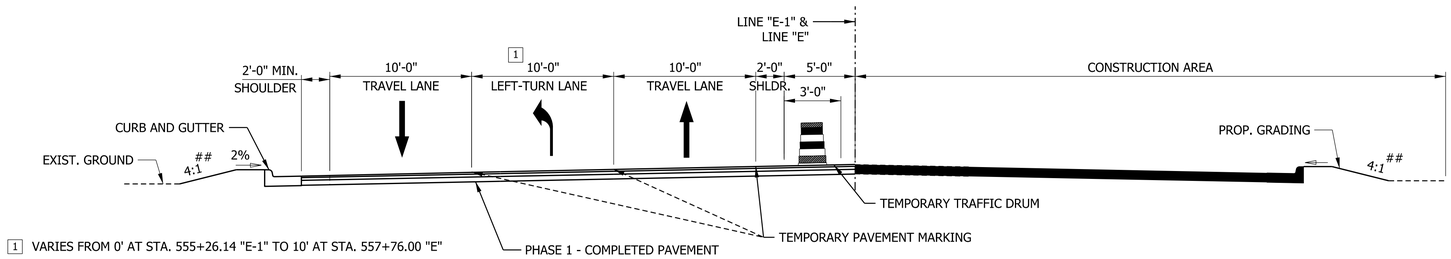


SPECIAL GRADING MAY OVERRIDE TYP. 4:1

TYPICAL SECTION - US 41 MOT PHASE 3

STA. 540+93.00 "E-1" TO STA. 555+26.14.00 "E"



1 VARIES FROM 0' AT STA. 555+26.14 "E-1" TO 10' AT STA. 557+76.00 "E"

SPECIAL GRADING MAY OVERRIDE TYP. 4:1

TYPICAL SECTION - US 41 MOT PHASE 3 - LEFT-TURN

STA. 555+26.14 "E-1" TO STA. 558+33.00 "E"

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL MOT SECTIONS
US 41

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	16 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: Untitled Sheet
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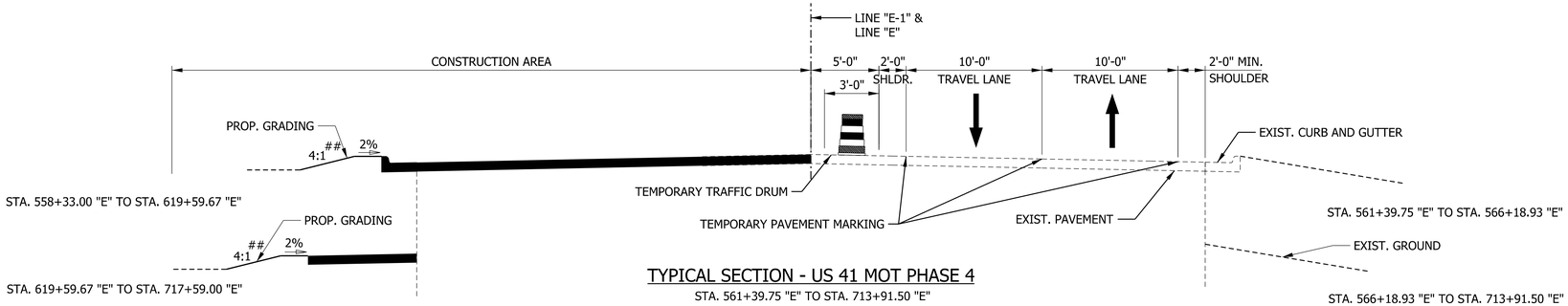
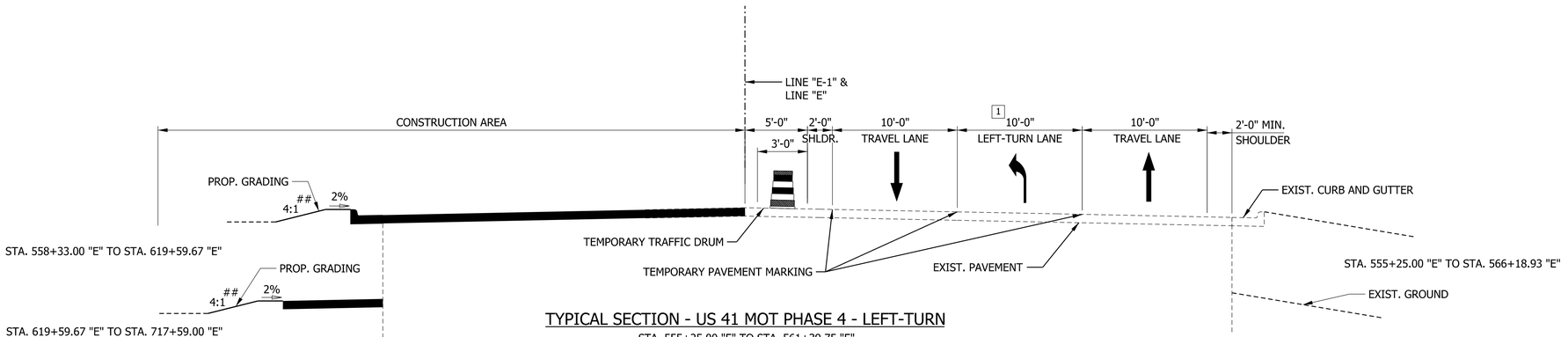


SPECIAL GRADING MAY OVERRIDE TYP. 4:1

TYPICAL SECTION - US 41 MOT PHASE 4

STA. 561+39.75 "E" TO STA. 713+91.50 "E"

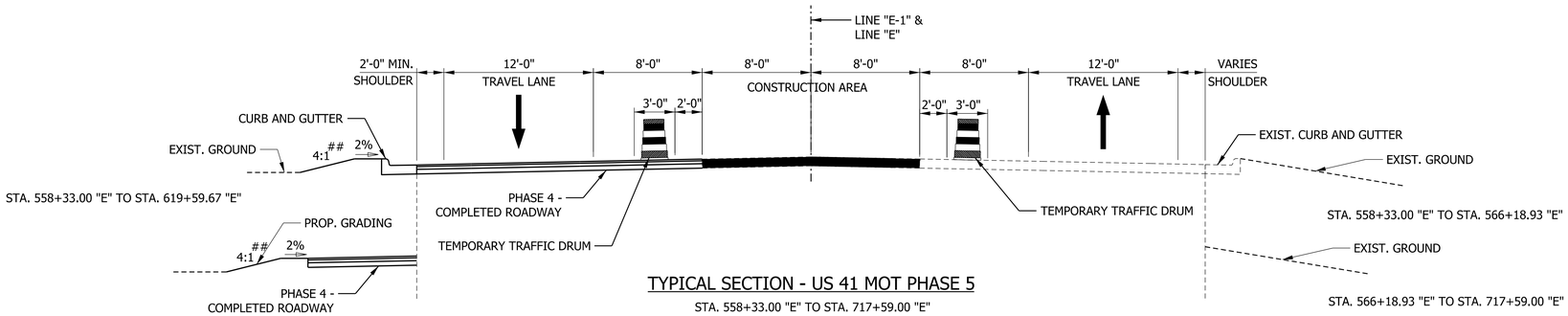


SPECIAL GRADING MAY OVERRIDE TYP. 4:1

TYPICAL SECTION - US 41 MOT PHASE 4 - LEFT-TURN

STA. 555+25.00 "E" TO STA. 561+39.75 "E"
STA. 713+91.50 "E" TO STA. 722+98.25 "E"

1 VARIES FROM 0' AT STA. 555+25.00 "E" TO 10' AT STA. 556+25.00 "E"
EQUALS 10' FROM STA. 556+25.00 "E" TO 10' AT STA. 560+39.75 "E"
VARIES FROM 10' AT STA. 560+39.75.00 "E" TO 0' AT STA. 561+39.75 "E"
VARIES FROM 0' AT STA. 713+91.00 "E" TO 10' AT STA. 714+91.00 "E"
EQUALS 10' FROM STA. 714+91.00 "E" TO 10' AT STA. 719+89.50 "E"
VARIES FROM 10' AT STA. 719+89.50 "E" TO 0' AT STA. 722+98.24 "E"



TYPICAL SECTION - US 41 MOT PHASE 5

STA. 558+33.00 "E" TO STA. 717+59.00 "E"

SPECIAL GRADING MAY OVERRIDE TYP. 4:1

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

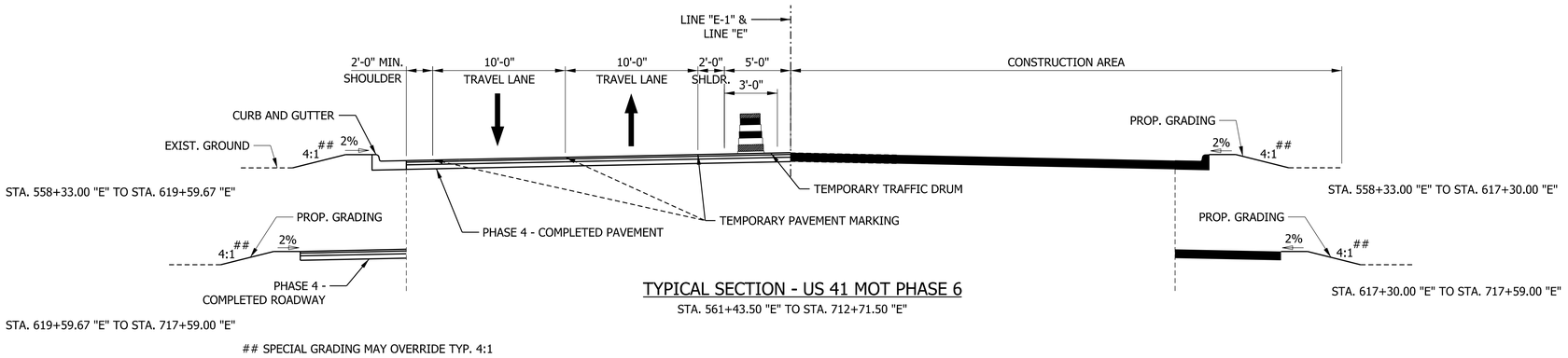
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL MOT SECTIONS
US 41

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025

SHEETS		
17	of	350
CONTRACT		
R-40609		

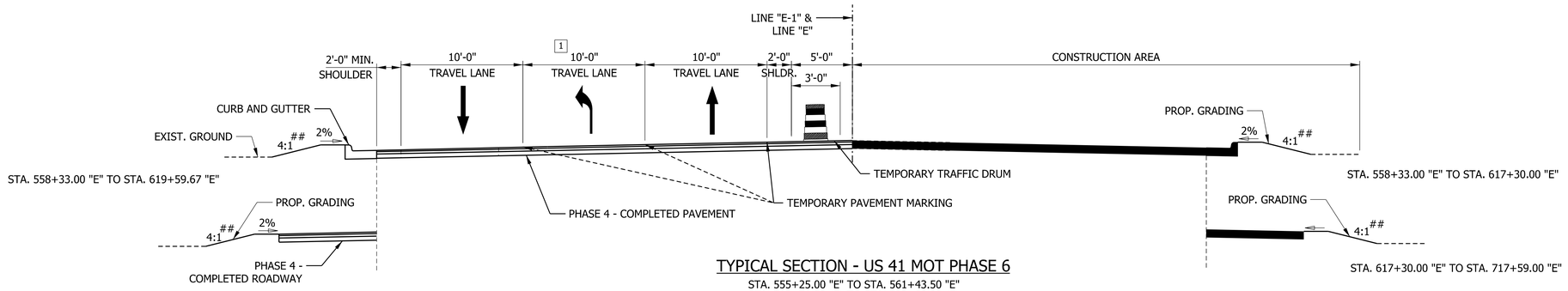
Mitchell.Wilcox
7/31/2025
model: Untitled Sheet
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/MOT/US41_SHT_MOT_TYP_03.dgn



SPECIAL GRADING MAY OVERRIDE TYP. 4:1

TYPICAL SECTION - US 41 MOT PHASE 6

STA. 561+43.50 "E" TO STA. 712+71.50 "E"

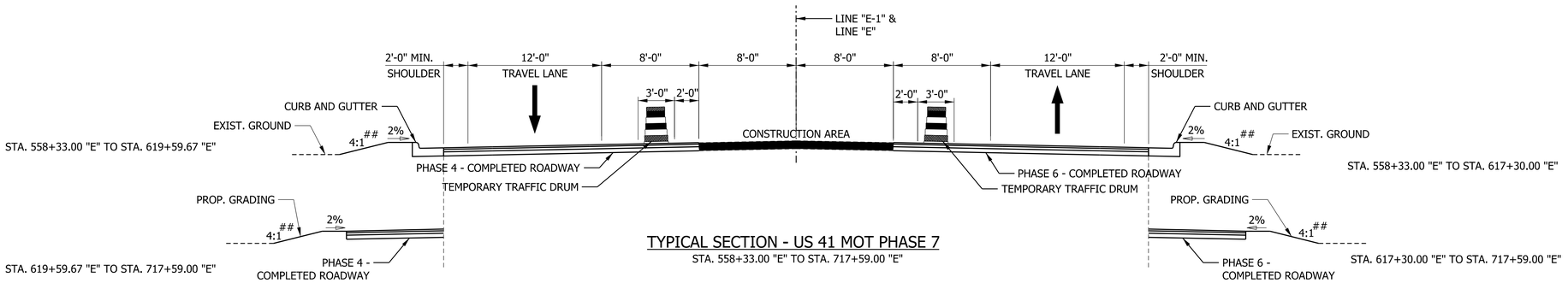


TYPICAL SECTION - US 41 MOT PHASE 6

STA. 555+25.00 "E" TO STA. 561+43.50 "E"
STA. 712+71.50 "E" TO STA. 722+80.00 "E"

1 VARIES FROM 0' AT STA. 555+25.00 "E" TO 10' AT STA. 556+25.00 "E"
EQUALS 10' FROM STA. 556+25.00 "E" TO 10' AT STA. 560+39.75 "E"
VARIES FROM 10' AT STA. 560+39.75.00 "E" TO 0' AT STA. 561+39.75 "E"
VARIES FROM 0' AT STA. 712+72.00 "E" TO 10' AT STA. 715+22.00 "E"
EQUALS 10' FROM STA. 715+22.00 "E" TO 10' AT STA. 720+40.00 "E"
VARIES FROM 10' AT STA. 720+40.00 "E" TO 0' AT STA. 722+80.00 "E"

SPECIAL GRADING MAY OVERRIDE TYP. 4:1



TYPICAL SECTION - US 41 MOT PHASE 7

STA. 558+33.00 "E" TO STA. 717+59.00 "E"

SPECIAL GRADING MAY OVERRIDE TYP. 4:1

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL MOT SECTIONS
US 41

HORIZONTAL SCALE	BRIDGE FILE
3/16" = 1'-0"	
VERTICAL SCALE	DESIGNATION
3/16" = 1'-0"	1700025
	SHEETS
	18 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
7/31/2025
model: Untitled Sheet
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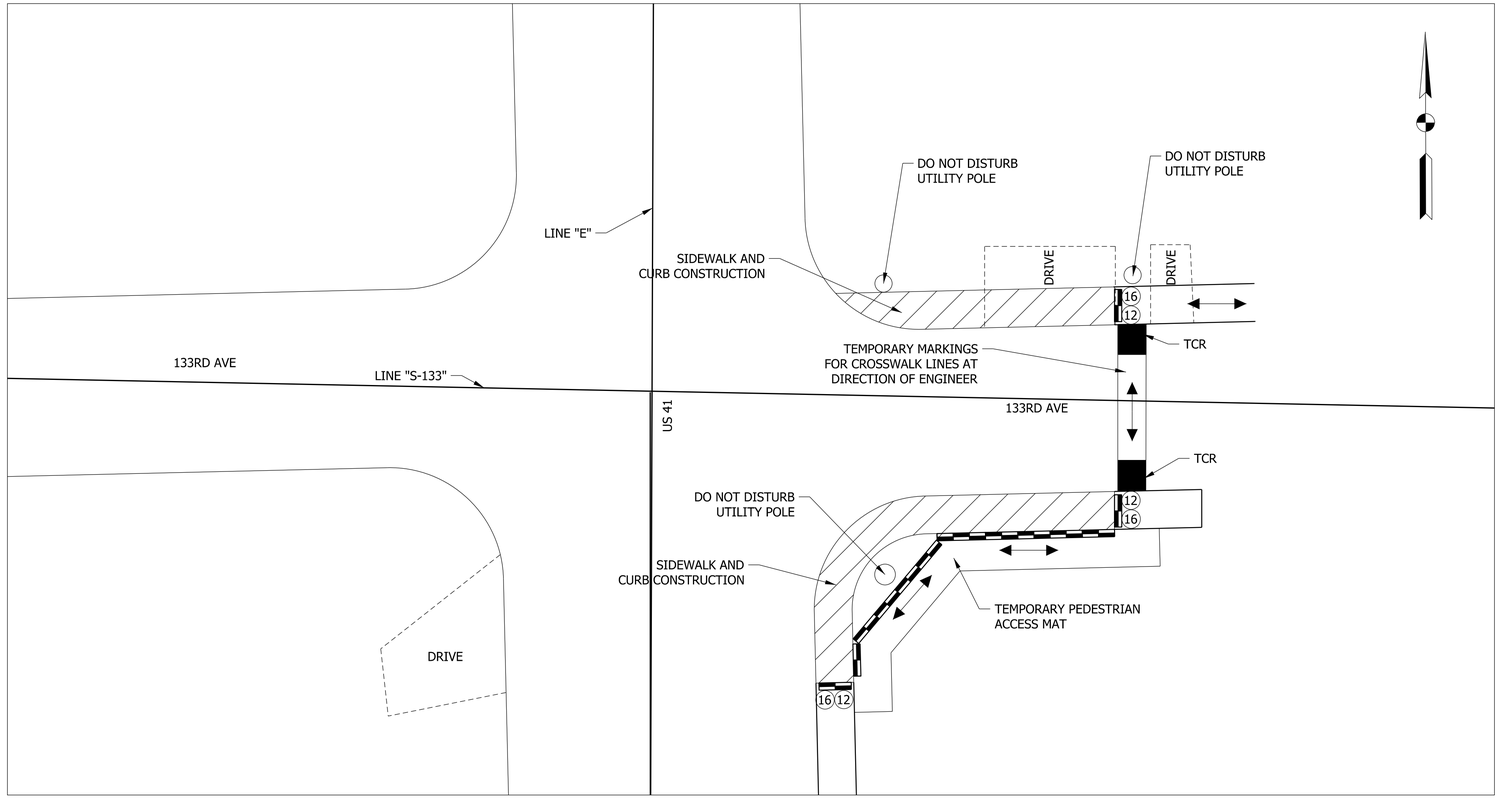


LEGEND

TEMPORARY PEDESTRIAN CHANNELIZER

PROPOSED CURB OR SIDEWALK CONSTRUCTION WHERE REQ'D. SEE CONSTRUCTION DETAILS FOR LOCATIONS

(16) SIDEWALK CLOSED R9-9

SIDEWALK CLOSED

(12) PEDESTRIAN DETOUR M4-9B

DETOUR

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PEDESTRIAN MOT
U.S. 41 & 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	142 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
7/31/2025
model: Default
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_PED_MOT.dgn

541+00
542+00
543+00
544+00
545+00
APP. P.L.
15' ESMT. I.F.O. NORTHERN INDIANA PUBLIC SERVICE COMPANY
+35.78, 96.34', 14IN Dia Coniferous Tree
+63.44, 55.07', Church Sign
+90.47, 71.25', Stop/135 Place Sign
+20.45, 78.70', 20 MPH Sign
+29.87, 56.71', Invert 27 CMP with MES
+38.68, 70.25', Guy Anchor
+46.30, 56.72', Invert 24 CMP
+52.06, 69.83', Power Pole
+59.00, 77.44', 8IN Dia. Decid Tree
+60.27, 94.11', 30IN Dia. Decid Tree
+72.95, 50.75', No Parking/No Truck Traffic Sign
+21.03, 82.73', J&J Cabinets Sign
+57.72, 97.17', 12IN Dia. Decid Tree
+02.62, 84.80', Guy Anchor
+02.63, 88.11', Guy Anchor
+02.69, 90.55', Guy Anchor
+05.31, 69.47', Power Pole
+07.07, 54.11', Invert 42IN CMP with MES
+08.32, 47.27', Mailbox
+20.47, 54.37', Invert 12IN CPP
+41.15, 69.78', Guy Anchor
+44.37, 85.83', NWI Over Stock Sign
+98.66, 86.83', Yanceys Sign
LOT LINE
W. 135TH PL.
(ASPHALT)
2
MICHAEL J. PHELPS
& TAYLOR K. AHLGRAIN
JAMES A. & DOROTHY A.
MACHURA, H/W
SEC. 29, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
4
6
GERALD C. STENGER, SR.
AS TRUSTEE UNDER THE
GERALD C. STENGER, SR.
REVOCALBE LIVING TRUST
8
J & R PROPERTY MANAGEMENT LLC
BEGIN INCIDENTAL CONSTRUCTION
STA. 540+93.00 "E-1"
BEGIN PROJECT NO. 1700025
STA. 544+00.00 "E-1"
+86, CLASS I DRIVE REQ'D.
W=20'
TEMP. R/W FOR
DRIVE CONSTR.
+00, STR. NO. 10
INLET TYPE C-15 W/
9' OF 12" TYPE 2 PIPE
+30, STR. NO. 13
INLET TYPE C-15 W/
130' OF 12" TYPE 2 PIPE
+69.00
75.00'
+69.00
EX. R/W
+02.00
75.00'
+02.00
EX. R/W
(GRASS)
ENVIRONMENTALLY SENSITVE
AREA - DO NOT DISTRUB
APP. P.L.
APP. EXIST. R/W
(24" RCP)
CONSTR. LIMITS
(24" CMP)
12" CPP
OHE
D2
C
15
R1
R
K
13'
29'
US 41
LINE "E-1"
N 00°11'58" E
(ASPHALT)
APP. SEC. LINE
LINE "BB"
+00, STR. NO. 11
M.H.TYPE K-4 W/
61' OF 18" TYPE 2 PIPE
+85.00
19.00'
+85.00
32.38'
4'
+00, STR. NO. 12
INLET TYPE C-15 W/
51' OF 12" TYPE 2 PIPE
(6" PVC)
+03, STR. NO. 576
48' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+83, CLASS I DRIVE REQ'D.
W=16'
(CONC.)
+00, STR. NO. 14
INLET TYPE B-15 W/
200' OF 12" TYPE 2 PIPE
APP. EXIST. R/W
CURVE DATA
P.I. 539.51.66 "BB"
△ = 01°13'00" RT.
R = 85,943.67'
T = 912.53'
L = 1825.00'
E = 4.84'
EDWARD & LUCY ALVARES, H/W
1
HANOVER PLAT "E"
AN ADDITION TO THE TOWN OF CEDAR LAKE, INDIANA
PLAT BOOK 48, PAGE 72
MARCH 22, 1978
220' DRAINAGE EASEMENT (FROM THE SOUTH LINE) PER PLAT
10' UTILITY ESMT.
+82.34', 59.62', Invert 24IN RCP
+85.84', 94.84', 20 MPH Sign
+20.30', 52.45', Stop Sign
+21.00', 47.79', No Truck Traffic Sign
+21.00', 47.78', Cedar Lake/135 Place Sign
+21.36', 47.78', Light Pole
+25.14', 58.75', Invert 24IN RCP
THE CHICAGO TRUST COMPANY
AS TRUSTEE UNDER TRUST #6388
3
HANOVER PLAT "E"
AN ADDITION TO THE TOWN OF CEDAR LAKE, INDIANA
PLAT BOOK 48, PAGE 72
MARCH 22, 1978
SEC. 28, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
+69.08', 54.01', 24IN Dia. Decid Tree Dead
+87.80, 63.48', 16IN Dia. Decid Tree
+04.28, 48.59', 15IN Dia. Decid Tree
+25.15, 71.18', 7IN Dia Coniferous Tree
+50.67, 70.91', 24IN Dia Coniferous Tree
+62.49, 40.09', Invert 6IN PVC
+96.55, 36.23', Mailbox
+97.92, 39.87', Invert 6IN PVC
+02.12, 60.60', Power Pole
CLOVINA L. SNOOK &
DEBORAH A. KOONCE
TENANTS BY THE ENTIRETY
WITH RIGHTS OF SURVIVORSHIP
5
+41.05, 36.28',
No Parking Sign
MATCHLINE STA. 546+00 "E-1"

NOTES
ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE "E-1".
ALL R/W DESCRIBED FROM LINE "E-1", EXCEPT AS SHOWN.
LINE "E-1" TO BE CONSTRUCTED.

LEGEND
- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E-1"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS		
143	of	350
CONTRACT		
R-40609		

Mitchell Wilcox
8/1/2025
model: US41_SHT_E-1_Plan_ 01
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E-1_Plan_ 01.dgn

790
780
770
760
750
740
730
720
710
700

106 SYS. SODDING REQ'D., DITCH LT.
+17

+1.78%
+17
744.43
(PLOTTED 20' ABOVE DATUM)
GRADE OF SP'L. "V" DITCH REQ'D. LT.
(PLOTTED 20' ABOVE DATUM)

BEGIN PROJECT NO. 1700025
STA. 544+00.00 "E-1"

BEGIN INCIDENTAL CONSTRUCTION
STA. 540+93.00 "E-1"

EXISTING GROUND ALONG LINE "E-1"

+00 STR. NO. 11

61' OF 18" TYPE 2 PIPE @ 0.72%
388' OF 18" TYPE 2 PIPE @ 0.85%
INV. 741.90
INV. 742.18

+1.64%
+03
745.24
GRADE OF SP'L. "V" DITCH
(PLOTTED 10' BELOW DATUM)

458 SYS. SODDING REQ'D., DITCH RT.
+03

743.2 743.2 743.9 744.4 745.0 745.6 746.3 747.1 747.7 748.5 749.3

540+00 541+00 542+00 543+00 544+00 545+00 546+00

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20' / BRIDGE FILE / VERTICAL SCALE 1" = 5' / DESIGNATION 1700025
	DESIGNED: MRW DRAWN: JWM CHECKED: LDW CHECKED: MAE	PROFILE - US 41 LINE "E-1"	SHEETS 144 of 350 CONTRACT R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E-1_PROFILE_01
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E-1_PROFILE_01.dgn

YANCEY'S SUBDIVISION
PLAT BOOK 81, PAGE 73
OCTOBER 23, 1996

+58.70, 68.26', Power Pole
+73.74, 46.21', Mailbox
+73.97, 51.20', Invert 24IN CMP with MES
+75.64, 47.14', Mailbox
+75.92, 55.25', Post Sign Missing

20' INGRESS/EGRESS EASEMENT (PLATTED)

547+00

548+00

+28.38, 89.66', Light Pole
+37.22, 89.49', Leos Sign
+47.87, 88.83', Light Pole

549+00

+87.10, 49.54', Right-of-Way Marker
+87.96, 64.54', Right-of-Way Marker
+31.61, 46.08', Post
+33.86, 42.63', Invert 24IN CMP with MES
+40.23, 37.83', Post

550+00

+84.32, 36.89', 35 MPH Sign
+87.27, 42.56', Guy Anchor
+87.48, 49.81', Power Pole
+87.73, 49.78', Power Pole

551+00

+88.90, 71.55', Shrub
+93.13, 35.84', No Parking Sign
+94.66, 47.97', Power Pole
+95.05, 48.37', Power Pole

+26.01, 83.75', Shrub

+81.77, 41.66', Invert 18IN CMP with MES

10
YANCEY'S HOUSE OF CARPET, INC.

12
LEO AND SONS, INC.

TIMOTHY P. PRIM &
JENNIFER L. VANBEEK
J.T.F.R.O.S.
14

SEC. 29, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

ILT PROPERTIES, LLC
16

LOT LINE
20' INGRESS/EGRESS EASEMENT PER PLAT
20' INGRESS/EGRESS EASEMENT
APP. P.L.
20' INGRESS/EGRESS EASEMENT

TEMP. R/W FOR DRIVE CONSTR.

+44, STR. NO. 577
66' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+83.00 79.00'
+83.00 EX. R/W

+10, CLASS III DRIVE REQ'D.
W=30'
+P.L. 79.00'
(ASPHALT)
DO NOT DISTURB LANDSCAPING
+P.L. EX. R/W

+00, STR. NO. 16
M.H. TYPE C-4 W/
388' OF 18" TYPE 2 PIPE

+00, STR. NO. 17
INLET TYPE C-15 W/
9' OF 12" TYPE 2 PIPE

+00, STR. NO. 18
M.H. TYPE E-4 W/
12' OF 18" TYPE 2 PIPE

+90, STR. NO. 20
INLET TYPE C-15 W/
90' OF 12" TYPE 2 PIPE

P.O.E. 548+64.10 "E-1"
= P.O.B. 548+64.10 "E"

+23, CLASS I DRIVE REQ'D.
W=10'

+48, STR. NO. 578
45' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+88, STR. NO. 22
INLET TYPE B-15 W/
287' OF 48" TYPE 2 PIPE

+50, STR. NO. 21
INLET TYPE B-15 W/
60' OF 12" TYPE 2 PIPE

+00, STR. NO. 23
INLET TYPE C-15 W/
9' OF 12" TYPE 2 PIPE

+00, STR. NO. 24
M.H. TYPE K-4 W/
12' OF 18" TYPE 2 PIPE

+75, STR. NO. 15
INLET TYPE B-15 W/
145' OF 12" TYPE 2 PIPE

APP. EXIST. R/W
CONSTR. LIMITS
(24" CMP)
(RIPRAP)
(CONC.)
(GRAVEL)
(ASPHALT)
(Building)
+75.67
50.00'
50' R/W
(18" CMP)
R-10

MATCHLINE STA. 546+00 "E-1"

LINE "E-1"
N 00°11'58" E
APP. SEC. LINE
LINE "E"
N 00°11'58" E
N 00°01'13" W
LINE "BB"
US 41
P.T. 548+63.14 "BB"

+00, STR. NO. 19
INLET TYPE B-15 W/
52' OF 12" TYPE 2 PIPE

(12" CPP)
(12" CMP)

+72, STR. NO. 29A
INLET TYPE E-7 W/
60' OF 15" TYPE 2 PIPE

+00, STR. NO. 25
INLET TYPE C-15 W/
53' OF 12" TYPE 2 PIPE

(15" PVC)
+87.00 EX. R/W
+87.00 64.00'

+00, STR. NO. 26
INLET TYPE C-15 W/
100' OF 12" TYPE 2 PIPE

40' ROADWAY EASEMENT PER PLAT

+52, CLASS III DRIVE REQ'D.
W=28'

+65, CLASS III DRIVE REQ'D.
W=24'

MATCHLINE STA. 552+00 "E"

CLOVINA L. SNOOK &
DEBORAH A. KOONCE
TENANTS BY THE ENTIRETY
WITH RIGHTS OF SURVIVORSHIP
5

ANTHONY C. & MARIAN L.
VISOVATTI
TRUSTEES OF THE
VISOVATTI FAMILY TRUST
7

SCOTT A. & GRETCHEN A
GERSTENKORN, H/W
11

WAYNE W. & JUDITH B.
STOLL,
TRUSTEES, OR THEIR
SUCCESSORS IN TRUST
UNDER THE STOLL JOINT
TRUST
9

LOT LINE
6' UTILITY & DRAINAGE EASEMENT PER PLAT

+79.13, 35.27', Hanover Community Schools Sign
+19.38, 40.75', Invert 12IN CPP
+20.38, 100.29', Light Pole
+20.83, 33.28', Mailbox
+23.90, 92.55', Invert 12IN CMP
+28.57, 40.84', Invert 12IN CPP
+41.35, 91.27', Invert 12IN CMP
+48.71, 54.57', Light Pole
+59.11, 38.61', Lemon Lake Sign
+61.03, 54.02', 10IN Dia. Decid Tree
+62.91, 53.72', Right-of-Way Marker
+83.55, 52.01', Power Pole
+86.00, 36.03', Mailbox
+12.34, 43.96', Invert 15IN PVC
+21.27, 36.90', Signal Ahead Sign
+25.11, 51.13', Guy Anchor
+25.18, 50.97', 10IN Dia. Decid Tree
+35.56, 46.95', Thornburg Ct. Sign
+36.72, 50.62', 36IN CMP
+37.29, 50.65', Power Pole with Light Mast
+71.68, 43.33', Inlet Round
+49.06, 48.74', Sign Unreadable Message
+49.46, 48.67', Power Pole
+83.72, 43.56', Mailbox

CURVE DATA

P.I. 539.51.66 "BB"
△ = 01°13'00" RT.
R = 85,943.67'
T = 912.53'
L = 1825.00'
E = 4.84'

SEC. 28, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE "E-1" & "E".
ALL R/W DESCRIBED FROM LINE "E-1" & "E", EXCEPT AS SHOWN.
LINE "E-1" & "E" TO BE CONSTRUCTED.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

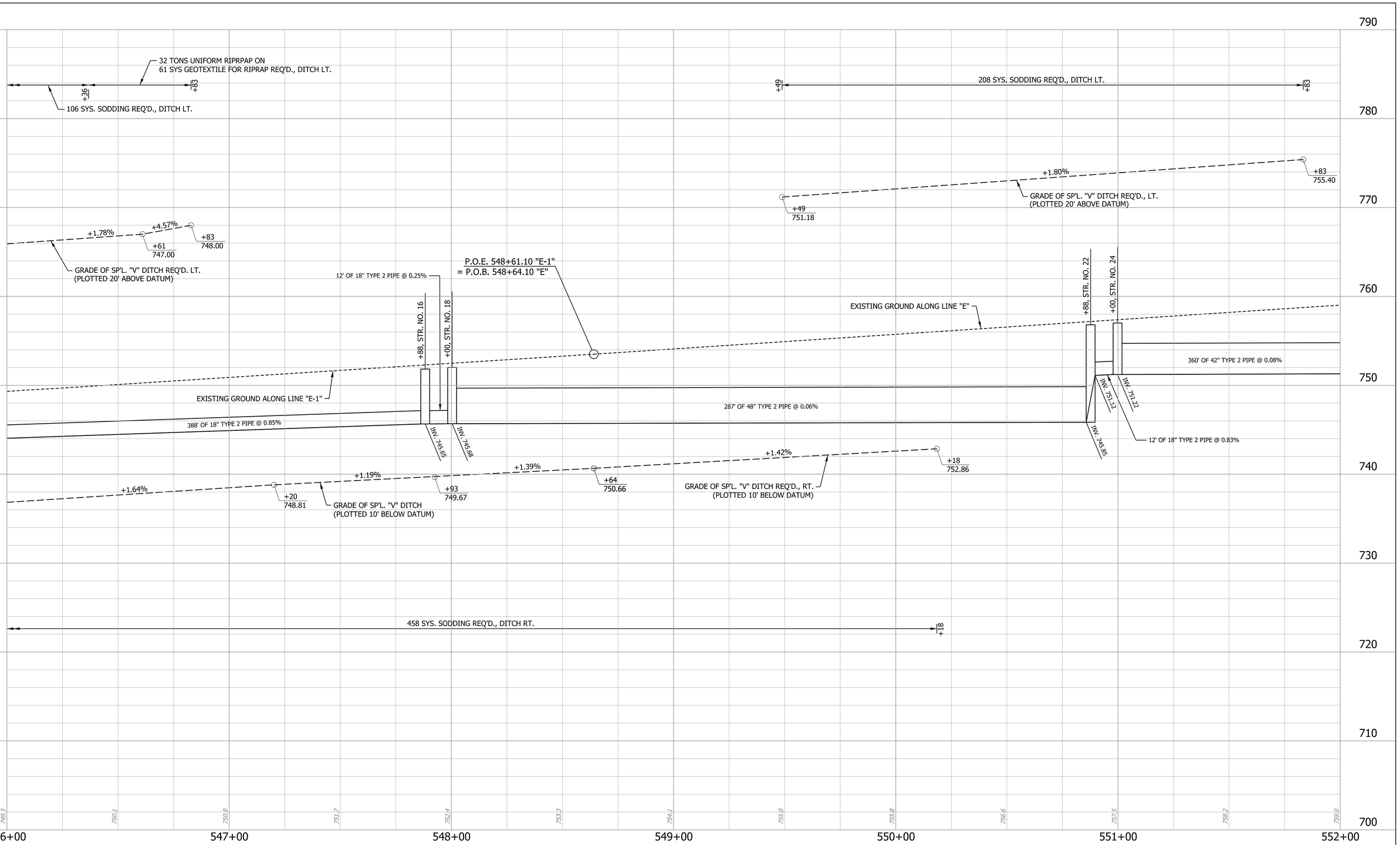
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E-1" & "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	145 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E-1_Plan_02
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E-1_Plan_02.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

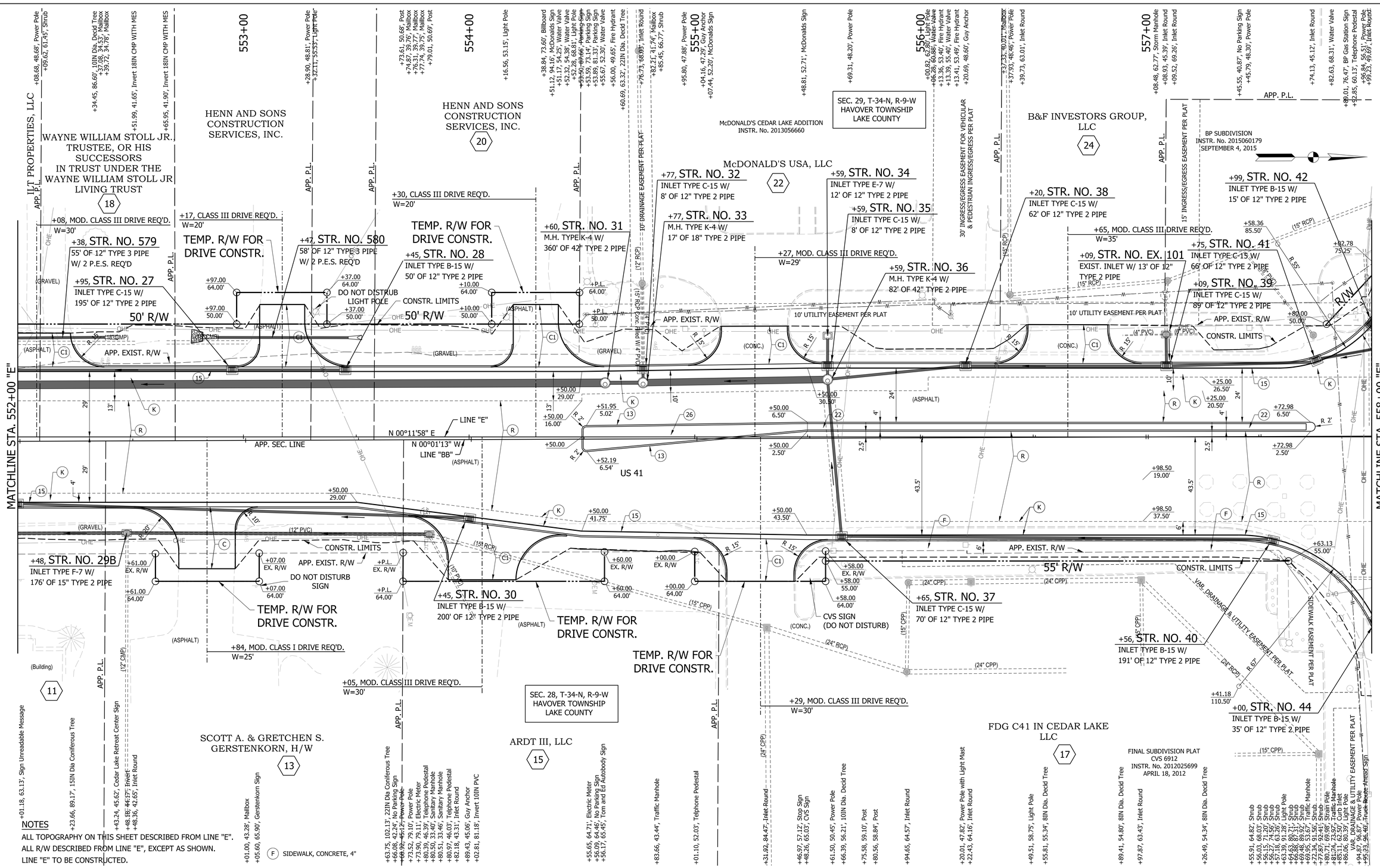
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E-1" & "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	146 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E-1_PROFILE_02
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS\US41_SHT_E-1_PROFILE_02.dgn



NOTES

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE "E".
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.
LINE "E" TO BE CONSTRUCTED.

(F) SIDEWALK, CONCRETE, 4"

LEGEND

(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
(13) COMB. CONC. CURB AND GUTTER TYPE B
(15) COMB. CONC. CURB AND GUTTER
(22) CONC. CENTER CURB, TYPE B
(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

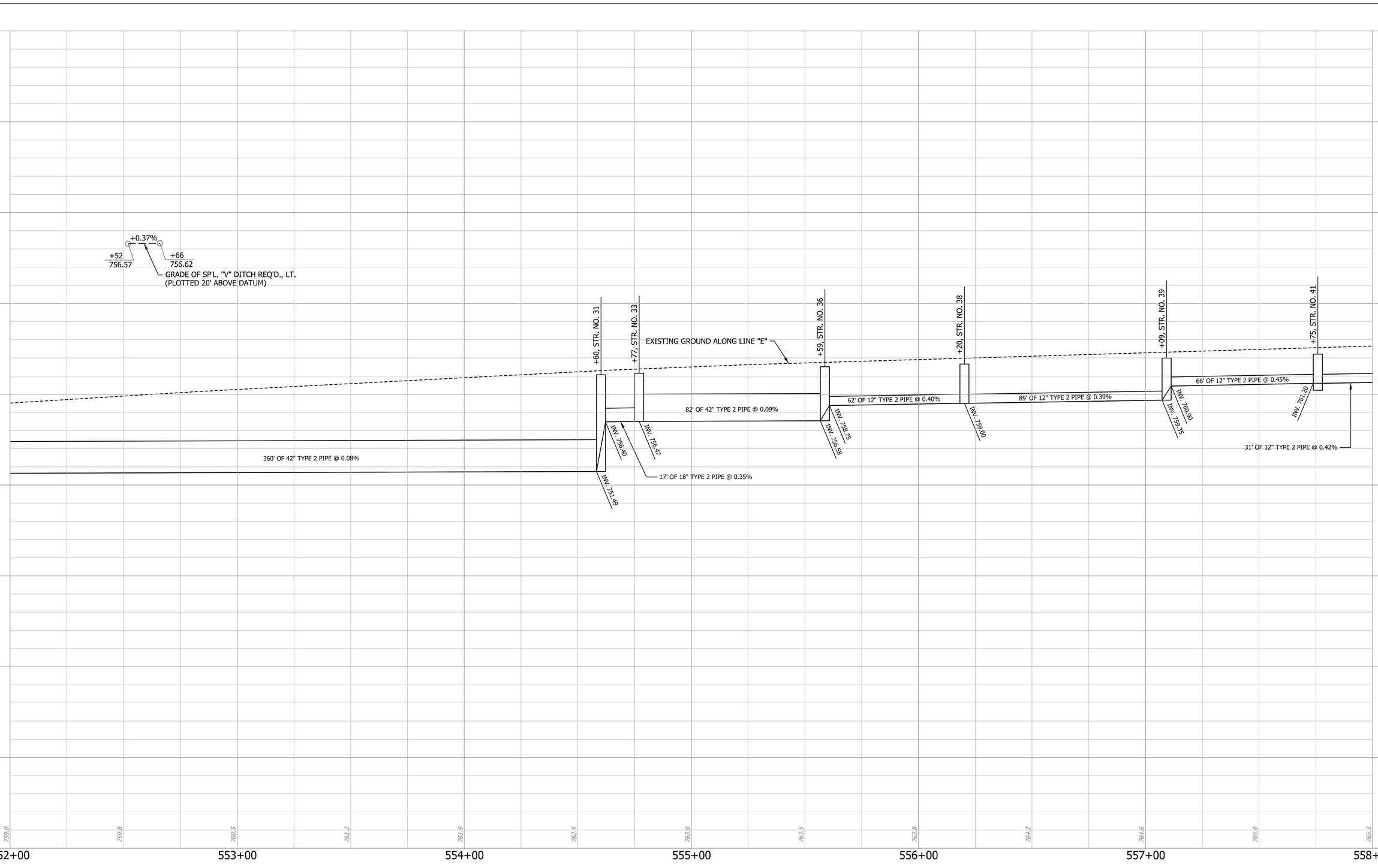
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS	
147	of 350
CONTRACT	
R-40609	

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_03
file: pw:/mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_03.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

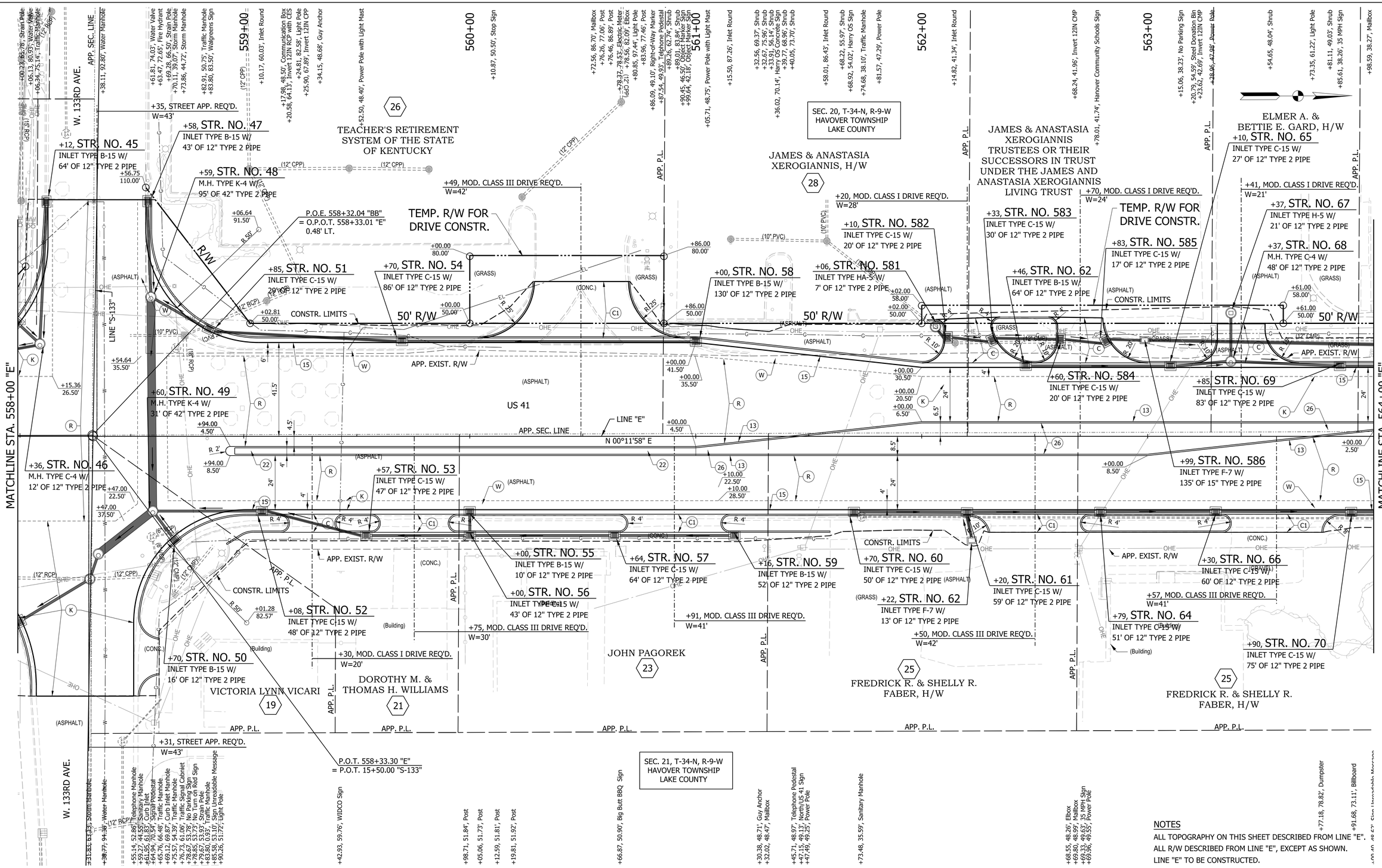
INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025

SHEETS	
148 of	350
CONTRACT	
R-40609	

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_03
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS\US41_SHT_E_PROFILE_03.dgn



NOTES

ALL TOPOGRAPHY ON THIS SHEET DESCRIBED FROM LINE "E".
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.
LINE "E" TO BE CONSTRUCTED.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

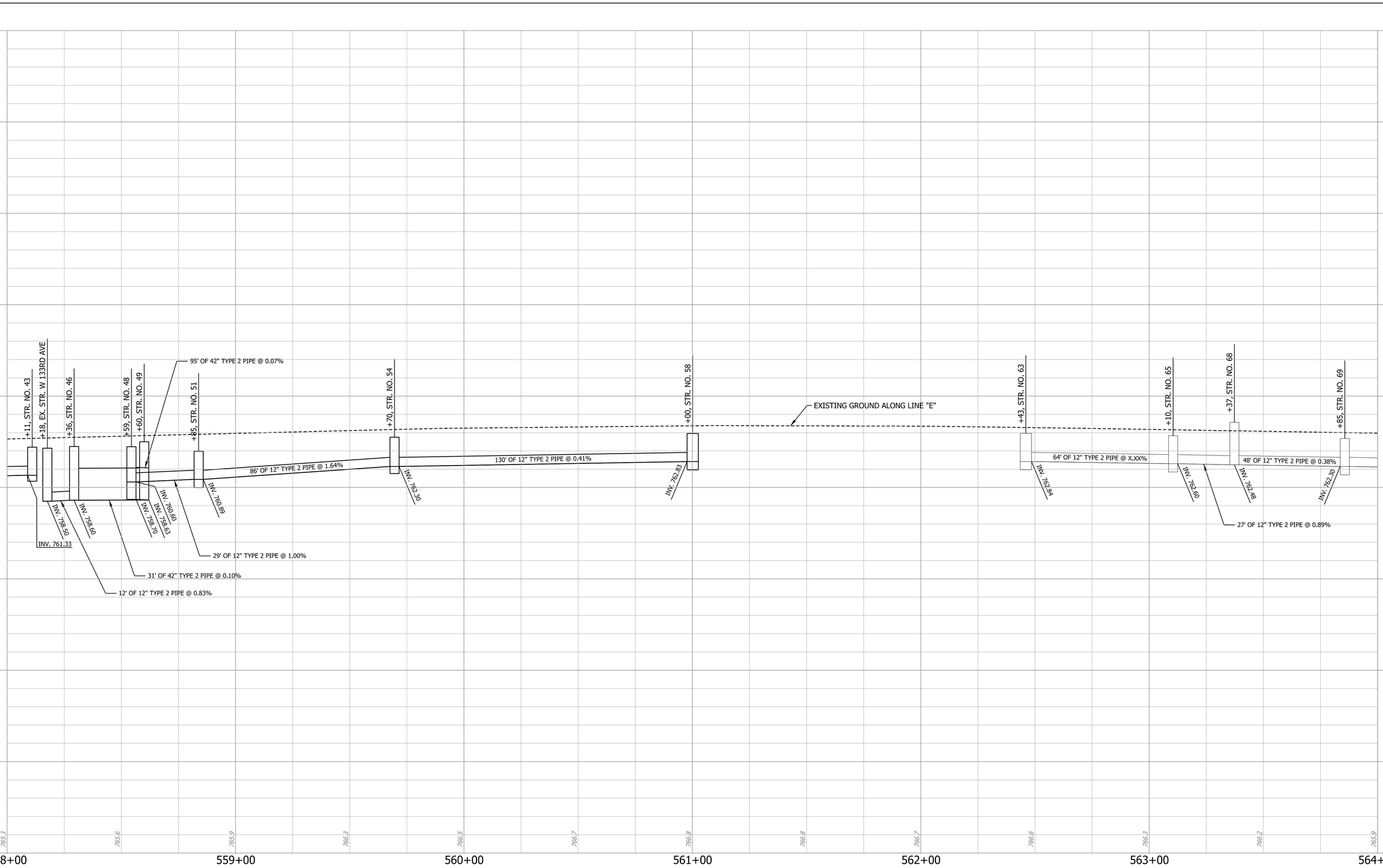
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41 LINE "E"

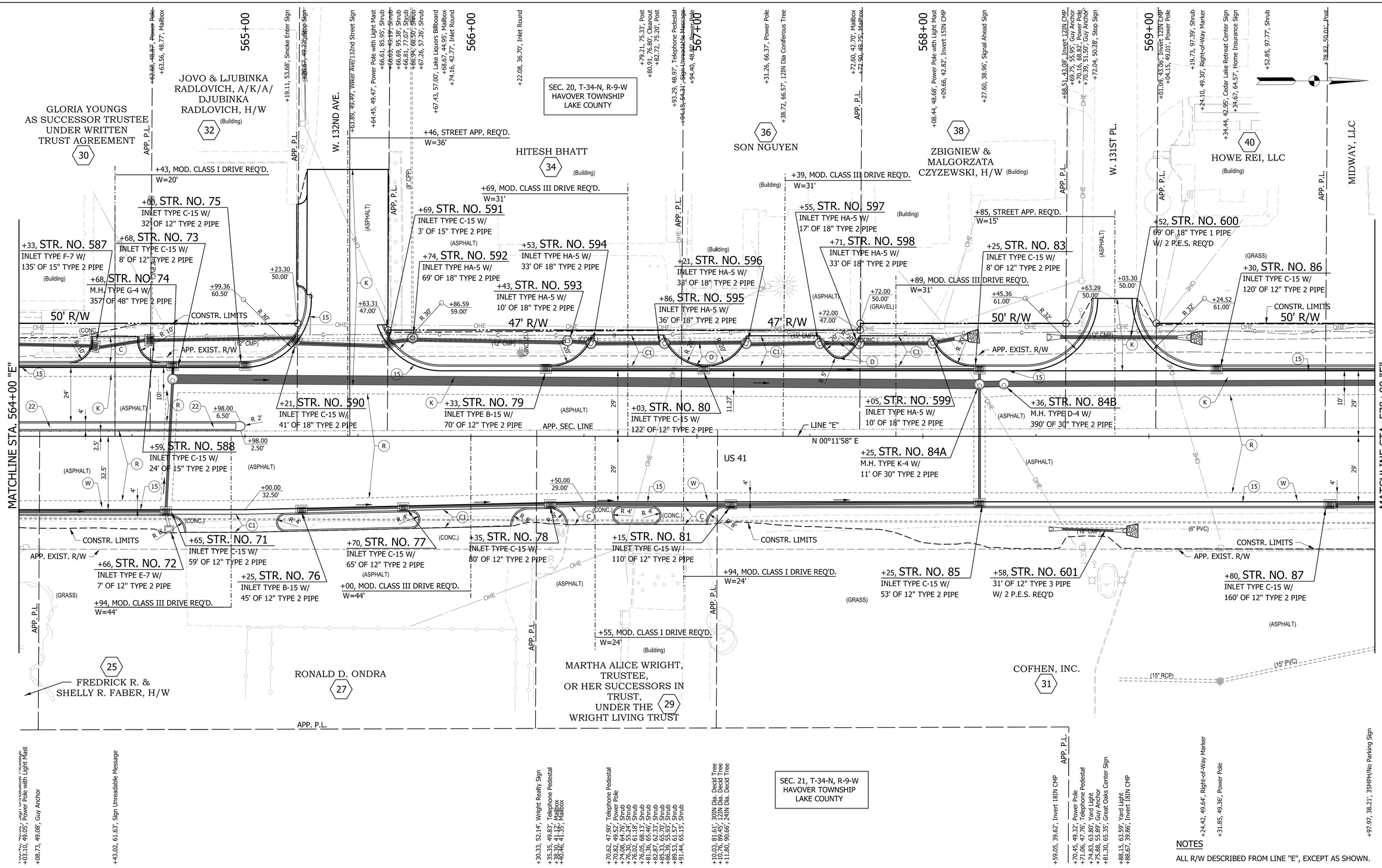
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	149 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_04
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_04.dgn



	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 20' / BRIDGE FILE:
			VERTICAL SCALE: 1" = 5' / DESIGNATION: 1700025
	DESIGNED: MRW / DRAWN: JWM	PROFILE - US 41 LINE "E"	SHEETS: 150 of 350
	CHECKED: LDW / CHECKED: MAE		CONTRACT: R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 04
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 04.dgn



LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

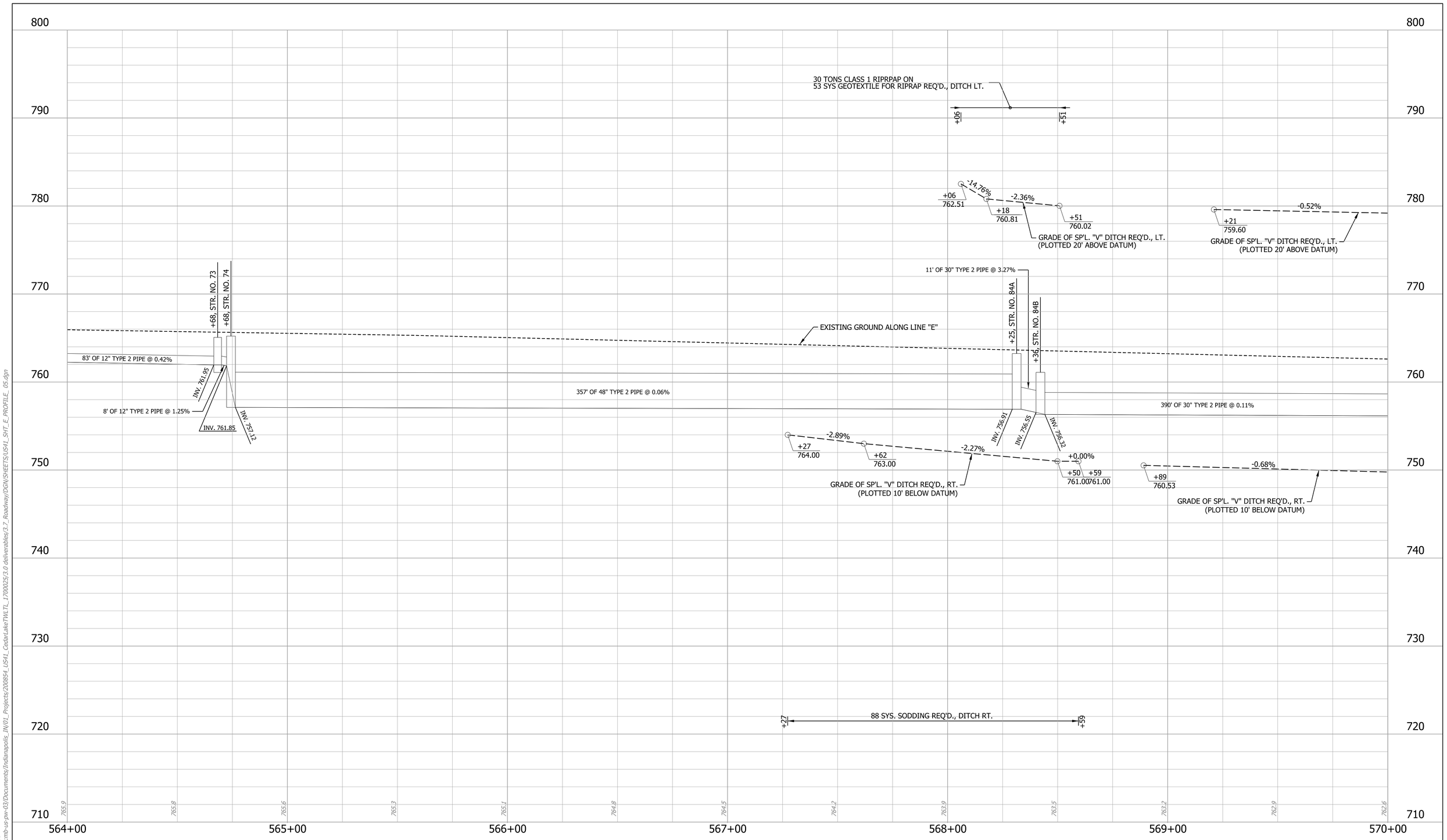
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41 LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	151 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
8/1/2025
model: US41_SHT_E_PLAN_05
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_05.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

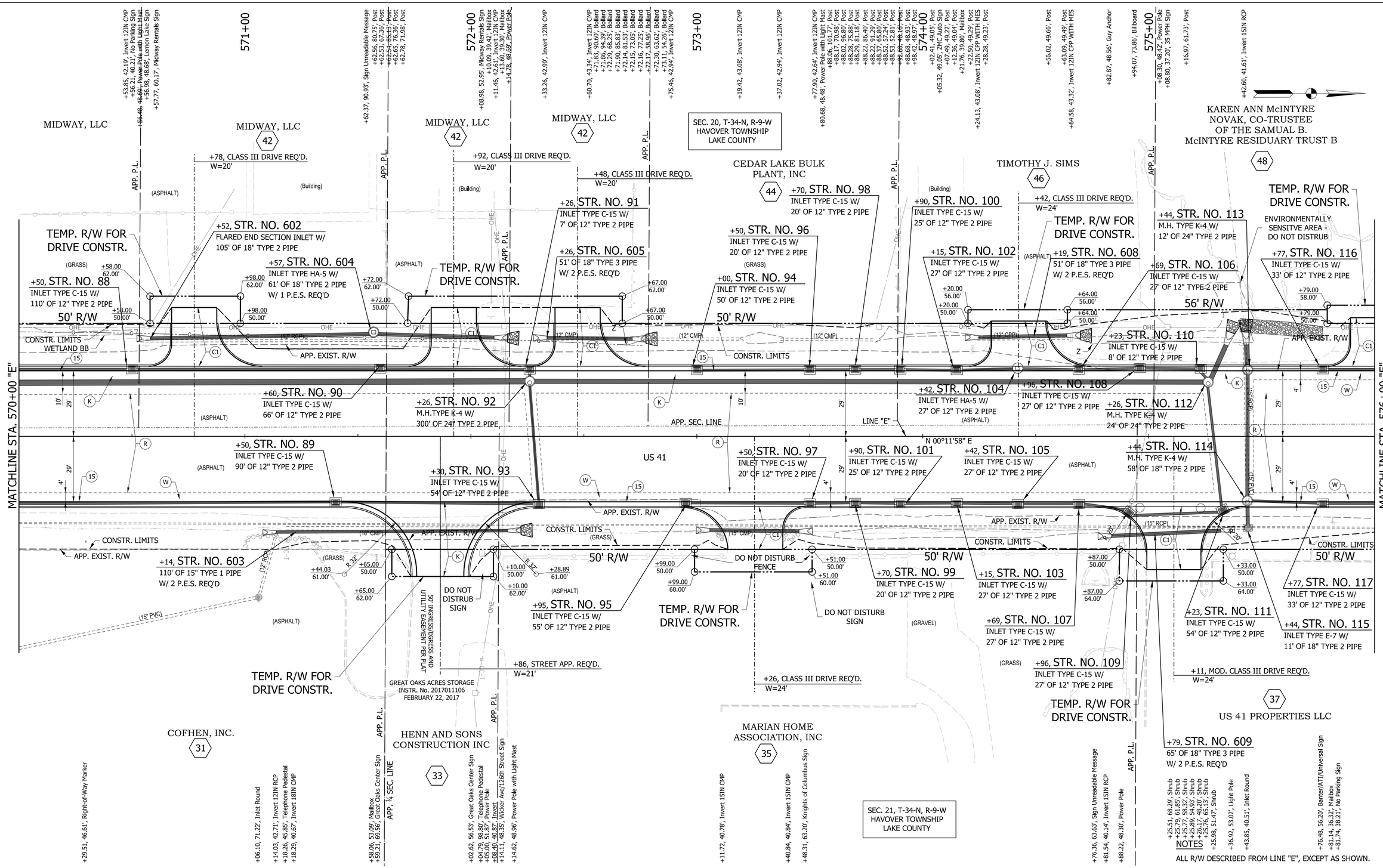
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	152 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_05
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_05.dgn



NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
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- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41 LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	153 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
8/1/2025
model: US41_SHT_E_PLAN_06
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_06.dgn

PVI @ 574+00
ELEV. 760.51
100' V.C.

PVI @ 575+50
ELEV. 760.96
100' V.C.

19 TONS UNIFORM RIPRPAP ON
40 SYS GEOTEXTILE FOR RIPRAP REQ'D., DITCH LT.

47 SYS. SODDING REQ'D., DITCH LT.

+70 | +40 | +77

-0.52%

+52
758.92

GRADE OF SP'L. "V" DITCH REQ'D., LT.

-1.89%

+70
756.81

+2.39%

+40
755.47

+4.52%

+62
756.00

+77
756.66

GRADE OF SP'L. "V" DITCH REQ'D., LT.
(PLOTTED 20' ABOVE DATUM)

EXISTING GROUND ALONG LINE "E"

+26, STR. NO. 92

+26, STR. NO. 112

390' OF 30" TYPE 2 PIPE @ 0.11%

INV. 755.90

300' OF 24" TYPE 2 PIPE @ 0.15%

INV. 755.44

24' OF 24" TYPE 2 PIPE @ 0.17

INV. 755.40

-0.68%

+14
759.00

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+24
758.80

-1.41%

+81
758.00

-1.03%

+00
757.80

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+52
757.60

-0.55%

+61
757.00

+0.41%

+79
757.07

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+44
759.69

+0.24%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+24 | 51 SYS. SODDING REQ'D., DITCH RT. | +00

762.6 762.2 761.9 761.6 761.3 761.0 760.7 760.71 760.5 760.61 760.5 760.57 760.5 760.66 760.5 760.81 760.4 760.88 760.4 760.81

800 790 780 770 760 750 740 730 720 710

570+00 571+00 572+00 573+00 574+00 575+00 576+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	154 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_06
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_

+43.35, 48.42', Power Pole
+56.97, 38.16', No Parking Sign
+94.45, 48.56', Power Pole
577+00
578+00
+03.93, 48.33', Right-of-Way Marker
+05.03, 48.99', Power Pole
+05.47, 55.58', Guy Anchor
579+00
580+00
+29.26, 49.34', Power Pole
581+00
+40.01, 53.33', Billboard

KAREN ANN McINTYRE NOVAK, CO-TRUSTEE
OF THE SAMUAL B. McINTYRE RESIDUARY TRUST B

SEC. 20, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

48

KAREN ANN McINTYRE NOVAK, CO-TRUSTEE
OF THE SAMUAL B. McINTYRE RESIDUARY TRUST B

P.I. 577+75.10 "E"
△ = 00°15'30" LT.
(NO CURVE RUN)

(GRASS)
+09, CLASS III DRIVE REQ'D.
W=40'
TEMP. R/W FOR DRIVE CONSTR.
+32, STR. NO. 118
INLET TYPE C-15 W/
55' OF 12" TYPE 2 PIPE
(ASPHALT)
+17, STR. NO. 610
69' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+96, STR. NO. 122
INLET TYPE C-15 W/
31' OF 12" TYPE 2 PIPE
+49, CLASS III DRIVE REQ'D.
W=40'
TEMP. R/W FOR DRIVE CONSTR.
(GRASS)
ENVIRONMENTALLY SENSITVE AREA - DO NOT DISTRUB
(GRASS)
+40.00 58.00'
+40.00 50.00'
50' R/W
CONSTR. LIMITS
+19.00 58.00'
+19.00 50.00'
+80.00 58.00'
+80 60.00'
+80.00 50.00'
60' R/W
CONSTR. LIMITS
60' R/W
CONSTR. LIMITS
OHE
C1
APP. EXIST. R/W
APP. EXIST. R/W
MATCHLINE STA. 576+00 "E"
MATCHLINE STA. 582+00 "E"
15
W
4'
29'
R
(ASPHALT)
+65, STR. NO. 120
INLET TYPE C-15 W/
33' OF 12" TYPE 2 PIPE
+21, STR. NO. 124
INLET TYPE B-15 W/
25' OF 12" TYPE 2 PIPE
US 41
APP. SEC. LINE
N 00°11'58" E
LINE "E"
N 00°03'32" W
+65, STR. NO. 121
INLET TYPE C-15 W/
33' OF 12" TYPE 2 PIPE
+21, STR. NO. 125
INLET TYPE B-15 W/
25' OF 12" TYPE 2 PIPE
+96, STR. NO. 612
INLET TYPE F-7 W/
131' OF 15" TYPE 2 PIPE
+XX, STR. NO. 613
INLET TYPE F-7 W/
131' OF 15" TYPE 2 PIPE
APP. EXIST. R/W
CONSTR. LIMITS
50' R/W
+94.65 50.00'
+96, STR. NO. 123
INLET TYPE C-15 W/
31' OF 12" TYPE 2 PIPE
+32, STR. NO. 119
INLET TYPE C-15 W/
55' OF 12" TYPE 2 PIPE
(6" PVC)
(15" CPP)
(15" RCP)
CONSTR. LIMITS
20' DRAINAGE & UTILITY EASEMENT PER PLAT
+59.00 50.00'
+59.00 59.00'
+08.00 50.00'
+08.00 59.00'
+89.00 50.00'
APP. EXIST. R/W
(12" RCP)
DO NOT DISTURB LIGHT POLE
DO NOT DISTURB LIGHT POLE
TEMP. R/W FOR DRIVE CONSTR.
+85, STR. NO. 611
64' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+00, STR. NO. 612A
FLARED END SECTION W/
58' OF 12" TYPE 2 PIPE
+84, MOD. CLASS III DRIVE REQ'D.
W=28'
+14, MOD. CLASS III DRIVE REQ'D.
W=37'
BOBB AUTOGROUP SUBDIVISION
INSTR. No. 2014055191
SEPTEMBER 12, 2014
WINDY HILL ADDITION
INSTR. No. 20060054946
JUNE 27, 2006
37
US 41 PROPERTIES LLC
39
PSB/13007 WICKER, LLC
SEC. 21, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
41
R.E. SPURLOCK, INC.
43
HAROLD G. & PAULINE G. McMILLION, H/W
AS TENANTS BY ENTIRETIES
APP. P.L.
LOT LINE
30' ACCESS EASEMENT PER PLAT
12' UTILITY EASEMENT PER PLAT
12' UTILITY EASEMENT PER PLAT
25' INGRESS/EGRESS, DRAINAGE & UTILITY EASEMENT PER PLAT
14' DRAINAGE & UTILITY EASEMENT PER PLAT
10' DRAINAGE & UTILITY EASEMENT PER PLAT
(Building)
(Building)

+06.04, 53.25', Light Pole
+44.36, 53.41', Light Pole
+70.56, 40.65', Sanitary Manhole
+81.34, 53.65', Light Pole
+92.09, 51.41', Telephone Pedestal
+58.07, 73.52', Light Pole
+95.42, 49.49', Guy Anchor
+97.57, 49.46', Guy Anchor
+00.20, 45.43', Telephone Pedestal
+10.59, 49.85', Power Pole
+36.60, 70.10', Bobb Chrysler Sign
+70.52, 74.27', Light Pole
+85.09, 57.10', Invert 15IN RCP
+35.01, 95.40', Light Pole
+49.59, 52.16', Invert 15IN RCP
+51.37, 39.86', Mailbox
+90.84, 48.52', Power Pole
+96.27, 42.52', Invert 15IN CPP
+98.06, 47.52', Telephone Pedestal
+07.89, 57.52', Light Pole
+09.25, 48.69', Guy Anchor
+32.29, 56.57', Telephone Pedestal
+54.30, 42.89', Beehive
+62.68, 58.46', Light Pole
+03.76, 59.24', Light Pole
+11.64, 67.47', Inlet Round
+33.84, 57.01', World Gym Sign
+34.03, 50.24', Electric Meter
+73.86, 37.89', Mailbox
+75.35, 36.62', Mailbox
+76.74, 59.62', Light Pole
+77.00, 32.55', Sanitary Manhole
+77.83, 37.25', Mailbox
+79.83, 36.08', Mailbox
+85.32, 40.84', Invert 15IN CPP
+85.85, 69.08', Inlet Round
+88.12, 52.23', Telephone Pedestal
+90.49, 47.18', Telephone Pedestal
+91.89, 50.27', Telephone Pedestal

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
(13) COMB. CONC. CURB AND GUTTER TYPE B
(15) COMB. CONC. CURB AND GUTTER
(22) CONC. CENTER CURB, TYPE B
(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE
DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	155 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
8/1/2025
model: US41_SHT_E_PLAN_07
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_...

PVI @ 576+94.10
ELEV. 760.53
100' V.C.

PVI @ 578+00
ELEV. 760.84
100' V.C.

+90

445 SYS. SODDING REQ'D., DITCH LT.

EXISTING GROUND ALONG LINE "E"

+0.24%

+1.29%

-2.94%

+74 760.00

+98 760.31

+08 760.00

+90 756.57

-1.57%

+25 754.44

-1.57%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

-1.24%

+70 758.00

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-3.02%

+50 757.12

+96 755.72

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-6.41%

+86 752.34

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+49

148 SYS. SODDING REQ'D., DITCH RT.

+70

31 TONS UNIFORM RIPRAP ON 59 SYS GEOTEXTILE
FOR RIPRAP, TYPE IA REQ'D., DITCH RT.

+50

+96

18 TONS UNIFORM RIPRAP ON 38 SYS GEOTEXTILE
FOR RIPRAP, TYPE IA REQ'D., DITCH RT.

+86

760.4 760.81
760.5 760.66
760.5 760.60
760.5 760.69
760.4 760.67
760.1 760.29
759.7 759.74
759.2
758.5
757.7
756.6
755.5
754.3

800 790 780 770 760 750 740 730 720 710

576+00 577+00 578+00 579+00 580+00 581+00 582+00

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20'	BRIDGE FILE
		VERTICAL SCALE 1" = 5'	DESIGNATION 1700025
DESIGNED: MRW DRAWN: JWM	PROFILE - US 41 LINE "E"		SHEETS 156 of 350
CHECKED: LDW CHECKED: MAE			CONTRACT R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 07
file:pw://mb-us-piw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 07.dgn

SEC. 20, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

KAREN ANN McINTYRE NOVAK, CO-TRUSTEE
OF THE SAMUAL B. McINTYRE RESIDUARY TRUST B
48

DAPAN INVESTMENTS, LLC
50

CLINT & MICHELLE JOHNSON, H/W
52

HAROLD G. & PAULINE G. McMILLION, H/W
AS TENANTS BY ENTIRETIES
43

BURDAN BROTHERS BUILDING "LLC"
45

BOSILJKA MIHAJLOVIC, AS TRUSTEE, UNDER THE PROVISIONS OF A TRUST AGREEMENT
47

CEDAR LAKE COMMERCIAL, LLC

SEC. 21, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

MATCHLINE STA. 582+00 "E"

MATCHLINE STA. 588+00 "E"

US 41

W. 129TH AVE.

W. 129TH AVE.

APP. ¼ SEC. LINE

APP. SEC. LINE

LINE "E"
N 00°03'32" W

APP. P.L.

APP. EXIST. R/W

CONSTR. LIMITS

60' R/W

50' R/W

49' R/W

75' R/W

TEMP. R/W FOR DRIVE CONSTR.

ENVIRONMENTALLY SENSITIVE AREA - DO NOT DISTRUB

+95, STREET APP. REQ'D.
W=22'

+69, MOD. CLASS I DRIVE REQ'D.
W=18'

+46, STR. NO. 619
44' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+57, STR. NO. 615
86' OF 12" TYPE 1 PIPE
W/ 2 P.E.S. REQ'D

+21, STR. NO. 614
36' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+55, STR. NO. 616
73' OF 24" TYPE 1 PIPE
W/ 2 P.E.S. REQ'D

+09, STR. NO. 617
44' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+63, STR. NO. 618
66' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+38, MOD. CLASS I DRIVE REQ'D.
W=12'

+90, STREET APP. REQ'D.
W=21'

+33, CLASS I DRIVE REQ'D.
W=12'

+32, CLASS III DRIVE REQ'D.
W=35'

DELINEATOR POST

+44.68, 48.77', Power Pole
+48.85, 58.21', Billboard
+63.55, 51.31', Invert 15IN CMP
+67.71, 72.27', Guy Anchor
+68.10, 63.64', Guy Anchor
+68.71, 49.31', Power Pole with Light Mast
+75.97, 90.21', Power Pole
+76.26, 74.91', Guy Anchor
+77.04, 75.07', Guy Anchor
+94.76, 36.72', Sanitary Manhole
+22.24, 51.28', Invert 15IN CMP
+47.50, 48.78', Telephone Pedestal
+49.79, 49.37', Right-of-Way Marker
+50.55, 65.15', Good Fellas Bar Sign
+47.00, 37.10', No Parking/UNK Sign
+61.94, 37.54', Sanitary Manhole
+89.58, 48.43', Power Pole with Riser
+21.05, 61.30', Cedar Lake Antiques Sign
+39.29, 38.37', 45 MPH Sign
+56.89, 85.20', Beehive
+58.52, 42.44', Invert 15IN CMP
+84.41, 42.26', Invert 15IN CMP
+91.40, 48.99', Power Pole

+05.33, 46.86', Guy Anchor
+24.10, 41.09', Invert 12IN RCP
+49.95, 36.24', Mailbox
+50.74, 40.94', Invert 12IN RCP
+50.95, 36.34', Mailbox
+64.62, 50.37', 24IN Dia. Decid Tree
+48.25, 62.29', Yard Light
+54.59, 62.41', Burdan Funeral Sign
+61.28, 62.07', Yard Light
+48.21, 65.94', Flag Pole
+50.13, 49.57', Right-of-Way Marker
+62.02, 50.30', Invert 18IN CMP
+69.33, 73.97', Power Pole with Light Mast
+82.12, 35.43', Sanitary Manhole
+06.12, 90.20', Mailbox
+07.25, 67.34', Stop Sign
+12.44, 49.58', Invert 18IN CMP
+18.38, 66.79', 44IN Dia. Decid Tree
+32.79, 42.51', Invert 18IN CMP
+43.95, 47.77', Traffic Signal Cabniet
+50.31, 46.32', Telephone Pedestal
+59.20, 53.01', 8IN Dia. Decid Tree
+60.22, 71.69', 12IN Dia. Decid Tree
+60.34, 53.22', 8IN Dia. Decid Tree
+64.61, 42.19', Invert 18IN CMP
+74.40, 50.20', 18IN Dia. Decid Tree
+95.03, 50.92', Shrub
+97.99, 51.38', Shrub
+00.28, 51.00', Shrub
+14.50, 51.13', Shrub
+16.95, 51.60', Shrub
+19.29, 51.81', Shrub
+20.05, 40.97', Invert 18IN CMP with ES
+40.08, 49.99', Guy Anchor
+44.70, 41.11', Invert 18IN CMP with ES
+44.75, 49.66', Guy Anchor
+52.53, 46.93', Telephone Pedestal
+53.06, 51.99', Flag Pole
+65.44, 60.61', 16IN Dia. Decid Tree
+84.19, 66.23', 18IN Dia. Decid Tree
+09.76, 67.58', 20IN Dia. Decid Tree
+10.19, 40.77', Invert 18IN CMP with ES
+51.75, 41.86', Invert 18IN CMP with ES
+52.55, 54.00', Light Pole
+52.96, 36.95', Mailbox
+73.03, 65.14', Phils Karts Sign
+91.62, 53.06', Light Pole

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
(13) COMB. CONC. CURB AND GUTTER TYPE B
(15) COMB. CONC. CURB AND GUTTER
(22) CONC. CENTER CURB, TYPE B
(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS	
157	of 350
CONTRACT	
R-40609	

Mitchell, Wilcox
8/1/2025
model: US41_SHT_E_PLAN_08
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_08.dgn

790
780
770
760
750
740
730
720
710
700

445 SYS. SODDING REQ'D., DITCH LT.
+57

-1.57%
+08
750.02
-1.45%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+57
746.40

EXISTING GROUND ALONG LINE "E"
+44
745.40
-0.99%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+46
743.40
+90
743.32
-0.99%
GRADE OF SP'L. "V" DITCH REQ'D., LT.

-6.41%-4.01%
+07
751.00
+21
750.43
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+57
749.92
-2.33%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+55
745.30

+31
745.16
-0.39%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+09
744.85

+53
744.70
-1.71%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+00
743.90

+62
743.80
-0.51%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

18 TONS UNIFORM RIPRAP ON 38 SYS GEOTEXTILE
FOR RIPRAP, TYPE IA REQ'D., DITCH RT.
+21

+57
132 SYS SODDING REQ'D., DITCH RT.
+55

32 SYS SODDING REQ'D., DITCH RT.
+53
+00

754.3 753.2 752.2 751.2 750.4 749.7 749.1 748.7 748.3 748.0 747.7 747.5 747.2

582+00 583+00 584+00 585+00 586+00 587+00 588+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	158 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PROFILE_ 08
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWI.TL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 08.dgn

+03.02, 76.09', 44IN Dia. Decid Tree
+33.92, 64.21', 44IN Dia. Decid Tree
+53.67, 43.06', Invert 15IN CMP
+78.25, 42.45', Invert 15IN CMP
+81.23, 96.45', 20IN Dia. Decid Tree
+84.03, 42.03', Invert 15IN RCP
589+00
+02.94, 68.49', 21IN Dia. Decid Tree
+10.96, 71.49', 36IN Dia. Decid Tree
+20.33, 50.16', Invert 8IN PVC with ES
+20.58, 42.90', Beehive
+29.02, 51.14', Stop Sign
+41.87, 36.77', Sanitary Manhole (Old 8")
+78.33, 57.52', Yard Light
+86.52, 64.62', Illian Storage Sign
+86.89, 39.84', Mailbox
+94.19, 57.87', Yard Light
590+00
+00.30, 39.74', All Lanes Stop Sign
+00.38, 47.24', Power Pole
+26.63, 42.16', Beehive
+33.45, 46.85', Telephone Pedestal
+35.86, 81.59', 15IN Dia. Decid Tree
+49.19, 80.93', 27IN Dia. Decid Tree
+55.98, 62.42', Shrub
+57.78, 45.25', Invert 8IN PVC
+67.07, 61.57', Shrub
+75.18, 39.54', No Parking Sign
+79.80, 60.55', Shrub
+95.15, 39.48', Mailbox
+95.67, 47.18', Power Pole
591+00
+29.20, 65.15', 15IN Dia. Decid Tree
+31.00, 77.62', Shrub
+32.82, 39.11', Mailbox
+64.77, 70.28', Shrub
+88.94, 75.36', 22IN Dia Coniferous Tree
+90.46, 85.99', 22IN Dia Coniferous Tree
+92.83, 36.90', 18IN Dia. Left Turn Sign
+97.60, 40.99', Invert 15IN CMP
592+00
+01.20, 84.28', Gas Marker
+02.35, 46.35', Water Meter
+06.10, 53.13', Telephone Pedestal
+30.95, 80.71', Beehive
+32.46, 39.87', Inlet Round
+38.35, 34.60', Mailbox
+47.02, 48.09', Power Pole
593+00
+04.18, 57.70', Ottosons Sign
+08.44, 63.87', Light Pole
+10.24, 53.31', Telephone Pedestal
+12.24, 39.23', Inlet Round
+40.51, 79.61', Shrub
+47.86, 79.21', Shrub
+58.22, 76.60', Shrub
+68.79, 76.77', Shrub
+74.84, 76.00', Shrub
+88.23, 76.23', Shrub
+92.06, 91.00', Shrub
+92.84, 77.22', Shrub
+93.82, 81.72', Shrub
+93.95, 97.44', Shrub
+94.35, 86.42', Shrub
+94.85, 86.42', Shrub
+94.86, 100.46', Shrub

JOHN & DARLENE BOERSMA, H/W TENANTS BY THE ENTIRETIES
54
ILLIANA STORAGE, L.L.C.
56
JOHN J. KNIGHT
58
SEC. 20, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
MICHAEL E. MUNDO
60
FADS GROUP, LLC
62
CEDAR LAKE LOT, LLC
64

APP. P.L.
LOT LINE
APP. P.L.
LOT LINE

+63, CLASS I DRIVE REQ'D.
W=10'
+49, CLASS III DRIVE REQ'D.
W=30'
+15, CLASS III DRIVE REQ'D.
W=20'
+73, MOD. CLASS III DRIVE REQ'D.
W=20'

+44, STR. NO. 620
45' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+21, STR. NO. 623
63' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+91, STR. NO. 624
55' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+49, STR. NO. 625
FLARED END SECTION W/
64' OF 18" TYPE 2 PIPE
+12, STR. NO. 628
199' OF 18" TYPE 2 PIPE
W/ 1 P.E.S. REQ'D

(Building)
(ASPHALT)
(GRASS)
(GRAVEL)
CONSTR. LIMITS
60' R/W
15' UTILITY EASEMENT PER PLAT
5' NON-ACCESS EASEMENT PER PLAT
OHE
(15" CMP)
(15" RCP)
(8" PVC)
(15" CPP)
APP. EXIST. R/W
(GRASS)
6'
31'
15
W
C
C1
R
R-10'
15'

MATCHLINE STA. 588+00 "E"
MATCHLINE STA. 594+00 "E"
US 41
LINE "E"
N 00°03'32" W
APP. SEC. LINE

+10, STR. NO. 622
46' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
(18" CMP)
(18" CMP)
(18" CMP)
(GRASS)
(ASPHALT)
CONSTR. LIMITS
UTILITY ESMT. AGREEMENT
I.F.O. TOWN OF CEDAR LAKE
(GRAVEL)
CONSTR. LIMITS
(GRASS)

+84, STR. NO. 621
43' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+48, STR. NO. 629
52' OF 24" TYPE 2 PIPE
W/ 2 P.E.S. REQ'D
75' R/W
+17.00
75.00'
+17.00
81.00'
+49.00
75.00'
+49.00
81.00'
+64, CLASS I DRIVE REQ'D.
W=11'
+34, CLASS I DRIVE REQ'D.
W=11'
+76, CLASS I DRIVE REQ'D.
W=15'
TEMP. R/W FOR
DRIVE CONSTR.

CEDAR LAKE COMMERCIAL, LLC
CEDAR LAKE COMMERCIAL, LLC
CEDAR LAKE COMMERCIAL, LLC
(Building)
APP. P.L.
APP. P.L.
APP. P.L.
UTILITY ESMT. AGREEMENT
I.F.O. TOWN OF CEDAR LAKE
SEC. 21, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+04.32, 38.23', 55 MPH/No Parking Sign
+26.63, 47.63', Telephone Pedestal
+28.17, 52.65', Light Pole
+28.42, 103.41', Light Pole
+34.18, 48.90', Power Pole
+48.66, 40.30', Invert 18IN CMP with ES
+50.70, 71.41', Shrub
+52.65, 83.41', 24IN Dia. Decid Tree
+75.20, 40.57', Invert 18IN CMP with ES
+76.18, 36.80', Mailbox
+97.74, 74.56', 48IN Dia. Decid Tree
+17.56, 41.12', Invert 18UT CMP with ES
+20.04, 37.35', Mailbox
+44.15, 40.83', Invert 18IN CMP with ES
+52.76, 83.64', 30IN Dia. Decid Tree
+00.25, 50.11', Power Pole
+00.81, 49.99', All Lanes Stop Sign
+01.22, 88.29', 36IN Dia. Decid Tree
+02.01, 49.42', Right-of-Way Marker
+08.33, 47.90', Telephone Pedestal
+17.12, 49.13', Guy Anchor
+22.05, 49.07', Guy Anchor
+84.99, 61.66', 8IN Dia. Decid Tree
+09.98, 37.77', Mile Marker Sign
+46.83, 54.27', Fire Hydrant
+46.84, 56.17', Water Valve
+46.85, 64.17', Fire Hydrant
+52.08, 48.45', Telephone Pedestal
+52.14, 47.93', Telephone Pedestal
+60.58, 63.94', 8IN Dia. Coniferous Tree
+61.11, 63.45', 8IN Dia. Decid Tree
+97.37, 65.88', Town Homes Sign
+04.94, 48.56', Gas Marker
+08.07, 57.41', Post
+14.09, 56.14', Water Valve
+14.12, 56.28', Water Valve
+34.91, 63.55', 8IN Dia. Decid Tree
+35.30, 63.59', 8IN Dia. Decid Tree
+66.18, 40.08', Invert 18IN CMP W MES
+86.46, 39.86', Invert 18IN CMP W MES
+23.30, 51.37', Mcfarland Billboard
+28.23, 82.77', 8IN Dia. Decid Tree
+28.38, 82.79', 8IN Dia. Decid Tree
+74.63, 55.89', Water Valve
+74.66, 55.82', Water Valve
+74.67, 53.98', Fire Hydrant
+75.02, 53.75', Fire Hydrant
+78.12, 67.38', 8IN Dia. Decid Tree
+78.38, 67.14', 8IN Dia. Decid Tree

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

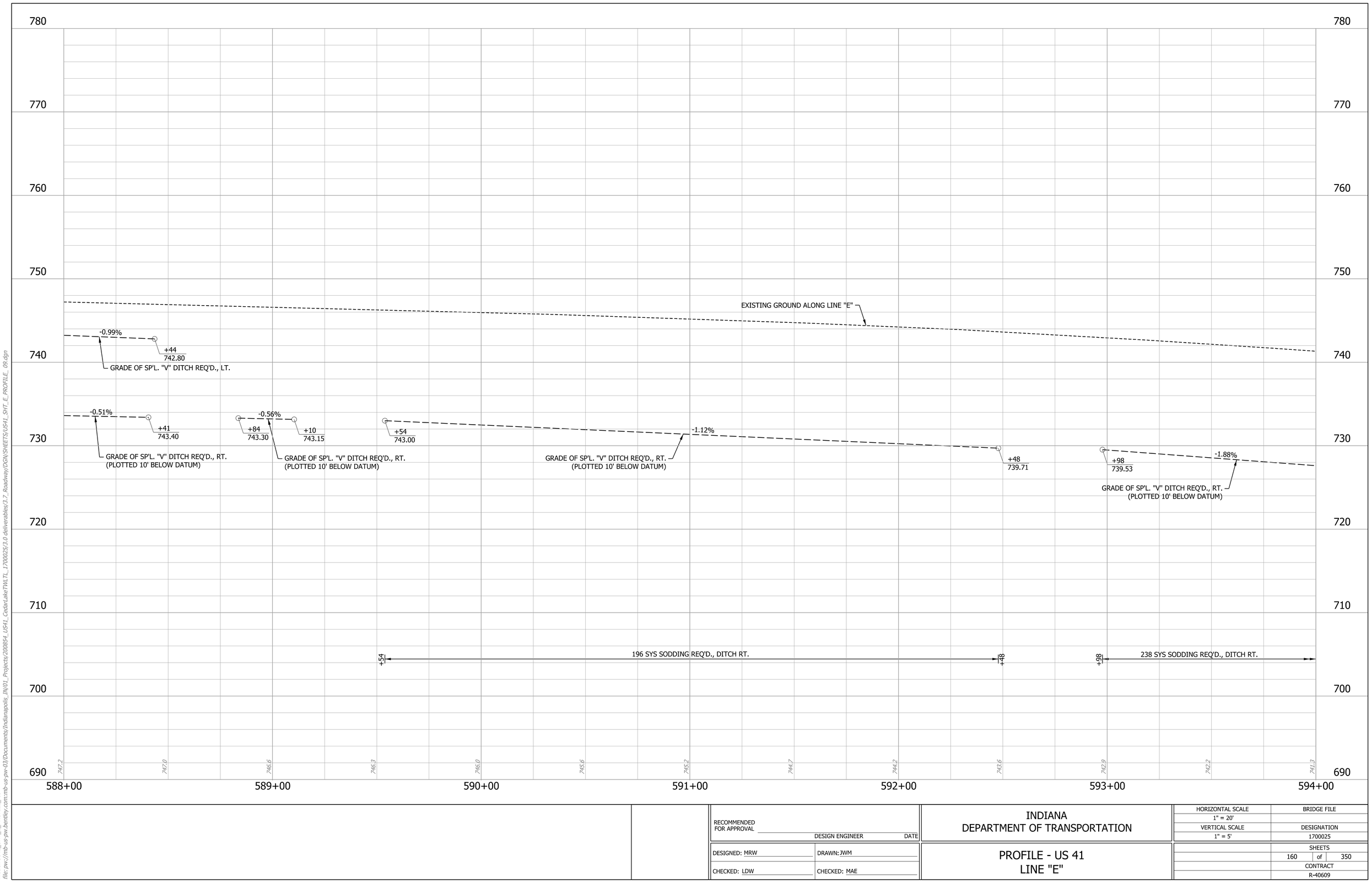
LEGEND
(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
(13) COMB. CONC. CURB AND GUTTER TYPE B
(15) COMB. CONC. CURB AND GUTTER
(22) CONC. CENTER CURB, TYPE B
(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION
PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	159 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_09
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_09.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

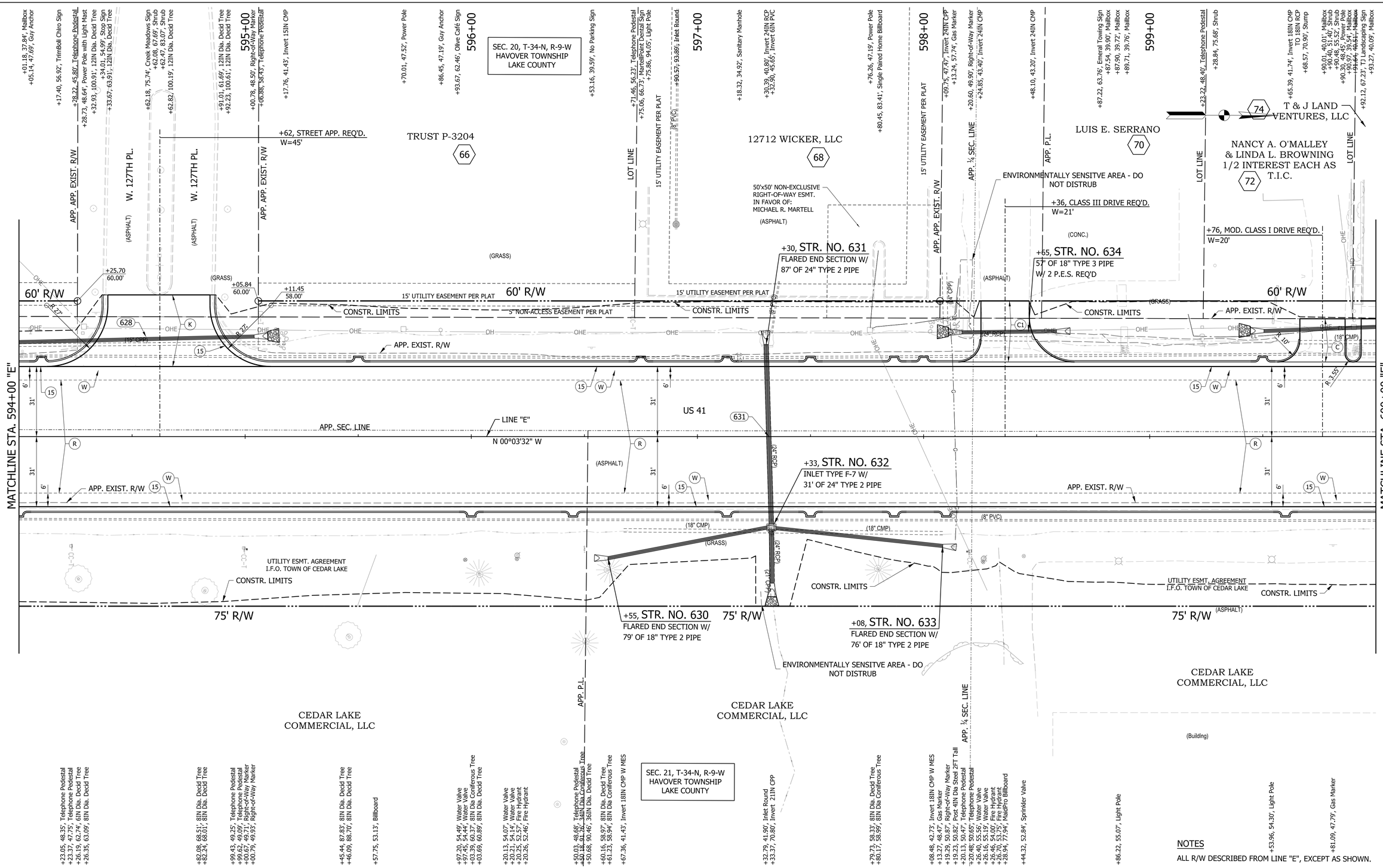
INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025

SHEETS	
160	of 350
CONTRACT	
R-40609	

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_09
file:pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_09.dgn



NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: MRW | DRAWN: JWM

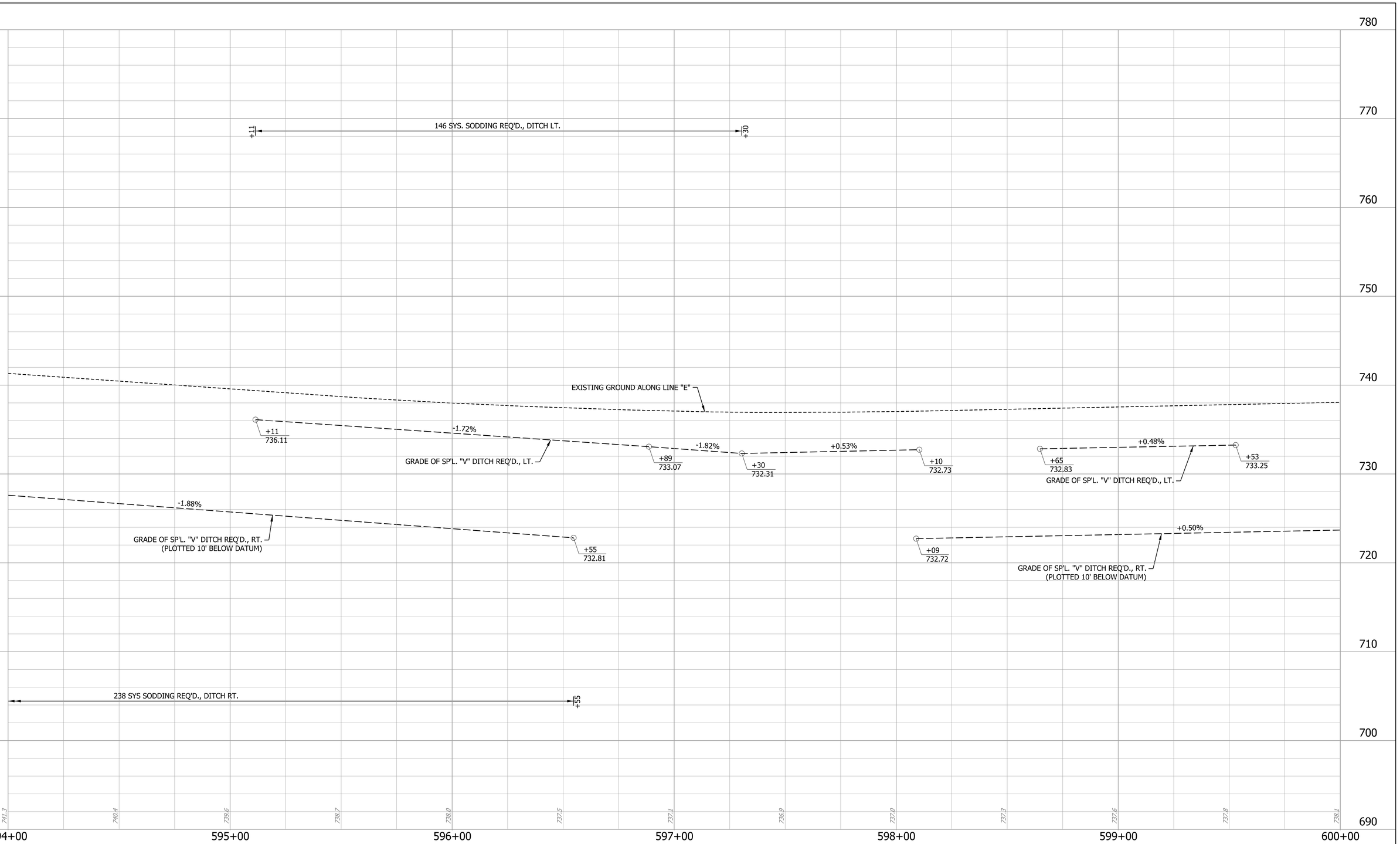
CHECKED: LDW | CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	161 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PLAN_10
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_10.dgn



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20'	BRIDGE FILE
		VERTICAL SCALE 1" = 5'	DESIGNATION 1700025
DESIGNED: MRW DRAWN: JWM	PROFILE - US 41 LINE "E"		SHEETS 162 of 350
CHECKED: LDW CHECKED: MAE			CONTRACT R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_10
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 10.dgn

MATCHLINE STA. 600+00 "E"

MATCHLINE STA. 606+00 "E"

T & J LAND VENTURES, LLC
74

APP. P.L.

+31.05, 41.92', Invert 18IN RCP

+49.35, 47.14', Telephone Pedestal
+51.61, 60.17', Post
+53.33, 41.85', Invert 18IN CMP
+54.99, 65.42', Guy Anchor
+55.31, 49.55', Power Pole

LOT LINE

+77.75, 42.04', Invert 18IN CMP
W BURRIED CONC HW
+81.15, 37.11', Sanitary Manhole

601+00

CEDAR GARDENS
PLAT BOOK 24, PAGE 37
SEPTEMBER 12, 1939

LINDEMULDER PROPERTIES, LLC
76

LOT LINE

+48.91, 60.28', Light Pole

+55.77, 37.23', 45 MPH/No Parking Sign

+87.83, 47.61', Telephone Pedestal
+88.61, 49.49', Light Pole
+89.61, 50.14', Power Pole

LOT LINE

602+00

SEC. 20, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+41.96, 70.12', Stump

LOT LINE

603+00

+08.64, 90.59', 20IN Dia Coniferous Tree

JANE & JASON STRATON
78

LOT LINE

+22.80, 50.39', Power Pole

+27.85, 90.20', 24IN Dia Coniferous Tree
+31.79, 69.31', 22IN Dia. Decid Tree

+38.21, 42.05', Invert 18IN CMP
+38.87, 37.81', Mailbox

LOT LINE

+62.34, 41.94', Invert 18IN CMP

+69.64, 70.08', 34IN Dia. Decid Tree

+82.93, 98.03', Shrub
+83.62, 93.06', Shrub
+83.94, 65.22', Shrub
+84.36, 58.45', Shrub

604+00

+87.73, 49.02', Telephone Pedestal

LOT LINE

LINDEMULDER PROPERTIES, LLC
80

(Building)

+36.40, 94.29', Shrub
+39.08, 95.24', Shrub
+40.58, 96.08', Guy Anchor
+55.04, 50.12', Power Pole with Light Mast
+55.96, 50.01', 126th Street Sign
+58.04, 70.32', Guy Anchor
+58.10, 68.34', Guy Anchor
+58.17, 67.42', Guy Anchor
+58.26, 84.36', Power Pole
+58.78, 47.19', Telephone Pedestal
+63.47, 43.33', Invert 18IN RCP
+69.08, 33.72', Sanitary Manhole
+71.75, 57.59', Stop Sign

APP. EXIST. R/W

605+00

W. 126TH AVE.

+12.26, 43.13', Invert 18IN RCP

APP. EXIST. R/W

HOBART COMMONS, LLC
82

+79.14, 86.86', Shrub

+98.90, 86.40', Shrub

LOT LINE

(Building)

+06, MOD. CLASS III DRIVE REQ'D.
W=24'

+35, STR. NO. 635
76' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+69, MOD. CLASS III DRIVE REQ'D.
W=18'

+93, STR. NO. 637
48' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

(GRAVEL)

(ASPHALT)

60' R/W

CONSTR. LIMITS

APP. EXIST. R/W

OHE

(18" RCP) C1 R 18' R 10'

(18" CMP) D1 R 15'

(10" VCP)

+52, MOD. CLASS I DRIVE REQ'D.
W=11'

+75, STR. NO. 640
41' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

(ASPHALT)

(GRASS)

CONSTR. LIMITS

60' R/W

APP. EXIST. R/W

(18" CMP) D

(10" VCP)

+28, STR. NO. 641
83' OF 18" TYPE 1 PIPE
W/ 2 P.E.S. REQ'D

+44.71
63.00'

+57.64
60.00'

R 32'

(ASPHALT)

(18" RCP) K

(40" VCP)

+88, STREET APP. REQ'D.
W=22'

+17.79
75.00'

CONSTR. LIMITS

75' R/W

+30.48
63.00'

R 32'

APP. EXIST. R/W

APP. EXIST. R/W

US 41

APP. SEC. LINE

LINE "E"
N 00°03'32" W

(ASPHALT)

APP. EXIST. R/W

APP. EXIST. R/W

(GRASS)

D1

+63, STR. NO. 638
INLET TYPE F-7 W/
64' OF 18" TYPE 2 PIPE

638

(ASPHALT)

UTILITY ESMT. AGREEMENT
I.F.O. TOWN OF CEDAR LAKE

CONSTR. LIMITS

CONSTR. LIMITS

CONSTR. LIMITS

75' R/W

+00, STR. NO. 636
INLET TYPE HA-5 W/
57' OF 18" TYPE 2 PIPE
W/ 1 P.E.S. REQ'D

+29, STR. NO. 639
76' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+64, STR. NO. 642
58' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

75' R/W

+74, CLASS III DRIVE REQ'D.
W=20'

+38, CLASS III DRIVE REQ'D.
W=20'

+93, CLASS III DRIVE REQ'D.
W=40'

+36, CLASS III DRIVE REQ'D.
W=20'

APP. P.I.

APP. P.I.

APP. P.I.

LOT LINE

(Building)

(Building)

SEC. 21, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

CEDAR LAKE COMMERCIAL, LLC

AMERICAS FINEST HOMES - U.S. ROUTE 41
INSTR. No. 2004030419
APRIL 14, 2004

+21.20, 52.94', Light Pole

+34.39, 52.75', Water Valve
+34.43, 50.91', Fire Hydrant

+59.46, 49.34', Telephone Pedestal

+60.11, 52.33', Rhino Gym Sign

+90.35, 49.86', Post
+91.40, 57.43', Power Pole
+94.10, 49.55', Mailbox
+94.97, 49.55', Telephone Pedestal
+97.05, 71.16', Guy Anchor
+01.52, 49.67', Post

+70.13, 52.41', Post
+75.05, 52.51', Post
+79.82, 52.30', Post
+85.09, 52.30', Post

+99.86, 52.27', Post
+05.52, 52.10', Post

+15.48, 51.89', Post
+19.35, 52.09', Post
+25.03, 51.96', Post

+35.21, 52.04', Post

+45.19, 51.97', Post
+50.26, 51.93', Post

+55.28, 52.09', Harvest Church Sign

+36.06, 69.46', Light Pole

+79.65, 69.38', Light Pole

+22.35, 69.34', Light Pole

+44.29, 65.97', Sign Unreadable Message

+65.19, 69.11', Light Pole

+19.74, 68.38', Light Pole

+51.98, 84.98', Paul Heuring Billboard
+56.85, 70.13', Post
+56.92, 86.44', Post
+56.95, 91.98', Post
+56.96, 75.37', Post
+56.96, 97.37', Post
+57.08, 80.73', Post
+60.75, 62.50', Power Pedestal
+62.25, 62.50', Fire Hydrant
+68.01, 65.83', Power Pole

+99.12, 64.25', Telephone Pedestal

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

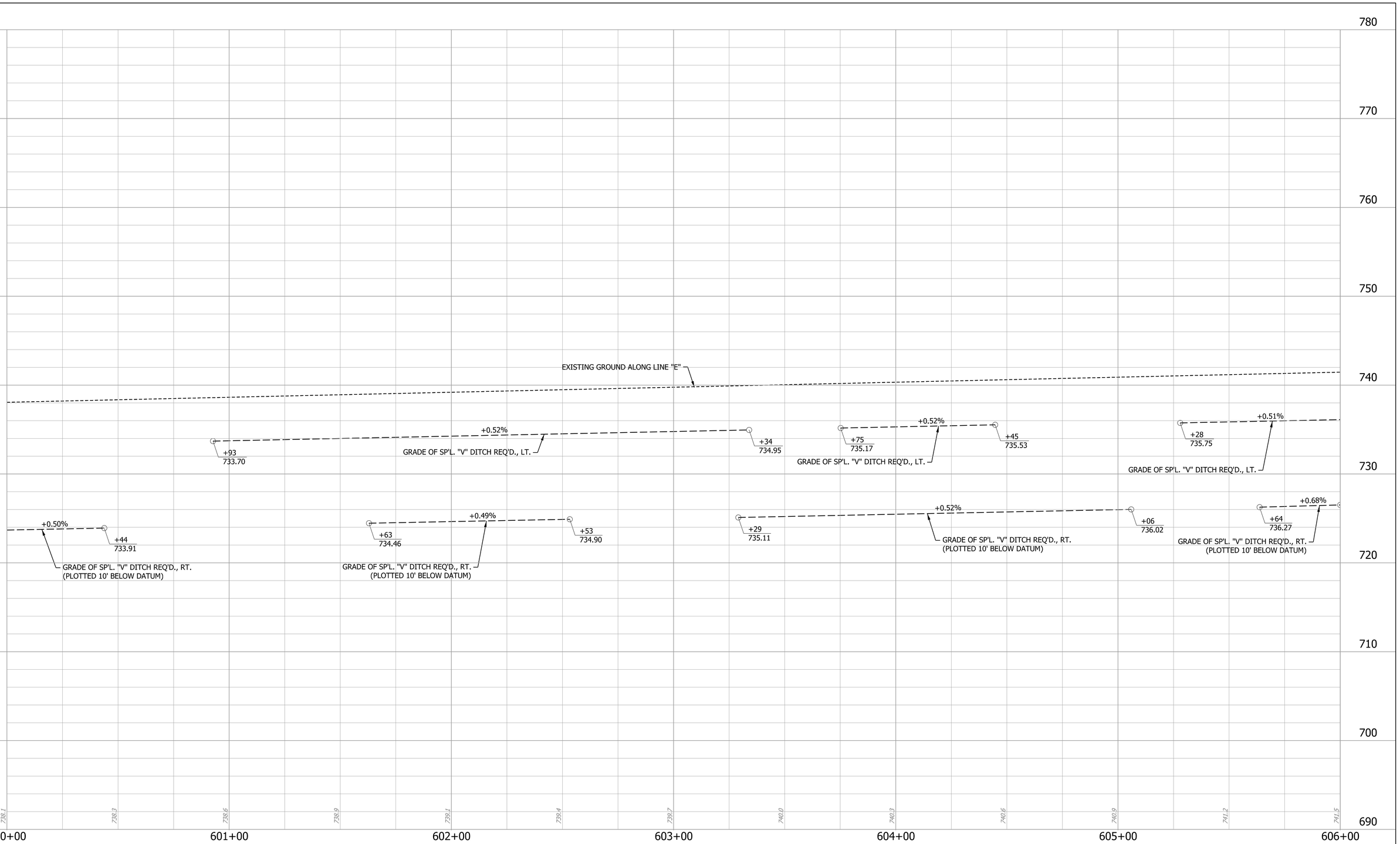
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	163 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_11
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_11.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	164 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 11
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 11.dgn

PLAT BOOK 24, PAGE 37
SEPTEMBER 12, 1939

HOBART COMMONS, LLC

THERON SACK, AS TRUSTEE, UNDER THE PROVISIONS OF THE SACK LIVING TRUST
84

MOMIR & SLADJANA J. KERIC, H/W
86

SEC. 20, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

C L LEASING, LLC
88

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

RICHARD H. HENN & ROBERT R. HENN J.T.R.O.S.
90

MATCHLINE STA. 606+00 "E"

MATCHLINE STA. 612+00 "E"

US 41

APP. SEC. LINE

LINE "E"
N 00°03'32" W

+12, STR. NO. 644
65' OF 18" TYPE 2 PIPE
W/ 2 P.E.S. REQ'D

+61, STR. NO. 646
65' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+29, STR. NO. 647
52' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+14, STR. NO. 649
49' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+05, STR. NO. 643
58' OF 15" TYPE 2 PIPE
W/ 1 P.E.S. REQ'D

+31, STR. NO. 648
51' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+82, STR. NO. 650
79' OF 12" TYPE 1 PIPE
W/ 2 P.E.S. REQ'D

+51, STR. NO. 645
FLARED END SECTION W/
40' OF 15" TYPE 2 PIPE

+77, CLASS I DRIVE REQ'D.
W=10'

+31, CLASS III DRIVE REQ'D.
W=20'

+01, CLASS III DRIVE REQ'D.
W=20'

+88, CLASS III DRIVE REQ'D.
W=26'

+70, MOD. CLASS III DRIVE REQ'D.
W=41'

+30, CLASS I DRIVE REQ'D.
W=10'

+08, CLASS III DRIVE REQ'D.
W=25'

+34, STREET APP. REQ'D.
W=22'

TEMP. R/W FOR DRIVE CONSTR.

DO NOT DISTURB SIGN

75' R/W

60' R/W

65' R/W

CONSTR. LIMITS

APP. EXIST. R/W

APP. P.L.

APP. SEC. LINE

APP. EXIST. R/W

75.7' UTILITY EASEMENT PER PLAT

10' DRAINAGE EASEMENT PER PLAT

10' UTILITY EASEMENT PER PLAT

10' UTILITY & ROAD MAINTENANCE EASEMENT PER PLAT

W. 125TH AVE.

WICKER HEIGHTS
PLAT BOOK 78, PAGE 36
APRIL 27, 1993

WILSON'S GROVE
PLAT BOOK 83, PAGE 16
JULY 31, 1995

GRANT E. & LOIS J. EASTLING REVOCABLE TRUST AS TRUSTEES, OR THE SUCCESSOR TRUSTEE UNDER THE GRANT E EASTLING and LOIS J. EASTLING REVOCABLE TRUST
55

SDH PROPERTIES LLC
57

ABY, LLC
49

HOWE REI, LLC
51

SEC. 21, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

MILLE FIORI, LLC
53

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
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- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	165 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_12
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_17000253.0 deliverables/3_7_Roadway\DGN\SHEETS\US41_SHT...

780
770
760
750
740
730
720
710
700
690

PVI @ 608+50
ELEV. 742.35
100' V.C.

PVI @ 609+50
ELEV. 742.06
100' V.C.

PVI @ 611+00
ELEV. 742.55
100' V.C.

PVI @ 612+00
ELEV. 742.25
100' V.C.

EXISTING GROUND ALONG LINE "E"

+0.51%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+47
736.86

+0.35%
+12
737.16
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+96
737.45

+0.55%
+61
737.80
+77
737.89
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.79%
+29
738.04
+65
738.32
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.46%
+14
738.46
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.48%
+00
736.51
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+30
737.14

+0.34%
+58
737.72
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+0.80%
+39
738.00
+80
738.33

+0.47%
+31
738.44
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+09
738.81

+0.28%
+82
739.11
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

741.5 741.6 741.8 741.75 741.8 741.96 741.9 742.16 742.0 742.27 742.1 742.21 742.1 742.13 742.1 742.22 742.2 742.38 742.2 742.47 742.3 742.40 742.2 742.34

606+00 607+00 608+00 609+00 610+00 611+00 612+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	166 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model-US41_SHT_E_PROFILE_12
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_12.dgn

MATCHLINE STA. 612+00 "E"

MATCHLINE STA. 618+00 "E"

+45.05, 37.68', Mailbox
+49.03, 41.97', Invert 12IN RCP W CES
+74.18, 42.76', Invert
+83.88, 39.72', Water Valve
+83.97, 40.85', Fire Hydrant
613+00
+10.26, 47.77', Power Pole
+10.72, 47.80', Cedar Lake/Buckle Up/Unk Sign
+48.92, 83.68', Billboard
+07.38, 53.43', Ready To Build Billboard
614+00
+65.41, 42.55', Water Valve
+65.64, 42.65', Water Valve
+64.94, 59.15', Ready To Build Billboard
+73.71, 48.06', Power Pole
+74.58, 48.14', No Parking/UNK Sign
+90.87, 42.62', Water Valve
+91.41, 44.13', Fire Hydrant
+91.41, 44.10', Fire Hydrant
615+00
+76.55, 35.97', Mailbox
+78.84, 41.56', Invert 12IN RCP W CES
+03.78, 61.40', Invert
+04.95, 61.40', 12IN Dia Coniferous Tree
616+00
+32.61, 39.33', Water Valve
+32.78, 40.68', Fire Hydrant
+33.15, 40.88', Fire Hydrant
+60.79, 63.38', 22IN Dia Coniferous Tree
+78.08, 48.71', Power Pole
617+00
+26.38, 49.38', Right-of-Way Marker
+75.15, 58.86', Iron Pin
+76.16, 59.09', Right-of-Way Marker

90
RICHARD H. HENN &
ROBERT R. HENN
J.T.R.O.S.

124TH AVE.

HANOVER DEVELOPMENT
LLC
92

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

RICHARD STONE
94

+61, CLASS I DRIVE REQ'D.
W=20'

+16, STREET APP. REQ'D.
W=57'

+91, CLASS I DRIVE REQ'D.
W=10'

APP. P.L.

+86, STR. NO. 652
46' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+69, STR. NO. 655
48' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

75' R/W

+66.81
75.00'

CONSTR. LIMITS

(ASPHALT)

(GRASS)

(GRAVEL)

(Building)

APP. EXIST. R/W

+91.51
31.00'

+52.94
43.00'

+52.94
31.00'

APP. SEC. LINE

US 41

LINE "E"

N 00°03'32" W

(12" RCP)

(12" CMP)

+60.82
65.00'

+60.82
75.00'

65' R/W

+66, STR. NO. 651
50' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+21, STR. NO. 653
31' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+29, STR. NO. 654
65' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+58, CLASS I DRIVE REQ'D.
W=10'

+00, STR. NO. 656
75' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

75' R/W

+39, STR. NO. 657
60' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+30.00
33.00'

+43, MOD. CLASS III DRIVE REQ'D.
W=26'

+36, MOD. CLASS I DRIVE REQ'D.
W=10'

+37, CLASS I DRIVE REQ'D.
W=14'

+07, CLASS I DRIVE REQ'D.
W=10'

SDH PROPERTIES LLC
57

MICHAEL V. GEISHEIMER
59

DZ PROPERTIES, LLC
61

MARK & SALLY KALLAY,
H/W
63

MARK & SALLY KALLAY,
H/W

+27.22, 43.40', Address Sign
+27.52, 42.41', Invert 12IN CMP BURIED
+27.65, 43.64', Post
+57.53, 82.82', 5IN Dia Coniferous Tree
+57.65, 72.12', 10IN Dia Coniferous Tree
+57.85, 68.24', Power Pole
+59.13, 49.85', 6IN Dia Coniferous Tree
+60.13, 49.85', Power Pole
+60.52, 96.50', 9IN Dia Coniferous Tree
+60.57, 82.94', 10IN Dia Coniferous Tree
+61.17, 82.32', Invert 12IN CMP BURIED
+62.94, 86.12', 9IN Dia Coniferous Tree
+63.33, 79.88', 6IN Dia Coniferous Tree
+65.01, 68.82', Shrub
+72.28, 59.15', Power Pole
+75.45, 39.93', 13IN Dia Coniferous Tree
+75.45, 39.93', No Parking Sign
+90.82, 62.13', 8IN Dia Coniferous Tree
+05.35, 61.90', 17IN Dia. Decid Tree
+18.47, 41.91', Invert
+19.08, 68.04', 6IN Dia Coniferous Tree
+23.67, 76.55', 28IN Dia. Decid Tree
+50.55, 42.31', Invert 12IN CMP W BURRIED HW
+51.19, 38.29', Mailbox
+72.54, 49.99', Power Pole
+74.70, 39.84', Post 8X8IN 4FT Tall Wood
+79.70, 49.87', Post 4IN Dia 6FT Tall Metal
+15.12, 70.48', Shrub
+74.45, 50.78', Guy Anchor
+74.66, 67.01', Power Pole
+75.14, 60.57', Power Pole
+24.46, 48.93', Right-of-Way Marker
+36.22, 42.21', Invert 12IN CMP
+89.79, 49.56', No Parking Sign
+90.27, 49.58', Power Pole
+90.28, 40.83', Invert 12IN CMP
+03.17, 48.14', Telephone Pedestal
+07.55, 58.23', 18IN Dia Coniferous Tree
+08.80, 72.17', 18IN Dia Coniferous Tree
+26.95, 41.70', Invert 12IN CMP
+52.52, 41.32', Invert 12IN CMP
+59.50, 53.45', Shrub
+59.50, 38.25', Mailbox
+61.83, 60.37', Satellite Dish
+69.21, 49.55', Power Pole
+91.00, 63.47', 48IN Dia Coniferous Tree
+93.92, 37.46', Mailbox
+96.19, 41.11', Invert 12IN CMP
+21.52, 41.05', Invert 12IN CMP

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)

(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)

(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)

(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)

(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II

(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B

(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II

(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II

(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE

(13) COMB. CONC. CURB AND GUTTER TYPE B

(15) COMB. CONC. CURB AND GUTTER

(22) CONC. CENTER CURB, TYPE B

(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS	
167	of 350
CONTRACT	
R-40609	

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_13
file: p:\mb-us-piw.bentley.com:mb-us-piw-03\Documents\Indianapolis_IN\01. Projects\200854_US41_CedarLakeTWI_TL_1700025\3.0 deliverables\3.7_Roadway\DGN\SHEETS\US41_SHT_E_PLAN_13.dgn

PVI @ 612+00
ELEV. 742.25
100' V.C.

780
770
760
750
740
730
720
710
700
690

69 SYS SODDING REQ'D., DITCH LT.
+66 to +69

138 TONS UNIFORM RIPRAP ON 278 SYS GEOTEXTILE FOR RIPRAP, TYPE IA REQ'D., DITCH LT.
+17

EXISTING GROUND ALONG LINE "E"

+0.46%
+30
739.00
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.66%
+86
739.20
+66
739.73
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+66
739.69
-2.61%
+69
737.00
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+17
736.00
-3.00%
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.28%
+17
739.20
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+1.04%
+66
739.43
+21
740.00
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+64
740.50
-3.02%
+29
735.50
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+39
731.78
-2.02%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

37 SYS SODDING REQ'D., DITCH RT.
+66 to +21

83 TONS UNIFORM RIPRAP ON 167 SYS GEOTEXTILE FOR RIPRAP, TYPE IA REQ'D., DITCH RT.
+64 to +29

72 SYS SODDING REQ'D., DITCH RT.
+39

742.3
742.34
742.5
742.47
742.7
742.68
742.8
742.9
742.8
742.5
741.9
741.1
740.2
739.0
737.5
735.6

612+00
613+00
614+00
615+00
616+00
617+00
618+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

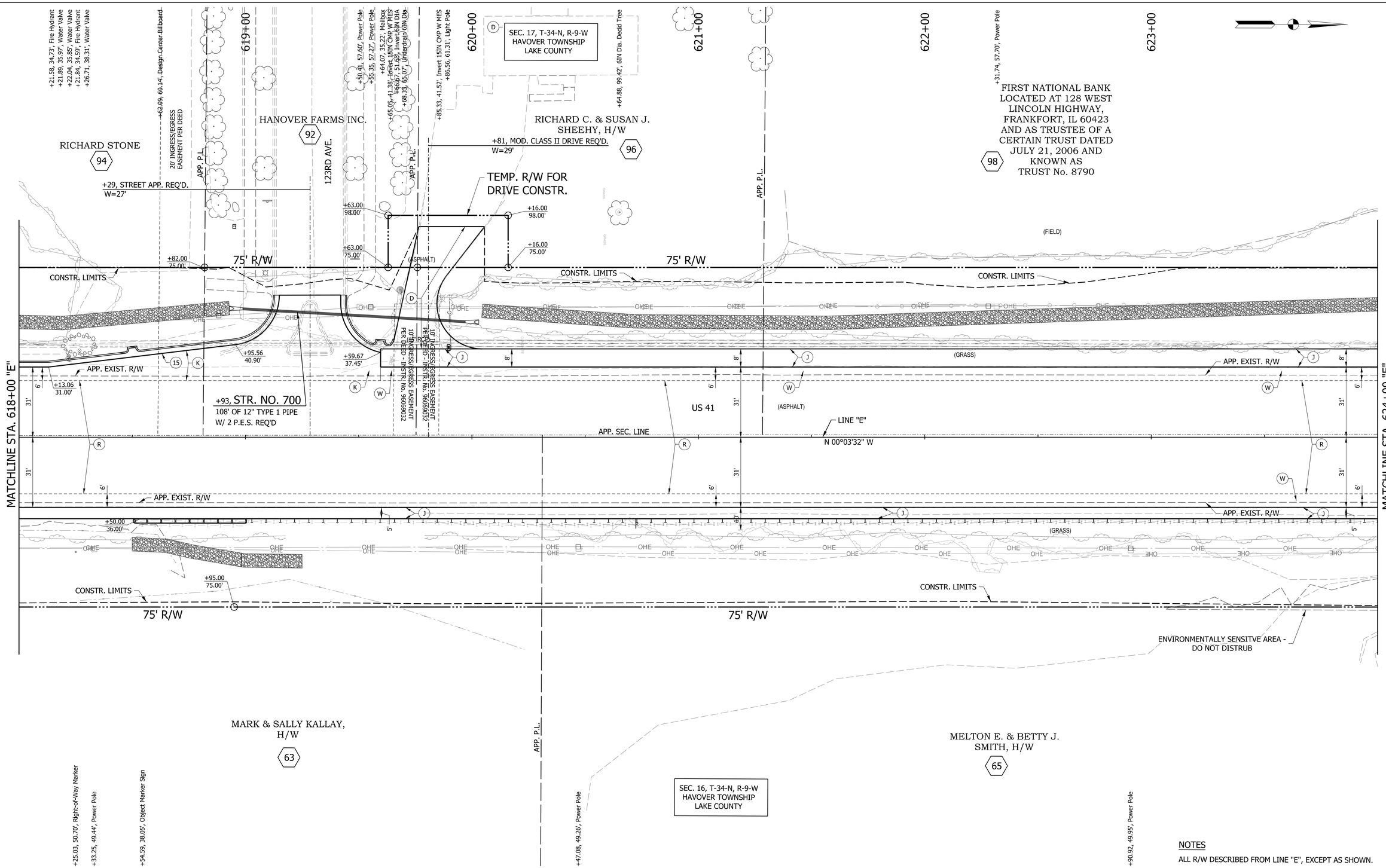
DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	168 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
8/1/2025
model-US41_SHT_E_PROFILE_13
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_13.dgn



NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

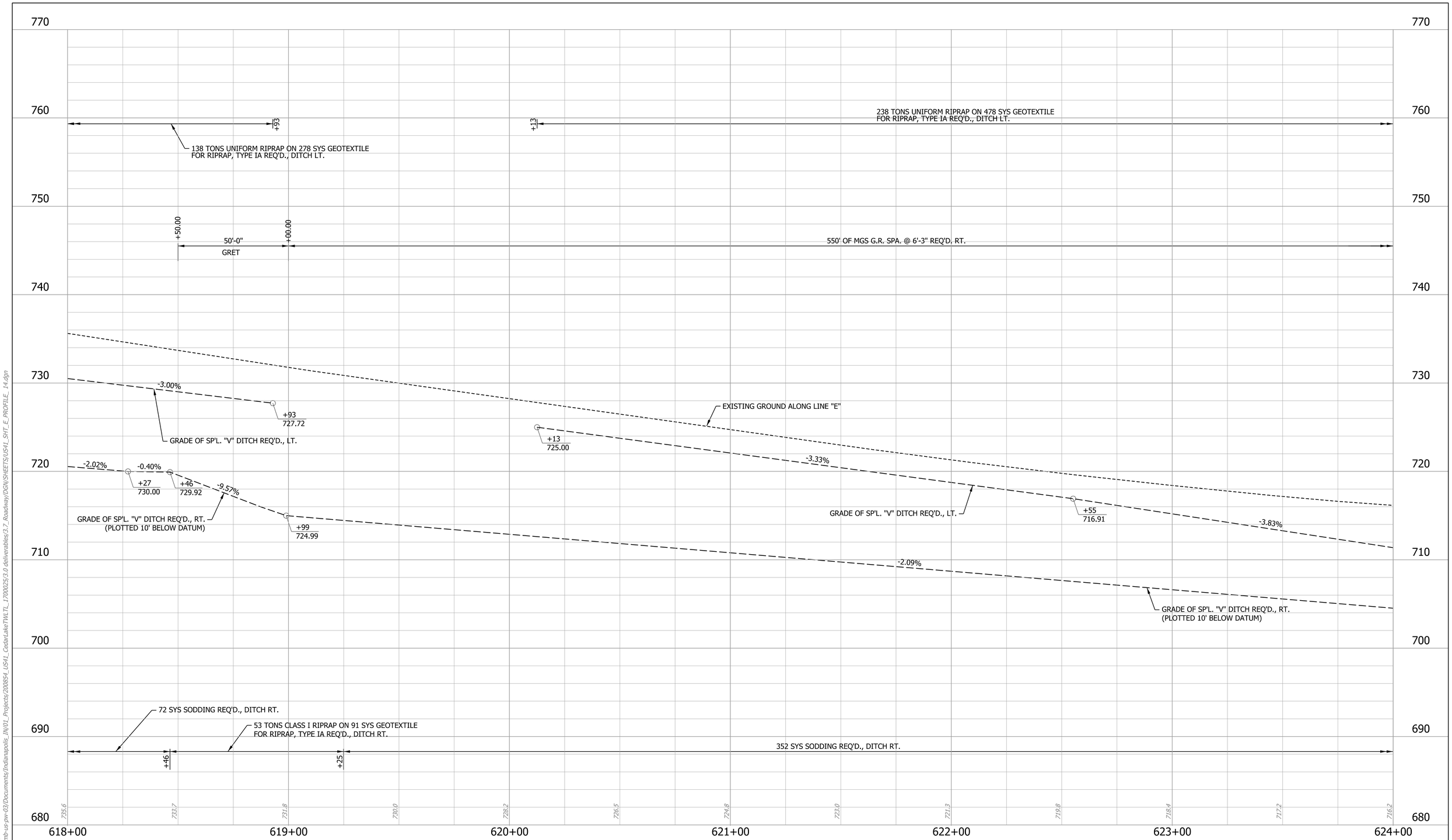
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

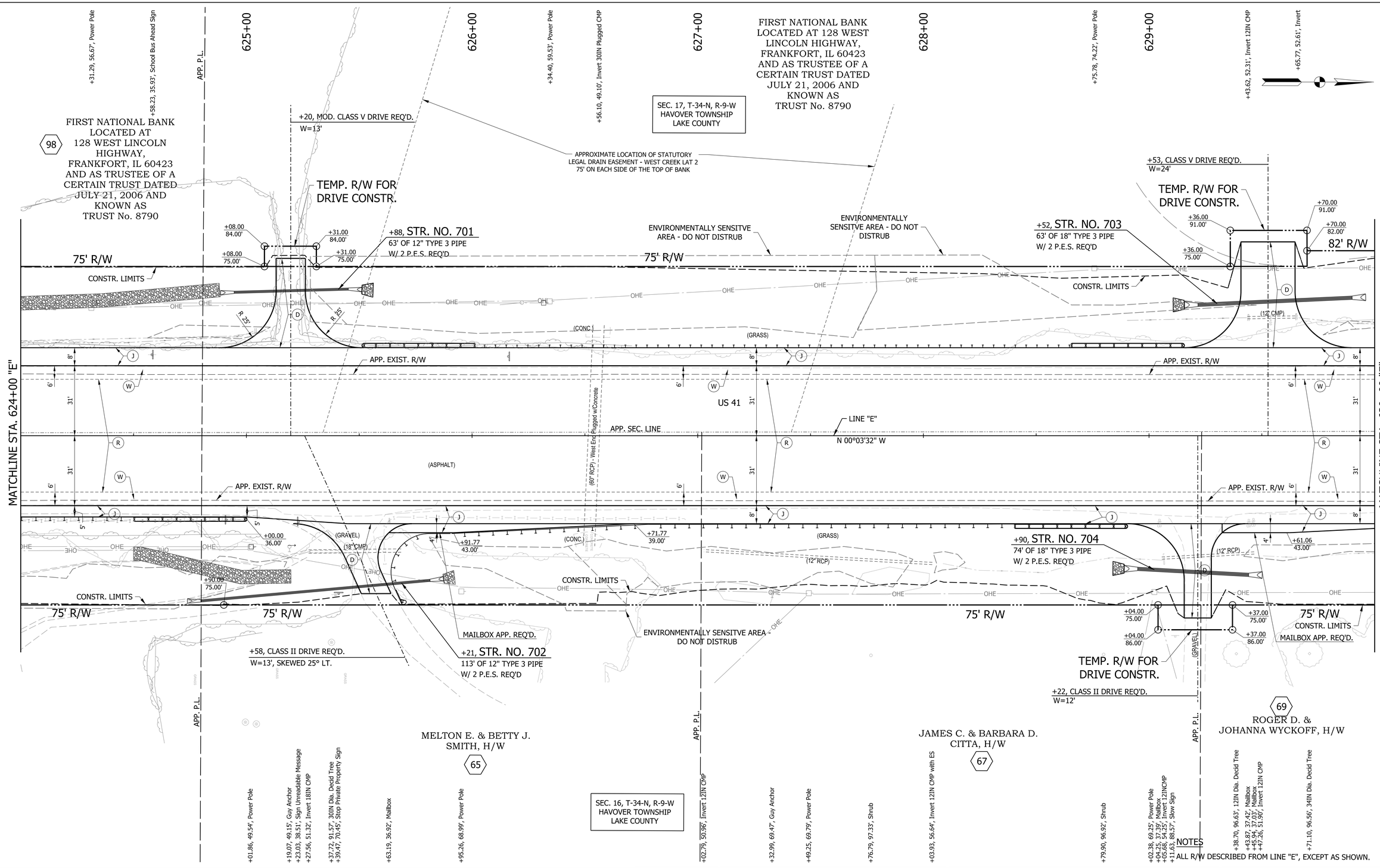
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	169 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_14
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_14.dgn



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20' / BRIDGE FILE
DESIGNED: MRW	DRAWN: JWM	PROFILE - US 41 LINE "E"	VERTICAL SCALE 1" = 5' / DESIGNATION 1700025
CHECKED: LDW	CHECKED: MAE		SHEETS 170 of 350 / CONTRACT R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_14
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS\US41_SHT_E_PROFILE_14.dgn



NOTES

1. ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

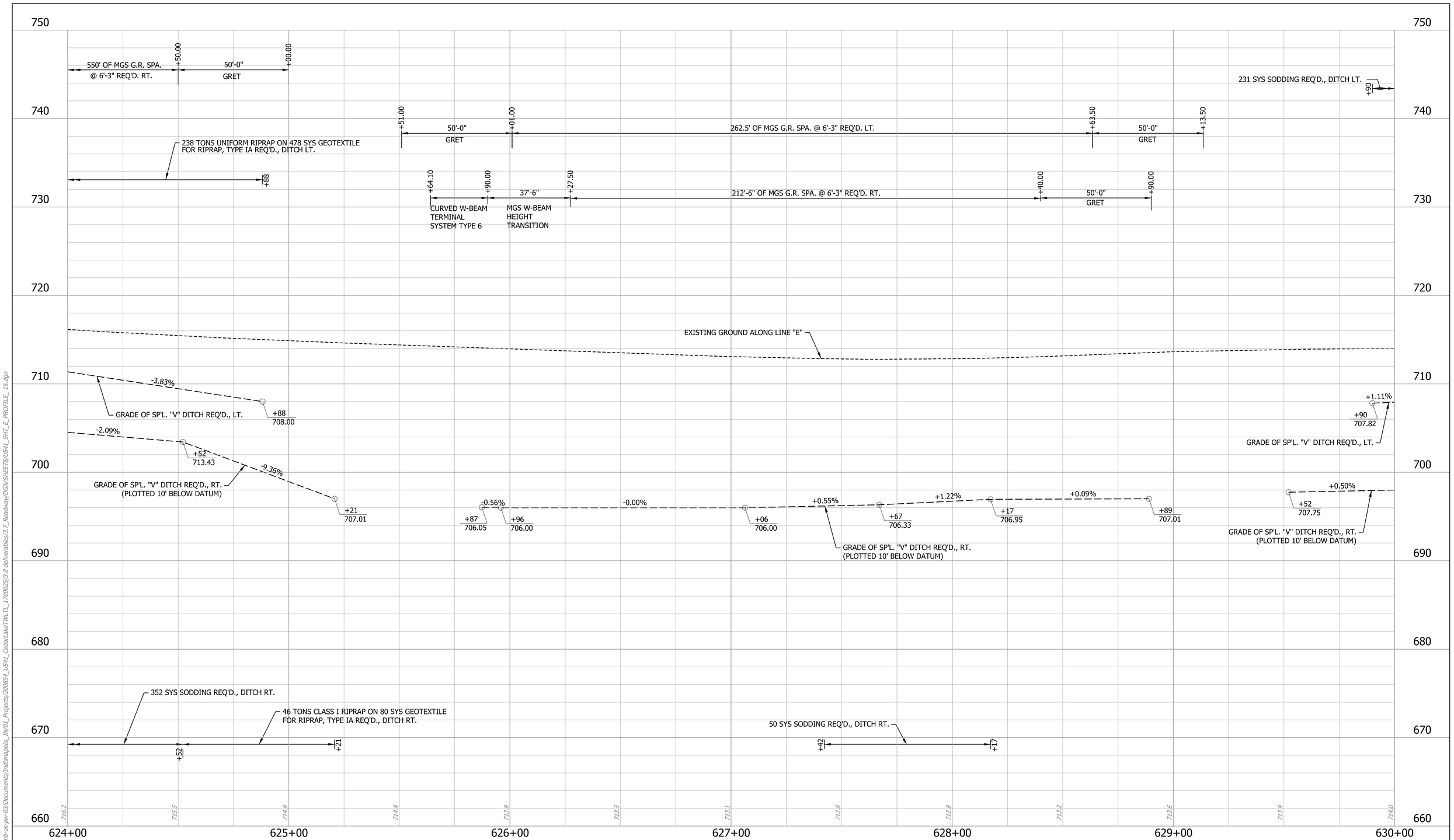
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41 LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	171 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_15
file: pw:/mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_15.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	172 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PROFILE_15
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_15.dgn

631+00 | +47.17, 76.62', Power Pole | 632+00 | 633+00 | +64.36, 71.07', Power Pole | 634+00 | 635+00 | +73.48, 57.15', Power Pole

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

FIRST NATIONAL BANK
LOCATED AT 128 WEST
LINCOLN HIGHWAY,
FRANKFORT, IL 60423
AND AS TRUSTEE OF A
CERTAIN TRUST DATED
JULY 21, 2006 AND
KNOWN AS
TRUST No. 8790

100

82' R/W
CONSTR. LIMITS
OHE
(GRASS)
APP. EXIST. R/W
8'
6'
31'
(ASPHALT)
US 41
APP. SEC. LINE
LINE "E"
N 00°03'32" W
+00.00
91.00'
+00.00
75.00'
75' R/W
MATCHLINE STA. 630+00 "E"
MATCHLINE STA. 636+00 "E"
+41.06
39.00'
+81.94
39.00'
+61.94
43.00'
+92.57
43.00'
4'
(12" CPP)
R 20'
R 15'
(12" CMP)
D
75' R/W
CONSTR. LIMITS
+82.00
75.00'
+82.00
85.00'
(GRAVEL)
+33.00
75.00'
+33.00
85.00'
MAILBOX APP. REQ'D.
+45, STR. NO. 705
60' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+16, MOD. CLASS II DRIVE REQ'D.
W=25'
TEMP. R/W FOR
DRIVE CONSTR.
+74, STR. NO. 706
45' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+53, CLASS II DRIVE REQ'D.
W=12'
APP. P.L.

69
ROGER D. & JOHANNA
WYCKOFF, H/W

71
JOSEPH THOMAS
PLAHTRIC

73
RYLAND E. & TERESA A.
PONTO, H/W

+07.95, 90.92', 12IN Dia. Decid Tree
+23.93, 69.38', Power Pole
+28.88, 89.60', 14IN Dia. Decid Tree
+70.12, 89.87', 9IN Dia. Decid Tree
+91.13, 89.48', 8IN Dia. Decid Tree
+19.88, 100.20', 24IN Dia. Decid Tree
+29.48, 77.48', 10IN Dia. Decid Tree
+40.68, 69.69', Power Pole
~~+41.70, 74.97', Guy Anchor~~
+53.65, 69.54', Guy Anchor
+59.75, 69.14', Guy Anchor
+72.48, 70.48', 14IN Dia. Decid Tree
+81.35, 70.39', 12IN Dia. Decid Tree
+95.19, 70.72', 12IN Dia. Decid Tree
+02.55, 70.44', 14IN Dia. Decid Tree
+28.87, 84.18', 18IN Dia Coniferous Tree
+30.67, 69.80', 14IN Dia. Decid Tree
+50.59, 63.44', Guy Anchor
+51.21, 84.03', 20IN Dia Coniferous Tree
~~+76.84, 64.41', 35IN Dia. Decid Tree~~
+77.70, 84.59', 12IN Dia. Decid Tree
+00.88, 37.18', Mailbox
+03.71, 46.02', Invert 12IN CPP
+35.15, 44.80', Invert 12IN CPP
+48.99, 55.28' Guy Anchor
~~+64.90, 54.56', Power Pole~~
+65.93, 51.82', Post 4IN Dia 4FT Tall Steel
+37.72, 88.09', 36IN Dia. Decid Tree
+38.26, 44.62', Invert 12IN CMP
+61.48, 36.93', Mailbox
+64.02, 44.86', Invert 12IN CMP
+71.07, 50.71', Power Pole
+85.05, 53.31', Shrub

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW | DRAWN: JWM
CHECKED: LDW | CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	173 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_16
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_16.dgn

750
740
730
720
710
700
690
680
670
660

231 SYS SODDING REQ'D., DITCH LT.
+36

EXISTING GROUND ALONG LINE "E"

+1.11%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+36
711.65

+0.10%
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+0.50%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+85
709.40

+0.49%
+45
709.60
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+21
710.46

+1.06%
+74
710.70
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

127 SYS SODDING REQ'D., DITCH RT.
+74

714.0 714.1 714.2 714.2 714.2 714.3 714.4 714.4 714.4 714.5 714.5 714.5 714.6

630+00 631+00 632+00 633+00 634+00 635+00 636+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	174 of 350
	CONTRACT
	R-40609

Mitchell, Wilcox
8/1/2025
model: US41_SHT_E_PROFILE_16
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_16.dgn

637+00

FIRST NATIONAL BANK
LOCATED AT 128 WEST
LINCOLN HIGHWAY,
FRANKFORT, IL 60423
AND AS TRUSTEE OF A
CERTAIN TRUST DATED
JULY 21, 2006 AND
KNOWN AS
TRUST No. 8790

100

638+00

+07.01, 48.33', Power Pole

APP. ¼ SEC. LINE
APP. P.L.

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

639+00

ROBERT W. & SANDRA L.
PEIFER, TRUSTEES
OR THEIR SUCCESSORS
IN TRUST
UNDER THE ROBERT AND
SANDRA PEIFER LIVING
TRUST

102

640+00

+33.02, 48.31', Power Pole

641+00

APP. P.L.

HOWARD L. &
MAURA F. CARPENTER,
H/W

104

75' R/W

CONSTR. LIMITS

OHE

(GRASS)

(GRAVEL)

APP. EXIST. R/W

APP EX. R/W

(ASPHALT)

US 41

APP. SEC. LINE

LINE "E"

N 00°03'32" W

+30.00

MATCHLINE STA. 636+00 "E"

MATCHLINE STA. 642+00 "E"

31'

6'

8'

4'

(12" RCP)

(12" CMP)

+72.57
39.00'

+34.33
43.00'

+14.33
39.00'

+08.67
75.00'

CONSTR. LIMITS
20' DRAINAGE, UTILITY, AND NO ACCESS EASEMENT PER PLAT

+16, STR. NO. 707
46' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+65, STR. NO. 708
42' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

MAILBOX APP. REQ'D.

+95, CLASS II DRIVE REQ'D.
W=12'

+41, MOD. CLASS II DRIVE REQ'D.
W=12'

SPEICHERT, CARL G.

77

HARRY C. BEAMER SR. & OGALENE
L. BEAMER,H/W

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+24.67, 65.65', Prairie Woods Sign
+63.30, 41.85', Invert 121N CPP
+87.32, 54.84', Post
+04.25, 64.80', Guy Anchor
+04.28, 48.31', Power Pole
+05.80, 50.93', Invert 121N CPP
+07.57, 37.44', Mailbox
+07.65, 40.54', Invert 121N RCP to CPP to South
+07.91, 40.50', Invert 121N CPP
+52.28, 70.22', 27IN Dia. Decid Tree
+68.41, 100.76', 20IN Dia. Decid Tree
+03.22, 59.19', Right-of-Way Marker
+04.19, 48.87', Right-of-Way Marker
+04.43, 59.66', 32IN Dia. Decid Tree
+84.91, 51.45', Power Pole
+59.70, 65.83', 14IN Dia. Decid Tree
+86.44, 51.45', Invert
+87.26, 41.80', Invert 41N PVC
+07.74, 52.15', Guy Anchor
+20.37, 52.57', Power Pole
+34.65, 40.62', Invert 121N CMP
+58.85, 37.73', Mailbox
+59.58, 40.96', Invert 121N CMP
+73.66, 55.80', Shrub

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	175 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_17
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_17.dgn

760
750
740
730
720
710
700
690
680
670

478 SYS SODDING REQ'D., DITCH LT.

+00

BEGIN PROFILE
STA. 640+30.00 "E"
ELEV. 721.72

EXISTING GROUND ALONG LINE "E"

PROFILE GRADE

+2.55%

+1.05%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+32
719.01

+2.28%

+1.14%

+0.10%

+20
714.17

+23
711.92

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+22
721.00

+0.74%

+65
721.26

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+2.64%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+16
712.90

+1.06%

+64
712.71

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

127 SYS SODDING REQ'D., DITCH RT.

+64

+16

204 SYS SODDING REQ'D., DITCH RT.

+22

714.6 714.9 715.3 715.9 716.6 717.6 718.6 719.7 720.9 721.72 722.22 723.34 724.24 724.92

636+00 637+00 638+00 639+00 640+00 641+00 642+00

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	176 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_17
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS\US41_SHT_E_PROFILE_17.dgn

643+00
644+00
645+00
646+00
647+00
+67.15, 48.53', Power Pole
+55.77, 39.03', Mile Marker Sign
+90.40, 47.67', Power Pole
+21.63, 85.23', Webb Hyundai Billboard
+01.54, 49.18', Power Pole

HOWARD L. & MAURA F. CARPENTER, H/W
104

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

DIANE M. GLOWACKI
106

JAMES D. & LINDA R. WOZNIEWSKI, H/W
108

APP. P.L.
P.I. 642+29.20 "E"
△ = 00°10'30" LT.
(NO CURVE RUN)
APP. P.L.
APP. P.L.
APP. P.L.

+P.L. 75.00'
+P.L. 70.00'
70' R/W
70' R/W
+P.L. 75.00'
+09.36 70.00'

CONSTR. LIMITS
20' DRAINAGE, UTILITY, AND NO ACCESS EASEMENT PER PLAT
20' DRAINAGE, UTILITY, AND NO ACCESS EASEMENT PER PLAT
CONSTR. LIMITS
APP. EXIST. R/W
APP. EXIST. R/W

OHE

MATCHLINE STA. 642+00 "E"

(GRAVEL)
(ASPHALT)
US 41
LINE "E"
APP. SEC. LINE
N 00°03'32" W
N 00°14'02" W
+40.00
+81, STR. NO. 712
38' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
(GRAVEL)
(GRASS)
(12" CMP)
+38, STR. NO. 711
32' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
UNT 4
CONSTR. LIMITS
CONSTR. LIMITS
+58.43 75.00'
MAILBOX APP. REQ'D.
MAILBOX APP. REQ'D.
75' R/W
75' R/W
+10, STR. NO. 709
44' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+90, STR. NO. 710
40' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+32, CLASS II DRIVE REQ'D.
W=12'
+37, CLASS II DRIVE REQ'D.
W=12'
+09, CLASS II DRIVE REQ'D.
W=12'
+59, CLASS II DRIVE REQ'D.
W=12'
+98, MOD. CLASS II DRIVE REQ'D.
W=12'
APP. EXIST. R/W

MATCHLINE STA. 648+00 "E"

77
HARRY C. BEAMER SR. & OGALENE L. BEAMER, H/W
APP. P.L.

79
RODNEY C. & WANDA L. ASHCRAFT, H/W
APP. P.L.

81
FIRST BANK OF WHITING AS TRUSTEE UNDER THE PROVISIONS OF A CERTAIN TRUST AGREEMENT KNOWN AS TRUST NUMBER 1861
APP. P.L.

83
GERALD G. & BEVERLY MUELLER, H/W

85
CHRISTOPHER S. WHITE

+18.47, 56.93', Shrub
+26.28, 57.76', Shrub
+53.95, 38.26', Watch for LET/45 MPH Sign
+56.82, 58.65', Right-of-Way Marker
+59.06, 50.52', Power Pole
+10.07, 37.04', Mailbox
+42.20, 86.97', 20IN Dia Coniferous Tree
+74.47, 62.57', 18IN Dia Coniferous Tree
+93.00, 60.92', 18IN Dia Coniferous Tree
+08.42, 48.59', Power Pole
+15.25, 48.59', Guy Anchor
+45.85, 41.99', Invert 12IN CMP
+73.46, 71.00', 12IN Dia. Decid Tree Dead
+93.58, 37.91', Mailbox
+95.08, 41.82', Invert 12IN CMP
+95.78, 37.98', Mailbox
+18.49, 51.90', Power Pole
+20.84, 41.51', Invert 12IN CMP
+32.75, 56.44', 8IN Dia. Decid Tree
+47.53, 77.77', 24IN Dia. Decid Tree
+47.84, 39.38', 45 MPH/Intersection Ahead Sign
+99.97, 49.05', Power Pole
+46.03, 49.24', Post
+46.64, 42.55', Invert 12IN CMP Smashed
+70.16, 49.37', Post
+70.14, 49.50', Guy Anchor
+74.04, 49.95', Invert 12IN CMP
+75.62, 36.90', Guy Anchor
+86.86, 49.48', Power Pole
+88.52, 41.17', Invert 12IN CMP

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	177 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PLAN_18
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_18.dgn

PVI @ 643+38
ELEV. 729.57
600' V.C.

478 SYS SODDING REQ'D., DITCH LT.

504 SYS SODDING REQ'D., DITCH LT.

+2.55%

-2.62%

PROFILE GRADE

END PROFILE
STA. 646+40.00 "E"
ELEV. 721.64

EXISTING GROUND ALONG LINE "E"

+1.05%

+16
721.99

+56
722.00

GRADE OF SP'L. "V" DITCH REQ'D., LT.

-1.27%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

-1.25%

+90
717.75

+0.74%

+0.27%

+41
721.82

+01
721.99

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.67%

-0.30%

-1.57%

+53
722.89

+63
722.83

+04
722.71

+10
722.60

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-1.30%

+54
722.46

+90
722.00

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+30
721.64

-2.61%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+38
716.21

24 SYS SODDING REQ'D., DITCH RT.

+54

+90

+30

139 SYS SODDING REQ'D., DITCH RT.

+38

725.7 724.92
726.4 725.39
726.8 725.64
726.7 725.68
726.5 725.50
726.0 725.10
725.1 724.50
724.0 723.67
722.7 722.63
721.64
721.4
720.2
719.4
718.8

760 750 740 730 720 710 700 690 680 670

642+00 643+00 644+00 645+00 646+00 647+00 648+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	178 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_18
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_

649+00
+09.73, 61.15', Post
+11.52, 49.03', Power Pole
+17.86, 60.69', Post
+26.39, 60.58', Post
+33.87, 60.39', Post
+42.52, 60.03', Post
+47.46, 52.28', Inlet Square
+50.57, 60.27', Post
+58.71, 59.72', Post
+66.34, 59.57', Post
+74.61, 59.69', Post
+75.45, 61.33', Light Pole
+82.79, 59.15', Post
+90.26, 59.31', Post
+98.77, 59.25', Post
650+00
+02.05, 72.47', JRsJims Repair Sign
+06.04, 38.54', Mailbox
+06.82, 59.52', Post
+14.64, 59.62', Post
+22.58, 59.50', Post
+30.54, 59.67', Post
+35.99, 61.82', Light Pole
+38.40, 59.66', Post
+47.15, 59.49', Post
+54.72, 59.74', Post
+63.68, 59.80', Post
+65.80, 49.01', Power Pole
+70.94, 60.01', Post
+72.97, 49.81', Telephone Pedestal
+79.21, 60.23', Post
+87.14, 60.24', Post
+95.39, 60.18', Post
651+00
+02.56, 62.39', Light Pole
+07.80, 65.98', Storm Manhole
+13.99, 70.77', Stop Sign
+53.38, 70.83', Weight Limit 10 Ton Sign
+53.43, 71.31', Stop/Wicker/119th Street Sign
+53.40, 70.99', Power Pole
+53.58, 89.95', Guy Anchor
+54.05, 94.81', Guy Anchor
+54.93, 87.27', Guy Anchor
+55.25, 70.90', Right-of-Way Marker
+90.99, 48.55', Guy Anchor
652+00
+00.85, 47.76', Power Pole
653+00
+99.92, 72.99', 14IN Dia. Deciid Tree

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

JAMES D. & LINDA R.
WOZNIEWSKI, H/W
108

NANCY L. BOWMAN-SPURLOCK
AS TRUSTEE UNDER THE PROVISIONS OF THAT CERTAIN TRUST AGREEMENT
DATED JULY 14, 1998, AS AMENDED ON MAY 29, 2002,
AND FURTHER AMENDED AND RESTATED ON NOVEMBER 23, 2011
110

W. 119TH CT.
APP. P.L.
10' UTILITY EASEMENT PER PLAT
(15" RCP)
716
+34, STREET APP. REQ'D.
W=21'

75' R/W
CONSTR. LIMITS
MAILBOX APP. REQ'D.
20' DRAINAGE, UTILITY, AND NO ACCESS EASEMENT PER PLAT
APP. EXIST. R/W
(GRASS)
(GRAVEL)
(ASPHALT)
+09.36 75.00'
+83.20 71.00'
R 40'
+59.80 75.00'
+84.20 71.00'
+16.69 39.00'
+22.69 43.00'
+96.69 43.00'
+02.69 39.00'
(8" CPP)
(15" RCP)
OHE
J
K
W
R
D
8'
6'
31'
4'

MATCHLINE STA. 648+00 "E"
+50, STR. NO. 713
31' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
US 41
APP. SEC. LINE
LINE "E"
N 00°14'02" W
MATCHLINE STA. 654+00 "E"

+86, STR. NO. 714
31' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
UNT 4
(12" CMP)
712
R 15'
+84.89 39.00'
+04.89 43.00'
+19.46 39.00'
+65.21 39.00'
CONSTR. LIMITS
MAILBOX APP. REQ'D.
+66, MOD. CLASS II DRIVE REQ'D.
W=12'
+01, MOD. CLASS II DRIVE REQ'D.
W=12'
+86, STR. NO. 715
39' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
+65, CLASS II DRIVE REQ'D.
W=12'
+29, STR. NO. 717
60' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D
TEMP. R/W FOR DRIVE CONSTR.
+89.00 75.00'
+89.00 83.50'
+11.00 75.00'
+11.00 83.50'
+00, CLASS II DRIVE REQ'D.
W=12'

CHRISTOPHER S. WHITE
85
APP. P.L.
+14.01, 64.39', 20IN Dia. Decid Tree
+14.21, 41.62', Invert 12IN CMP
+14.16, 37.42', Mailbox
+31.32, 77.22', 12IN Dia Coniferous Tree
+37.19, 58.31', 16IN Dia Coniferous Tree
+37.61, 90.54', 18IN Dia Coniferous Tree
+48.12, 73.54', 22IN Dia Coniferous Tree
+57.40, 43.47', Invert 12IN CMP
+83.25, 43.19', Invert 12IN CMP
+84.65, 36.64', Mailbox
+86.59, 43.18', Invert 12IN CMP

87
PAMELA J. DONALDSON, SOLE TRUSTEE OR HER SUCCESSORS IN TRUST UNDER THE PAMELA J. DONALDSON LIVING TRUST
APP. P.L.
+08.11, 51.93', Yard Light
+11.98, 43.27', Invert 12IN CMP
+56.01, 45.89', Invert 15IN RCP

89
NOAH N. HAMBLIN
SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
APP. P.L.
+88.22, 49.19', Power Pole
+10.17, 49.69', Guy Anchor
+40.54, 69.40', 22IN Dia Coniferous Tree
+53.07, 43.07', Invert 12IN CMP
+54.66, 39.87', Post

NOAH N. HAMBLIN
APP. P.L.
+79.72, 42.71', Invert 12IN CMP
+80.70, 36.73', Mailbox
+94.31, 68.81', 14IN Dia Coniferous Tree
+96.22, 96.16', 14IN Dia Coniferous Tree
+05.11, 72.79', 10IN Dia Coniferous Tree
+17.38, 70.13', 10IN Dia Coniferous Tree
+33.64, 71.00', 14IN Dia Coniferous Tree
+40.90, 58.25', Guy Anchor
+42.75, 54.16', Power Pole
+45.03, 70.29', 22IN Dia Coniferous Tree
+67.07, 72.12', 24IN Dia Coniferous Tree
+85.74, 70.52', 14IN Dia Coniferous Tree
+86.53, 43.26', Invert 12IN CMP

BRIAN T. KOLL & ELISE C. SPENCER, H/W
91
APP. P.L.
+12.31, 42.85', Invert 12IN CMP
+14.48, 38.18', Mailbox
+17.06, 70.79', 15IN Dia Coniferous Tree
+36.56, 71.08', 12IN Dia Coniferous Tree
+57.76, 70.14', 18IN Dia Coniferous Tree
+77.43, 69.57', 14IN Dia Coniferous Tree
+85.35, 58.70', Power Pole

JOESPH H. & ETHEL M. BIEGEL, H/W
93
+00.57, 64.98', 14IN Dia Coniferous Tree
+00.91, 77.13', 14IN Dia Coniferous Tree
+12.26, 64.73', 18IN Dia Coniferous Tree
+13.58, 75.49', 12IN Dia Coniferous Tree
+36.76, 76.12', 14IN Dia Coniferous Tree
+49.25, 65.32', 14IN Dia Coniferous Tree
+61.24, 64.65', 14IN Dia Coniferous Tree
+67.41, 76.12', 14IN Dia Coniferous Tree
+77.97, 65.56', 14IN Dia Coniferous Tree

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND
- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	179 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_19
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_19.dgn

760
750
740
730
720
710
700
690
680
670

504 SYS SODDING REQ'D., DITCH LT.
+11

EXISTING GROUND ALONG LINE "E"

-1.25%
-1.46%
-0.95%

+28
714.77

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+11
712.10

+63
711.82

GRADE OF SP'L. "V" DITCH REQ'D., LT.

-0.64%
-7.77%

+19
715.50
+45
715.33
+50
715.00

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.26%
-1.15%

+21
714.78
+13
714.55
+34
714.30

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.59%

+86
714.04
+69
713.55

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.52%

+29
713.40

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

4 TONS CLASS I RIPRAP ON 9 SYS GEOTEXTILE
FOR RIPRAP, TYPE IA REQ'D., DITCH RT.

+45
+50

718.8 718.4 718.2 718.1 718.2 718.1 718.2 718.2 718.2 718.2 718.2 718.1 717.8

648+00 649+00 650+00 651+00 652+00 653+00 654+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025

SHEETS		
180	of	350
CONTRACT		
R-40609		

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 19
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 19.dgn

655+00
656+00
657+00
658+00
659+00

+36.15, 74.59', 22IN Dia. Decid Tree
+59.67, 48.85', Power Pole
+06.01, 39.64', 45 MPH/Intersection Ahead Sign
+26.71, 49.28', Power Pole
+86.09, 101.34', 20IN Dia. Decid Tree
+10.48, 48.81', Power Pole
+12.03, 56.91', Guy Anchor

SEC. 17, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NANCY L. BOWMAN-SPURLOCK
AS TRUSTEE UNDER THE PROVISIONS OF THAT CERTAIN TRUST AGREEMENT
DATED JULY 14, 1998, AS AMENDED ON MAY 29, 2002,
AND FURTHER AMENDED AND RESTATED ON NOVEMBER 23, 2011
110

KENNETH & PAMELA J. SPURLOCK, H/W
TENANTS BY ENTIRETIES
112

KENNETH & PAMELA J. SPURLOCK, H/W
TENANTS BY ENTIRETIES
112

ENVIRONMENTALLY SENSITVE AREA - DO NOT DISTRUB

APP. P.L.

75' R/W

CONSTR. LIMITS

OHE

8'
6'
31'
J
W
R
APP. EXIST. R/W
(ASPHALT)
(GRAVEL)
US 41
APP. SEC. LINE
LINE "E"
N 00°14'02" W
MATCHLINE STA. 654+00 "E"
MATCHLINE STA. 660+00 "E"

+69, STR. NO. 718
64' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+68, STR. NO. 719
52' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+27, STR. NO. 720
52' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+45.21
43.00'
4'
(12" CMP)
D
R 15'

+20.00
75.00'
+79.00
75.00'
+20.00
105.00'
+79.00
105.00'
MAILBOX APP. REQ'D.

+50.00
75.00'
+50.00
105.00'
R/W
MAILBOX APP. REQ'D.

+68.00
95.00'
+68.00
105.00'

95' R/W

+97, CLASS II DRIVE REQ'D.
W=12'

+76, MOD. CLASS II DRIVE REQ'D.
W=12', SKEWED 38° RT.

+51, CLASS II DRIVE REQ'D.
W=12'

TEMP. R/W FOR DRIVE CONSTR.

TEMP. R/W FOR DRIVE CONSTR.

APP. P.L.

JOESPH H. & ETHEL M. BIEGEL, H/W
93

CONRAD J. GALLO JR. - UNDIVIDED ONE-HALF INTEREST
JOHN R. GALLO - UNDIVIDED ONE-HALF INTEREST
AS TENANTS IN COMMON, AND NOT AS JOINT TENANTS
95

SEC. 16, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

FIDUCIARY MANAGMENT CORPORATION
AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT DATED THE 30TH DAY OF JULY, 1993
KNOWN AS TRUST No. 10
97

ANDRIC REVOCALBE TRUST
99

+04.39, 76.49', 12IN Dia Coniferous Tree
+08.74, 65.25', 14IN Dia Coniferous Tree
+23.20, 65.49', 14IN Dia Coniferous Tree
+35.38, 65.18', 14IN Dia Coniferous Tree
+46.99, 66.18', 16IN Dia Coniferous Tree
+61.03, 65.52', 14IN Dia Coniferous Tree
+78.70, 75.36', 14IN Dia Coniferous Tree
+86.02, 37.11', Mailbox
+88.83, 43.08', Invert 12IN CMP
+91.67, 59.91', Yard Light
+09.38, 80.00', 25IN Dia. Decid Tree
+09.99, 59.89', Yard Light
+14.22, 42.58', Invert 12IN CMP
+14.66, 57.76', Power Pole
+38.37, 68.11', 18IN Dia. Decid Tree
+78.66, 95.11', 24IN Dia. Decid Tree
+53.33, 71.55', 20IN Dia. Decid Tree
+74.00, 63.30', 18IN Dia Coniferous Tree
+82.96, 97.54', 8IN Dia. Decid Tree
+88.10, 43.20', Invert 12IN CMP
+89.43, 38.20', Post
+18.11, 67.04', 26IN Dia Coniferous Tree
+18.46, 37.60', Post
+18.67, 55.12', Guy Anchor
+21.07, 41.77', Invert 12IN CMP
+25.37, 58.30', Mailbox
+25.63, 56.53', Power Pole
+38.15, 36.58', Mailbox
+41.20, 42.00', Invert 12IN CMP
+41.48, 56.59', Guy Anchor
+59.06, 78.16', 26IN Dia. Decid Tree
+70.12, 42.23', Invert 12IN CMP
+19.04, 91.82', 15IN Dia. Decid Tree
+29.31, 81.34', 8IN Dia. Decid Tree
+85.33, 83.76', Guy Anchor
+87.33, 91.46', Power Pole
+90.14, 73.52', Post 8IN Dia 3FT Tall
+91.15, 76.52', 15IN Dia. Decid Tree
+91.17, 76.52', 15IN Dia. Decid Tree
+01.14, 74.32', Guy Anchor
+70.05, 85.81', 22IN Dia. Decid Tree

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

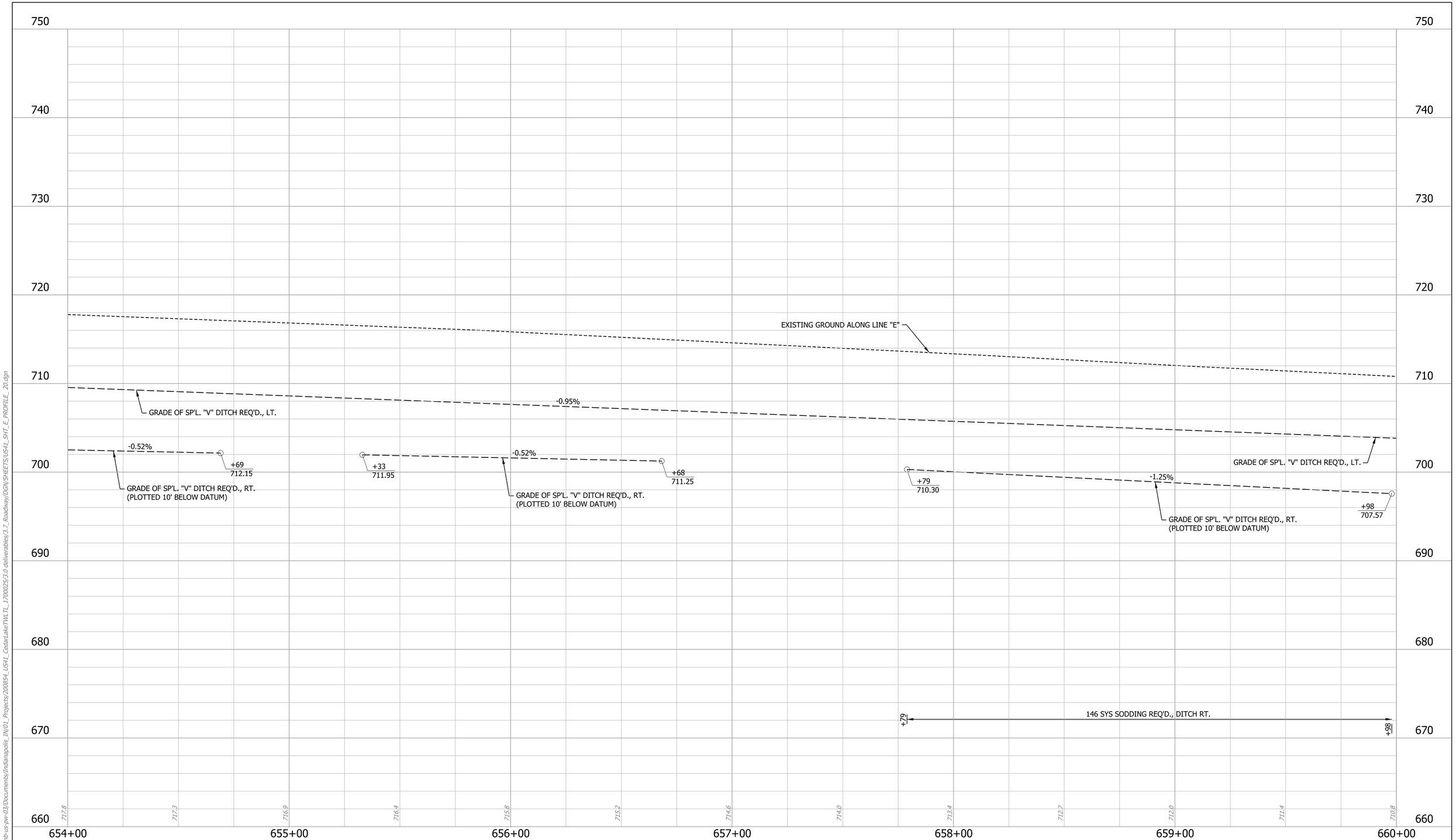
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

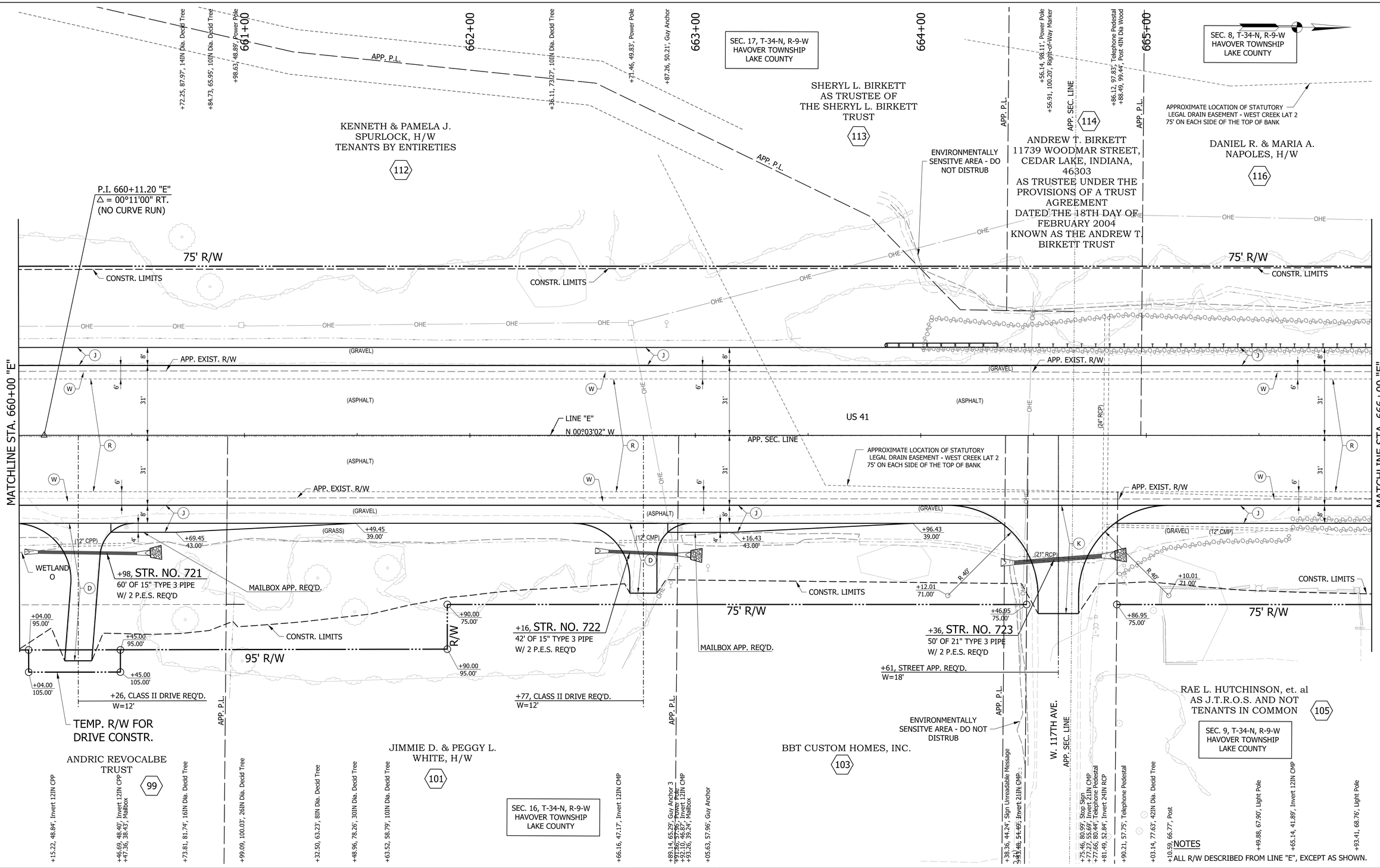
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	181 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_20
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_20.dgn



RECOMMENDED FOR APPROVAL DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 20' / VERTICAL SCALE: 1" = 5' / BRIDGE FILE: / DESIGNATION: 1700025
DESIGNED: MRW DRAWN: JWM CHECKED: LDW CHECKED: MAE	PROFILE - US 41 LINE "E"	SHEETS: 182 of 350 / CONTRACT: R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PROFILE_ 20
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3..7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 20.dgn



NOTES

+ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

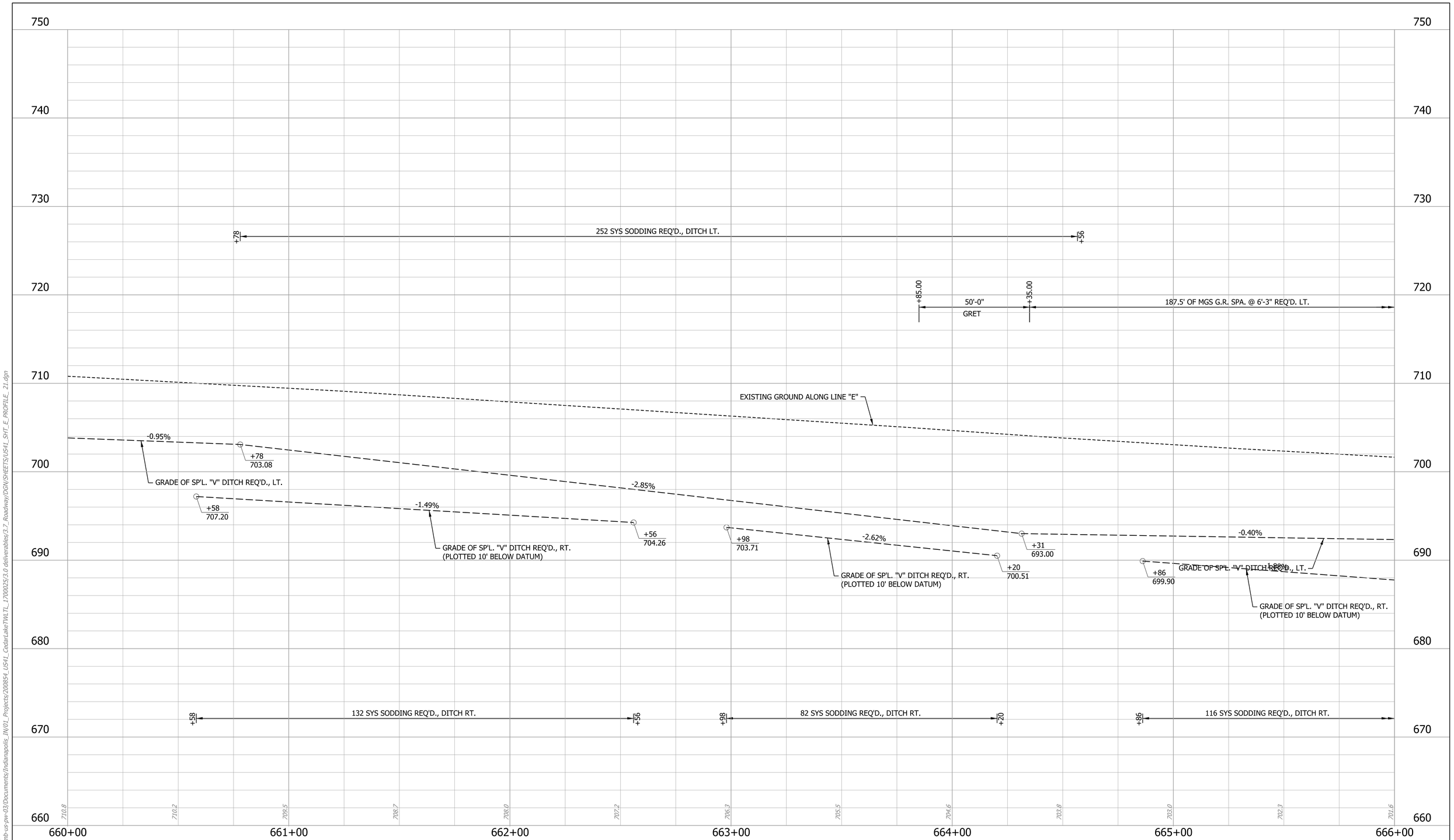
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	183 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PLAN_21
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_21.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	184 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 21
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 21.dgn

+05.20, 96.81', Power Pole
+18.97, 99.52', Post 4IN Dia Wood
+34.42, 99.84', Post 4IN Dia Wood
+83.45, 98.94', Post 4IN Dia Wood
667+00
+64.16, 95.43', Power Pole
668+00
669+00
+33.76, 95.70', Power Pole
+67.66, 98.90', Post 4IN Dia Wood
+77.66, 98.93', Post 4IN Dia Wood
+90.83, 38.30', Watch for Left Turn/45 MPH Sign
670+00
+33.90, 100.16', Post 4IN Dia Wood
+51.03, 38.45', Mailbox
+56.68, 62.01', Invert 8ftX4ft Box Culvert
+56.95, 54.19', Invert 8ftX4ft Box Culvert
APP. P.I.
+79.44, 99.17', Right-of-Way Marker
+83.22, 97.67', Power Pole
+83.45, 54.04', Invert 8ftX4ft Box Culvert
+83.47, 61.84', Invert 8ftX4ft Box Culvert
671+00
+90.16, 39.17', Invert 12ftX5ft Box Culvert

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

DANIEL R. & MARIA A.
NAPOLES, H/W
116

60' INGRESS/EGRESS &
UTILITY EASEMENT PER DEED

ENVIRONMENTAL SENSITIVE AREA
DO NOT DISTURB

+71, CLASS II DRIVE REQ'D.
W=12'

30' INGRESS/EGRESS
& UTILITY EASEMENT
PER DEED

EDWARD W. MICTHELL, et.
al.
AS JOINT TENANTS

OHE

75' R/W

CONSTR. LIMITS

MAILBOX APP. REQ'D.

96" X 48" Concrete
Box Culvert

+57.05
39.00'

+37.05
41.75'

+76.72
39.00'

+60.94
34.25'

(Head Wall)

(GRAVEL)

APP. EXIST. R/W

(ASPHALT)

APPROXIMATE LOCATION OF STATUTORY
LEGAL DRAIN EASEMENT - WEST CREEK LAT 2
75' ON EACH SIDE OF THE TOP OF BANK

US 41

LINE "E"
N 00°03'02" W

APP. SEC. LINE

MATCHLINE STA. 666+00 "E"

MATCHLINE STA. 672+00 "E"

(GRASS)

(12" CMP)

+03.64
40.61

+51.43
43.00'

+64.10
39.00'

+44.10
41.60'

R 15'

+61, STR. NO. 724
72' OF 21" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+97, CLASS IV DRIVE REQ'D.
W=32'

+71, STR. NO. 725
39' OF 21" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+85.00
75.00'

+85.00
85.00'

+08.00
75.00'

+08.00
85.00'

+79.00
75.00'

+79.00
87.00'

+03.00
75.00'

+03.00
87.00'

+89, MOD. CLASS II DRIVE REQ'D.
W=12', SKEWED 18° RT.

+98, CLASS II DRIVE REQ'D.
W=12, SKEWED 24° LT.

+20, STR. NO. 726
44' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

TEMP. R/W FOR
DRIVE CONSTR.

+65, STR. NO. 727
45' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+95, CLASS II DRIVE REQ'D.
W=12'

105
RAE L. HUTCHINSON, et. al
AS J.T.R.O.S. AND NOT
TENANTS IN COMMON

107
ELMER G. HAMBLIN &
JUANITA A. HAMLIN LIVING
TRUST

109
GAZEL A. MEHOK JR. &
MARLENE MEHOK, H/W

SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+16.64, 65.81', Yard Light
+25.11, 78.20', Flag Pole
+25.48, 66.73', Hutchinson Auto Repair Sign
+57.27, 70.25', Light Pole
+81.56, 88.02', Speed Limit/Unk Sign
+12.59, 86.38', Speed Limit/Unk Sign
+15.43, 41.44', Post
+16.53, 42.59', Invert 12IN CMP
+25.50, 38.39', Mailbox
+49.70, 47.23', Guy Anchor
+67.07, 47.22', 55 MPH Sign
+68.55, 47.14', Telephone Pedestal
+69.54, 45.00', Telephone Pedestal
+14.21, 59.55', 18IN Dia. Decid Tree
+87.07, 41.51', Invert 12IN CMP
+87.61, 47.77', 30IN Dia. Decid Tree
+89.87, 37.04', Mailbox
+07.84, 81.54', 12IN Dia Coniferous Tree
+13.18, 41.63', Invert 12IN CMP
+17.26, 48.12', Power Pole
+32.58, 50.50', Guy Anchor
+70.21, 46.00', Invert 12IN CMP
+79.02, 70.99', Stop Sign
+00.38, 96.05', Do Not Enter Sign
+08.87, 46.07', Invert 12IN CMP
+11.51, 39.56', Mailbox
+14.95, 71.98', Light Pole

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

(K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)

(K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)

(W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)

(J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)

(R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)

(C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II

(D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B

(D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II

(C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II

(D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE

(13) COMB. CONC. CURB AND GUTTER TYPE B

(15) COMB. CONC. CURB AND GUTTER

(22) CONC. CENTER CURB, TYPE B

(26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	185 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_22
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_22.dgn

740
730
720
710
700
690
680
670
660
650

+22.50
50'-0"
GRET
+72.50
187.5' OF MGS G.R. SPA
@ 6'-3" REQ'D. LT.

+15.00
50'-0"
GRET
+65.00
168.75' OF MGS G.R. SPA.
@ 6'-3" REQ'D. LT.

+95.55
+12.00
37'-6"
+49.50
156.25' OF MGS G.R.
SPA. @ 6'-3" REQ'D. RT.
CURVED W-BEAM TERMINAL SYSTEM TYPE 6
MGS W-BEAM HEIGHT TRANSITION

EXISTING GROUND ALONG LINE "E"

-0.40%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+45
690.54

-1.88%
+60
696.63
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.53%
+33
696.20
+58
696.07
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

-0.46%
+10
695.60
+75
695.30
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+20
694.73
-0.50%
+0.80%
+33
694.16
+58
694.36
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

116 SYS SODDING REQ'D., DITCH RT.
+60

701.6 700.9 700.3 699.6 699.2 698.9 698.6 698.4 698.3 698.2 698.1 698.1 698.1

666+00 667+00 668+00 669+00 670+00 671+00 672+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	186 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_22
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PLAN_23
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_23.dgn

EDWARD W. MICTHELL, et. al.
AS JOINT TENANTS
118

EDWARD W. & LYNETTE J. MITCHELL, H/W
AS JOINT TENANTS
120

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

WILLIAM E. MITCHELL, et. al.
AS J.T.R.O.S.
122

NANCY L. BOWMAN-SPURLOCK
AS TRUSTEE UNDER THE PROVISIONS OF THAT CERTAIN TRUST AGREEMENT
DATED JULY 14, 1998, AS AMENDED ON MAY 29, 2002,
AND FURTHER AMENDED AND RESTATED ON NOVEMBER 23, 2011
124

673+00 | 674+00 | 675+00 | 676+00 | 677+00

+01.99, 39.35', Invert 12HX5ft Box Culvert
+08.42, 100.79', 6IN Dia Coniferous Tree
+18.00, 82.28', 30IN Dia Coniferous Tree
+29.12, 58.61', Power Pole
+30.22, 63.95', Right-of-Way Marker
+47.31, 58.62', Guy Anchor
+74.36, 38.95', Mailbox
+76.14, 39.13', Mailbox
+90.71, 38.87', Mailbox
+91.55, 43.72', Invert 36X24 RCP
+16.74, 44.98', Invert 36X24 RCP
+33.41, 56.82', Right-of-Way Marker
+54.09, 48.17', Invert
+58.43, 58.55', Invert 12 IN CMP Exposed
+58.99, 58.54', Invert 41IN CPP
+19.24, 58.06', Electric Meter
+19.68, 58.00', Power Pole
+23.45, 55.66', Shrub
+27.47, 63.75', Message Board
+99.15, 43.90', Invert 30IN RCP
+56.99, 44.25', Invert 30IN RCP
+99.04, 74.85', JK Realty Billboard
+01.74, 45.41', Invert 24IN RCP
+54.08, 71.94', Camilles Studios Sign
+59.66, 45.17', Invert 24IN RCP
+79.36, 45.12', Invert 18IN CMP
+82.68, 58.69', Telephone Pedestal
+85.23, 57.68', Power Pole
+86.13, 68.04', Guy Anchor

APP. P.L.

+06, CLASS II DRIVE REQ'D.
W=12'

+27, STR. NO. 728
45' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+55, STR. NO. 729
60' OF 24" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+26, CLASS IV DRIVE REQ'D.
W=22'

+38, MOD. CLASS II DRIVE REQ'D.
W=20'

+89, MOD. CLASS II DRIVE REQ'D.
W=12'

+10, STR. NO. 731
42' OF 15" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

APP. ¼ SEC. LINE

75' R/W

CONSTR. LIMITS

+52.41
43.00'
(36" x24" RCP)

+32.41
39.00'
(30" RCP)

+95.00
75.00'

+105.00
75.00'

+95.00
72.00'

+105.00
72.00'

(24" RCP)

(18" CMP)

R 20'

R 15'

(GRAVEL)

(ASPHALT)

(GRASS)

+07.76
29.25'

+91.87
31.00'

APP. EXIST. R/W

APP. SEC. LINE

LINE "E"
N 00°03'02" W

US 41

+63, STR. NO. 730
54' OF 21" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+07, STR. NO. 732
48' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

(12" CMP)

+P.I.
70.00

+P
75.

MATCHLINE STA. 672+00 "E"

MATCHLINE STA. 678+00 "E"

12'X 5' Concrete Box Culvert

(Head Wall)

UNT 2

UNT 1

ENVIRONMENTALLY SENSITVE AREA - DO NOT DISTRUB

APPROXIMATE LOCATION OF STATUTORY LEGAL DRAIN EASEMENT - WEST CREEK LAT 2
75' ON EACH SIDE OF THE TOP OF BANK

GAZEL A. MEHOK JR. & MARLENE MEHOK, H/W
109

DAVID A. & ALYCE HARMENING
TRUSTEES, OR THEIR SUCCESSORS IN TRUST
UNDER THE DAVID A. HARMENING LIVING TRUST
DATED JANUARY 6, 2010
UNDIVIDED ONE-HALF INTEREST
&
DAVID A. HARMENING, TRUSTEE
OR HIS SUCCESSORS IN TRUST
UNDER THE ALYCE HARMENING FAMILY TRUST
A SUB-TRUST OF THE ALYCE HARMENING LIVING TRUST
DATED JANUARY 6, 2010
UNDIVIDED ONE-HALF INTEREST
111

SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+45.60, 67.13', Telephone Pedestal
+47.07, 69.67', Guy Anchor
+47.33, 69.94', Power Pole
+50.20, 39.95', Object Marker Sign
+50.22, 64.75', Power Pole
+50.40, 64.49', Power Pole
+58.00, 94.30', 48IN Dia. Decid Tree
+65.83, 39.99', Invert 12HX5ft Box Culvert
+78.01, 39.97', Invert 12HX5ft Box Culvert
+83.48, 94.41', 18IN Dia. Decid Tree
+28.93, 97.10', Invert 6IN PVC
+85.49, 52.37', Take The Journey Billboard
+53.36, 49.89', Guy Anchor 2
+64.67, 50.47', Telephone Pedestal
+67.65, 68.52', Guy Anchor
+69.94, 50.35', Power Pole
+75.21, 40.90', Invert 12IN CMP
+99.99, 39.74', Invert 12IN CMP

+81, MOD. CLASS III DRIVE REQ'D.
W=22'

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW | DRAWN: JWM
CHECKED: LDW | CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	187 of 350
	CONTRACT
	R-40609

740
730
720
710
700
690
680
670
660
650

+05 118 SYS SODDING REQ'D., DITCH LT. +82

+27 112 SYS SODDING REQ'D., DITCH LT. +95

34 SYS SODDING REQ'D., DITCH LT.
+57 +08

168.75' OF MGS G.R. SPA. @ 6'-3" REQ'D. LT. +33.75 50'-0" GRET +83.75

156'-3" OF MGS G.R. SPA. @ 6'-3" REQ'D. RT. +05.75 50'-0" GRET +55.75

EXISTING GROUND ALONG LINE "E"

+05 691.00
+1.66%
+82 693.93
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+27 694.20
+1.07%
+95 696.00
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+57 696.30
+2.93%
+08 697.80
GRADE OF SP'L. "V" DITCH REQ'D., LT.

+92 690.68
-1.91%
+08 690.37

+57 697.36
+1.56%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+92 310 SYS SODDING REQ'D., DITCH RT. +57

698.1 698.2 698.2 698.3 698.4 698.5 698.8 699.2 699.8 700.5 701.4 702.4 703.3

672+00 673+00 674+00 675+00 676+00 677+00 678+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

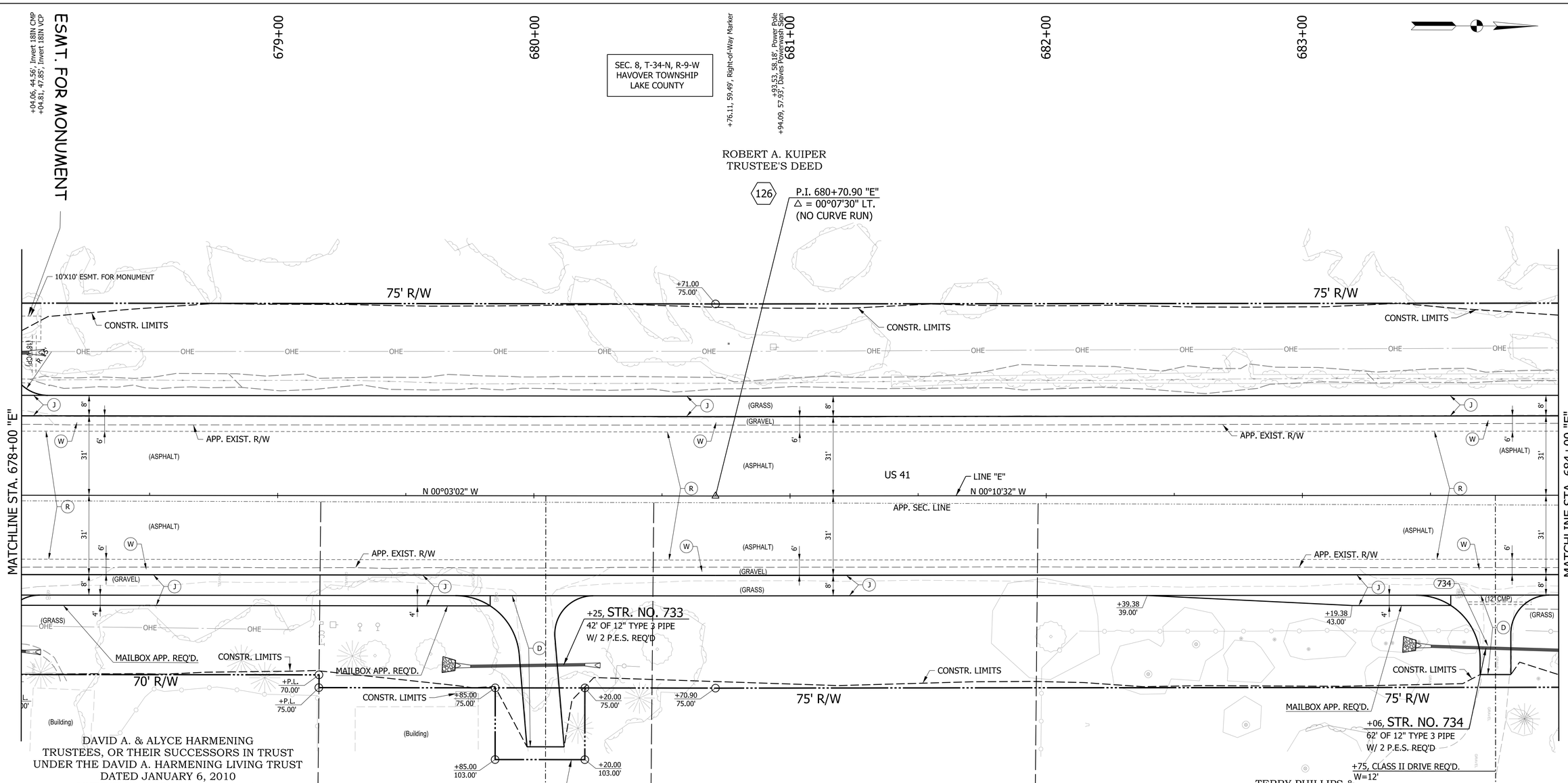
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	188 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 23
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 23.dgn



LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

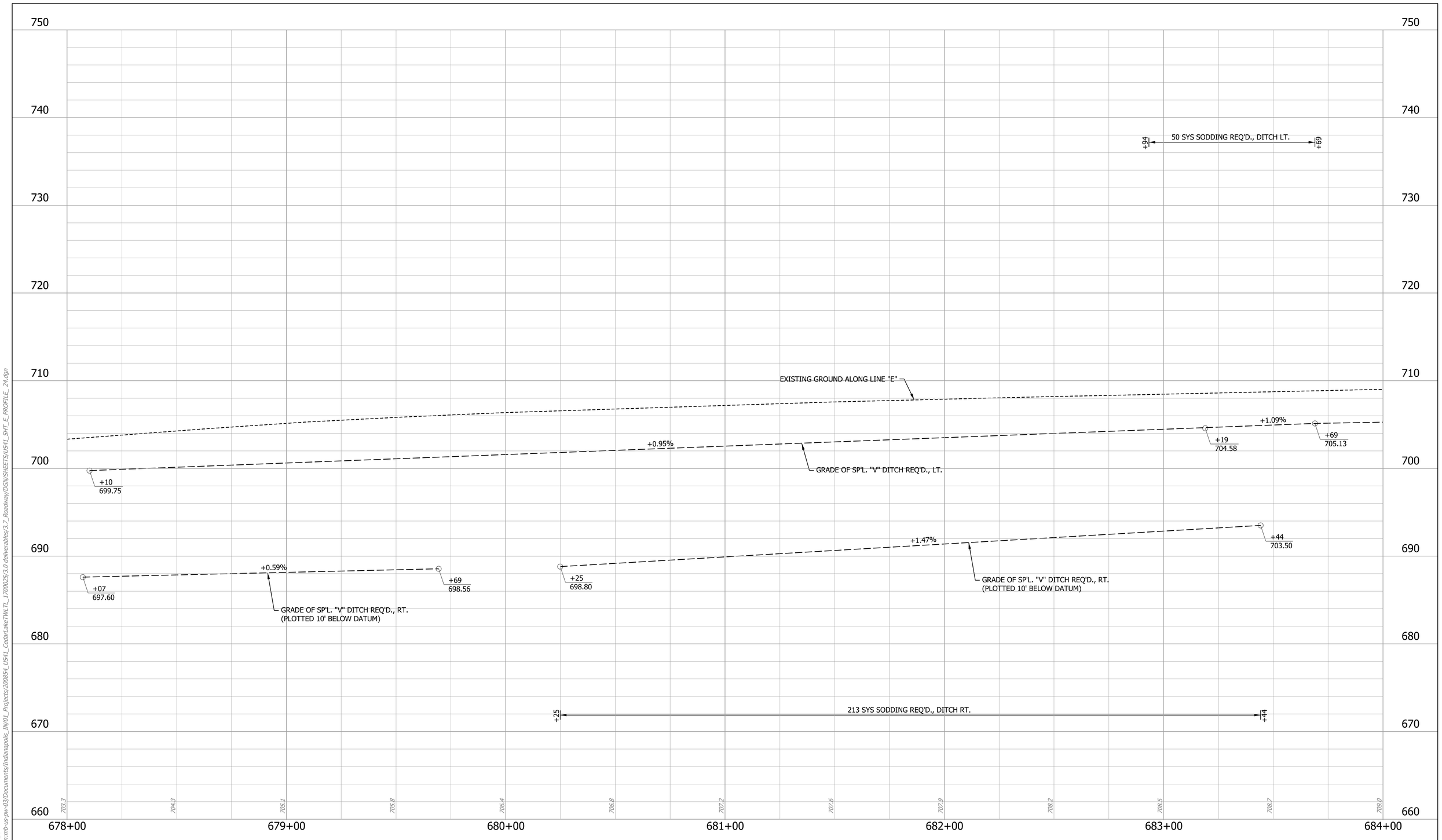
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	189 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_24
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_24.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

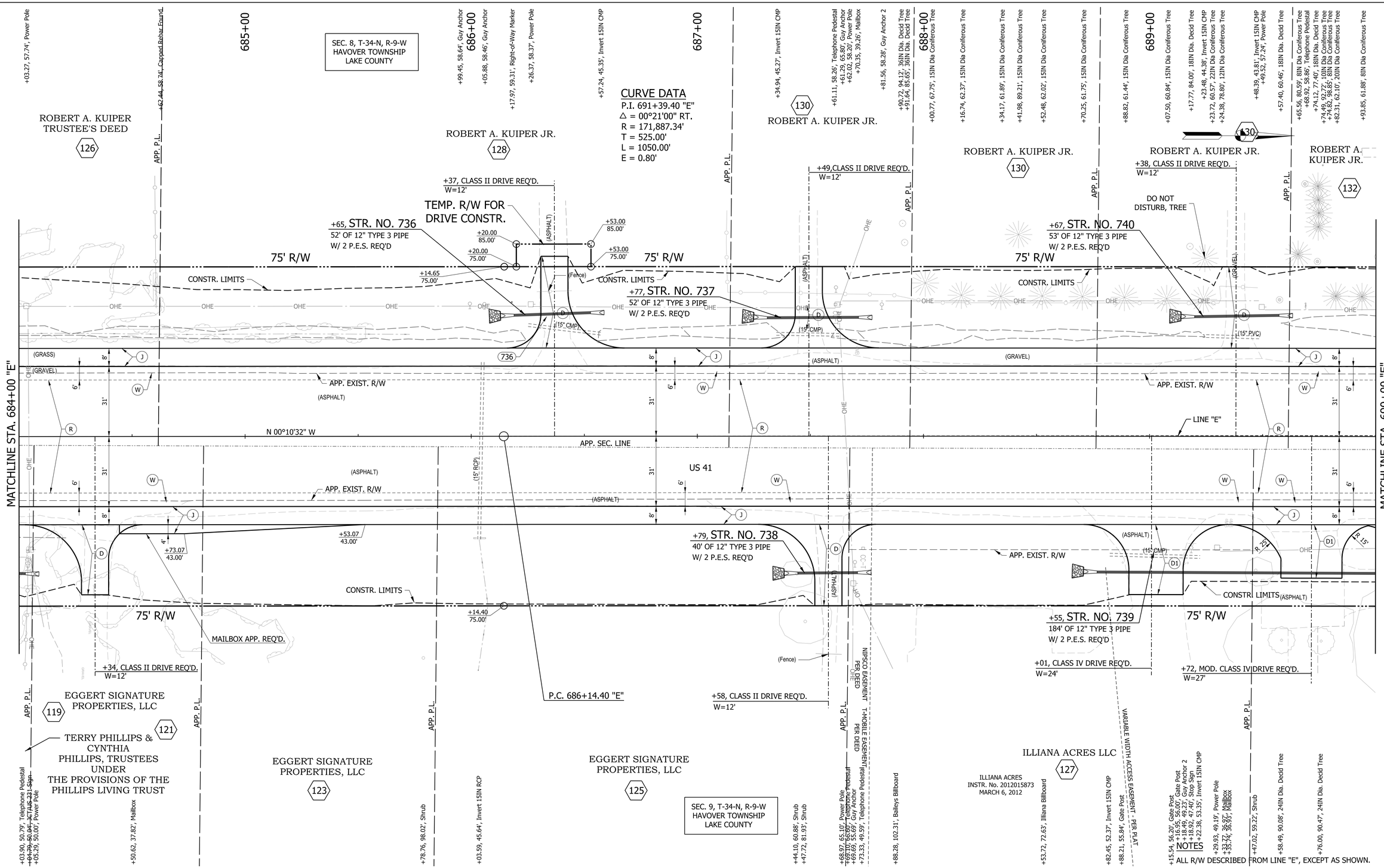
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	190 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 24
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 24.dgn



NOTES

1. ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

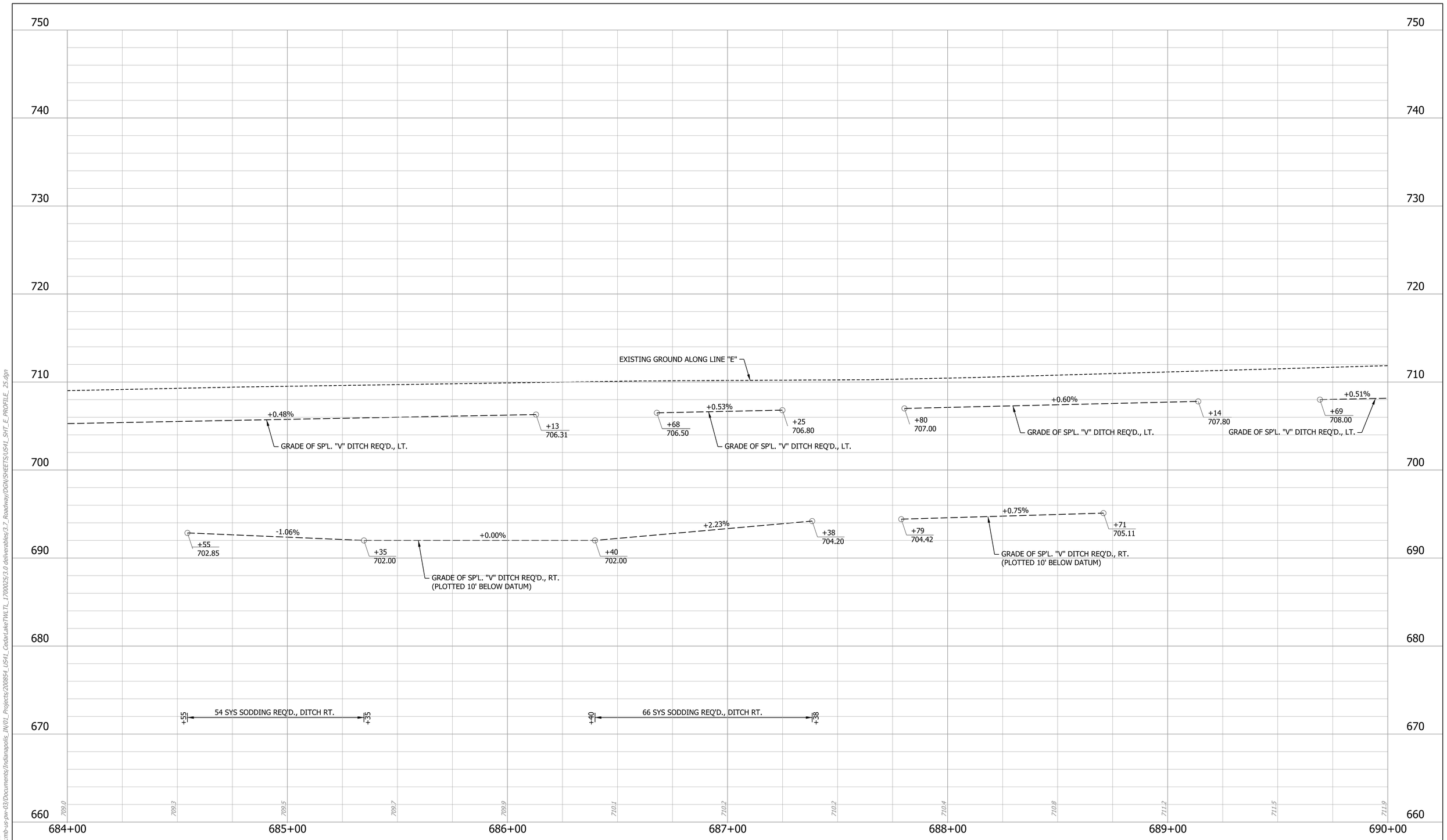
PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS: 191 of 350

CONTRACT: R-40609

Mitchell.Wilcox
8/1/2025
model: US41_SHT_E_PLAN_25
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_25.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	192 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_25
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 25.dgn

+00.84, 79.56', 12IN Dia. Decid Tree
+13.60, 61.78', 15IN Dia Coniferous Tree
+19.34, 78.32', 18IN Dia. Decid Tree
+19.90, 95.05', 12IN Dia. Decid Tree
+29.43, 60.42', 10IN Dia Coniferous Tree
+37.55, 76.30', 12IN Dia. Decid Tree
+45.16, 60.75', 15IN Dia Coniferous Tree
+56.71, 79.74', 12IN Dia. Decid Tree
+61.01, 60.32', 10IN Dia Coniferous Tree
+66.63, 92.90', 24IN Dia. Decid Tree
+69.11, 59.47', 10IN Dia Coniferous Tree
+69.59, 41.25', Invert 15IN CMP
+70.20, 69.08', 8IN Dia Coniferous Tree
+70.63, 78.65', 10IN Dia Coniferous Tree
+95.53, 41.25', Invert 15IN CMP
+95.84, 40.75', Invert 15IN CMP
691+00
+18.39, 58.01', Power Pole
+63.22, 54.71', 12IN Dia Coniferous Tree
+74.91, 73.65', 24IN Dia. Decid Tree
692+00
+09.50, 55.38', 8IN Dia Coniferous Tree
+24.24, 73.40', 22IN Dia Coniferous Tree
+30.88, 54.74', 10IN Dia Coniferous Tree
+48.86, 54.58', 10IN Dia Coniferous Tree
+74.00, 53.30', 24IN Dia. Decid Tree
+90.53, 71.78', No Parking Sign
+91.90, 96.42', 12IN Dia. Decid Tree
+93.49, 59.94', Yard Light
+93.62, 53.19', 24IN Dia. Decid Tree
693+00
+02.02, 49.66', Power Pole
+02.28, 50.16', Power Pole
+06.03, 36.97', Mailbox
+07.35, 36.93', Mailbox
+64.55, 41.86', Invert 12IN CMP
694+00
+74.80, 77.58', Jenkins Builders Sign
+06.87, 42.50', Invert 12IN CMP
+41.40, 39.43', 55 MPH Sign
695+00
+06.76, 48.97', Power Pole
+55.35, 93.93', 48IN Dia. Decid Tree
+77.12, 65.56', Guy Anchor
+76.61, 71.12', Guy Anchor
+76.68, 88.45', Guy Anchor
+76.50, 77.85', Power Pole

CURVE DATA
P.I. 691+39.40 "E"
△ = 00°21'00" RT.
R = 171,887.34'
T = 525.00'
L = 1050.00'
E = 0.80'

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

ROBERT A. KUIPER JR.
134

ROBERT A. KUIPER JR.
136

HILLCREST
PLAT BOOK 24, PAGE 66
OCTOBER 10, 1947

WESLEY N. JENKINS SR. &
MARJORIE L. JENKINS
AS TRUSTEES UNDER THE
PROVISIONS OF A TRUST
AGREEMENT DATED
FEBRUARY 8, 1994
138

FIDUCIARY MANAGEMENT
CORPORATION
140
AS TRUSTEE
LAND TRUST No. 10

APP. ¼ SEC. LINE

APP. P.L.

"22' INGRESS/EGRESS EASEMENT - PER DEED RECORD 2014025867" MAY 8, 2014

10' UTILITY EASEMENT - PER PLAT

+12, STR. NO. 741
55' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

DO NOT
DISTURB, TREE

+83, CLASS II DRIVE REQ'D.
W=12'

P.I. 691+39.40 "E"
△ = 00°21'00" RT.

+83, CLASS II DRIVE REQ'D.
W=12'

+95, CLASS II DRIVE REQ'D.
W=17'

MAILBOX APP. REQ'D.

+71, STR. NO. 742
55' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

ENVIRONMENTALLY SENSITVE
AREA - DO NOT DISTRUB

75' R/W

CONSTR. LIMITS

(GRASS)

(15" CMP)

(12" CMP)

(GRAVEL)

(ASPHALT)

APP. EXIST. R/W

N 00°10'32" W

N 00°10'28" E

LINE "E"

APP. SEC. LINE

US 41

MATCHLINE STA. 690+00 "E"

MATCHLINE STA. 696+00 "E"

+91.80
39.00'

+71.80
43.00'

+00.44
39.00'

+80.44
43.00'

+25.76
75.00'

MAILBOX APP. REQ'D.

(Building)

+03, STR. NO. 743
49' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+25, MOD. CLASS IV DRIVE REQ'D.
W=21'

+28, MOD. CLASS I DRIVE REQ'D.
W=12'

+25, MOD. CLASS II DRIVE REQ'D.
W=12', SKEWED 12° RT.

RICHARD K. & RENEE L.
KOUDER, H/W
TENANTS BY THE
ENTIRETIES
129

SUZANNE N. ELLS
131

MARILYN J. PAJOR
TRUSTEE OR HER
SUCCESSOR IN INTEREST
OF THE
MARILYN J. PAJOR LIVING
TRUST
DATED APRIL 15, 2004
PARCEL III
133

MARILYN J. PAJOR
TRUSTEE OR HER
SUCCESSOR IN INTEREST
OF THE
MARILYN J. PAJOR LIVING
TRUST
DATED APRIL 15, 2004
PARCEL II
135

+08.31, 38.88', Mailbox
+31.72, 85.27', 21IN Dia Coniferous Tree
+55.40, 48.03', Telephone Pedestal
+59.86, 58.24', Guy Anchor
+63.06, 47.91', Power Pole
+80.17, 47.65', Guy Anchor
APP. ¼ SEC. LINE
+60.25, 75.01', 30IN Dia Dead Coniferous Tree
+64.09, 49.64', Communication Box
+15.96, 36.43', Mailbox
+17.08, 36.32', Mailbox
+24.35, 42.83', Invert 12IN CMP Buried
+34.99, 42.75', Invert 12IN CMP Buried
+46.42, 66.20', 26IN Dia. Decid Tree
+46.84, 48.21', Power Pole
APP. P.L.
SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY
+38.22, 69.56', Shrub
+78.18, 64.80', Shrub
+82.82, 66.01', Shrub
+84.76, 49.13', Power Pole
+90.22, 64.43', Shrub
+06.99, 62.91', Shrub
+20.47, 36.63', Mailbox
+20.35, 40.95', Invert 12IN CMP
+46.01, 41.73', Invert 12IN CMP
+62.22, 46.08', Telephone Pedestal

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND
- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

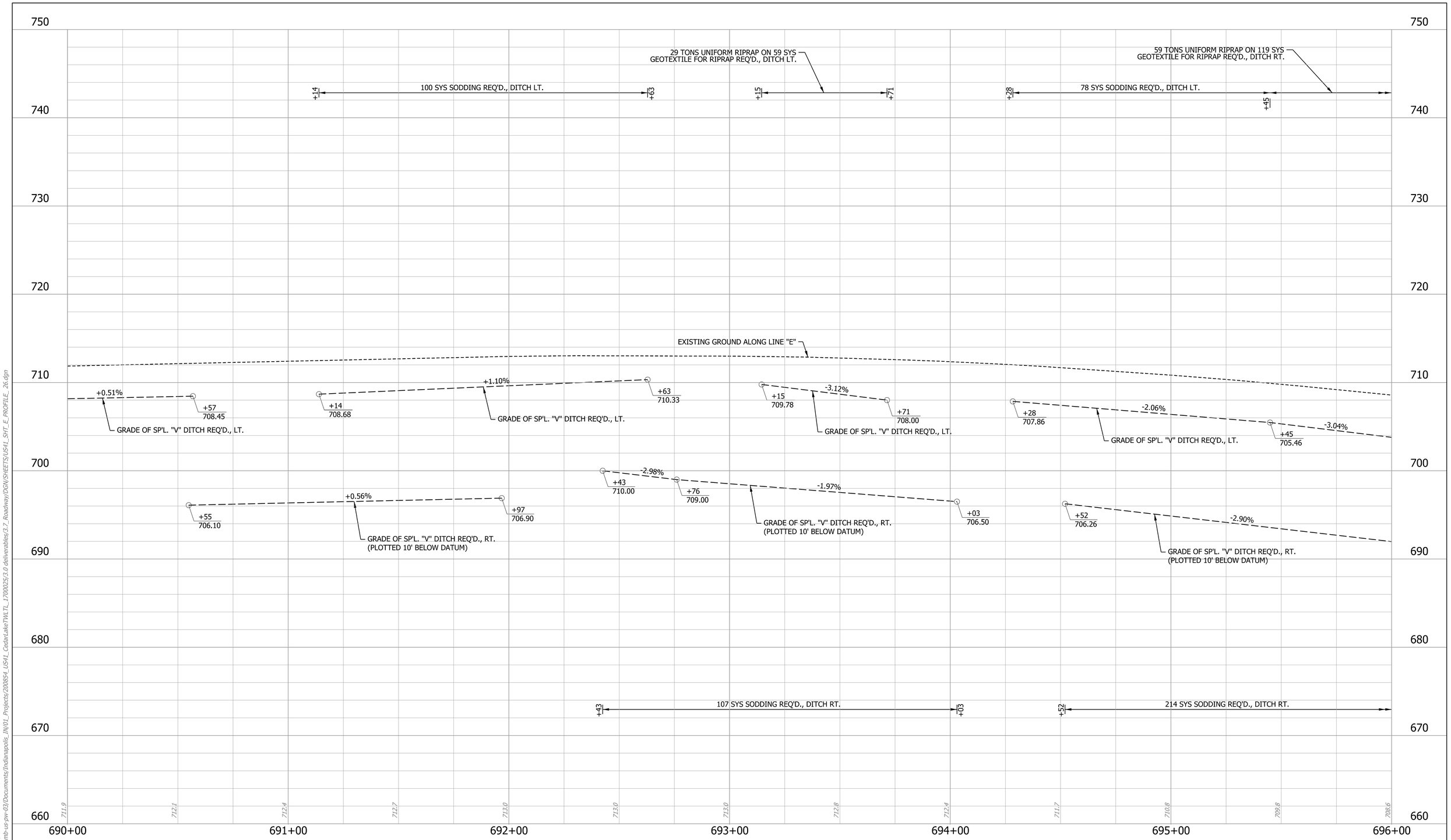
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	193 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_26
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_26.dgn



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 20'	BRIDGE FILE
		VERTICAL SCALE 1" = 5'	DESIGNATION 1700025
DESIGNED: MRW DRAWN: JWM	PROFILE - US 41 LINE "E"		SHEETS 194 of 350
CHECKED: LDW CHECKED: MAE			CONTRACT R-40609

Mitchell, Wilcox
8/1/2025
model-US41_SHT_E_PROFILE_26
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_26.dgn

CURVE DATA

P.I. 691+39.40 "E"
△ = 00°21'00" RT.
R = 171,887.34'
T = 525.00'
L = 1050.00'
E = 0.80'

+26.88, 38.01', Mile Marker Sign
+76.67, 41.34', Invert 12IN CMP
+01.82, 40.27', Invert 12IN CMP
+05.21, 36.22', Mailbox
+13.68, 47.83', Power Pole
+29.92, 36.11', Mailbox
+34.84, 36.65', Mailbox
+46.26, 43.49', Invert 6IN PVC
+52.35, 40.82', Invert 15IN CMP
+80.45, 48.09', Mailbox
+09.95, 72.24', 40IN Dia. Decid Tree
+12.29', 40.52', Invert 15IN CMP
+15.74', 35.60', Mailbox
+59.26, 41.84', Invert 24IN RCP
+89.97, 68.00', Guy Anchor
+90.54, 61.87', Power Pole

697+00 | 698+00 | 699+00 | 700+00 | 701+00

DEER PARK CIRCLE
2ND ADDITION
PLAT BOOK 76, PAGE 56
SEPTEMBER 22, 1997

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

FIDUCIARY MANAGEMENT CORPORATION
AS TRUSTEE
LAND TRUST No. 10
140

TIMOTHY R. EINSPAHR
142

APP. P.L.

+94, MOD. CLASS II DRIVE REQ'D.
W=12'

+69, MOD. CLASS II DRIVE REQ'D.
W=22'

+62, STR. NO. 744
56' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+43, STR. NO. 746
82' OF 18" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

TEMP. R/W FOR DRIVE CONSTR.

+86, CLASS II DRIVE REQ'D.
W=12'

MAILBOX APP. REQ'D.

+64.40 / 75.00'
+48.00 / 82.00'
+48.00 / 75.00'
+10.00 / 82.00'
+10.00 / 75.00'

75' R/W

CONSTR. LIMITS

OHE

(12" CMP) (15" CMP) (24" CMP)

R 15' R 25' R 4'

(GRASS) (GRAVEL) (ASPHALT)

+49.65 / 43.00'
+29.65 / 39.00'

744 746

APP. EXIST. R/W

APP. SEC. LINE

LINE "E"
N 00°10'28" E

US 41

MATCHLINE STA. 696+00 "E"

MATCHLINE STA. 702+00 "E"

+67.39 / 39.00'
+47.39 / 43.00'
+64.40 / 75.00'

745

+78, STR. NO. 745
46' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+98, STR. NO. 747
42' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

+54, STR. NO. 748
66' OF 12" TYPE 3 PIPE
W/ 2 P.E.S. REQ'D

(Building)

+03, CLASS II DRIVE REQ'D.
W=12'

+18, CLASS II DRIVE REQ'D.
W=14'

+90, CLASS IV DRIVE REQ'D.
W=40'

+00, CLASS IV DRIVE REQ'D.
W=40'

P.T. 696+64.40 "E"

LOT LINE

APP. P.L.

FIDUCIARY MANAGEMENT CORPORATION
AS TRUSTEE UNDER THE PROVISIONS OF A TRUST AGREEMENT
DATED THE 30TH DAY OF JULY, 1993
KNOWN AS TRUST No. 12
137

139
JOHN & RAMONA DUSZYNSKI, H/W

141
BRANDON ARNOLD LLC

143
JAMES MANN

SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+28.39, 49.17', Power Pole
+28.69, 49.21', Power Pole
+35.69, 49.16', Telephone Pedestal
+46.23, 48.63', Guy Anchor
+77.53, 98.74', 34IN Dia. Decid Tree
+82.50, 71.09', 12IN Dia. Decid Tree
+08.76, 68.75', 12IN Dia. Decid Tree
+90.70, 36.85', Mailbox
+93.55, 41.26', Invert 12IN CMP
+18.54, 41.73', Invert 12IN CMP
+20.72, 54.77', 20IN Dia. Decid Tree
+27.74, 51.19', Power Pole
+78.05, 49.01', Telephone Pedestal
+78.67, 98.76', Stump
+80.49, 49.53', Telephone Pedestal
+97.21, 41.78', Mailbox
+39.07, 52.11', Power Pole
+24.82, 51.55', Power Pole
+24.68, 51.90', Stop Sign
+40.95, 64.41', Sign Unreadable Message
+41.07, 50.19', Guy Anchor
+54.48, 83.53', Telephone Pedestal
+54.53, 77.62', Guy Anchor
+54.53, 77.62', Guy Anchor
+54.25, 80.45', Power Pole
+54.75, 48.97', Power Pole
+60.06, 45.94', Invert 24IN CMP
+89.26, 50.56', Power Pole
+93.27, 48.10', Telephone Pedestal

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	195 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PLAN_27
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_27.dgn

59 TONS UNIFORM RIPRAP ON 119 SYS GEOTEXTILE FOR RIPRAP REQ'D., DITCH RT.

+62

+17

63 TONS UNIFORM RIPRAP ON 128 SYS GEOTEXTILE FOR RIPRAP REQ'D., DITCH RT.

+43

+25

136 SYS SODDING REQ'D., DITCH LT.

+29

740
730
720
710
700
690
680
670
660
650

-3.04%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+62
701.91

+17
700.80

-3.00%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+43
697.04

EXISTING GROUND ALONG LINE "E"

+25
697.00

-1.78%

GRADE OF SP'L. "V" DITCH REQ'D., LT.

+59
694.61

+1.48%

+29
695.65

-0.22%

-2.90%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+72
696.99

+24
696.52

-2.31%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+98
694.81

-0.83%

+40
694.61

+54
694.50

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+0.70%

+20
694.23

+60
694.51

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+39
695.70

-0.30%

GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

214 SYS SODDING REQ'D., DITCH RT.

+72

+24

50 SYS SODDING REQ'D., DITCH RT.

+98

708.6 707.3 705.9 704.4 703.0 701.7 700.6 699.7 699.1 698.6 698.4 698.3 698.2

696+00 697+00 698+00 699+00 700+00 701+00 702+00

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	196 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_27
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_

MARK SPEICHERT & NANCY L. SPEICHERT, TRUSTEES UNDER THE PROVISIONS OF THE SPEICHERT LIVING TRUST
144

LOT LINE

703+00

704+00

+66.50, 62.04', Power Pole

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

MARK SPEICHERT & NANCY L. SPEICHERT, TRUSTEES UNDER THE PROVISIONS OF THE SPEICHERT LIVING TRUST
146

+24.36, 64.17', Post
+29.45, 70.41', CPP
+39.29, 46.48', Invert INV 41N CPP
+39.84, 46.58', Invert INV 61N CPP
+40.78, 47.03', Invert INV 61N CPP
+43.91, 44.71', Invert 15IN CPP with ES

APP. P.L.

30' INGRESS/EGRESS & UTILITY EASEMENT - PER PLAT

705+00

+21.24, 36.62', Mailbox
+23.45, 43.75', Invert 15IN CPP with ES
+26.31', 37.18', Mailbox

+33.79, 62.31', Telephone Pedestal
+37.64, 63.03', Power Pole with Flag

+45.69, 38.31', Invert 61N RCP Underdrain

+75.15, 37.20', Post
+75.21, 39.82', All 4 Lanes Stop When School Bus Stops Sign

706+00

+15.79, 50.10', Invert 41N CPP

K. C. T. T. PROPERTIES , LLC
148

+82.93, 43.80', Invert 12IN CMP TO 15IN CMP

707+00

+11.05, 43.99', Invert 15IN CMP TO 12IN CMP
+16.66, 36.77', Mailbox

ARTESIAN WELLS
PLAT A
PLAT BOOK 25, PAGE 8
NOVEMBER 14, 1938

+76.00, 63.18', Power Pole
+76.47, 61.83', Telephone Pedestal

RONNY JOE & GEORJEAN MARGARET WOOSLEY, H/W
151

+97, STR. NO. 757
INLET TYPE F-7 W/
52' OF 15" TYPE 2 PIPE
W/ P.E.S. REQ'D

APP. P.L.

+76, CLASS IV DRIVE REQ'D.
W=40'

TEMP. R/W FOR DRIVE CONSTR.

+98, CLASS II DRIVE REQ'D.
W=12'

APP. P.L.

APP. P.L.

TEMP. R/W FOR DRIVE CONSTR.

+36, STR. NO. 752
INLET TYPE F-7 W/
71' OF 15" TYPE 3 PIPE
W/ P.E.S. REQ'D

+69, STR. NO. 755
INLET TYPE F-7 W/
51' OF 15" TYPE 2 PIPE
W/ P.E.S. REQ'D

+45.00
87.00'

+10.00
87.00'

+86.00
83.00'

(GRAVEL)

+09.00
83.00'

MAILBOX APP. REQ'D.

MAILBOX APP. REQ'D.

CONSTR. LIMITS

+45.00
75.00'

+10.00
75.00'

+86.00
75.00'

+09.00
75.00'

75' R/W

75' R/W

75' R/W

CONSTR. LIMITS

CONSTR. LIMITS

(GRASS)

OHE

(RIPRAP)

(15" CPP)

D1

+42.96
43.00'

(GRASS)

+22.96
39.00'

(12" CMP)

(15" CMP)

+53.65
43.00'

752

(GRAVEL)

10' DEED GAP

8'
6'
31'

J
W
R

APP. EXIST. R/W

APP. EXIST. R/W

US 41

LINE "E"
N 00°10'28" E
APP. SEC. LINE

(ASPHALT)

(ASPHALT)

MATCHLINE STA. 702+00 "E"

MATCHLINE STA. 708+00 "E"

(GRAVEL)

APP. EXIST. R/W

(GRASS)

+P.L.
50.00'

+00.00
50.00'

APP. EXIST. R/W

CONSTR. LIMITS

+P.L.
50.00'

50' R/W

+55, STR. NO. 753
INLET TYPE F-7 W/
100' OF 12" TYPE 2 PIPE

+55, STR. NO. 754
INLET TYPE F-7 W/
95' OF 12" TYPE 2 PIPE

(ASPHALT)

+P.L.
75.00'

75' R/W

+36, STR. NO. 749
INLET TYPE E-7 W/
86' OF 12" TYPE 2 PIPE

CONSTR. LIMITS

+22, STR. NO. 750
INLET TYPE F-7 W/
95' OF 12" TYPE 2 PIPE

+17, STR. NO. 751
INLET TYPE F-7 W/
138' OF 12" TYPE 2 PIPE

(Building)

+76, CLASS IV DRIVE REQ'D.
W=40'

+62, CLASS IV DRIVE REQ'D.
W=40'

+57, CLASS IV DRIVE REQ'D.
W=40'

APP. P.L.

APP. P.L.

149

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

143
JAMES MANN

LOT LINE

145
BRANDON ARNOLD LLC

BRANDON ARNOLD LLC
147

+47.07, 93.99', Power Pole

+10.34, 49.73', Power Pole
+15.48, 54.35', Post
+22.83, 49.54', Guy Anchor 2

+58.60, 86.69', The Chevy Giant Billboard

+93.04, 90.97', Power Pole
+93.90, 53.93', Guy Anchor 2
+93.94, 59.25', Guy Anchor
+00.16, 50.52', Power Pole
+04.06, 43.17', JCT/US 231 Sign
+05.31, 42.86', Project Limit Post
+05.44, 48.19', Sign Unreadable Message
+06.18, 47.90', Guy Anchor
+14.22, 48.01', Guy Anchor
+19.58, 47.36', Guy Anchor

+47.01, 47.63', Power Pole
+51.21, 47.42', Telephone Pedestal

+74.66, 51.34', Sign

SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+50.80, 41.40', Stop Ahead/45 MPH Sign

+67.47, 53.58', Power Pole
+72.47, 53.56', Sign

NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS		
197	of	350
CONTRACT		
R-40609		

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PLAN_28
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_28.dgn

740
730
720
710
700
690
680
670
660
650

EXISTING GROUND ALONG LINE "E"

-0.08%
+1.05%
-0.71%
+50
695.38
+72
695.36
+91
695.56
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+34
694.55

+20
694.31
-0.52%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+71
693.53

+29
693.25
-0.51%
+96
692.91
GRADE OF SP'L. "V" DITCH REQ'D., LT.

-0.30%
-3.54%
+23
695.45
+26
695.36
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

+22
695.00
-1.50%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)

2 TONS UNIFORM RIPRAP ON 5 SYS
GEOTEXTILE FOR RIPRAP REQ'D., DITCH RT.
+23
+26

+22
659 SYS SODDING REQ'D., DITCH RT.

698.2 698.2 698.2 698.2 698.2 698.3 698.3 698.3 698.2 698.1 697.9 697.7 697.5

702+00 703+00 704+00 705+00 706+00 707+00 708+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

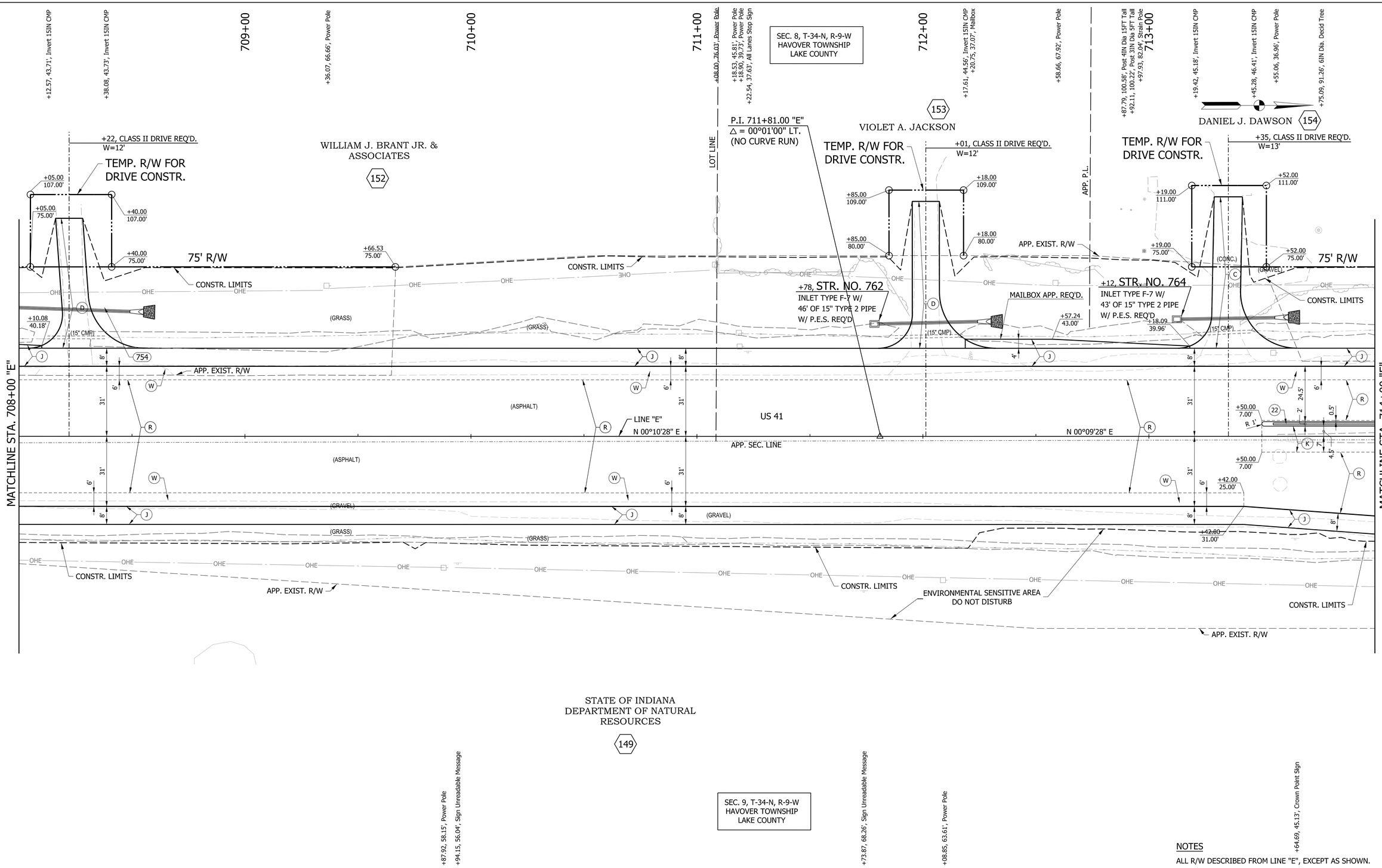
DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	198 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_ 28
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/2000854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_ 28.dgn



NOTES

ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

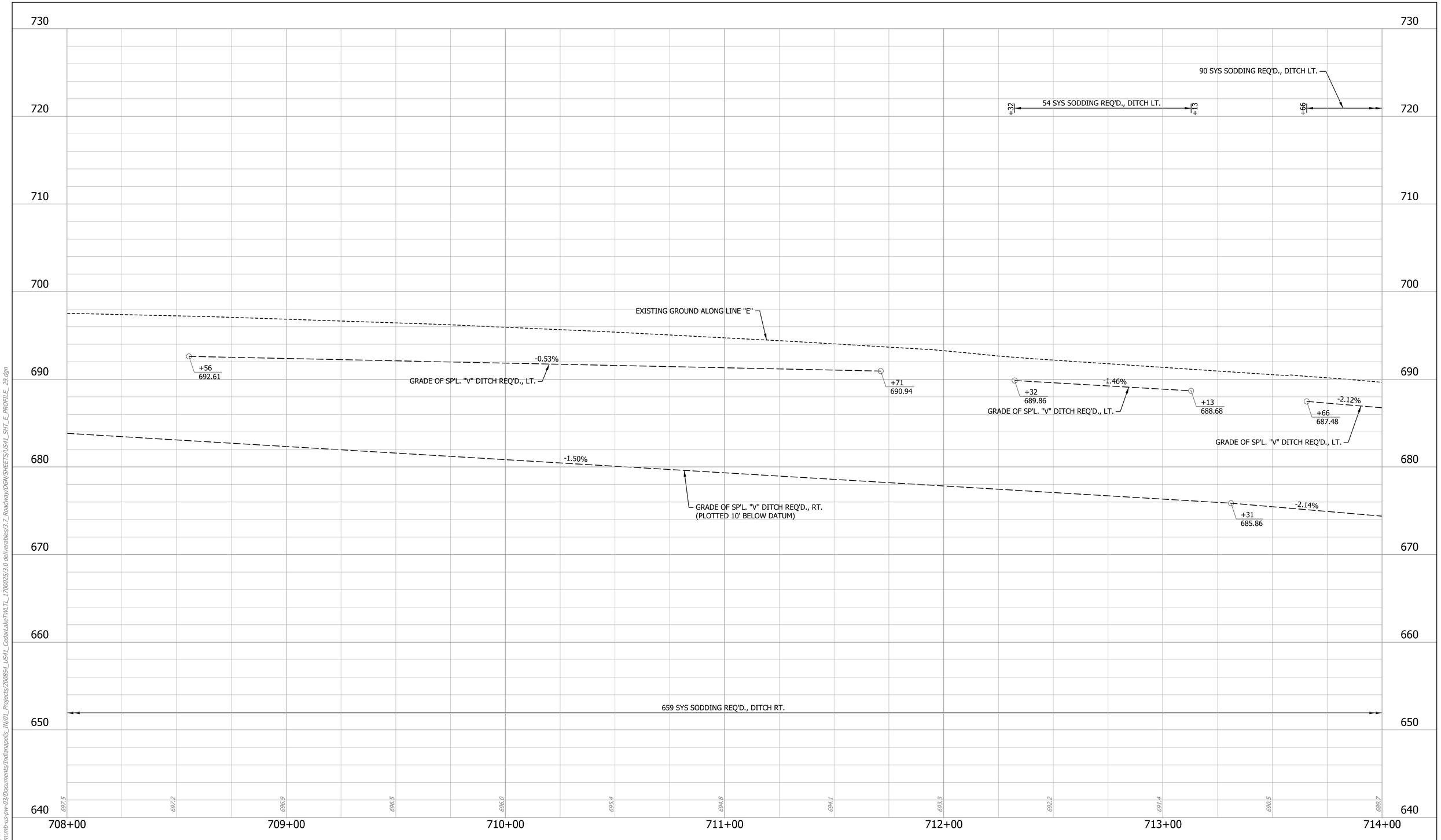
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025

SHEETS		
199	of	350
CONTRACT		
R-40609		

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_29
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_29.dgn



RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	200 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_29
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_

+02.62, 36.70', Manhole Other
+30.49, 67.56', Power Pole
+31.85, 68.32', Right-of-Way Marker
+72.47, 82.31', Guy Anchor
+75.47, 79.06', Guy Anchor
+88.93, 68.20', Power Pole
715+00
+78.63, 56.93', Light Pole
716+00
+04.80, 67.27', Power Pole
+09.16, 53.76', Invert 18IN CMP
+12.49, 66.41', Telephone Pedestal
+33.18, 54.52', Invert 18IN CMP
+45.13, 45.71', Object Marker Sign
+83.91, 79.37', Sign
717+00
+24.88, 48.03', US 41/Arrows/US 231 Sign
+35.57, 58.56', Invert 36X24 RCP
+38.72, 50.79', Strain Pole
+45.89, 89.82', Guy Anchor
+49.85, 65.90', Power Pole
+53.12, 65.69', Power Pole
W. 109TH AVE.
718+00
+10.86, 49.20', Sanitary Manhole
+18.79, 72.22', US 41/Arrow Sign
+20.21, 78.46', Post
+21.58, 83.57', Guy Anchor
+22.43, 72.26', US 231/Arrow Sign
+23.40, 76.25', Guy Anchor
+26.95, 65.43', Weight Limit 10 Ton Sign
+27.09, 66.06', Power Pole
719+00
+37.77, 59.22', Invert 36X24 RCP
+39.90, 47.91', Strain Pole

SEC. 8, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

WHITE/PETERMAN PROPERTIES, INC.
155

JAMES & VIRGINIA WITHAM, H/W
156

SEC. 5, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

ARTESIAN WELLS - PLAT "B"
PLAT BOOK 24, PAGE 26

MANGA PVC, LLC
157

LOT LINE
APP. P.L.
APP. EXIST. R/W
APP. SEC. LINE
LOT LINE

ENVIRONMENTALLY SENSITVE AREA - DO NOT DISTRUB

TEMP. R/W FOR DRIVE CONSTR.

+33, CLASS V DRIVE REQ'D.
W=24'

END PROJECT NO. 1700025
STA. 717+59.00 "E"

+12, STR. NO. 769
INLET TYPE F-7 W/
16' OF 18" TYPE 2 PIPE
W/ P.E.S. REQ'D

+95, STR. NO. 767
INLET TYPE F-7 W/
61' OF 18" TYPE 2 PIPE
W/ P.E.S. REQ'D

+16.00 85.00'
+50.00 85.00'
+16.00 75.00'
+50.00 75.00'
+25.23 75.00'

75' R/W
75' R/W
CONSTR. LIMITS
CONSTR. LIMITS
(GRASS)
(RIPRAP)
(RIP RAP)
(18" CMP)
758
(36" x 24" RCP)
APP. EXIST. R/W & EXIST. E.O.P.
+30.59 39.00'
+30.59 31.00'
+57.60 25.00'
(ASPHALT)
+00.00 13.00'
+24.00 13.00'
+00.00 1.50'
+00.00 7.00'
+50.00 1.50'
+50.00 4.00'
+24.00 4.00'
(GRAVEL)
(GRASS)
(ASPHALT)
US 41
+92.00 42.00'
(GRAVEL)
(GRASS)
CONSTR. LIMITS
CONSTR. LIMITS
APP. EXIST. R/W
R 45'
+12.01 71.00'
(18" CMP)
LINE "E"
N 00°09'28" E
APP. SEC. LINE
ENVIRONMENTALLY SENSITVE AREA - DO NOT DISTRUB

MATCHLINE STA. 714+00 "E"
MATCHLINE STA. 720+00 "E"

149

STATE OF INDIANA
DEPARTMENT OF NATURAL RESOURCES

SEC. 9, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

+28.99, 67.98', Power Pole
+45.16, 58.56', Light Pole
+38.90, 80.94', Telephone Pedestal
+56.33, 69.54', Sign Unreadable Message
+31.67', 80.41', Gas Marker
+35.73, 82.55', Gas Valve
+37.61, 83.12', Gas Marker
+53.86, 71.49', Power Pole
APP. EXIST. R/W
+16.12, 63.85', Light Pole
+26.66, 82.78', Strain Pole
+36.72, 82.26', Invert 18IN CMP
APP. SEC. LINE
US 231 / W. 109TH AVE.
+26.73, 81.38', Invert 18IN CMP
+43.74, 76.17', 165/US 41/ US 231/Arrows Sign
+44.16, 75.96', Strain Pole
+46.22, 92.09', Traffic Signal Cabinet
5' NO ACCESS EASEMENT - PER PLAT
+51.10, 52.50', One Way Sign
+62.95, 67.35', Sanitary Manhole
+69.68, 79.47', Power Pole
ST. JOHN CROSSING
INSTR. No. 2008029692
APRIL 24, 2008

HUTTON ST. JOHN ST, LLC
150

SEC. 4, T-34-N, R-9-W
HAVOVER TOWNSHIP
LAKE COUNTY

NOTES
ALL R/W DESCRIBED FROM LINE "E", EXCEPT AS SHOWN.

LEGEND

- (K) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (K1) FULL DEPTH HMA PAVEMENT (SEE TYP. SECTION FOR DESCRIPTION)
- (W) HMA WIDENING (SEE TYP. SECTION FOR DESCRIPTION)
- (J) FULL DEPTH HMA FOR SHOULDERS (SEE TYP. SECTION FOR DESCRIPTION)
- (R) HMA, MILL AND VARIABLE DEPTH OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R1) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (R2) HMA, MILL AND OVERLAY (SEE TYP. SECTION FOR DESCRIPTION)
- (C) PCCP FOR APPROACHES, 6" ON DENSE GRADED SUBBASE, 6" ON SUBGRADE TREATMENT TYPE II
- (D1) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 660#/SYD HMA BASE, TYPE B ON SUBGRADE TREATMENT TYPE II ON GEOGRID, TYPE 1B
- (D) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON 275#/SYD HMA INTERMEDIATE TYPE B ON 6" COMPACTED AGGREGATE NO. 53 ON SUBGRADE TREATMENT TYPE II
- (C1) PCCP FOR APPROACHES, 9" ON DENSE GRADED SUBBASE, 6" ON GEOGRID TYPE 1B ON SUBGRADE TREATMENT TYPE II
- (D2) HMA FOR APPROACHES, TYPE B 165#/SYD HMA SURFACE TYPE B ON MILLED SURFACE
- (13) COMB. CONC. CURB AND GUTTER TYPE B
- (15) COMB. CONC. CURB AND GUTTER
- (22) CONC. CENTER CURB, TYPE B
- (26) SODDING, NURSERY

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	201 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
8/1/2025
model: US41_SHT_E_PLAN_30
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWI_TL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PLAN_30.dgn

730
720
710
700
690
680
670
660
650
640

90 SYS SODDING REQ'D., DITCH LT.
+00

-2.12%
GRADE OF SP'L. "V" DITCH REQ'D., LT.
+00
684.62

END PROJECT NO. 1700025
STA. 717+59.00 "E"
EXISTING GROUND ALONG LINE "E"

-2.14%
GRADE OF SP'L. "V" DITCH REQ'D., RT.
(PLOTTED 10' BELOW DATUM)
+10
677.73

659 SYS SODDING REQ'D., DITCH RT.
+10

699.7 688.6 687.7 686.7 685.7 684.6 683.6 682.6 681.6 681.2 681.1

714+00 715+00 716+00 717+00 718+00 719+00 720+00

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE - US 41
LINE "E"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1700025
	SHEETS
	202 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
8/1/2025
model:US41_SHT_E_PROFILE_30
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_E_PROFILE_30.dgn

133RD AVE
0.20%

US 41
0.50%

765.32 TC
764.82 BC
(765.30)

765.29 TC
764.79 BC
(765.28)

765.24 TC
764.74 BC
(765.25)

765.19 TC
764.69 BC
(765.15)

765.10 TC
764.60 BC
(765.05)

765.00 TC
764.50 BC
(764.96)

764.50 TC/BC
(764.84)

764.53
(764.42)

764.60
(764.39)

764.59 TC/BC
(764.48)

558+01.50 "E"
55.73' LT

764.30 BC
764.80 TC
(764.76)

764.39 TC/BC
(764.34)

764.42
(764.38)

764.33
(764.40)

764.30 TC/BC
(764.29)

764.39
(764.18)

764.48
(764.98)

764.89
(765.15)

764.68
(765.02)

764.59
(765.07)

765.09
(765.10)

CONSTR. LIMITS
765.34 TC

CONST. LIMITS
765.43
765.39

APP. EXIST. R/W
765.30
765.21
765.25
765.17

APP. EXIST. R/W

CONSTR. LIMITS

(sdwk)
(Conc)

PAIRED PARALLEL CURB RAMPS ALONG LARGE RADIUS

R/W

558+00

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
XXX.XX	EXISTING AND PROPOSED ELEVATION

(F) SIDEWALK
[R] CURB RAMP
[TS] TURNING SPACE
(PB) PUSH BUTTON
DETECTABLE WARNING SURFACE

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

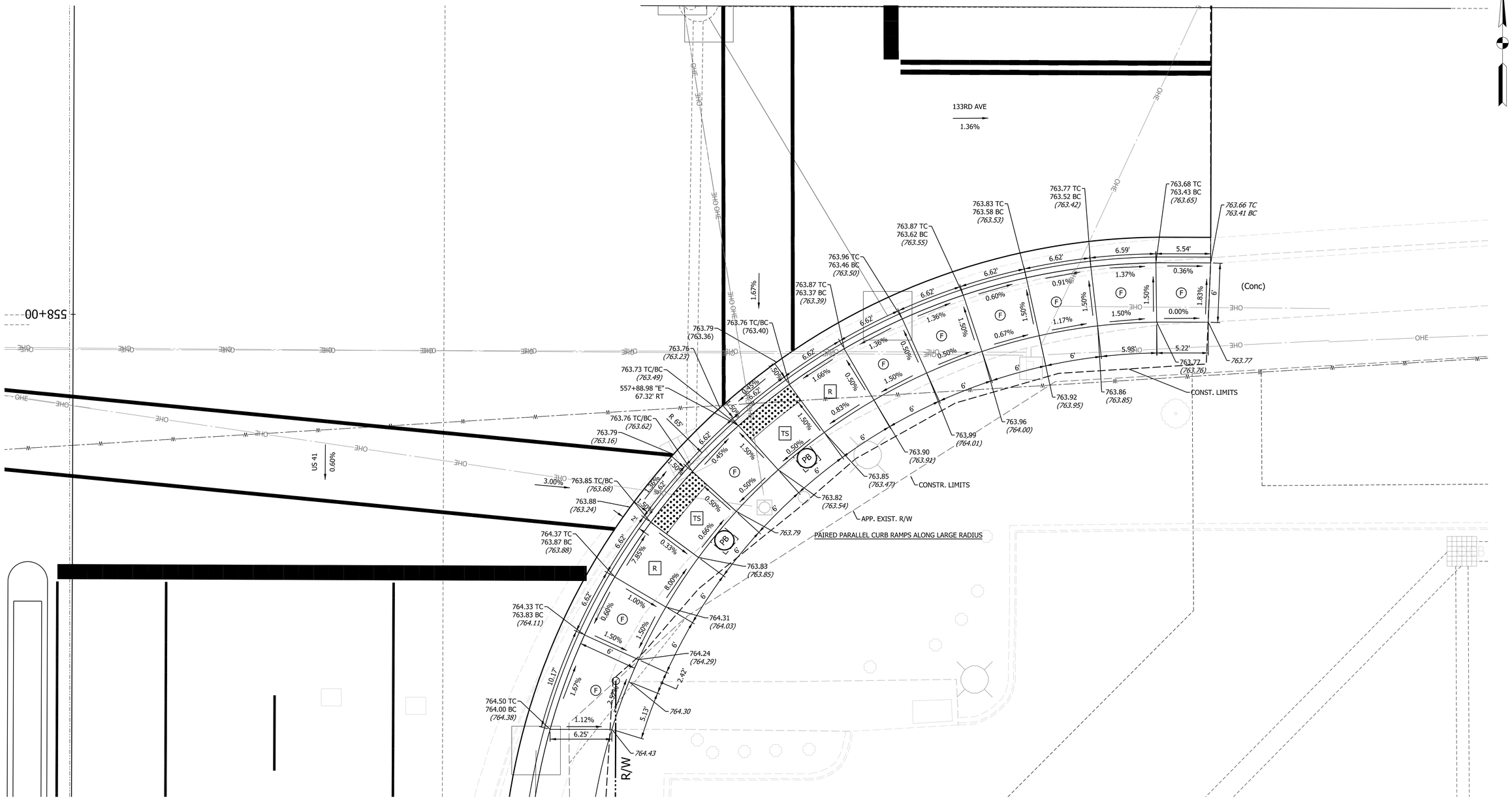
DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS
SW QUADRANT - US 41 AND W 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	203 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: SW_QUAD - Plan 1
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_CRDET_01.dgn



LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
XXX.XX	EXISTING AND PROPOSED ELEVATION
(F)	SIDEWALK
R	CURB RAMP
TS	TURNING SPACE
PB	PUSH BUTTON
	DETECABLE WARNING SURFACE

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

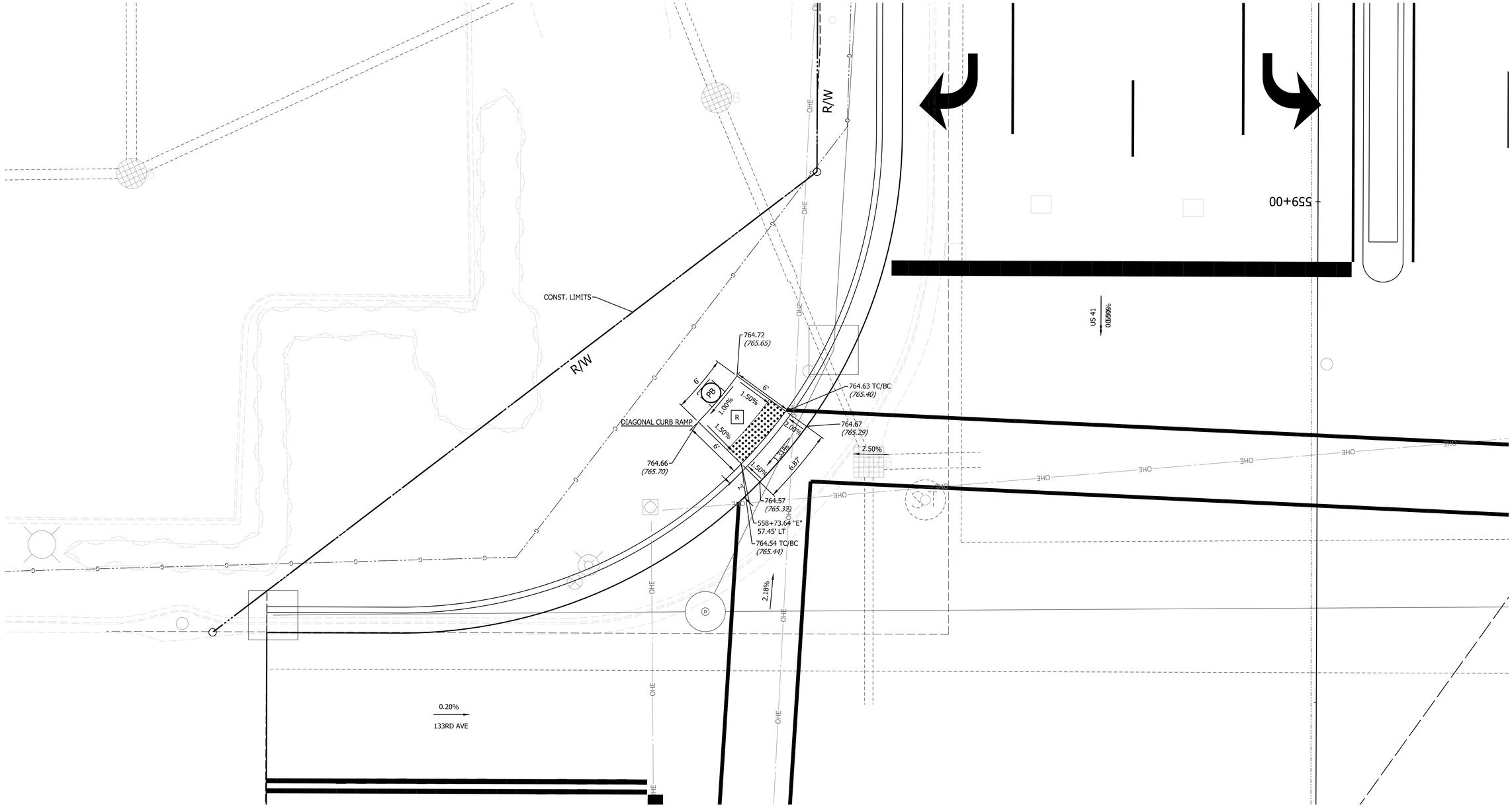
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS
SE QUADRANT - US 41 AND W 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	204 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
7/31/2025
model: SE_QUAD - Plan 2
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3_7_Roadway/DGN/SHEETS/US41_SHT_CRDET_02.dgn



LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
XXX.XX	EXISTING AND PROPOSED ELEVATION
(F)	SIDEWALK
R	CURB RAMP
TS	TURNING SPACE
PB	PUSH BUTTON
	DETECABLE WARNING SURFACE

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

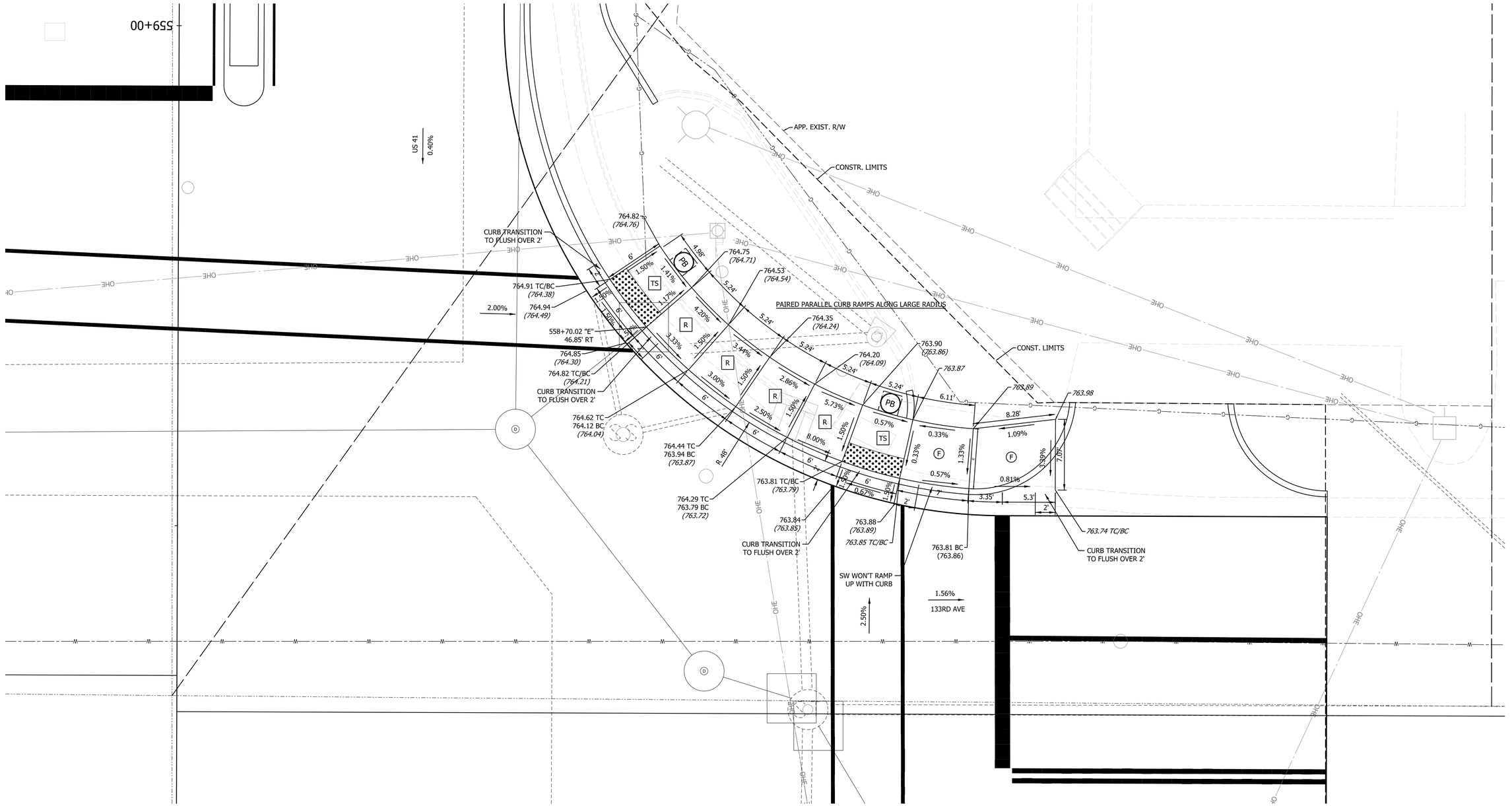
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS
NW QUADRANT - US 41 AND W 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	205 of 350
	CONTRACT
	R-40609

Mitchell Wilcox
7/31/2025
model: NW_QUAD - Plan 3
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_CRDET_03.dgn



LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
XXX.XX	EXISTING AND PROPOSED ELEVATION
F	SIDEWALK
R	CURB RAMP
TS	TURNING SPACE
PB	PUSH BUTTON
	DETECABLE WARNING SURFACE

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM

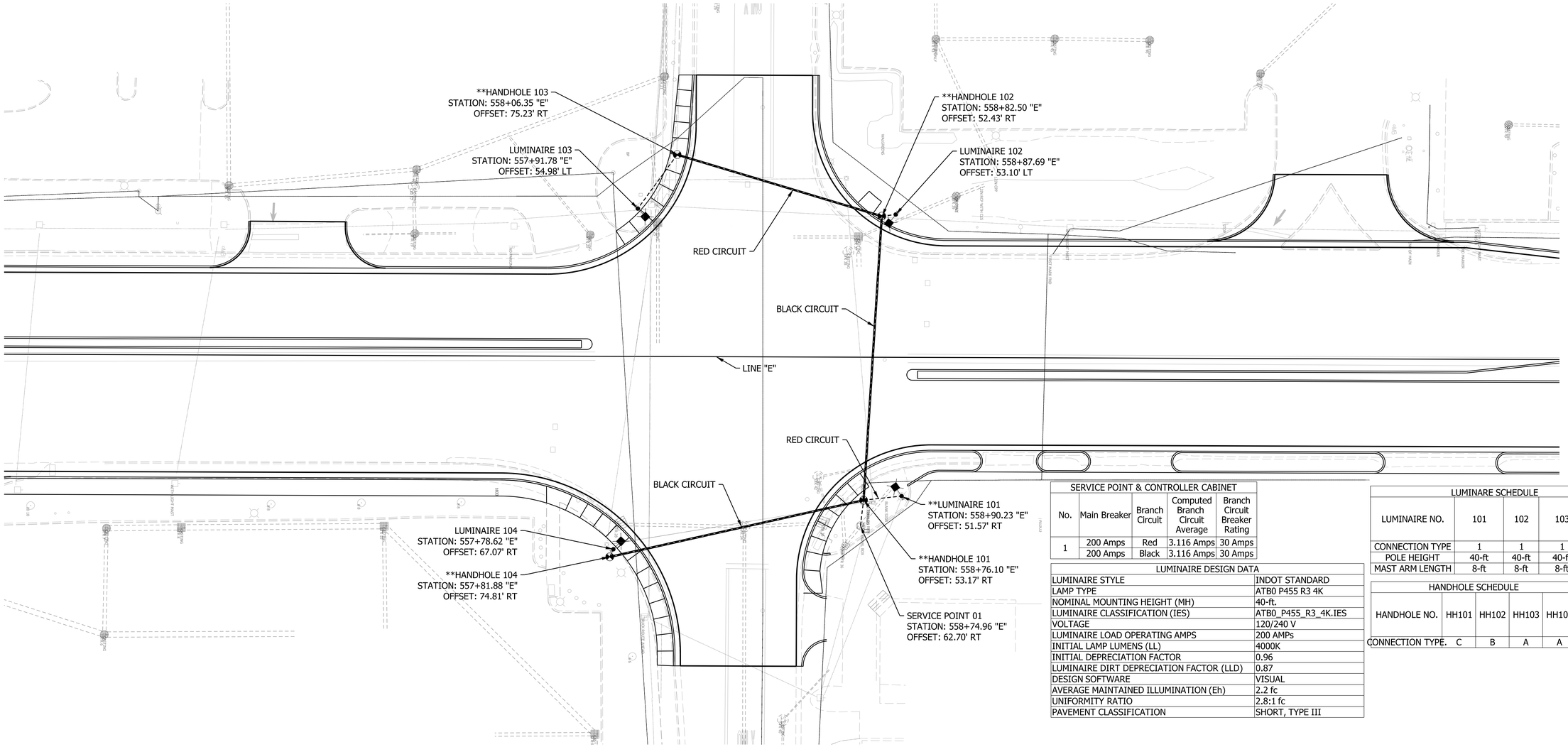
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

CURB RAMP DETAILS
NE QUADRANT - US 41 AND W 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
1" = 5'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	206 of 350
	CONTRACT
	R-40609

Mitchell, Willcox
7/31/2025
model: NE_QUAD - Plan 4
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_CRDET_04.dgn



SERVICE POINT & CONTROLLER CABINET				
No.	Main Breaker	Branch Circuit	Computed Branch Circuit Average	Branch Circuit Breaker Rating
1	200 Amps	Red	3.116 Amps	30 Amps
	200 Amps	Black	3.116 Amps	30 Amps

LUMINAIRE DESIGN DATA	
LUMINAIRE STYLE	INDOT STANDARD
LAMP TYPE	ATB0 P455 R3 4K
NOMINAL MOUNTING HEIGHT (MH)	40-ft.
LUMINAIRE CLASSIFICATION (IES)	ATB0_P455_R3_4K.IES
VOLTAGE	120/240 V
LUMINAIRE LOAD OPERATING AMPS	200 AMPs
INITIAL LAMP LUMENS (LL)	4000K
INITIAL DEPRECIATION FACTOR	0.96
LUMINAIRE DIRT DEPRECIATION FACTOR (LLD)	0.87
DESIGN SOFTWARE	VISUAL
AVERAGE MAINTAINED ILLUMINATION (Eh)	2.2 fc
UNIFORMITY RATIO	2.8:1 fc
PAVEMENT CLASSIFICATION	SHORT, TYPE III

LUMINARE SCHEDULE				
LUMINAIRE NO.	101	102	103	104
CONNECTION TYPE	1	1	1	1
POLE HEIGHT	40-ft	40-ft	40-ft	40-ft
MAST ARM LENGTH	8-ft	8-ft	8-ft	8-ft

HANDHOLE SCHEDULE				
HANDHOLE NO.	HH101	HH102	HH103	HH104
CONNECTION TYPE.	C	B	A	A

LEGEND

- SERVICE POINT, TYPE 11, 120/240V
- LUMINAIRE, SOLID STATE (LED), 40-FT MOUNTING HEIGHT ON STANDARD FOUNDATION WITH 8-FT MAST ARM
- HANDHOLE
- 4-1C NO. 6 COPPER CONDUCTOR IN PLASTIC DUCT, IN 2" SCH. 80 HDPE CONDUIT
- 4-1C NO. 6 COPPER CONDUCTOR IN PLASTIC DUCT, IN TRENCH

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE & ALL LOCAL ORDINANCES.
2. REFER TO "SURVEY CONTROL" SHEET FOR ALIGNMENT INFORMATION, BENCHMARKS, AND REFERENCE TIES.
3. CONTRACTOR TO COORDINATE WITH ELECTRICAL PROVIDER REGARDING EXACT METERED SERVICE POINT LOCATION.

**EXISTING LIGHT POLE/LUMINAIRE OR HANDHOLE (PROTECT IN-PLACE)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

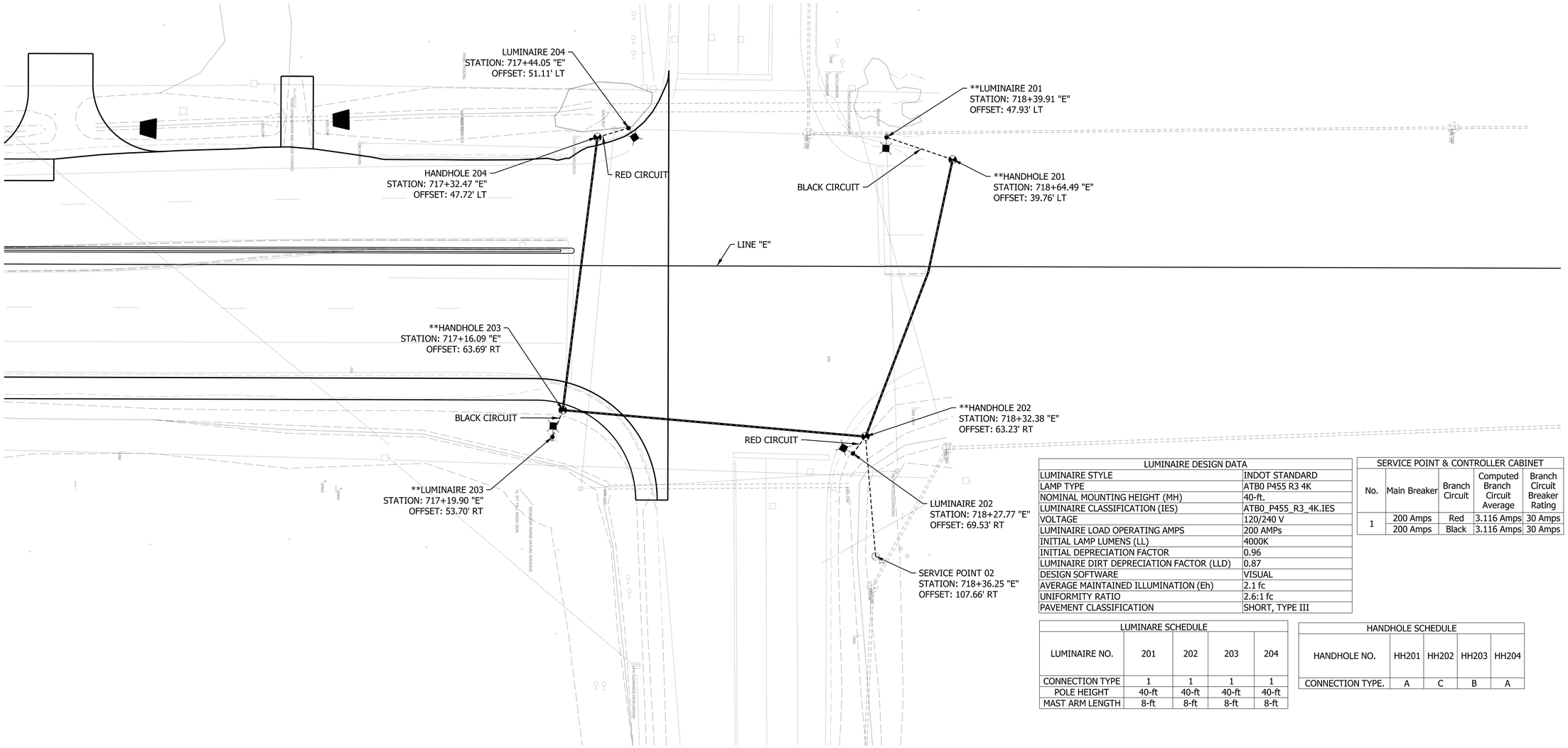
DESIGNED: EW 03/25/25 | DRAWN: EW 03/25/25

CHECKED: MRW 03/26/25 | CHECKED: MRW 03/26/25

INDIANA
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAIL SHEET
INTERSECTION - W 133RD AVE

HORIZONTAL SCALE	BRIDGE FILE
	N/A
VERTICAL SCALE	DESIGNATION
	1700025
	SHEETS
	238 of 350
	CONTRACT
	R-40609



LUMINAIRE DESIGN DATA	
LUMINAIRE STYLE	INDOT STANDARD
LAMP TYPE	ATB0 P455 R3 4K
NOMINAL MOUNTING HEIGHT (MH)	40-ft.
LUMINAIRE CLASSIFICATION (IES)	ATB0_P455_R3_4K.IES
VOLTAGE	120/240 V
LUMINAIRE LOAD OPERATING AMPS	200 AMPs
INITIAL LAMP LUMENS (LL)	4000K
INITIAL DEPRECIATION FACTOR	0.96
LUMINAIRE DIRT DEPRECIATION FACTOR (LLD)	0.87
DESIGN SOFTWARE	VISUAL
AVERAGE MAINTAINED ILLUMINATION (Eh)	2.1 fc
UNIFORMITY RATIO	2.6:1 fc
PAVEMENT CLASSIFICATION	SHORT, TYPE III

SERVICE POINT & CONTROLLER CABINET				
No.	Main Breaker	Branch Circuit	Computed Branch Circuit Average	Branch Circuit Breaker Rating
1	200 Amps	Red	3.116 Amps	30 Amps
	200 Amps	Black	3.116 Amps	30 Amps

LUMINARE SCHEDULE				
LUMINAIRE NO.	201	202	203	204
CONNECTION TYPE	1	1	1	1
POLE HEIGHT	40-ft	40-ft	40-ft	40-ft
MAST ARM LENGTH	8-ft	8-ft	8-ft	8-ft

HANDHOLE SCHEDULE				
HANDHOLE NO.	HH201	HH202	HH203	HH204
CONNECTION TYPE.	A	C	B	A

LEGEND

- SERVICE POINT, TYPE 11, 120/240V
- LUMINAIRE, SOLID STATE (LED), 40-FT MOUNTING HEIGHT ON STANDARD FOUNDATION WITH 8-FT MAST ARM
- HANDHOLE
- 4-1C NO. 6 COPPER CONDUCTOR IN PLASTIC DUCT, IN 2" SCH. 80 HDPE CONDUIT
- 4-1C NO. 6 COPPER CONDUCTOR IN PLASTIC DUCT, IN TRENCH

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST VERSION OF THE NATIONAL ELECTRICAL CODE & ALL LOCAL ORDINANCES.
2. REFER TO "SURVEY CONTROL" SHEET FOR ALIGNMENT INFORMATION, BENCHMARKS, AND REFERENCE TIES.
3. CONTRACTOR TO COORDINATE WITH ELECTRICAL PROVIDER REGARDING EXACT METERED SERVICE POINT LOCATION.

**EXISTING LIGHT POLE/LUMINAIRE OR HANDHOLE (PROTECT IN-PLACE)

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: EW 03/25/25 | DRAWN: EW 03/25/25

CHECKED: MRW 03/26/25 | CHECKED: MRW 03/26/25

INDIANA
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAIL SHEET
INTERSECTION - US231

HORIZONTAL SCALE | BRIDGE FILE
N/A
VERTICAL SCALE | DESIGNATION
1700025
SHEETS
239 of 350
CONTRACT
R-40609

555+00 556+00 557+00 558+00 559+00 560+00 561+00

APP. SEC. LINE

W. 133RD AVE.

McDONALD'S CEDAR LAKE ADDITION
INSTR. No. 2013056660

BP SUBDIVISION
INSTR. No. 2015060179
SEPTEMBER 4, 2015

PARCEL No. 1

PARCEL No. 3

PHASE DIAGRAM

Ø1	Ø2	Ø3	Ø4
Ø5	Ø6	Ø7	Ø8

NO PREFERENTIAL. ALL FLASH RED.

NOTES:
1. ALL STATIONING ARE REFERENCED FROM LINE "E".
2. EXISITNG SIGNAL SUPPORTS SHALL BE REMAIN UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL CONTACT THE CITY TO SCHEDULE THE REMOVAL OF EMERGENCY VEHICLE PREEMPTION EQUIPMENT.

EA EL NL NR NA NB SA SB SR SL

Sta. 558+80 "E", 62' Lt.
Sta. 557+97 "E", 62' Lt.
Sta. 557+86 "E", 49' Lt.
Sta. 557+77 "E", 66' Rt.
Sta. 558+76 "E", 50' Rt.
Sta. 558+62 "E", 71' Rt.
Sta. 557+86 "E", 74' Rt.

P.O.E. 558+32.04 "BB"
= O.P.O.T. 558+33.01 "E"
0.48' LT.

P.O.T. 558+33.30 "E"
= P.O.T. 15+50.00 "S-133"

TEMP. R/W
50' R/W
R/W
CONSTR. LIMITS
APP. EX. R/W
LINE "E"
LINE "BB"
LINE "S-133"
N 00°01'13" W
N 00°11'58" E
US 41
W. 133RD AVE.

1-2c/16
1-5c/14
1-3c/14
1-7c/14
1-5c/14
1-9c/14
2-5c/14
2-3c/14
2-2c16
2-5c/14
2-3c/14
1-5c/14
2-5c/14
3-5c/14
4-5c/14
5-2c/16
4-5c/14
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3-2c/16
1-9c/14
1-5c/14
1-3c/14
3-2c/16
2-5c/14
2-3c/14
4-9c/14
2-9c/14
5-2c/16
3-5c/14
3-3c/14

FINAL SUBDIVISION PLAT
CVS 6912
INSTR. No. 2012025699
APRIL 18, 2012

LOT No. 1

LEGEND

- Existing Conduit
- New 2" HDPE, Schedule 80 Conduit
- New 2" PVC, Schedule 40 Conduit
- Existing Loop
- New Loop
- Existing Traffic Signal Head, 3 Face, 12": Red, Amber, Green
- Existing Traffic Signal Head, 5 Face, 12": Red, Amber, Green, Lt. Amber Arrow, Lt Green Arrow
- Traffic Signal Head, 3 Face, 12" LED: Red, Amber, and Green
- Traffic Signal Head, 3 Face, 12" LED: Red Arrow, Amber Arrow, & Green Arrow
- Traffic Signal Head, 4 Face, 12" LED: Red Arrow, Amber Arrow, Flashing Amber Arrow & Green Arrow
- Existing Signal Controller and Cabinet
- Existing Signal Handhole
- New Signal Handhole
- Existing Signal Detector Housing
- New Signal Detector Housing
- Existing Steel Strain Pole & Foundation
- Existing Disconnect Hanger
- Existing Pedestal on "A" Foundation to be Removed
- 12 Ft. Pedestal on "A" Foundation
- Pedestrian Signal Head, Countdown, 18"
- Pedestrian Pushbutton, APS
- Sheet Sign

Detailed Loop Tagging Table

01-045-099; US 41 & 133RD AVE;

Loop No or Channel	-	Direction	Lane	Phase	-	Loops	C	-	C #	Lead-in and Rack Labels
1	-	N	L	5	-	1*,2*,3*,4*	C	-	3	1-NL5-1*,2*,3*,4* C-3
2	-	N	A	2	-	1*	C	-	4	2-NA2-1* C-4
5	-	N	B	2	-	1*	C	-	7	5-NB2-1* C-7
6	-	N	R	2	-	2*	C	-	8	6-NR2-2* C-8
9	-	E	L	7	-	1,2,3,4*	C	-	11	9-EL7-1,2,3,4* C-11
10	-	E	A	4	-	1,2,3,4*,5*	C	-	12	0-EA4-1,2,3,4*,5* C-12
13	-	S	L	1	-	1,2,3,4*	C	-	15	13-SL1-1,2,3,4* C-15
14	-	S	A	6	-	1*	C	-	16	14-SA6-1* C-16
17	-	S	B	6	-	1*	C	-	19	17-SB6-1* C-19
18	-	S	R	6	-	2*	C	-	20	18-SR6-2* C-20
21	-	W	L	3	-	1,2,3,4*	C	-	23	21-WL3-1,2,3,4* C-23
22	-	W	A	8	-	1,2,3,4*	C	-	24	22-WA8-1,2,3,4* C-24

COMM. NO. 01-045-099

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: MRW DRAWN: JWM
CHECKED: LDW CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

US 41 -TRAFFIC SIGNAL PLAN
US 41 AT 133RD AVE

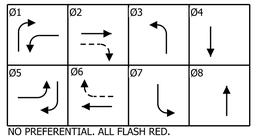
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	240 of 350
	CONTRACT
	R-40609

Mitchell,Wilcox
7/31/2025
model: SIGNAL_133RD AVE
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway\DGN\SHEETS\US41_SHT_SIGNAL_PLAN_01.dgn

713+00
714+00
715+00
716+00
717+00
W. 109TH AVE.
718+00
719+00

NOTES:
1. ALL STATIONING ARE REFERENCED FROM LINE "E".
2. EXISITNG SIGNAL SUPPORTS SHALL BE REAMAIN UNLESS OTHERWISE NOTED.
3. EXISTING SIGNAL PHASING AND TIMING REMAIN AS IS.

PHASE DIAGRAM



NO PREFERENTIAL. ALL FLASH RED.

ARTESIAN WELLS
PLAT A
PLAT BOOK 25, PAGE 8
NOVEMBER 14, 1938

ARTESIAN WELLS - PLAT "B"
PLAT BOOK 24, PAGE 26

END PROJECT NO. 1700025
STA. 717+59.00 "E"

APP. EX. R/W

TEMP. R/W

CONSTR. LIMITS

75' R/W

(CONC.)
(GRAVEL)
(15" CMP)
(GRASS)
(GRAVEL)
(18" CMP)
(RIPRAP)
(36" x 24" RCP)
(RIP RAP)

(ASPHALT)

NL 4 3 2 1

NA 1
NB 1
1-2c/16

US 41

(ASPHALT)
(ASPHALT)

1-2c/16

1-2c/16
NR 2

(GRAVEL)
(GRASS)
(GRAVEL)
(GRASS)

LINE "E"
APP. SEC. LINE
N 00°09'28" E

3-2c/16
3-2c/16
(18" CMP)
(GRASS)

CONSTR. LIMITS
APP. EX. R/W

US 231 / W. 109TH AVE.

ST. JOHN CROSSING
INSTR. No. 2008029692
APRIL 24, 2008

LEGEND

- Existing Conduit
- New 2" HDPE, Schedule 80 Conduit
- New 2" PVC, Schedule 40 Conduit
- Existing Loop
- X — New Loop
- Existing Traffic Signal Head, 3 Face, 12": Red, Amber, Green
- Existing Traffic Signal Head, 3 Face, 12": Red, Lt. Amber Arrow, Lt. Green Arrow
- 4 — Existing Traffic Signal Head, 4 Face, 12": Red Arrow, Amber Arrow, & Green Arrow
- Existing Traffic Signal Head, 5 Face, 12": Red, Amber, Green, Rt. Amber Arrow, Rt Green Arrow
- Traffic Signal Head, 3 Face, 12" LED: Red, Amber, and Green
- 4 — Traffic Signal Head, 4 Face, 12" LED: Red Arrow, Amber Arrow, & Green Arrow
- Existing Signal Controller and Cabinet
- Existing Signal Handhole
- New Signal Handhole
- Existing Signal Detector Housing
- New Signal Detector Housing
- Disconnect Hanger
- Existing Strain Pole
- Sheet Sign

Detailed Loop Tagging Table 01-045-228; US 41 & 109TH AVE;

Loop No or Channel	-	Direction	Lane	Phase	-	Loops	C	-	C #	Lead-in and Rack Labels
1	-	N	L	1	-	1*,2*,3,4*	C	-	3	1-NL1-1*,2*,3,4* C-3
2	-	N	A	2	-	1*	C	-	4	2-NA2-1* C-4
5	-	N	B	2	-	1*	C	-	7	5-NB2-1* C-7
6	-	N	R	2	-	2*	C	-	8	6-NR2-2* C-8
9	-	E	L	3	-	1,2,3,4*	C	-	11	9-EL3-1,2,3,4* C-11
10	-	E	A	4	-	1*,2*,3*,4*	C	-	12	0-EA4-1*,2*,3*,4* C-12
13	-	E	R	4	-	1*,2*,3*,4*	C	-	15	3-ER4-1*,2*,3*,4* C-15
14	-	S	L	5	-	1*,2*,3*,4*	C	-	16	4-SL5-1*,2*,3*,4* C-16
17	-	S	A	6	-	1*	C	-	19	17-SA6-1* C-19
18	-	S	B	6	-	1*	C	-	20	18-SB6-1* C-20
21	-	W	L	7	-	1,2,3,4*	C	-	23	21-WL7-1,2,3,4* C-23
22	-	W	A	8	-	1*,2*,3*,4*	C	-	24	2-WA8-1*,2*,3*,4* C-24
25	-	W	R	8	-	1*,2*,3*,4*	C	-	27	5-WR8-1*,2*,3*,4* C-27

COMM. NO. 01-045-228

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

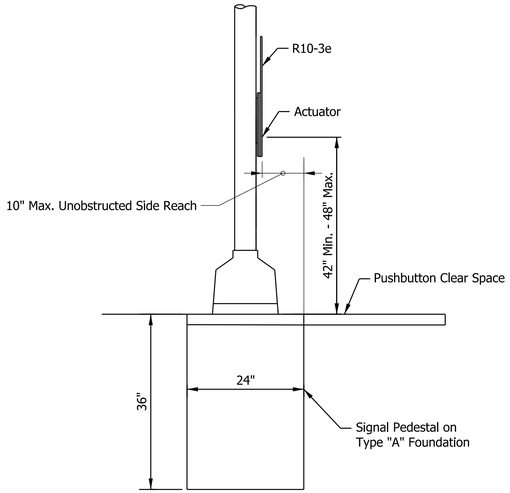
DESIGNED: MRW
DRAWN: JWM
CHECKED: LDW
CHECKED: MAE

INDIANA
DEPARTMENT OF TRANSPORTATION

US 41 -TRAFFIC SIGNAL PLAN
US 41 AT US 231

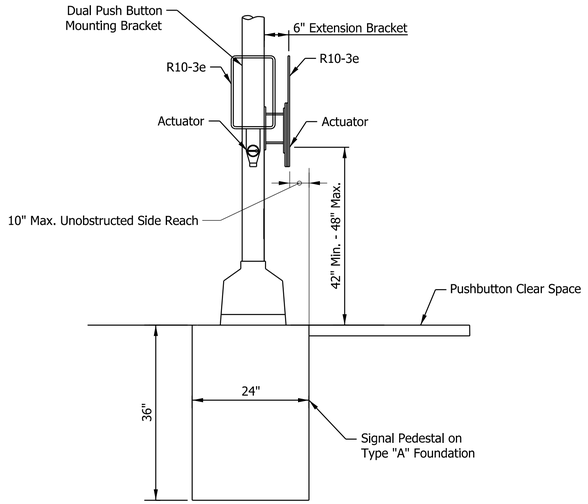
HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	241 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
7/31/2025
model: SIGNAL US 231
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_SIGNAL_PLAN_02.dgn



PEDESTRIAN PUSHBUTTON ASSEMBLY ELEVATION "A"

133RD AVE: Northeast Corner Curb Ramp, SB & WB Direction
133RD AVE: Southeast Corner Curb Ramp, NB & WB Direction
133RD AVE: Southwest Corner Curb Ramp, NB & EB Direction



PEDESTRIAN PUSHBUTTON ASSEMBLY ELEVATION "B"

133RD AVE: Northwest Corner Curb Ramp, SB & EB Direction

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DAD | DRAWN: DAD

CHECKED: MRW | CHECKED: MRW

INDIANA
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL DETAILS
PEDESTRIAN PUSHBUTTON DIAGRAMS

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1700025
	SHEETS
	242 of 350
	CONTRACT
	R-40609

Mitchell.Wilcox
7/31/2025
model: Default
file: pw://mb-us-pw.bentley.com:mb-us-pw-03/Documents/Indianapolis_IN/01_Projects/200854_US41_CedarLakeTWLTL_1700025/3.0 deliverables/3.7_Roadway/DGN/SHEETS/US41_SHT_SIGNAL_PLAN_03

Categorical Exclusion

Appendix C

Early Coordination

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Sample Early Coordination Letter - Original

April 20, 2021

Re: Early Coordination
Des. No. 1700025
US 41 Auxiliary Lanes (Two-Way Left Turn Lane), from US 231 to 3.25 miles south of US 231;
Lake County, Indiana

To Whom It May Concern:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intend to proceed with a project involving the aforementioned corridor in Lake County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation number and description in your reply**. We will incorporate your comments into a study of the project's environmental impacts.

The project is located on US 41 from US 231 in the Town of St. John to 3.25 miles south of US 231, in the Town of Cedar Lake. This section of US 41 is an Other Principal Arterial throughout the project area. The existing roadway is a 4-lane highway with a lane width of 12 ft. and 4 ft. wide paved shoulders. The speed limit varies from 35 to 55 within the project area. Between 2013 and 2016 there were 80 crashes within the project limits, 32 of which involved injuries. The apparent existing right-of-way varies from approximately 45 ft. to 80 ft. either side of the current centerline throughout the project area, according to the original construction plans.

The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. In order to establish this TWLTL, US 41 will be widened by 6 ft. in both directions through the length of the proposed construction area. Driveways along US 41 will be reconfigured to accommodate the new width, and culverts running under driveways will be replaced. A concrete box culvert carrying a tributary to West Creek under US 41 will also be extended. Additionally, in conjunction with planned improvements from the town of Cedar Lake, a right-turn lane will be added to 129th Ave for westbound traffic turning onto US 41.

Both permanent and temporary right-of-way will need to be acquired to accommodate the proposed improvement. Additionally, right-of-way within the project area lacking clear title will be re-acquired. Including re-acquisition, the total right-of-way acquisition will likely exceed 30 acres. In some instances, right-of-way acquisition may necessitate total property takes and/or relocations. Additional temporary right-of-way will be necessary for certain grading activities and driveway reconstruction. All right-of-way will be acquired from within the "Environmental Review Area" illustrated in the attached exhibits. A maintenance of traffic plan has not yet been finalized; however, phased construction is expected to be implemented to allow continued traffic flow throughout construction.

Land use in the vicinity of the project area varies from commercial and residential around the boundaries of St. John and Cedar Lake to more agricultural between the two towns. There are forested areas along the project

corridor, and approximately 4.5 acres of trees will need to be cleared from the project area. A Regulated Waters Delineation was completed in October 2020, identifying four wetlands and one stream within the project area. This project qualifies for the application of the USFWS range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat and project information will be submitted through USFWS's Information for Planning and Consultation (IPaC) separately. The project was determined to meet the criteria of the Section 106 Minor Projects Programmatic Agreement by INDOT Cultural Resources Office on August 6, 2020.

Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. 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 matter, please feel free to contact James Landry at The Troyer Group by emailing jlandry@troyergroup.com or calling 256-633-0283, or INDOT project manager John Krueckeberg at jkrueckeberg@indot.IN.gov. Thank you in advance for your input.

Sincerely,

James Landry
Senior Environmental Analyst
The Troyer Group

Attachments: Exhibit 1 – Project Location Map
Exhibit 2a/2b – USGS Maps
Exhibit 3a – 3c – Project Area and Photo Orientation Maps
Project Area Photos

Removed to avoid duplication, Refer to Appendix B

cc: Indiana Geological Survey, Environmental Geology Section
Indiana Department of Environmental Management
Federal Highway Administration
Indiana Department of Natural Resources, Division of Fish and Wildlife
Indiana Department of Natural Resources, Division of Nature Preserves
US Department of Housing & Urban Development, Chicago Regional Office
U.S. Fish and Wildlife Service, Northern Indiana Sub-Office
Department of the Army, Chicago District, Corps of Engineers
Northwestern Indiana Regional Planning Commission
INDOT, LaPorte District Office, Environmental Coordinator
INDOT Utilities & Railroads Office
US Department of Agriculture, National Resources Conservation Service
Bethel Community Bible Church
Lake County Board of Commissioners
Lake County Highway Department
Lake County Drainage Board
Town of St. John Town Council
Town of St. John Floodplain Manager
Town of Cedar Lake Town Council
Town of Cedar Lake Town Manager

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

October 11, 2024

Sample Early Re-Coordination Letter

Re: Early Re-Coordination Letter
Des. No.: 1700025
US 41 Auxiliary Lanes (Two-Way Left Turn Lane), From US 231 to 3.25 Miles South of US 231
Lake County, Indiana

To whom it may concern:

Note: An early coordination letter for this project was initially distributed on April 20, 2021. The scope of this project has changed, and sufficient time has passed warranting the reissuance of an early coordination letter. See below for the most up-to-date project information.

The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration (FHWA), intends to proceed with a roadway improvement project along US 41 in Lake County (Des. No. 1700025).

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 Lake County, along US 41 from US 231 to 3.25 miles south of US 231, within the Town of St. John and the Town of Cedar Lake. Specifically, the project is located in Sections 4, 5, 8, 9, 16, 17, 20, 21, 28, and 29, Township 34 North, Range 9 West in Hanover Township as depicted on the St. John and Lowell U.S. Geological Survey 1:24,000 scale quadrangle maps. Adjacent land use consists of maintained and unmaintained roadside vegetation, wooded areas, natural areas, residential areas, and commercial areas.

US 41 is a north-south route functionally classified as Principal Arterial. The typical cross section of US 41 consists of four 12-foot-wide travel lanes, two in each direction, with 1-4-foot-wide paved outside shoulders. Right turn lanes are present along northbound US 41 at US 231 and W 133rd Ave. Right turn lanes are present along southbound US 41 at W 123rd Ave., W 124th Ave., and W 133rd Ave. A left turn lane is present along northbound US 41 at US 231. The posted speed limit within the project area varies from 35 to 55 miles per hour. Stop-controlled intersections are located at US 231 and West 133rd Avenue. Drainage is conveyed along US 41 via a series of concave drainage ditches, connected via culvert, which eventually drain toward an unnamed tributary to West Creek.

The need for the project is due to overall deficient safety performance along the corridor based on the occurrence of traffic accidents. Between 2013 and 2016, there were 80 crashes within the project limits. These crashes resulted in 10 fatal or incapacitating injury crashes, 22 non-incapacitating injury crashes, and 55 property damage only crashes. The purpose of the project is to improve the safety of the corridor; a crash analysis predicted the preferred alternative would reduce crashes by over 50% throughout the length of the project.

Previous ECL
The original ECL described proposed extension of a concrete box culvert carrying a tributary to West Creek under US 41. Work on this structure is no longer anticipated. The original ECL described proposed construction of a right turn lane on 129th Ave. The turn lane construction at 129th Ave. is no longer being considered as part of this project. The original ECL anticipated greater than 30 acres of total right-of-way (ROW) required for the project, including new permanent ROW, temporary ROW, and re-acquisition. As project development has continued, the total amount of ROW required has decreased.

Proposed Project
The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be 12 to 14 feet wide and would terminate near US 231 to the north and West 133rd Avenue to the south. In order to establish the TWLTL, US 41 will be widened in both directions through the length of the proposed construction area. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound US 41 at W 133rd Ave. Outside shoulders would be widened to 8 feet between W 125th Ave and US 231. Concrete curb and gutter will be added beginning north of W 135th Place and ending north of W 125th Ave. Driveways along US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at US 231 and W 133rd Place will be replaced. New drainage detention basins will be excavated along the US 41 roadway in some areas, though the locations have not yet been determined.

The maintenance of traffic (MOT) plan is expected to utilize phased construction to allow continued flow of traffic throughout construction. The MOT will be implemented per the *Manual on Uniform Traffic Control Devices (MUTCD)* guidelines. Construction is anticipated to begin in summer of 2026.

Right-of-Way (ROW)
Existing ROW extends approximately 45 to 80 feet east and west from the US 41 centerline. This project is anticipated to require approximately 18.7 acres of new permanent ROW, 0.7 acre of temporary ROW, and 6.1 acres of ROW re-acquisition. Approximately 3.5 acres of clearing will be required. No relocation of properties is anticipated. ROW and tree clearing acreages are not yet finalized.

Environmental Resources
A Red Flag Investigation (RFI) was performed within a 0.5-mile radius around the project area. Several "Red Flags" were identified, including religious facilities, cemeteries, recreational facilities, pipelines, railroads, trails, managed lands including Biesecker Prairie Nature Preserve, various water resources, and various hazardous material concerns; however, not all will impact the proposed project. These items will be monitored throughout project development.

Section 106 of the National Historic Preservation Act
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 project is expected to be eligible for evaluation under the Minor Projects Programmatic Agreement (MPPA) between INDOT, FHWA, State Historic Preservation Officer (SHPO), and the Advisory Council on Historic Preservation.

Range-wide Informal Programmatic Consultation
Lake County is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally endangered northern long-eared bat (NLEB) (*Myotis septentrionalis*). The project is anticipated to qualify

for the U.S. Fish and Wildlife Service (USFWS) Range-wide Programmatic Informal Consultation for the Indiana bat and the NLEB.

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. 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 (574) 334-5491 or at CHoogewerf@lochgroup.com. Additionally, should you want to contact the sponsor of this project, INDOT LaPorte District, please contact John Krueckeberg at (260) 348-1303 or at jkrueckeberg@indot.in.gov.

Thank you in advance for your input.

Sincerely,

Carson J. Hoogewerf
Environmental Specialist
Lochmueller Group, Inc.

Attachments:

- General Location Map
- USGS Topographic Map (1:24,000) *Removed to avoid duplication, Refer to Appendix B*
- Aerial Maps (2023)
- Red Flag Investigation Maps *Removed to avoid duplication, Refer to Appendix E*
- Photo Location Map and Project Photographs *Removed to avoid duplication, Refer to Appendix B*

Distribution List:

- Federal Highway Administration - Indiana Division
- National Park Service, Midwest Regional Office
- US Department of Agriculture, Natural Resources Conservation Service (Sent 10/11/24; 5/6/25)
- US Department of Housing and Urban Development, Chicago Regional Office
- US Army Corps of Engineers, Chicago District
- INDOT LaPorte District Office, Environmental Section Manager
- INDOT LaPorte District Office, Project Manager
- INDOT Environmental Services
- INDOT Utilities and Railroads
- Indiana Dept. of Natural Resources, Division of Fish and Wildlife
- Indiana Dept. of Natural Resources, Division of Nature Preserves
- Indiana Geological and Water Survey
- Northwest Indiana Regional Planning Commission
- Lake County Highway Department

- Lake County Board of Commissioners
- Lake County Drainage Board
- Lake County Council
- Lake County Surveyor
- Hanover Township Trustee, Lake County
- Lake County Sheriff Department
- Lake County 911 Department
- Lake County MS4 Coordinator
- Lake County Health Department
- Town of Cedar Lake Clerk-Treasurer
- Town of Cedar Lake Police Department
- Town of Cedar Lake Fire Department
- Town of Cedar Lake Town Council
- Town of Cedar Lake MS4 Coordinator
- Town of St. John Clerk-Treasurer
- Town of St. John Fire Department
- Town of St. John Police Department
- Town of St. John Town Council
- Town of St. John Floodplain Administrator
- Town of St. John MS4 Coordinator (Public Works)
- Hanover Community School Corporation
- Bethel Community Bible Church – Cedar Lake
- Lucky Brothers New Fuel Station
- Birchwood Farms
- Palmira Sub - Circuit 6906 Extension Phase 2
- 11127 Wicker Ave Self Storage
- Town of Cedar Lake Town Manager (Sent 12/10/24)
- Cedar Gardens Mobile Home Park (Sent 1/2/25)

Organization and Project Information

Organization Name: Lochmueller Group, Inc.

Last Name: Hoogewerf

Email: choogewerf@lochgroup.com

Address Line 2: Suite 500

State: IN

Destination Id: 1700025

Project Description: The proposed project is located in Lake County, along US 41 from US 231 to 3.25 miles south of US 231, within the Town of St. John and the Town of Cedar Lake. The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. Other work includes road widening, add raised center median, replace traffic signals, and new drainage facilities.

First Name: Carson

Phone: (574) 334-5491

Address Line 1: 112 W Jefferson Blvd

City: South Bend

Zip: 46601

Project Title: US 41 Roadway Project

Environmental Assessment Report

Geological Hazards:

1. Floodway
2. High liquefaction potential

Mineral Resources:

1. Bedrock Resource: High Potential
2. Sand and Gravel Resource: Low Potential

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: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: (812) 855-7428

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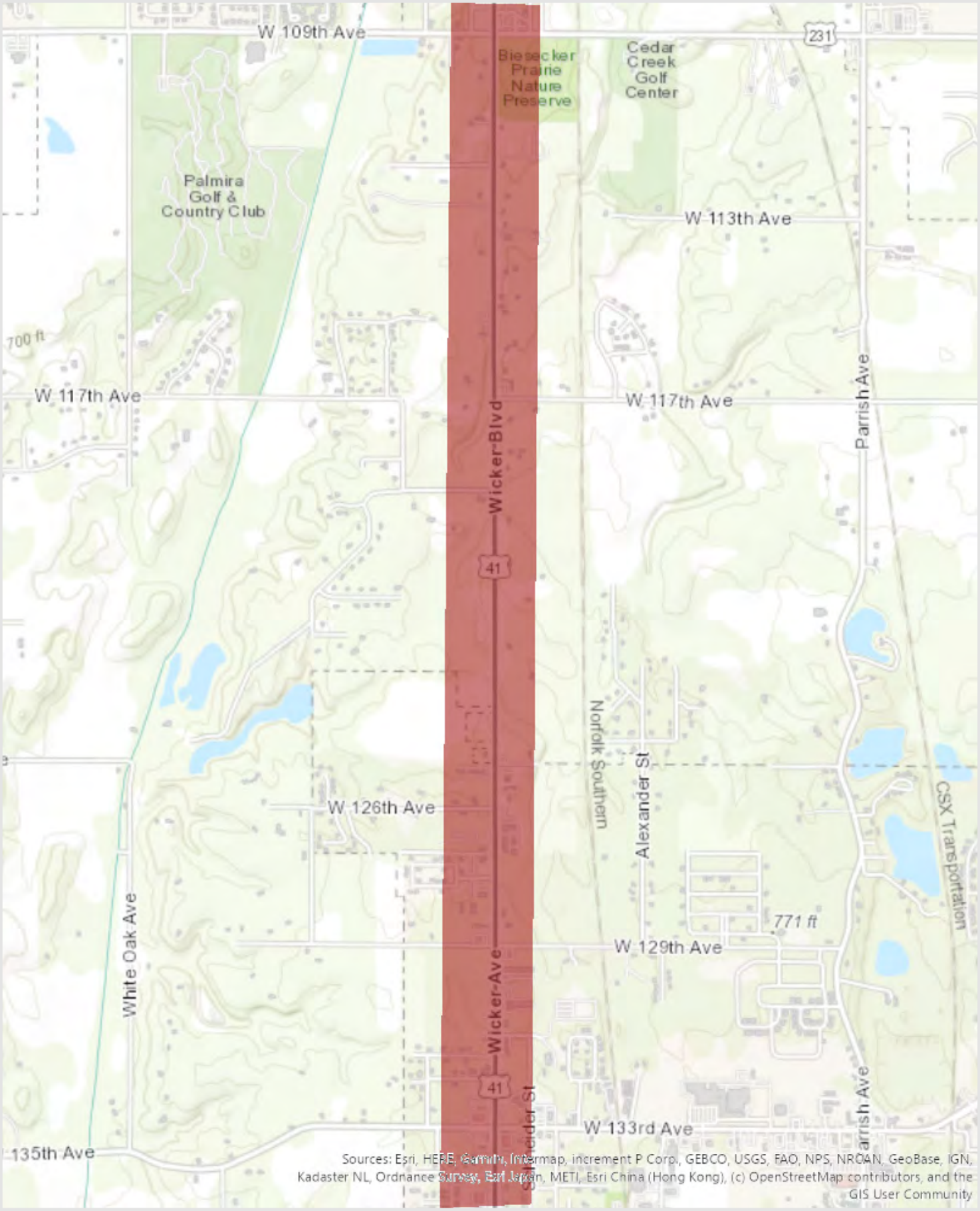

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Privacy Notice

James Landry

From: Swinford, Tom <tswinford@dnr.IN.gov>
Sent: Tuesday, April 20, 2021 9:37 AM
To: James Landry; Krueckeberg, John
Cc: CJ Cunningham; Michels, Stewart; Murray, Bridgette M; Stephan Summers; Beatty, Matthew; Wyrick, Matthew R; Davis, Taylor; Hellmich, Ron; Clark, Teresa L
Subject: RE: Early Coordination - Des. 1700025, US 41 Added Turn Lane
Attachments: Des. 1700025_US 41 Added Turn Lane - Early Coordination Package.pdf; Biesecker_AD_MP.pdf

James,

The proposed project is adjacent to Biesecker Nature Preserve, a State dedicated site, and a highly sensitive and important natural area. We have great concerns that this work may impact the nature preserve. We will be reviewing our dedication boundary carefully; there will be no take of the dedication possible.

I have attached the Articles of Dedication. Can you please share any easements that INDOT may hold?

Thank you,
Tom

Thomas O. Swinford
Asst Director
DNR Nature Preserves
317-697-5508 REMOTE WORK
317-233-4849

Coping with COVID-19:
•**Indiana State Dept. of Health (ISDH) COVID-19 Call Center:** Call 877-826-0011 (open 24/7)
•**Anthem NurseLine:** Call 800-337-4770 or visit the Anthem NurseLine online for a FREE symptom screening. Available to anyone with an Anthem health plan (this includes State of IN employees)
•**Anthem Employee Assistance Program (EAP):** Available to ALL state employees and adults in household regardless of health plan participation. Call 800-223-7723 or visit anthemeap.com (enter State of Indiana) for crisis counseling, help finding child/elder care, legal/financial consultation and much mo

dnr.IN.gov
Next Level Survey Link (https://www.surveymonkey.com/r/FLNDLW8)

From: James Landry <jlandry@troyergroup.com>
Sent: Tuesday, April 20, 2021 8:39 AM
To: Krueckeberg, John <JKrueckeberg@indot.IN.gov>
Cc: CJ Cunningham <cjc@troyergroup.com>; Michels, Stewart <SMichels@indot.IN.gov>; Murray, Bridgette M <BMurray@indot.IN.gov>; Stephan Summers <ssummers@troyergroup.com>
Subject: Early Coordination - Des. 1700025, US 41 Added Turn Lane

Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204-2739

May 12, 2021

James Troyer
The Troyer Group
3930 Edison Lakes Parkway
Mishawaka, IN 46545

Dear James Troyer:

I am responding to your request for information on the threatened or endangered (T&E) species, high quality natural communities, and natural areas for the Des No 1700025 US 41 Auxiliary Lane Project located in Lake County, Indiana. The Indiana Natural Heritage Data Center has been checked and included you will find a datasheet with information on the T&E species and significant areas documented within 0.5 mile of the project area.

The project site is adjacent to the State dedicated Biesecker Prairie Nature Preserve which is a property that is owned and managed by the DNR Division of Nature Preserves. Due to the proximity of the project to this State significant nature preserve, it is expected that all precautions are taken to not impact the systems and features protected therein. There will be no take of dedicated property for the purpose of a right-of-way adjacent to the Nature Preserve. Prior to any project disturbances adjacent to Biesecker Prairie Nature Preserve, please coordinate with Division of Nature Preserves Assistant Division Director Tom Swinford, tswinford@dnr.in.gov, and Regional Ecologist Matthew Beatty, MBeatty1@dnr.IN.gov.

For any high-quality natural communities located within or adjacent to the projected impact zone footprint, it is expected that all precautions are taken to not impact the systems and features protected therein. Additionally, best management practices for erosion and runoff should be utilized to minimize impacts to the habitats.

To protect any rare insect occurrences that are documented from within or adjacent to the projected impact zone footprint, it is preferred that project work occur outside of peak wildlife nesting season: May, June, and July. The remaining rare insect occurrences do not occur precisely at the project site. Therefore, if project activities are limited to only within the proposed project area, no impacts are expected on these occurrences.

To protect any T&E vascular plant occurrences that are documented from within or adjacent to the projected impact zone footprint, surveys should be conducted by qualified personnel for the species prior to work zones being occupied or equipment movement within. If species are identified the area should be flagged and taped off to lessen the possibility of impact to the T&E species. If none of the reported species are identified in the project footprint, or they are identified and protected, then no impact is expected on the T&E plant species documented. For the remaining T&E vascular plant occurrences that are historical or do not occur precisely

at the project site, no impacts are expected on these occurrences if project activities are limited to only within the proposed project area.

If you need a review of the impacts to the animal species mentioned or a general environmental review, you can submit the project information to Christie Stanifer, DNR Environmental Coordinator, at environmentalreview@dnr.in.gov (preferred), or send to the street address below. For more help or guidance contact Christie Stanifer at cstanifer@dnr.in.gov.

Department of Natural Resources
Environmental Review
Division of Fish and Wildlife
402 W. Washington Street, Room W273
Indianapolis, IN 46204

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. If you have concerns about potential Endangered Species Act issues you should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
812-334-4261

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)233-2558 if you have any questions or need additional information.

Sincerely,

Taylor Davis

Taylor Davis
Indiana Natural Heritage Data Center

May 12, 2021

INDIANA HERITAGE DATA WITHIN 0.5 MILE OF:

Des No 1700025 US 41 Auxiliary Lane Project, Lake County

Sci. Name	Com. Name	State	Fed.	Date	Site
Amphibian					
Ambystoma laterale	blue-spotted salamander	SSC		2000	BIESECKER PRAIRIE NP
Bird					
Pandion haliaetus	Osprey	SSC		2018	BIESECKER NATURE PRESERVE - NW OF CEDAR LAKE - CELL TOWER
High Quality Natural Community					
Prairie - dry-mesic	Dry-mesic Prairie	SG		2017	BIESECKER PRAIRIE NATURE PRESERVE
Prairie - mesic	Mesic Prairie	SG		2017	BIESECKER PRAIRIE NATURE PRESERVE
Insect - Homoptera					
Bruchomorpha dorsata	dorsal-striped elephant hopper	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Bruchomorpha oculata	eyed elephant hopper	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Flexamia reflexus	Indiangrass Flexamia	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Paraphlepsius lobatus	Lobed Paraphlepsius Leafhopper	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Polyamia caperata	Little Bluestem Polyamia	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Prairiana kansana	The Kansas Prairie Leafhopper	SE		2005	BIESECKER PRAIRIE NATURE PRESERVE
Prosapia ignipectus	Red-legged Spittle Bug	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Insect Hymenoptera					
Lasius flavus				2008	BIESECKER PRAIRIE NP
Insect Lepidoptera					
Acronicta funeralis	Funerary Dagger Moth	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Ancylis semiovana	New Jersey tea leaf-tier	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Dargida rubripennis	the pink streak	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Erynnis martialis	Mottled Duskywing	WL		2005	BIESECKER PRAIRIE NATURE PRESERVE
Eucosma bilineana	two-striped sunflower	SR		2005	BIESECKER PRAIRIE NATURE

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; WL = watch list; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
	borer				PRESERVE
Eucosma giganteana	giant silphium Eucosma	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Euphyes bimacula	Two-spotted Skipper	ST		1995	BIESECKER PRAIRIE NATURE PRESERVE
Hesperia leonardus	Leonard's Skipper	SR		1989	BIESECKER PRAIRIE NATURE PRESERVE
Hypocoena inquinata	Tufted Sedge Moth	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Leucania amygdalina	Salt Marsh Wainscot	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Leucania inermis	unarmed wainscot	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Macrochilo absorptalis	Slant-lined Owlet	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Macrochilo louisiana	Louisiana Macrochilo	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Nola cilicoides	Blurry-patched Nola Moth	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Papaipema beeriana	Beer's Blazing Star Borer Moth	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Papaipema sciata	The Culver's Root Borer	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Papaipema silphii	Silphium Borer Moth	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Photedes enervata	the many-lined cordgrass moth	SE		2005	BIESECKER PRAIRIE NATURE PRESERVE
Photedes includens	the included cordgrass borer	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Ponometia binocula	prairie tarachidia	ST		2005	BIESECKER PRAIRIE NATURE PRESERVE
Problema byssus	Bunchgrass Skipper	ST		1989	BIESECKER PRAIRIE NATURE PRESERVE
Schinia septentrionalis	Northern Flower Moth	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Sonia fulminana	smokey Sonia moth	SR		2005	BIESECKER PRAIRIE NATURE PRESERVE
Speyeria idalia	Regal Fritillary	SE	C	1989	BIESECKER PRAIRIE NATURE PRESERVE
Reptile					
Opheodrys vernalis	smooth green snake	SE		2020	BIESECKER PRAIRIE NATURE PRESERVE
Thamnophis radix	plains garter snake	SSC		2007	BIESECKER PRAIRIE NP
Vascular Plant					

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; WL = watch list; no rank - not ranked but tracked to monitor status

Sci. Name	Com. Name	State	Fed.	Date	Site
Agalinis auriculata	earleaf foxglove	ST		1997	BIESECKER PRAIRIE NATURE PRESERVE
Asclepias meadii	Mead's milkweed	SRE	T	2020	BIESECKER PRAIRIE NP
Carex trichocarpa	hairy-fruit sedge	WL		2007	BIESECKER PRAIRIE NP
Cirsium hillii	Hill's thistle	SE		2020	BIESECKER PRAIRIE NATURE PRESERVE
Gentiana puberulenta	downy gentian	SE		2013	BIESECKER PRAIRIE NATURE PRESERVE
Linum sulcatum	grooved yellow flax	ST		1978	BIESECKER PRAIRIE NATURE PRESERVE

Fed: E = Federal endangered; T = Federal threatened; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; WL = watch list; no rank - not ranked but tracked to monitor status

May 23, 2024

Ashley Taylor
Lochmueller Group
7223 Engle Road, Suite 105
Fort Wayne, IN 4680

Biesecker Prairie Nature Preserve US 41 widening, requested road easement, March 2024

Plans for widening US 41 to allow for a left turn lane for north traveling traffic. US 41 runs along the west side of Biesecker Prairie Nature Preserve. There is an existing highway right-of-way ("ROW") easement for most of the length of Biesecker Prairie, but it was determined by Michael Baker International that there was no ROW easement at the south end of the preserve. A new ROW easement request has been submitted to the Indiana Department of Natural Resources ("DNR") Division of Nature Preserves on behalf of the Indiana Department of Transportation to facilitate the road widening.

DNR Division of Nature Preserves recommends allowing the easement for the existing roadway pavement area and declining the additional easement that would extend past the existing pavement area for the following reasons:

1. The Articles of Dedication and Master Plan prohibits the granting of additional easements, Master Plan Section 4d, unless following Nature Preserves Act for an imperative and unavoidable public necessity (IC 14-31-1-15(c)).
2. This affected area, though lower in natural area quality, is still an integral part of the preserve. Matt Beatty, DNP Regional Ecologist, is performing restoration work there to increase the quality of that area.
3. Biesecker Prairie has been recognized as a significant natural area for over sixty (60) years and provides a large block ecosystem area for the conservation of pollinator species, like bees and butterflies. This high-quality remnant black soil prairie hosts an impressive diversity of native fauna and flora, including a reintroduction of a federal threatened species, *Asclepias meadii*, Mead's milkweed. Dr. Rob Jean, a biologist with Environmental Solutions, Inc., and an expert on the bee species of Indiana, recognizes Biesecker Prairie as a high conservation value area for bee species.
4. The area around Biesecker Prairie is becoming highly developed. The granting of this easement has the potential to lead to requests for future concessions.

5. There are utility lines, including electric and natural gas, existing in the requested easement area. While these utility lines are covered by the Articles of Dedication's exclusion of existing uses, we have concerns about these lines having to be moved farther into the preserve if the US 41 roadway was widened.

Sincerely,

Ronald P. Hellmich

Ronald P. Hellmich
Indiana Department of Natural Resources
Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204

02/28/2025

Ken Hasselkus
Indiana Department of Transportation

RE: Biesecker Prairie Nature Preserve

Mr. Hasselkus:

The Division of Nature Preserves has completed our review of the US 41 project at Biesecker Prairie Nature Preserve, Lake County, Indiana. The Indiana Department of Natural Resources, Division of Nature Preserves will honor the apparent right of way for US 41 as noted on Lake County roadway maps, dated 1928, as provided for our inspection, up to the utility poles and monument markers.

Our preferred work option is Alternative 1, providing that no construction activities occur beyond the utility poles. INDOT should consult with Matthew Beatty and Andrew Reuter of the IDNR Division of Nature Preserves as appropriate to discuss project activities and post construction site restoration.

Sincerely,

Ronald P. Hellmich

Ronald P. Hellmich, Director
IDNR Division of Nature Preserves

CC: Matthew Beatty, Regional Ecologist; Andrew Reuter, Assistant Director

James Landry

From: Rick Eberly <rick.eberly@cedarlakein.org>
Sent: Thursday, April 22, 2021 11:59 AM
To: James Landry
Subject: US 41 road project

James,

Regarding DES #1700025 US41 Auxiliary Lanes from US 231 to 3.25 miles south of US 231…my only environmental comment would be that I would hope that INDOT is planning to remedy any storm water drainage issues within the ROW of the project with the limit of the town of Cedar Lake.

Rick Eberly
Cedar Lake Town Manager
7408 Constitution Avenue
Cedar Lake, IN 46303
Email: rick.eberly@cedarlakein.org
Phone: 219-374-7400 Ext. 119

THIS IS NOT A PERMIT

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

DNR #: ER-23656 **Request Received:** April 20, 2021

Requestor:
The Troyer Group Inc.
James Landry
3930 Edison Lakes Parkway
Mishawaka, IN 46545

Project: US 41 added turn lanes from US 231 to 3.25 miles south, and small structure extension over UNT West Creek; Des #1700025

County/Site info: Lake

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) Bank Stabilization:
Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba.

Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife

Attachments: A - Bridge Exemption Criteria

passage under the structure compared to the current conditions.

2) 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: http://iac.iga.in.gov/iac/20200527-IR-312200284NRA.xml.pdf.

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

3) 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 and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

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 with a mixture of grasses (excluding all varieties of tall fescue) and legumes native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. Turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only.
2. Minimize and contain within the project limits inchannel disturbance and the clearing 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 excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
10. Minimize the movement of resuspended bottom sediment from the immediate project area.
11. Do not deposit or allow demolition/construction materials or debris to fall or

Attachments: A - Bridge Exemption Criteria

otherwise enter the waterway.
12. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
13. 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.
14. Do not excavate or place fill in any riparian wetland.

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:** May 19, 2021

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

Attachments: A - Bridge Exemption Criteria

Carson Hoogewerf

From: DNR Environmental Review <environmentalreview@dnr.IN.gov>
Sent: Tuesday, October 15, 2024 1:45 PM
To: Carson Hoogewerf
Cc: Stew Michels; John Krueckeberg; C.J. Cunningham; Wilcox, Mitchell R
Subject: RE: Des. No. 1700025- US 41 Roadway Project - Early Coordination Letter [ER-23656]

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL

Hi Carson,
The changes proposed to this project are minimal and therefore, our previous recommendations should be sufficient.
Please let me know if you have any questions. Thanks for keeping us updated.

Kind regards,

Elizabeth Adkins (she/her)
Environmental Review Biologist
Indiana Department of Natural Resources
Division of Fish & Wildlife: Environmental Unit
EAdkins@dnr.IN.gov
dnr.IN.gov/fish-and-wildlife

From: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Sent: Friday, October 11, 2024 8:49 AM
Cc: Michels, Stewart <SMichels@indot.IN.gov>; Krueckeberg, John <JKrueckeberg@indot.IN.gov>; C.J. Cunningham <CCunningham@lochgroup.com>; Wilcox, Mitchell R <mitchell.wilcox@mbakerintl.com>
Subject: Des. No. 1700025- US 41 Roadway Project - Early Coordination Letter

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Good morning,

Please find attached the environmental early coordination letter for an upcoming roadway project located along US 41 in Lake County, Indiana (INDOT Des. No. 1700025). Please review the attached letter and contact me with any comments, questions, or concerns you may have about the project.

Thank you,

LOCHMUELLER GROUP

Carson Hoogewerf
Environmental Specialist II
Lochmueller Group
112 W Jefferson Blvd, Suite 500, South Bend, IN 46601

Carson Hoogewerf

From: Carson Hoogewerf
Sent: Tuesday, November 5, 2024 8:59 AM
To: Duane Alverson
Cc: Wilcox, Mitchell; Ned Kovachevich; Steve Nigro; Peggy J. Sierzputowski; John Krueckeberg; C.J. Cunningham; Ashley Taylor
Subject: RE: DEs. No.: 1700025 US 41 Auxiliary Lanes US 231 south 3.25 miles

Dear Mr. Alverson,

Thank you for your early coordination response regarding the US 41 Auxiliary Lanes project (Des. No. 1700025). Your message was provided to the project design team and was discussed with the INDOT project manager and INDOT district traffic engineer. A review of existing crash data at the intersections did not indicate a need for additional lighting or lane reconfigurations, therefore additional lighting and reconfiguration is currently not planned for the 117th and 119th intersections. However, dedicated left-turn lanes and updated pavement markings with modern reflectivity will be constructed at each intersection, which will greatly improve safety.

If you have any additional questions or concerns, please reach out to me or to the design project manager, Mitchell Wilcox (mitchell.wilcox@mbakerintl.com).

Best Regards,

LOCHMUELLER GROUP

Web: http://lochgroup.com

Carson Hoogewerf
Environmental Specialist II
Lochmueller Group
112 W Jefferson Blvd, Suite 500, South Bend, IN 46601
Email: CHoogewerf@lochgroup.com
Direct: 574.334.5491
Mobile: 219.789.4661

This e-mail message is for the sole use of the intended recipient(s), and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient(s), please contact the sender by reply e-mail and destroy all copies of the original message. Thank you!

From: Duane Alverson <alverda@lakecountyin.org>
Sent: Monday, October 21, 2024 9:23 AM
To: Carson Hoogewerf <CHoogewerf@lochgroup.com>
Cc: Ned Kovachevich <kovacnx@lakecountyin.org>; Steve Nigro <nigrosx@lakecountyin.org>; Peggy J. Sierzputowski <sierzpj@lakecountyin.org>; John Krueckeberg <jkrueckeberg@indot.in.gov>
Subject: DEs. No.: 1700025 US 41 Auxiliary Lanes US 231 south 3.25 miles

EXTERNAL

Carson

Thank you for the Early RE-Coordination letter

My concerns are the visibility issues for the intersections of 117th and 119th Avenues. This was discussed at the previous stakeholders meetings, please see attached. Are there proposed improvements for these intersections?

Regards

Refer to Appendix G, G3 to G4 for summary of stakeholder meeting.

Duane A. Alverson, PE
Engineer

Lake County Highway Department
1100 East Monitor Street
Crown Point, IN 46307
Phone 219-663-0525
alverda@lakecountyin.org

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

May 13, 2025

Ashley Taylor
1690 Broadway Street, Building 19, Suite 410
Fort Wayne, Indiana 46802
Ashley.Taylor@lochgroup.com

Only the most recent correspondence pertaining to the current ROW areas was included within the CE attachments.

Dear Ashley Taylor:

The US 41 Roadway project in Lake County, Indiana. (Des. No. 1700025) as referred to in your letter received on May 6, 2025, 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: 2025.05.13 14:16:54 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosers

USDA is an equal opportunity provider, employer, and lender.

The amount of farmable land is much less since a large portion of the area is urban development.

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 5/6/2025
Name of Project US 41 Roadway Project	Federal Agency Involved FHWA
Proposed Land Use Transportation	County and State Lake County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 5/6/25 / Person Completing Form: JRA

Does the site 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 ☐	Acres Irrigated	Average Farm Size 356 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 274726% 85	Amount of Farmland As Defined in FPPA Acres: 23103% 71	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	18.9			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	18.9			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	1.51			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	58			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	76			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	3			
2. Perimeter In Non-urban Use	(10)	5			
3. Percent Of Site Being Farmed	(20)	0			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	0			
7. Size Of Present Farm Unit Compared To Average	(10)	0			
8. Creation Of Non-farmable Farmland	(10)	0			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	5			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	0			
TOTAL SITE ASSESSMENT POINTS	160	18	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	76	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	18	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	94	0	0	0

Site Selected: Site A	Date Of Selection 06/04/2025	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Site A was selected because it had the lowest impacts to farmland while meeting the purpose and need of the project.

Name of Federal agency representative completing this form: Ashley Taylor (on behalf of FHWA)	Date: 06/04/2025

(See Instructions on reverse side) **Form AD-1006 (03-02)**

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: 01/14/2026 19:56:38 UTC
Project Code: 2024-0040263
Project Name: Des. No. 1700025 - US 41, Roadway Project, Lake County

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:

To Whom It May Concern:

The purpose of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), 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.

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 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 Act.

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 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. You can complete this verification formally or informally or request an updated list by visiting the IPaC website at regular intervals during project planning and implementation.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at Midwest Section 7 Technical Assistance | U.S. Fish & Wildlife Service. This website contains step-by-step instructions to help you determine if your project will have an adverse effect on listed species and to lead you through the Section 7 process.?

We appreciate your concern for threatened and endangered species. Federal agencies should 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.

Other Trust Resources and Activities?

Bald and Golden Eagles?- Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a?permit. A?nest take permit?is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.?

Migratory Birds?- The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of?recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.?

Communication Towers?- Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed? voluntary guidelines for minimizing impacts.?

Transmission Lines?- Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please?refer to?guidelines? developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.?

Wind Energy?- To minimize impacts to migratory birds and bats, wind energy projects should follow the Service’s?Wind Energy Guidelines. In addition, please refer to the Service's?Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

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: 2024-0040263
Project Name: Des. No. 1700025 - US 41, Roadway Project, Lake County
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration, intends to proceed with a roadway project along United States Highway (US) 41 in Lake County, Indiana (Des. No. 1700025). The proposed project is located in Lake County, along US 41 from US 231 to 3.25 miles south of US 231, within the Towns of St. John and Cedar Lake.

The typical cross section of US 41 consists of four 12-foot-wide travel lanes, two in each direction, with 1- to 4-foot-wide paved outside shoulders. Right turn lanes are present along northbound (NB) US 41 at US 231 and W 133rd Ave. Right turn lanes are present along southbound (SB) US 41 at W 123rd Ave., W 124th Ave., and W 133rd Ave. A left turn lane is present along NB US 41 at US 231.

The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be 12-14 feet wide and would terminate near US 231 to the north and W 133rd Ave. to the south. In order to establish the TWLTL, US 41 will be widened in both directions through the length of the proposed project area. Dedicated left turn lanes and raised concrete center medians will be added to NB and SB US 41 at W 133rd Ave. Outside shoulders would be widened to 8 feet between W 125th Ave. and US 231. Concrete curb and gutter will be added beginning north of W 135th Pl. and ending north of W 125th Ave. Driveways along US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at US 231 and W 133rd Pl. will be replaced. New drainage detention basins will be excavated along the US 41 roadway in some areas, though the locations have not yet been determined. Numerous small culverts (<36” diameter) are present throughout the corridor and may be replaced and/or extended, as necessary. Six large culverts (≥36” diameter) are present including CV 041-045-256.70, CV 041-045-257.55, CLV-9687, and three unnamed large driveway culverts. One large driveway culvert will be replaced in-kind. One large driveway culvert and CLV-9687 will be extended.

The maintenance of traffic (MOT) plan is expected to utilize phased construction to allow continued flow of traffic during construction. Existing permanent lighting will be replaced in-kind as part of the utility relocation. Use of temporary lighting may be necessary if night work is required. Construction is anticipated to begin in fall of 2026.

Additionally, new permanent lighting will be installed in the northwest, southwest, and southeast quadrants of U.S. 41 and W. 133rd Avenue. The existing permanent lighting in the northeast quadrant will be replaced.

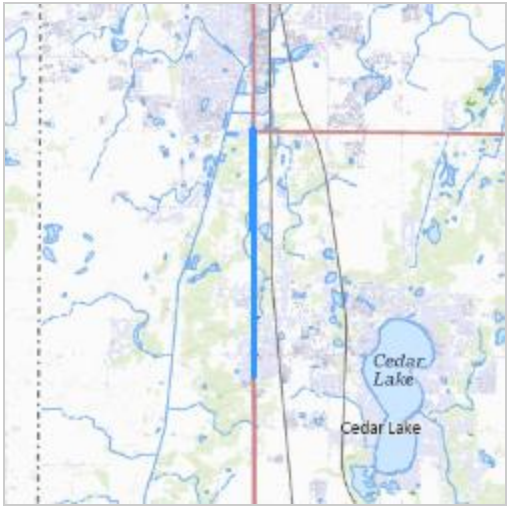
The project will require acquisition of 24.8 acres of permanent right-of-way (ROW) including 18.7 acres of new permanent ROW and 6.1 acres of reacquired ROW to complete the proposed widening necessary to incorporate the TWLTL. Additionally, the project will require 0.7 acres of temporary ROW to reconstruct driveways.

Approximately 3.5 acres of tree clearing will be necessary throughout the corridor. Dominant tree species to be removed includes Eastern cottonwood (Populus deltoides), black locust (Robinia pseudoacacia), shagbark hickory (Carya ovata), white oak (Quercus alba), bur oak (Quercus macrocarpa), white spruce (Picea glauca), white mulberry (Morus alba), silver maple (Acer saccharinum), Siberian elm (Ulmus pumila), black walnut (Juglans nigra), green ash (Fraxinus pennsylvanica), American elm (Ulmus americana), sandbar willow (Salix interior), pin oak (Quercus palustris), and box elder maple (Acer negundo). All tree clearing will occur within 100 ft. of the existing roadway and will take place during the bat inactive season (10/1/26 to 3/31/27).

A review of the USFWS database was initially completed 6/13/20 and reaffirmed on 1/23/24 by INDOT LaPorte District. The USFWS database did not indicate the presence of endangered bat species or their hibernacula within 0.5 mile of the project area. An inspection of the affected structures by Lochmueller Group staff occurred on 5/30/24, 6/10/24, and 6/12/24, 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/@41.3973934,-87.47003649424244,14z



Counties: Lake County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 9 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.

---

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
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	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

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened
Rusty Patched Bumble Bee *Bombus affinis* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9383	Endangered
Western Regal Fritillary *Argynnis idalia occidentalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

FLOWERING PLANTS

NAME	STATUS
Eastern Prairie Fringed Orchid *Platanthera leucophaea*	Threatened

NAME	STATUS
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/601	
Mead's Milkweed *Asclepias meadii* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8204	Threatened

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.

BALD & GOLDEN EAGLES

Bald and Golden Eagles are protected under the Bald and Golden Eagle Protection Act [2] and the Migratory Bird Treaty Act (MBTA) [1]. Any person or organization who plans or conducts activities that may result in impacts to Bald or Golden Eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate avoidance and minimization measures, as described in the various links on this page.

---

1. The Bald and Golden Eagle Protection Act of 1940.
2. The Migratory Birds Treaty Act of 1918.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are Bald Eagles and/or Golden Eagles in your project area.

Measures for Proactively Minimizing Eagle Impacts

For information on how to best avoid and minimize disturbance to nesting bald eagles, please review the National Bald Eagle Management Guidelines. You may employ the timing and activity-specific distance recommendations in this document when designing your project/ activity to avoid and minimize eagle impacts. For bald eagle information specific to Alaska, please refer to Bald Eagle Nesting and Sensitivity to Human Activity.

The FWS does not currently have guidelines for avoiding and minimizing disturbance to nesting Golden Eagles. For site-specific recommendations regarding nesting Golden Eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

If disturbance or take of eagles cannot be avoided, an incidental take permit may be available to authorize any take that results from, but is not the purpose of, an otherwise lawful activity. For assistance making this determination for Bald Eagles, visit the Do I Need A Permit Tool. For assistance making this determination for golden eagles, please consult with the appropriate Regional Migratory Bird Office or Ecological Services Field Office.

Ensure Your Eagle List is Accurate and Complete
If your project area is in a poorly surveyed area in IPaC, your list may not be complete and you may need to rely on other resources to determine what species may be present (e.g. your local FWS field office, state surveys, your own surveys). Please review the Supplemental Information on Migratory Birds and Eagles, to help you properly interpret the report for your specified location, including determining if there is sufficient data to ensure your list is accurate.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to bald or golden eagles on your list, see the "Probability of Presence Summary" below to see when these bald or golden eagles are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

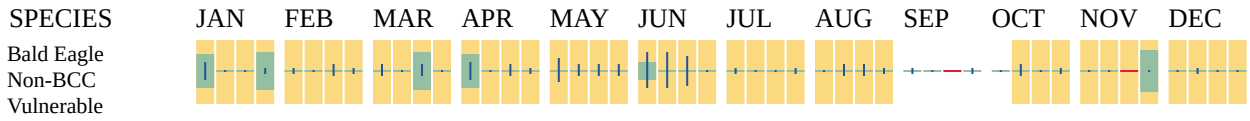
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort – no data



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

MIGRATORY BIRDS

The Migratory Bird Treaty Act (MBTA) [1] prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service (Service).

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the "Probability of Presence Summary" below to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
American Golden-plover *Pluvialis dominica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561	Breeds elsewhere
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31

NAME	BREEDING SEASON
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25
Hudsonian Godwit *Limosa haemastica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9482	Breeds elsewhere
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Pectoral Sandpiper *Calidris melanotos* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561	Breeds elsewhere
Red-headed Woodpecker *Melanerpes erythrocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398	Breeds May 10 to Sep 10
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431	Breeds May 10 to Aug 31

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "Supplemental Information on Migratory Birds and Eagles", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

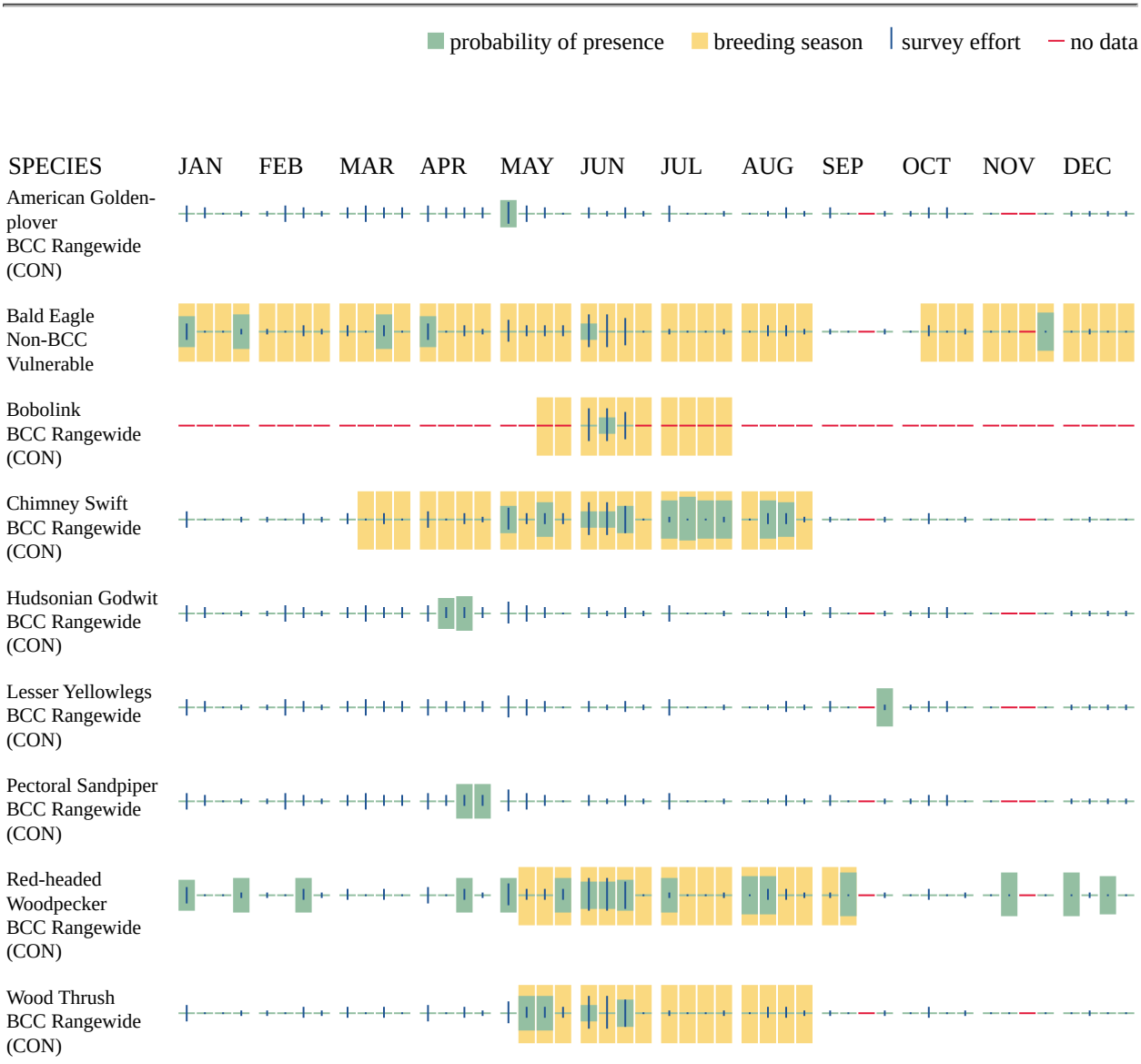
Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (–)
A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide avoidance and minimization measures for birds
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R2UBHx
- R2UBFx
- R2UBH

FRESHWATER FORESTED/SHRUB WETLAND

- PSS1A
- PSS1C
- PFO1/SS1A
- PFO1A

FRESHWATER EMERGENT WETLAND

- PEM1C
- PEM5C

IPAC USER CONTACT INFORMATION

Agency: Lochmueller Group
Name: Ashley Taylor
Address: 7223 Engle Road
Address Line 2: Suite 105
City: Fort Wayne
State: IN
Zip: 46804
Email ashley.taylor@lochgroup.com
Phone: 2603993621

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

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: 10/04/2024 20:17:53 UTC
Project code: 2024-0040263
Project Name: Des. No. 1700025 - US 41, Roadway Project, Lake County

Subject: Concurrence verification letter for the 'Des. No. 1700025 - US 41, Roadway Project, Lake County' 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 October 04, 2024 to verify that the **Des. No. 1700025 - US 41, Roadway Project, Lake County** (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:

- Mead's Milkweed *Asclepias meadii* Threatened
- Monarch Butterfly *Danaus plexippus* Candidate
- Rusty Patched Bumble Bee *Bombus affinis* Endangered
- Salamander Mussel *Simpsonaias ambigua* Proposed Endangered
- Western Regal Fritillary *Argynnis idalia occidentalis* Proposed Threatened
- 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. 1700025 - US 41, Roadway Project, Lake County

DESCRIPTION

The Indiana Department of Transportation (INDOT) LaPorte District, with funding from the Federal Highway Administration, intends to proceed with a roadway project along United States Highway (US) 41 in Lake County, Indiana (Des. No. 1700025). The proposed project is located in Lake County, along US 41 from US 231 to 3.25 miles south of US 231, within the Towns of St. John and Cedar Lake.

The typical cross section of US 41 consists of four 12-foot-wide travel lanes, two in each direction, with 1- to 4-foot-wide paved outside shoulders. Right turn lanes are present along northbound (NB) US 41 at US 231 and W 133rd Ave. Right turn lanes are present along southbound (SB) US 41 at W 123rd Ave., W 124th Ave., and W 133rd Ave. A left turn lane is present along NB US 41 at US 231.

The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be 12-14 feet wide and would terminate near US 231 to the north and W 133rd Ave. to the south. In order to establish the TWLTL, US 41 will be widened in both directions through the length of the proposed project area. Dedicated left turn lanes and raised concrete center medians will be added to NB and SB US 41 at W 133rd Ave. Outside shoulders would be widened to 8 feet between W 125th Ave. and US 231. Concrete curb and gutter will be added beginning north of W 135th Pl. and ending north of W 125th Ave. Driveways along US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at US 231 and W 133rd Pl. will be replaced. New drainage detention basins will be excavated along the US 41 roadway in some areas, though the locations have not yet been determined. Numerous small culverts (<36” diameter) are present throughout the corridor and may be replaced and/or extended, as necessary. Six large culverts (≥36” diameter) are present including CV 041-045-256.70, CV 041-045-257.55, CLV-9687, and three unnamed large driveway culverts. One large driveway culvert will be replaced in-kind. One large driveway culvert and CLV-9687 will be extended.

The maintenance of traffic (MOT) plan is expected to utilize phased construction to allow continued flow of traffic during construction. Existing permanent lighting will be replaced in-kind as part of the utility relocation. Use of temporary lighting may be necessary if night work is required. Construction is anticipated to begin in fall of 2026.

The project will require acquisition of 24.8 acres of permanent right-of-way (ROW) including 18.7 acres of new permanent ROW and 6.1 acres of reacquired ROW to complete

Additionally, new permanent lighting will be installed in the northwest, southwest, and southeast quadrants of U.S. 41 and W. 133rd Avenue. The existing permanent lighting in the northeast quadrant will be replaced.

the proposed widening necessary to incorporate the TWLTL. Additionally, the project will require 0.7 acres of temporary ROW to reconstruct driveways.

Approximately 3.5 acres of tree clearing will be necessary throughout the corridor. Dominant tree species to be removed includes Eastern cottonwood (Populus deltoides), black locust (Robinia pseudoacacia), shagbark hickory (Carya ovata), white oak (Quercus alba), bur oak (Quercus macrocarpa), white spruce (Picea glauca), white mulberry (Morus alba), silver maple (Acer saccharinum), Siberian elm (Ulmus pumila), black walnut (Juglans nigra), green ash (Fraxinus pennsylvanica), American elm (Ulmus americana), sandbar willow (Salix interior), pin oak (Quercus palustris), and box elder maple (Acer negundo). All tree clearing will occur within 100 ft. of the existing roadway and will take place during the bat inactive season (10/1/26 to 3/31/27).

A review of the USFWS database was initially completed 6/13/20 and reaffirmed on 1/23/24 by INDOT LaPorte District. The USFWS database did not indicate the presence of endangered bat species or their hibernacula within 0.5 mile of the project area. An inspection of the affected structures by Lochmueller Group staff occurred on 5/30/24, 6/10/24, and 6/12/24, and there was no evidence of bats.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@41.3973934,-87.47003649424244,14z

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?

    No

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

    - *Des No 1700025 - Bat Inspection Summary Table - 2024 Inspection.pdf https://ipac.ecosphere.fws.gov/project/PVN7NULBCZHBHJBPYKM7PV76UY/projectDocuments/150049158*

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 new or replace existing **permanent** lighting?

    Yes

33. Is there *any* suitable habitat **within** 1,000 feet of the location(s) where **permanent** lighting 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?

    No

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

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

    Yes

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

    No

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

    Automatically answered

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

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

    Automatically answered

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

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

    Automatically answered

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

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

    Automatically answered

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

41. **General AMM 1**

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

    Yes

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

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

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

Yes

43. **Tree Removal AMM 3**
Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

44. **Tree Removal AMM 4**
Can the project avoid cutting down/removal of *all* (1) **documented**[1] Indiana bat or NLEB roosts[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

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

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

Yes

45. **Lighting AMM 1**
Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

Yes

46. **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

47. **Lighting AMM 2**
    Will the **permanent** lighting 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. Please describe the proposed bridge work:

   Numerous small culverts (<36” diameter) are present throughout the corridor and may be replaced and/or extended, as necessary. Six large culverts (≥36” diameter) are present including CV 041-045-256.70, CV 041-045-257.55, CLV-9687, and three unnamed large driveway culverts. One large driveway culvert will be replaced in-kind. One large driveway culvert and CLV-9687 will be extended.
2. Please state the timing of all proposed bridge work:

   Fall 2026
3. Please enter the date of the bridge assessment:

   5/30/24, 6/10/24, & 6/12/24
4. Have you made a No Effect determination for *all* other species indicated on the FWS IPaC generated species list?

   No
5. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?

   Yes
6. 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.

   3.5

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: Stewart Michels
Address: 315 East Boyd Blvd.
City: LaPorte
State: IN
Zip: 46350
Email smichels@indot.in.gov
Phone: 2193257560

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

You have indicated that your project falls under or receives funding through the following special project authorities:

- BIPARTISAN INFRASTRUCTURE LAW (BIL) (OTHER)

Inspected Structures Summary Table														
Des Number	**Structure No. on Plans**	**INDOT Structure No.**	**Structure Type**	**Structure Material**	**Size (in)**	**Length (ft)**	**Location**	**GPS Coordinates**	**Waterbody**	**Date of Inspection**	**Evidence of Bats**	**Evidence of Birds**	**Work Type**	**Reason**
1700025	578-1	CV 041-045-256.70	Culvert	RCP	60	98	U.S. 41	41.39648, -87.46995	Connects Wetland T and Wetland U	6/12/2024	No	No	No Work Proposed	Roadway Design Avoids Extension
1700025	607	N/A; Driveway Pipe	Culvert	Conc. Box Culvert	48	27	U.S. 41	41.409124, -87.470222	UNT 1 to West Ditch	6/10/2024	No	No	No Work Proposed	96" x 48" Box Culvert under a drive
1700025	608	CV 041-045-257.55	Culvert	Conc. Box Culvert	144x60	110	U.S. 41	41.40877, -87.47009	UNT 1 to West Ditch	6/10/2024	No	No	No Work Proposed	Large Box Culvert. Skewed to U.S. 41
1700025	609	N/A; Driveway Pipe	Culvert	Conc. Box Culvert	36X24	26	U.S. 41	41.409124, -87.470222	Connects Wetland K	6/10/2024	No	No	Replace In-Kind	Drive Pipe. Parallel to U.S. 41.
1700025	633	N/A; Driveway Pipe	Culvert	CMP	36	24	U.S. 41	41.420694, -87.470263	Roadside Ditch 2	5/30/2024	No	No	Extend for Widening	Drive Pipe. Parallel to U.S. 41.
1700025	634	CLV-9687	Culvert	RCP	36X24	102	U.S. 41	41.421175, -87.470289	Connects Wetlands A and D	5/30/2024	No	No	Extend for Widening	Perpendicular to U.S. 231

Legend
RCP = Reinforced Concrete Pipe
CMP = Corrugated Metal Pipe
CPP = Concrete Pressure Pipe
PVC = Polyvinyl Chloride Pipe
MP = Metal Pipe

Note: The correct coordinates for Str. No. 607 are 41.408201, -87.470290.

United States Department of the Interior
Fish and Wildlife Service

Indiana Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

May 11, 2021

Mr. James Landry
The Troyer Group
c/o INDOT
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204

Project No.: Des. 1700025
Project: US 41 Continuous Left-turn Lane US 231 South 3.25 Miles
Location: St. John and Cedar Lake, Lake County

Dear Mr. Landry:

This responds to your letter dated April 20, 2021, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (l6 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of l969, the Endangered Species Act of l973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project consists of the construction of a continuous left-turn lane at the center of US 41 from the intersection of US 231 south 3.25 miles to Cedar Lake. Widening of the highway will be required. Driveways will be reconstructed as necessary, including culverts; intersections will also be reconstructed. A concrete box culvert carrying a West Creek tributary under US 41 will be extended. Existing right-of-way will be repurchased as necessary, and additional permanent and temporary right-of-way will be acquired, totaling over 30 acres of repurchase/acquisition.

ENDANGERED SPECIES

Biesecker Prairie State Nature Preserve is located in the southeast quadrant of the US 41/US 231 intersection. It will be necessary to work closely with the Indiana Division of Nature Preserves to address possible impacts to this rare natural habitat. The Federally threatened Mead's

milkweed (*Asclepias meadii*) is present at this Nature Preserve. The area in the vicinity of the US 41/US 231 intersection is also within the High Potential Zone for the Federally endangered rusty patched bumble bee (*Bombus affinis*), while the remainder of the project area is within the Primary Dispersal Zone for this species. Please review the Rusty Patched Bumble Bee (*Bombus affinis*) Endangered Species Act Section 7(a)(2) Voluntary Implementation Guidance (https://www.fws.gov/midwest/endangered/insects/rpbb/Section_7_Guidance_RPBB_Ver2_1_16April2019.pdf) and the Survey Protocols for the Rusty Patched Bumble Bee (*Bombus affinis*) Version 2.2 April 12, 2019 (https://www.fws.gov/midwest/endangered/insets/rpbb/pdf/Survey_Protocols_RPBB_12April2019.pdf) for information about evaluating the proposed project area and additional right-of-way for this species.

The proposed project is within the range of the Federally endangered Indiana bat (Myotis sodalis) and the threatened northern long-eared bat (Myotis septentrionalis). Project impacts on the 2 bat species will be evaluated utilizing the Range-wide Programmatic Section 7 Informal Consultation process.

These endangered species comments constitute informal consultation only. They do not fulfill the requirements of Section 7 of the Endangered Species Act of 1973, as amended.

We appreciate the opportunity to comment on this proposed project. Please keep us informed about the evaluation of project lands as habitat for the rusty patched bumble bee. For further discussion, please contact Elizabeth McCloskey at elizabeth_mccloskey@fws.gov.

Sincerely yours,

/s/ *Elizabeth S. McCloskey*

for Scott E. Pruitt
Supervisor

Sent via email May 11, 2021; no hard copy to follow.

cc: Tom Swinford, Assistant Director, Indiana Division of Nature Preserves, Indianapolis, IN

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

Date: May 2, 2025

Provided to USFWS on May 5, 2025

Robin McWilliams-Munson
U.S. Fish and Wildlife Service
Indiana Ecological Services field Office
620 S. Walker Street
Bloomington, Indiana 47403

Re: Standard Informal Consultation for the Mead's Milkweed & Rusty Patched Bumble Bee
Des. No. 1700025
U.S. 41, from 3.25 miles south of U.S. 231 to U.S. 231
Roadway Project
Lake County, Indiana

Dear Ms. McWilliams-Munson:

The Indiana Department of Transportation (INDOT) is acting on behalf of Federal Highway Administration (FHWA) and submitting this letter for standard consultation for Mead's Milkweed (*Asclepias meadii*) and Rusty Patched Bumble Bee (*Bombus affinis*). This project does not qualify for the current USFWS Interim Policy due to anticipated tree clearing greater than 0.5 acre, impacts to wetland habitat exceeding 0.1 acre, and impacts to the Indiana Department of Natural Resources (IDNR)-managed Biesecker Prairie Nature Preserve (Section 4(f) resource) through the potential acquisition of right-of-way (ROW).

Existing Project Conditions

The proposed project is located in Lake County, along U.S. 41 from U.S. 231 to 3.25 miles south of U.S. 231, within the Town of St. John and the Town of Cedar Lake. U.S. 41 is a north-south route functionally classified as Principal Arterial. The typical cross section of U.S. 41 consists of four 12-foot-wide travel lanes, two in each direction, with 1- to 4-foot-wide paved outside shoulders. Right turn lanes are present along northbound U.S. 41 at U.S. 231 and W. 133rd Avenue. Right turn lanes are present along southbound U.S. 41 at W. 123rd Avenue, W. 124th Avenue, and W. 133rd Avenue. A left turn lane is present along northbound U.S. 41 at U.S. 231. The posted speed limit within the project area varies from 35 to 55 miles per hour. Signalized intersections are located at U.S. 231 and W. 133rd Avenue. Drainage is conveyed along U.S. 41 via a series of concave drainage ditches, connected via culvert, which eventually drain toward an unnamed tributary to West Creek.

Adjacent land use consists of maintained and unmaintained roadside vegetation, wooded areas, natural areas, wetland areas, residential areas, and commercial areas (Attachment Pages 1 to 11). An overhead electric (OHE) transmission line extends parallel to the west side of U.S. 41 throughout the corridor. IDNR Biesecker Prairie Nature Preserve is located at the northern terminus of the project area and according to the IDNR Division of Nature Preserves (DNP), has been recognized as a significant natural area for over sixty years and provides a large block ecosystem area for the conservation of pollinator species, like bees and butterflies. A Waters of the U.S. investigation identified 30 wetlands and fifteen streams within the investigation area. The majority of the wetlands are found within excavated concave roadside drainage swales and considered to be poor quality,

emergent wetlands. Three higher quality scrub/shrub and forested wetland complexes were identified within the project area.

Proposed Improvements

The need for the proposed project is due to overall deficient safety performance along the corridor based on the occurrence of traffic accidents. Between 2013 and 2016, there were 80 crashes within the project limits. These crashes resulted in 10 fatal or incapacitating injury crashes, 22 non-incapacitating injury crashes, and 55 property damage only crashes. The purpose of the project is to improve the safety of the corridor; a crash analysis predicted the preferred alternative would reduce crashes by over 50% throughout the length of the project.

The current proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be 12 to 14 feet wide and would terminate near U.S. 231 to the north and W. 133rd Avenue to the south. In order to establish the TWLTL, U.S. 41 will be widened in both directions through the length of the proposed construction area. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound U.S. 41 at W. 133rd Avenue. Outside shoulders would be widened to 8 feet between W. 125th Avenue and U.S. 231. Concrete curb and gutter will be added beginning north of W. 135th Place and ending north of W. 125th Avenue. Driveways along U.S. 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at U.S. 231 and W. 133rd Place will be replaced. New drainage detention basins will be excavated along the U.S. 41 roadway in some areas. All basins are anticipated to be located within the proposed construction limits shown in the attachments.

The new typical cross section of U.S. 41 will consist of four 12-foot-wide travel lanes (two in each direction), a 12 to 14-foot-wide TWLTL, and 8-foot-wide paved outside shoulders. Turning lanes will be perpetuated at the current locations along U.S. 41.

Right-of-Way (ROW)

The project will require approximately 18.9 acres of new permanent ROW, 0.7 acre of temporary ROW, and 6.1 acres of ROW re-acquisition. Work in permanent ROW areas will include widening of roadway, grading and construction of fill slopes, and small structure modification. Work in temporary ROW areas will include reconstructing driveways.

Construction Schedule and Maintenance of Traffic

The Maintenance of Traffic (MOT) plan will require closing one lane in each direction and maintaining one travel lane in each direction throughout the duration of the project. The MOT will be completed in phases throughout the corridor to minimize disruptions. The MOT will be implemented per the *Manual on Uniform Traffic Control Devices (MUTCD)* guidelines. Construction is expected to begin in summer of 2026.

Coordination Completed

The USFWS responded to the initial early coordination letter on May 11, 2021 and indicated Biesecker Prairie Nature Preserve is located in the southeast quadrant of the U.S. 41/U.S. 231 intersection and that it will be necessary to work closely with the IDNR DNP to address possible impacts to this rare natural habitat (Attachment Pages 42 to 43). The USFWS indicated Mead's Milkweed is present at Biesecker Prairie Nature Preserve and the area near this intersection is located within the High Potential Zone (HPZ) for the Rusty Patched Bumble Bee. The comments provided constitute informal consultation only and do not fulfill the requirements of Section 7 of the Endangered Species Act of 1973, as amended.

The species list from the USFWS Informal Planning and Consultation (IPaC) interface, generated on January 3, 2025 listed a number of mammal, bird, clam, insect, and flowering plant species, listed below (Attachment Pages 12 to 25). No critical habitats were identified within the project area.

A. MAMMALS:
    1. Indiana Bat (*Myotis sodalis*), Endangered
    2. Northern Long-eared Bat (*Myotis septentrionalis*), Endangered
B. BIRDS:
    1. Whooping Crane (*Grus americana*), Experimental Population, Non-Essential
C. CLAMS:
    1. Salamander Mussel (*Simpsonaias ambigua*), Proposed Endangered
D. INSECTS:
    1. Monarch Butterfly (*Danaus plexippus*), Proposed Threatened
    2. Rusty Patched Bumble Bee (*Bombus affinis*), Endangered
    3. Western Regal Fritillary (*Argynnis idalia occidentalis*), Proposed Threatened
E. FLOWERING PLANTS:
    1. Mead's Milkweed (*Asclepias meadii*), Threatened

The project qualifies for the *Rangewide 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. An effect determination key was completed on October 4, 2024, and based on the responses provided, the project was found to "May Affect – Not Likely to Adversely Affect (NLAA)" the Indiana bat and/or the NLEB (Attachment Pages 26 to 41). INDOT reviewed and verified the effect finding on October 4, 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 ensuring all operators, employees, and contractors are aware of all FHWA/FRA/FTA environmental commitments (General AMM 1); directing temporary lighting away from suitable habitat (Lighting AMM 1); using downward-facing, full cut-off lens lights, and for 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 (Lighting AMM 2); modifying the project to avoid tree removal (Tree Removal AMM 1); applying time of year restrictions to when trees can be removed (Tree Removal AMM 2); ensuring tree removal is limited to that specified in the project plans (Tree Removal AMM 3); and not removing documented Indiana bat or NLEB roosts or trees within 0.25 mile of roosts (Tree Removal AMM 4). These AMMs will be included as firm commitments within the environmental document for this project.

The IDNR DNP responded to the initial early coordination letter on April 20, 2021 and again on May 12, 2021 and indicated the project is located adjacent to Biesecker Prairie Nature Preserve, a state dedicated site, and a highly sensitive and important natural area (Attachment Pages 44 to 49). The IDNR DNP expressed great concerns that this work may impact the nature preserve and provided a list of state identified species (Attachment Pages 47 to 49). The IDNR DNP recommended work occur outside of May, June, and July to protect any rare insect occurrences. To protect any threatened and endangered vascular plant occurrences that are documented from within or adjacent to the project area, surveys should be conducted by qualified personnel for the species prior to work zones being occupied or equipment movement within. If threatened and endangered species are identified, the area should be flagged and taped off to reduce the possibility of impact to the species. Additional coordination with IDNR DNP resulted in a formal letter dated May 23, 2024, which indicated this high-quality remnant black soil prairie hosts an impressive diversity of native fauna and flora, including a reintroduction of a federal threatened species, Mead's Milkweed (Attachment Pages 50 to 51). Dr. Rob Jean, a biologist with

Environmental Solutions, Inc., and an expert on the bee species of Indiana, recognizes Biesecker Prairie Nature Preserve as an area with high conservation value for bee species.

Existing Mead's Milkweed Habitat and Assessment of Suitable Habitat

Mead's Milkweed was first listed as threatened under the Endangered Species Act on September 1, 1988. No critical habitat for Mead's Milkweed has been designated. A Recovery Plan was approved on September 16, 2003 (USFWS 2003). The most recent 5-Year Review for the species was published on April 14, 2022 (USFWS 2022b).

Mead's Milkweed is listed as an Indiana state reintroduced species by IDNR (IDNR 2024). Mead's Milkweed is designated by NatureServe as global imperiled (G2), and state extirpated (SX) (IDNR 2024).

Habitat for Mead's Milkweed includes tallgrass prairie, hay meadows, and thin soil glades or barrens (USFWS 2003). Specifically, this plant is restricted to areas where ground disturbance was historically limited and the ground was not plowed for agricultural production, though the plant may exist in hay meadows which are harvested annually (USFWS 2003). Additionally, this plant is often limited to areas of full sun, though may be present in partial shade. Mead's Milkweed has been extirpated from Indiana; however, introduction efforts have occurred at the Biesecker Prairie Nature Preserve (pers. communication with Matthew Beatty, IDNR Regional Ecologist, May 30, 2024). This plant is a long-lived perennial species, which has low reproductive rates (USFWS 2003). Factors inducing the decline of Mead's Milkweed include habitat loss, habitat fragmentation, prevention of sexual reproduction by hay mowing, and low genetic diversity within individual populations (USFWS 2003).

Habitat areas within the project area consist of clay/loam soils with invasive-dominated ditch wetlands, disturbed roadside vegetation, prairies, and forested land. The majority of the project area contains disturbed soils because of residential and/or commercial development, roadside disturbance to perpetuate drainage along U.S. 41, and/or undisturbed forested areas. Suitable habitat for Mead's Milkweed in the project area is limited to the prairie habitat associated with the IDNR Biesecker Prairie Nature Preserve. Lochmueller Staff were accompanied by Matthew Beatty, IDNR Regional Ecologist, during an on-site inspection on May 30, 2024. No individuals of Mead's Milkweed were identified along the fringe of the property where construction is anticipated to occur. Additionally, Mr. Beatty indicated there are individuals of Mead's Milkweed present within the preserve but are concentrated near the middle of the preserve. While suitable prairie conditions may be present, individuals of Mead's Milkweed are not currently present in the proposed area of disturbance.

Existing Rusty Patched Bumble Bee Habitat and Assessment of Suitable Habitat

The Rusty Patched Bumble Bee was first listed as endangered under the Endangered Species Act on January 11, 2017. USFWS determined designating critical habitat for the Rusty Patched Bumble Bee was not prudent on September 1, 2020 (85 FR 54281). A Recovery Plan was approved on August 3, 2021 (USFWS 2021). The most recent 5-Year Review for the species was published on August 18, 2022 (USFWS 2022a).

The Rusty Patched Bumble Bee is listed as an Indiana state endangered species. The Rusty Patched Bumble Bee is designated by NatureServe as global imperiled (G2) and state critically imperiled (S1) (IDNR 2024).

Habitat for the Rusty Patched Bumble Bee varies throughout the year and includes nesting habitat, overwintering habitat, spring foraging, and summer/fall foraging habitat (USFWS 2024). These specific habitat types and their temporal use are described in detail within Table 1 of the USFWS Rusty Patched Bumble Bee Voluntary Implementation Guidance (USFWS 2024). To summarize, interior upland forest and woodland provides overwintering habitat and spring foraging habitat. The edges of upland forest and woodlands provide all four types of habitats, and the Rusty Patched Bumble Bee may be present throughout the year. Upland

grassland and shrublands provide nesting habitat and foraging habitat during the spring, summer, and fall. Palustrine wetlands, flower gardens, some croplands, and similar areas within one kilometer of natural or semi-natural vegetation provide foraging habitat during the spring, summer, and fall. Factors inducing the decline of the Rusty Patched Bumble Bee include reduced habitat quality and quantity, pathogens, genetics, effects of climate change, and pesticides (USFWS 2022a).

The Rusty Patched Bumble Bee has been documented in multiple locations in Indiana since 2000 (USFWS 2016). From 2007 to 2021, documented Indiana occurrences have been reduced to just a few locations in the central and northwestern portion of the state (USFWS 2021, 2022a). However, based on more recent surveys from 2017 to 2021 (the period since listing), no rusty patched bumble bee occurrences have been reported (USFWS 2022a). Since Biesecker Prairie Nature Preserve represents high quality bee habitat, there have been several different surveys completed to check for the presence of the Rusty Patched Bumble Bee at this preserve. In May 2022, Environmental Solutions & Innovations, Inc. (led by the aforementioned Dr. Rob Jean) completed surveys across the northern approximately third of Indiana including six specific surveys at Biesecker Prairie Nature Preserve (ESI 2023). The surveys documented a total of 60 observations of four different bumble bee species; however, no Rusty Patched Bumble Bees were identified. In 2023, the Michigan Natural Features Inventory completed two bumble bee surveys (one on June 21st and one on July 27th) at Biesecker Prairie Nature Preserve (Michigan Natural Features Inventory 2023). These surveys documented 52 observations of six different bumble bee species; however, no Rusty Patched Bumble Bees were identified. The most recent survey by ESI, Inc. at Biesecker Prairie Nature Preserve in 2024 did not identify any Rusty Patched Bumble Bees (pers. communication with Dr. Robert Jean, November 25, 2024). The Biesecker Prairie Nature Preserve still represents high quality bee habitat; however, the Rusty Patched Bumble Bee has not been documented at the site for the past three years despite recurring surveys.

Based on aerial imagery and site visits completed by Lochmueller Group in May and June 2024, habitat areas within the project area consist of clay/loam soils with invasive-dominated ditch wetlands, disturbed roadside vegetation, prairies, and forested land. The majority of the project area contains disturbed soils because of residential and/or commercial development, roadside disturbance to perpetuate drainage along U.S. 41, and/or undisturbed forested areas. Approximately 8.72 acres of the northern portion of the project area overlaps with the High Potential Zone (HPZ) for the Rusty Patched Bumble Bee and is located within the construction limits (Attachment Page 6). Of this total, approximately 4.61 acres is comprised of existing roadway, driveways, riprap, and houses and is not considered habitat for the Rusty Patched Bumble Bee. The remaining 4.11 acres of habitat includes mowed lawn/grass, mowed roadside vegetation, unmaintained herbaceous vegetation, wetland habitat, prairie habitat, and woody regrowth habitat beneath OHE transmission lines habitat. Therefore, suitable nesting habitat and spring/summer/fall foraging habitat for the Rusty Patched Bumble Bee is potentially present.

Mowed roadside vegetation within the HPZ is characterized by tall false rye grass (*Schedonorus arundinaceus*), white clover (*Trifolium repens*), Kentucky blue grass (*Poa pratensis*), and English plantain (*Plantago lanceolata*). This habitat generally provides very few plant species suitable for spring, summer, or fall foraging by bees.

Unmaintained herbaceous vegetation within the HPZ is characterized by Indian-hemp (*Apocynum cannabinum*), tall false rye grass (*Schedonorus arundinaceus*), foxtail barley (*Hordeum jubatum*), lesser poverty rush (*Juncus tenuis*), cut-leaf teasel (*Dipsacus laciniatus*), gray dogwood (*Cornus racemosa*), white avens (*Geum canadense*), curly dock (*Rumex crispus*), tall goldenrod (*Solidago altissima*), reed canary grass (*Phalaris arundinacea*), Fuller's teasel (*Dipsacus fullonum*), Northern evening primrose (*Oenothera parviflora*), common milkweed (*Asclepias syriaca*), Canadian thistle (*Cirsium arvense*), and Virginia creeper (*Parthenocissus quinquefolia*). This habitat includes a variety of nectar and pollen producing plant species for bee foraging. However, most of this plant

assemblage is comprised of species that flower mid to late summer or early fall and does not provide much for spring bee foraging.

The palustrine wetland habitat within the HPZ is characterized by common reed (*Phragmites australis*), troublesome sedge (*Carex molesta*), annual blue grass (*Poa annua*), dark-green bulrush (*Scirpus atrovirens*), open field sedge (*Carex conoidea*), narrow leaf cattail (*Typha angustifolia*), cursed buttercup (*Ranunculus sceleratus*), soft-stem club rush (*Schoenoplectus tabernaemontani*), spreading bent (*Agrostis stolonifera*), and reed canary grass (*Phalaris arundinacea*). This habitat generally provides very few plant species suitable for spring, summer, or fall foraging by bees.

The edge of the prairie habitat (west edge of Biesecker Prairie Nature Preserve) within the HPZ is characterized by pin oak (*Quercus palustris*), green ash (*Fraxinus pennsylvanica*), annual blue grass (*Poa annua*), Canadian goldenrod (*Solidago canadensis*), button eryngo (*Eryngium yuccifolium*), troublesome sedge (*Carex molesta*), tall false rye grass (*Schedonorus arundinaceus*), bristly dewberry (*Rubus hispidus*), dark-green bulrush (*Scirpus atrovirens*), open field sedge (*Carex conoidea*), and common milkweed (*Asclepias syriaca*). The Biesecker Prairie Nature Preserve provides plant species suitable for spring, summer, and fall foraging by bees.

Woody regrowth from below an existing OHE transmission line present along the western edge of the Biesecker Prairie Nature Preserve, but within the HPZ, is characterized by privet (*Ligustrum sp.*), orchard grass (*Dactylis glomerata*), field thistle (*Cirsium discolor*), bush honeysuckle (*Lonicera maackii*), henbit deadnettle (*Lamium amplexicaule*), pine trees (*Pinus sp.*), white spruce (*Picea glauca*), buckthorn bully (*Sideroxylon lycioides*), eastern red cedar (*Juniperus virginiana*), rambler rose (*Rosa multiflora*), tall false rye grass (*Schedonorus arundinaceus*), spreading bent (*Agrostis stolonifera*), common reed (*Phragmites australis*), Canadian goldenrod (*Solidago canadensis*), tall goldenrod (*Solidago altissima*), shagbark hickory (*Carya ovata*), common dandelion (*Taraxacum officinale*), eastern poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*), common milkweed (*Asclepias syriaca*), and reed canary grass (*Phalaris arundinacea*). This habitat includes a variety of nectar and pollen producing plant species for bee foraging. However, most of this plant assemblage is comprised of species that flower mid to late summer or early fall and does not provide much for spring bee foraging.

Table 1: Summary of Habitat Types Present within Project Area Overlapping with the HPZ. Each habitat type identified within the Rusty Patched Bumble Bee HPZ is listed in column 1. Columns 2-5 indicate how the bee may use each identified habitat type (i.e., spring foraging, nesting, summer/fall foraging, and overwintering). A "X" indicates the bees may use that habitat type for a certain function (i.e., the bee may use palustrine wetland habitat for summer/fall foraging). The total number of "X"s are summed in column 6 (bolded numbers). The more uses the bee has for a certain habitat type, the higher quality that habitat type is for the bee.

Habitat Type	Spring Foraging	Nesting	Summer/ Fall Foraging	Overwintering	Total Potential Habitat Uses for the Bee	Quality	Acres
Not Habitat (Existing Pavement/Driveways)	-	-	-	-	**0**	None	4.61
Mowed Roadside	-	-	-	-	**0**	None*	1.24
Mowed Lawn/Grass	-	-	-	-	**0**	None*	1.22
Palustrine Wetland	-	-	X	-	**1**	Low	0.29
Unmaintained Herbaceous Vegetation	X	-	X	-	**2**	Low/ Medium	0.44
Woody Regrowth below OHE Transmission Line	-	-	X	-	**1**	None*/ Low/ Medium	0.91

Table 1: Summary of Habitat Types Present within Project Area Overlapping with the HPZ (Cont.)

Habitat Type	Spring Foraging	Nesting	Summer/ Fall Foraging	Overwintering	Total Potential Habitat Uses for the Bee	Quality	Acres
Prairie	X	X	X	-	**3**	Medium/ High	0.02**

*Quality was identified as "none" due to the lack of flowering vegetation to provide suitable foraging habitat. Sporadic clover vegetation may be present and provide negligible foraging habitat.
**Reacquisition of apparent existing ROW

Quality ranges from none (no presence of habitat that may be useful to the bee) to low (at least one type of habitat useful to the bee) to medium (two to three types of habitat useful to the bee) to high (four types of habitat useful to the bee). The prairie in this instance had medium/high quality due to three types of habitat useful to the RPBB combined with the prairie being part of a protected IDNR nature preserve.

Impacts

Total disturbance for the U.S. 41 Roadway Project is expected to require 50.4 acres of surface and subsurface ground disturbance, 19.3 acres of which will occur outside of existing pavement and/or driveways. This includes invasive-dominated ditch wetlands, disturbed roadside vegetation, prairies, and forested land. This disturbance is primarily due to road widening, grading, and reconstruction of existing driveways. Approximately 3.5 acres of tree clearing is anticipated for the project including approximately 0.71 acres of tree clearing from the HPZ for the Rusty Patched Bumble Bee. All disturbed areas will be reseeded in accordance with INDOT Standard Specifications upon completion of construction activities.

Suitable habitat for Mead's Milkweed is limited to the Biesecker Prairie Nature Preserve within areas that will not be disturbed by the proposed roadway improvement project. Approximately 0.14 acre of existing ROW will be re-acquired near the southern end of the Biesecker Prairie Nature Preserve. Of this ROW reacquisition, approximately 0.02 acre will be disturbed as part of this project. This area would occur between the existing electric transmission poles and edge of pavement, and therefore anticipated to be limited to previously disturbed ground immediately adjacent to U.S. 41. Additionally, no individuals of Mead's Milkweed were identified within the project area by IDNR staff (pers. communication with Matthew Beatty, IDNR Regional Ecologist, May 30, 2024). Therefore, the scope of work is not likely to adversely affect Mead's Milkweed.

Suitable habitat for the Rusty Patched Bumble Bee is present within the project area at Biesecker Prairie Nature Preserve. Approximately 0.14 acre of existing ROW will be re-acquired near the southern end of the Biesecker Prairie Nature Preserve. Of this ROW reacquisition, approximately 0.02 acre will be disturbed as part of this project. Avoidance of these impacts is not prudent in order to achieve the purpose and need of the project. The impacts have been minimized to the greatest extent possible and will remain within existing ROW, which was not properly recorded. Specifically, this area would occur between the existing electric transmission poles and edge of pavement, and therefore anticipated to be limited to previously disturbed ground immediately adjacent to U.S. 41. Biesecker Prairie Nature Preserve represents high quality habitat for the Rusty Patched Bumble Bee since it provides nesting habitat and foraging habitat in the spring, summer, and fall. Other potential suitable habitats beyond Biesecker Prairie Nature Preserve include summer/fall foraging habitat identified as mowed roadside vegetation (1.24 acres), mowed lawn/grass (1.22 acres), unmaintained herbaceous vegetation (0.44 acre), and woody regrowth below OHE transmission lines (0.91 acre). Palustrine wetlands represent 0.29 acre of habitat within the HPZ, which may provide foraging habitat in the spring, summer, and fall.

Avoidance and Minimization Measures (AMMs)

Based on the scope of work anticipated for the U.S. 41 Roadway Project, no AMMs are warranted for Mead's Milkweed to maintain compliance with the determination of effect concluded from this assessment. The following AMM is recommended to minimize impacts to the Rusty Patched Bumble Bee throughout all of their life stages.

- No construction staging or parking is allowed within the areas outside of the proposed construction limits, but within the limits of the Biesecker Prairie Nature Preserve.
- Project plans shall identify the Biesecker Prairie Nature Preserve as a "Sensitive Natural Area – Do Not Disturb" on the plan sheets.
- Work between the existing edge of pavement and the Biesecker Prairie Nature Preserve will be limited to between August 1 and April 30 (outside of peak wildlife nesting season) to protect any rare insect occurrences that are documented from within or adjacent to the projected impact zone footprint.

Conclusion

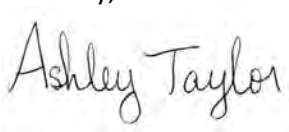
Suitable habitat for Mead's Milkweed is limited to the Biesecker Prairie Nature Preserve within the undisturbed portions of the preserve. Impacts related to the proposed roadway improvement project are anticipated to be limited to previously disturbed ground immediately adjacent to U.S. 41, including Biesecker Prairie Nature Preserve. Additionally, no individuals of Mead's Milkweed were identified within the project area by IDNR staff. Therefore, the disturbance resulting from the project is unlikely to affect Mead's Milkweed. The FHWA has determined the proposed project has an effect finding of "May Affect- Not Likely to Adversely Affect" for the federally threatened Mead's Milkweed.

The Rusty Patched Bumble Bee occupies many different types of habitats throughout its life cycle. Biesecker Prairie Nature Preserve provides the highest quality habitat within or adjacent to the project area due to the potential for nesting and foraging habitat in the spring, summer, and fall. Palustrine wetlands have the potential to provide foraging habitat in the spring, summer, and fall; however, most wetlands in the construction limits are graminoid-based and lack notable assemblages of nectar/pollen flowering plant species. The remaining suitable habitat includes summer/fall foraging habitat identified as mowed roadside vegetation, mowed lawn/grass, unmaintained herbaceous vegetation, and woody regrowth below existing OHE transmission lines. The project will impact a total of 0.02 acre of suitable nesting/foraging habitat (Biesecker Prairie Nature Preserve) and 1.66 acres of potential foraging habitat. No overwintering habitat is present within the project area overlapping the HPZ; therefore, no impacts are expected. The proposed project will consist of acquiring strip ROW along both sides of U.S. 41 to facilitate the construction of a TWLTL. The habitat along the roadway is generally considered low quality with the exception of the Biesecker Prairie Nature Preserve. Based on the low quality habitat present within the project area and the lack of rusty patched bumble bee sightings from several recent surveys at Biesecker Prairie Nature Preserve, it is unlikely this project will impact the Rusty Patched Bumble Bee. Additionally, the assisted determination key located in Appendix A of the Rusty Patched Bumble Bee (*Bombus affinis*) Endangered Species Act Section 7(a)(2) Voluntary Implementation Guidance (USFWS 2024) was completed for this project with an effect finding of "May Affect – Not Likely to Adversely Affect." Therefore, the FHWA has determined the proposed project has an effect finding of "May Affect – Not Likely to Adversely Affect" for the federally endangered Rusty Patched Bumble Bee.

The FHWA is requesting USFWS concurrence with this project's "May Effect – Not Likely to Adversely Affect" determinations for Mead's Milkweed and the Rusty Patched Bumble Bee.

Please contact Ashley Taylor (Ashley.Taylor@lochgroup.com) if you have any questions or require additional information. We appreciate your attention to this project.

Sincerely,



Ashley Taylor
Environmental Specialist – Northern Indiana
Lochmueller Group, Inc.

Removed identified sections below to avoid duplication, Refer to Appendix B and C

Attachments:

- General Location Map 1
- USGS Topographic Map 2
- Aerial Map 3-5
- Bee Habitat Map 6
- Photo Location Map 7
- Project Photographs 8-11
- USFWS Official Species List (January 3, 2025) 12-25
- USFWS Concurrence Verification Letter (October 4, 2024) 26-41
- USFWS Response Letter to Original Early Coordination Letter (May 11, 2021) 42-43
- IDNR DNP Response Email to Original Early Coordination Letter (April 20, 2021) 44
- IDNR DNP Response Letter to Original Early Coordination Letter (May 12, 2021) 45-49
- IDNR DNP Formal Response Letter Pertaining to Easement Inquiry (May 23, 2024) 50-51
- USFWS Rusty Patched Bumble Bee Assisted Determination Key (November 1, 2024) 52-62

References:

Environmental Solutions & Innovations, Inc. (ESI). (2023). Bumble Bee Surveys with an Emphasis on Rusty Patched Bumble Bee (*Bombus affinis*) within the Great Lakes Watershed in Indiana.

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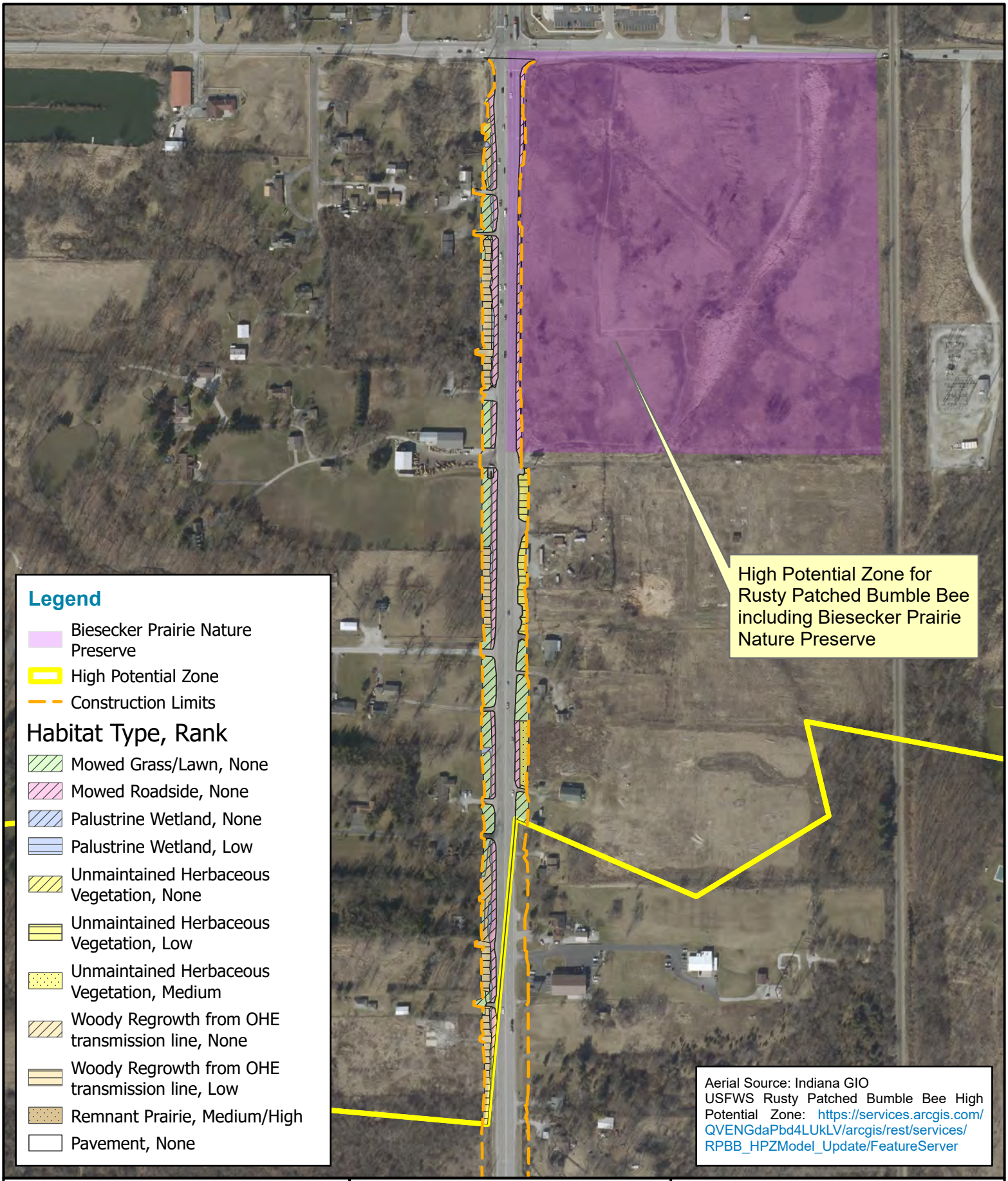
USFWS Missouri Ecological Services Field Office. (2022b). Mead's Milkweed (*Asclepias meadii*) 5-Year Review: Summary and Evaluation. https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/3695.pdf

USFWS. (2024). Rusty Patched Bumble Bee (*Bombus affinis*) Endangered Species Act Section 7(a)(2) Voluntary Implementation Guidance. Version 3.2. USFWS, Bloomington, MN. https://www.fws.gov/sites/default/files/documents/2024-11/rpbb-section-7-guidance-ver-3.2_november2024.pdf



LOCHMUELLER GROUP
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Phone: (574) 334-5460

Bee Habitat Map

Des. No. 1700025

0 250 500 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 5/1/2025, Ashley.Taylor

Appendix A. Rusty patched bumble bee assisted determination key.

Rusty-Patched Bumble Bee Assisted Determination Key

U.S. Fish and Wildlife Service, Version 1.1

Updated November 1, 2024

Purpose of the Key

The primary purpose of this assisted determination key is to help federal agencies and their non-federal representatives to determine whether their proposed actions may affect the rusty patched bumble bee (*Bombus affinis*); and, if they might, to facilitate consultation with U.S. Fish and Wildlife Service (USFWS) under section 7 of the Endangered Species Act. Although intended primarily for federal agency actions and section 7, it may also be useful for reviewing non-federal actions.

Use of the Key

The key is intended to function range-wide for any type of project. For some projects, it will allow the user to reach a determination of 'no effect' or 'may affect, not likely to adversely affect.' For others, the key directs the user to coordinate with a U.S. Fish and Wildlife Service Ecological Services field office. Contact the local USFWS Ecological Services Field Office (Our Locations | U.S. Fish & Wildlife Service (fws.gov)) if you have any questions, concerns, or suggestions regarding the key.

*If working in IPaC, note that the answer to some questions will be automatically generated according to the proposed project polygon drawn in IPaC. Those questions are marked with an asterisk.

Definitions of acronyms within the Key

NE = no effect determination

NLAA = not likely to adversely affect

MA = may affect. Please contact the local USFWS Ecological Services Field Office (Our Locations | U.S. Fish & Wildlife Service (fws.gov)) to discuss the specifics of this project. This may or may not result in a "may affect" determination.

How to Request Concurrence – Use of the Concurrence Request Form

To request concurrence from the USFWS on a determination of '*may affect, not likely to adversely affect'*, submit a completed copy of the attached form to the local USFWS Ecological Services Field Office (Our Locations | U.S. Fish & Wildlife Service (fws.gov)).

Versions of the Key

If you have accessed this key on the USFWS RPBB website, you are using the most recent version. If you are not, check our website (https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-guidance-rusty-patched-bumble-bee) for most recent version. We intend for the key to be incorporated into the USFWS Information for Planning and Consultation (IPaC) webpage. We will aim to keep this key and the IPaC Determination Key functionally identical.

Determination Key

*If working in IPaC, note that the answer to some questions will be automatically generated according to the proposed project polygon drawn in IPaC. Those questions are marked here with an asterisk.

Number	Rusty Patched Bumble Bee Range-wide Determination Key	If Yes, then proceed to the number as indicated	If No, then proceed to the number as indicated
1.0	Does the action area overlap with a rusty patched bumble bee high potential zone?	**1.1**	**14.0**
1.1	Is the proposed action within Illinois?*	1.2	1.1.1
1.1.1	Is the proposed action within Minnesota?*	1.2	1.1.2
1.1.2	Is the proposed action within Wisconsin?*	1.2	13.0
1.2	Is the action being implemented under a Natural Resources Conservation Service (NRCS) or FSA (Farm Service Agency) program? Note: Farm Bill programs include, the Conservation Reserve Program, Environmental Quality Incentive Program, NRCS Easement Program, Farm Loan Program, Farm Storage Facility Loan Program.	2.0	13.0
2.0	Does the action area overlap with a rusty patched bumble bee high potential zone? Use the most up to date map as available on the RPBB website (https://www.fws.gov/species/rusty-patched-bumble-bee-bombus-affinis).	3.0	No Effect
3.0	Is there habitat for nesting, foraging, and/or overwintering for the rusty patched bumble bee in the action area? Note: Please refer to the ESA Section 7(a)(2) Voluntary Implementation Guidance for Rusty Patched Bumble Bee at: "https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-guidance-rusty-patched-bumble-bee" If the current cover within the action area is exclusively non-habitat (e.g. cropland, pasture, or water), answer NO. If the action area currently contains RPBB habitat (e.g. native grassland with flowering species or forest), answer YES	5.0	4.0

4.0	Will the proposed action result in creation of new RPBB habitat?	May Affect, Contact your local field office to discuss the details of the project	No Effect
5.0	Will the action include management/maintenance of RPBB habitat?	May Affect, Contact your local field office to discuss the details of the project	6.0
6.0	Will the action involve one or more "Not Likely to Adversely Affect" (NLAA) actions ONLY?	Not Likely to Adversely Affect	7.0
7.0	Will the action result in ground disturbance in forested habitat?	7.1	9.0
7.1	Will the ground disturbance be greater than 0.25 acres?	8.0	9.0
8.0	Does the proposed action intersect the south of 42N geometry?*	8.1	8.2
8.1	Will the ground disturbance occur during the overwintering season **(October 11 to March 31)**?	May Affect, Contact your local field office to discuss the details of the project	9.0
8.2	Will the ground disturbance occur during the overwintering season **(October 11 to April 14)**?	May Affect, Contact your local field office to discuss the details of the project	9.0
9.0	Will the action result in ground disturbance greater than 0.25 acres in foraging/nesting habitat?	10.0	11.0
10.0	Does the proposed action intersect the south of 42N geometry?*	10.1	10.2

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10.1	Will the ground disturbance occur during the active flight period (**April 1 to October 10**)?	May Affect, Contact your local field office to discuss the details of the project	11.0
10.2	Will the ground disturbance occur during the active flight period **(April 15 to October 10)**?	May Affect,- Contact your local field office to discuss the details of the project	11.0
11.0	Will the action result in vegetation disturbance ? Note: Disturbance may be from any activity, including application herbicide, prescribed fire, grazing, mowing, or haying.	11.1	Not Likely to Adversely Affect
11.1	Will the vegetation disturbance affect greater than two acres of suitable RPBB habitat Note: Disturbance may be from any activity, including application herbicide, prescribed fire, grazing, mowing, or haying.	12.0	Not Likely to Adversely Affect
12.0	Does the proposed action intersect the south of 42N geometry?*	12.1	12.2
12.1	Will the action occur during the active flight period (**April 1 to October 10**)?	May Affect, Contact your local field office to discuss the details of the project	Not Likely to Adversely Affect
12.2	Will the action occur during the active flight period (A**pril 15 to October 10**)?	May Affect, Contact your local field office to discuss the details of the project	Not Likely to Adversely Affect

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13.0	Does the action include - or is it reasonably certain to cause - intentional take of rusty patched bumble bee (RPBB)? Note: This could include, for example, surveys or studies that include handling or capture of the species.	May Affect, Contact your local field office to discuss the details of the project	14.0
14.0	Does the action area overlap with the Monongahela, George Washington, or Jefferson National Forest?*	14.1	17.0
14.1	Will the action be authorized, funded, or carried out by the U.S. Forest Service for implementation on the Monongahela, George Washington, or Jefferson National Forest?	15.0	17.0
15.0	Does the action area overlap with a rusty patched bumble bee high potential zone? * Note: A map that shows the locations of the HPZs is available on the RPBB website (link).	18.0	16.0
16.0	Does the action include activities that the U.S. Fish and Wildlife Service and U.S, Forest Service have agreed will have wholly beneficial effects to the rusty patched bumble bee?	Not Likely to Adversely Affect	No Effect
17.0	Does the action area overlap with a rusty patched bumble bee high potential zone?* Note: A map that shows the locations of the HPZs is available on the RPBB website (link)	18.0	No Effect
18.0	Does the action include – or is it reasonably certain to result in – construction of one or more new roads or rail lines that will increase vehicle traffic in a rusty patched bumble bee HPZ?	May Affect, Contact your local field office to discuss the details of the project	19.0
19.0	Does the action include – or is it reasonably certain to result in – the addition of travel lanes that are likely to increase vehicle traffic on one or more existing roads that will increase vehicle traffic in a rusty patched bumble bee HPZ?	May Affect, Contact your local field office to discuss the details of the project	20.0
20.0	Does the action include – or is it reasonably certain to result in – construction of structures or activities that will increase vehicle traffic in a rusty patched bumble bee HPZ?	May Affect, Contact your local field office to	21.0

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		discuss the details of the project	
21.0	Does the action include – or is it reasonably certain to cause – the use of commercial/managed bees (e.g., the use of honeybees or managed bumble bees to pollinate crops).	May Affect, Contact your local field office to discuss the details of the project	22.0
22.0	Is there habitat for nesting, foraging, and/or overwintering for the rusty patched bumble bee in the action area? Note: Please refer to the ESA Section 7(a)(2) Voluntary Implementation Guidance for Rusty Patched Bumble Bee at: https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-guidance-rusty-patched-bumble-bee	24.0	23.0
23.0	Will the proposed action restore habitat for the species in the action area? For a description of rusty patched bumble bee nesting and foraging habitats, refer to the section 7 guidelines. Note that if the action may affect areas outside of the immediate project footprint that contain rusty patched bumble bee habitat, answer 'yes.' This may include, for example, use of application of any pesticide (e.g., insecticide, herbicide, or fungicide) that may drift or be otherwise transported outside of the targeted area.	24.0	No Effect
24.0	Have "Project Review" surveys for rusty patched bumble bees already been conducted in the action area according to Service-approved protocols?	25.0	26.0
25.0	Were rusty patched bumble bees observed during "Project Review" surveys? Note: Surveys must be consistent with FWS-approved protocols with emphasis on recommended survey effort, timing, site selection, and survey technique and methods. Surveys must be conducted within a year before the project initiation for negative survey results to remain valid. USFWS considers the results valid for two years or the duration of the project, whichever is shorter, unless new information (*e.g.*, new positive surveys) suggests that the species is likely to be present in the action area.	26.0	Not Likely to Adversely Affect
26.0	Does the action include collection of seed from native species?	27.0	29.0

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27.0	Will the seed collection be carried out more frequently than once every three years across the same 2.0 acre (or larger) area?	May Affect, Contact your local field office to discuss the details of the project	28.0
28.0	Does the action include only seed collection and no other activities that could affect the rusty patched bumble bee or its habitat?	Not Likely to Adversely Affect	29.0
29.0	Does the action include, or will it cause the application of insecticides or fungicides?	May Affect, Contact your local field office to discuss the details of the project	30.0
30.0	Does the action include, or will it cause activities to control native rodent species?	May Affect, Contact your local field office to discuss the details of the project	31.0
31.0	Does the action include, or will it cause planting or seeding of non-native plant species?	31.1	32.0
31.1	Will the non-native plant species degrade the quality of existing RPBB foraging habitat in the action area? Note: Decreasing the abundance or diversity of native RPBB forage plant species can affect the RPBB.	May Affect, Contact your local field office to discuss the details of the project	32.0
32.0	Will the action include or cause herbicide use?	33.0	35.0
33.0	Will herbicide application methods include only wiping individual plants with a wick or glove, cut-stump, spot-spraying, or basal bark treatments?	35.0	34.0
34.0	Will herbicides be applied when the rusty patched bumble bee is likely to be foraging on the affected plants in a manner that could result in direct exposure of individuals to the herbicide mixture?	May Affect, Contact your local field office to discuss the details of the project	35.0

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35.0	Will the action cause an increase in the extent or duration of surface flooding or soil saturation in rusty patched bumble bee habitat in a High Potential Zone? Note: This may occur, for example, as a result of activities or structures that impound water, otherwise alter or interrupt existing drainage patterns, or that affect surface runoff.	May Affect, Contact your local field office to discuss the details of the project	36.0
36.0	Will the action cause ground disturbance in rusty patched bumble bee habitat within a High Potential Zone?	37.0	42.0
37.0	Will the ground disturbance within the High Potential Zone affect more than 0.25 acre (0.1 hectare) of rusty patched bumble bee nesting habitat (upland grasslands, shrublands, and forest edges that contain native sources of pollen and nectar)? Note: Please refer to the ESA Section 7(a)(2) Voluntary Implementation Guidance for Rusty Patched Bumble Bee at: https://www.fws.gov/media/esa-section-7a2-voluntary-implementation-guidance-rusty-patched-bumble-bee	38.0	40.0
38.0	Will the ground disturbance occur during the nesting season?	39.0	40.0
39.0	Will the ground disturbance likely be sufficient to collapse underground rodent burrows or their entrances?	May Affect, Contact your local field office to discuss the details of the project	40.0
40.0	Will the ground disturbance within the High Potential Zone affect more than 0.25 acre (0.1 hectare) of rusty patched bumble bee overwintering habitat (forest that contains native plants that provide pollen and nectar)? For a more detailed description of rusty patched bumble bee overwintering dates and habitat, refer to the section 7 guidelines.	41.0	42.0
41.0	Will the ground disturbance occur during the overwintering season?	May Affect, Contact your local field office to discuss the details of the project	42.0

35

42.0	Will the action include or cause effects to native vegetation in rusty patched bumble bee habitat?	43.0	No Effect
43.0	Will the action cause effects to native vegetation in rusty patched bumble bee habitat within the High Potential Zone during the nesting period? Note: Effects could occur as a result of mowing, cutting, grazing, prescribed fire, tree removal, spot-application of herbicide, tree clearing, and/or other activities. Effects could occur as a result of activities carried out outside of the nesting period if they result in reduced forage availability during a subsequent nesting period.	44.0	46.0
44.0	Will the action remove or otherwise make foraging resources unavailable to the rusty patched bumble bee on 2.0 acres (0.8 ha) or more of foraging habitat within an HPZ? Note: Answer 'yes' even if the forage is unavailable only temporarily. Effects could occur as a result of activities carried out outside of the nesting period if they result in reduced forage availability during a subsequent nesting period on 2.0 acres (0.8 ha) or more within an HPZ. This excludes effects to vegetation in newly planted habitats if they occur before the beginning of the third growing season after the initial seeding. For a description of foraging habitat, refer to the rusty patched bumble bee section 7 guidelines.	45.0	46.0
45.0	Will removal of foraging resources within the HPZ occur during the nesting season?	May Affect, Contact your local field office to discuss the details of the project	46.0
46.0	Does the action include the use of prescribed fire during the overwintering period? Overwintering dates are October 11 to March 31 south of 42N latitude, and October 11 to April 14 north of 42N latitude.	47.0	48.0
47.0	Is the burn unit within upland forest habitat?	May Affect, Contact your local field office to discuss the details of the project	48.0

48.0	Will the action result in the regular, re-occurring, or permanent removal, reduction, or conversion of any existing rusty patched bumble bee habitat?	49.0	Not Likely to Adversely Affect
49.0	Will the action result in the permanent removal of more than 2.0 acres (0.8 ha) of rusty patched bumble bee habitat?	May Affect, Contact your local field office to discuss the details of the project	Not Likely to Adversely Affect

Appendix B. Concurrence request form for use with assisted determination key.

Use this form to request concurrence from the U.S. Fish and Wildlife Service for federal actions that may affect, but are not likely to adversely affect the rusty patched bumble bee, based on the use of the USFWS Assisted Determination Key.

Complete Table B.1 and submit this form along with your request for concurrence to the local USFWS Ecological Services Field Office (Our Locations | U.S. Fish & Wildlife Service (fws.gov)) to discuss the specifics of this project. Along with the form, include a brief description of the proposed federal action and a shapefile (preferred) or map of the area likely to be affected by the action (the action area[7]) along with your request for concurrence.

Table B.1. Information for concurrence requests. RPBB = rusty patched bumble bee; HPZ = High Potential Zone.

Description of Action	Check if Applies	Acres RPBB Habitat Affected in HPZ
The action includes seed collection that will not affect the same 2.0 acres (or larger) area of RPBB habitat more frequently than once every three years.		
The action will include herbicide use in RPBB habitat within one or more HPZs, but only spot spraying (application to individual weeds using a hand-held sprayer) and/or other methods that include only applications to individual weeds (e.g., wick wiping, cut-stump, or basal bark treatments).		
The action will remove or convert RPBB foraging habitat, but the amount of habitat removal or conversion is less than 2.0 acres. Ground disturbance in nesting habitat and in wintering habitat during the nesting and overwintering seasons, respectively, will not exceed 0.25 acres.		
The action will cause ground disturbance that affects *less* than 0.25 acre of RPBB nesting habitat (upland grasslands, shrublands, and forest edges that contain native sources of pollen and nectar) in a HPZ during the nesting season.	Yes	0.02 acre prairie
The action will cause ground disturbance on *less* than 0.25 acre of RPBB overwintering habitat (upland forest) in a HPZ during the overwintering period.		
The action will cause effects during the nesting period to *less than* 2.0 acres (0.8 ha) of RPBB foraging habitat. Ground disturbance in nesting habitat during the nesting period will not exceed 0.25 acres.	Foraging = 1.64 acres Nesting habitat = 0.02 acre prairie	
The action will affect 2.0 acres or more of *newly planted foraging habitat* during the nesting period, but only before the beginning of the third growing season after the initial seeding. Ground disturbance in nesting habitat during the nesting period will not exceed 0.25 acres.		

[7] Action area means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action.

Ashley Taylor

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, June 2, 2025 3:51 PM
To: Ashley Taylor; Michels, Stewart
Cc: Bowman, Sandra A; Leever, Jonah; C.J. Cunningham; Wilcox, Mitchell
Subject: Re: [EXTERNAL] USFWS Coord - Des. No. 1700025, U.S. 41 Roadway Project

Follow Up Flag: Follow up
Flag Status: Flagged

EXTERNAL

Dear All,

This responds to your recent letter requesting our concurrence on a "not likely to adversely affect" determination for Mead's milkweed (Asclepias meadii) and rusty patched bumble bee (Bombus affinis; RPBB) on the aforementioned project. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act (ESA) of 1973, as amended, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project is also within the range of the federally endangered Indiana bat (Myotis sodalis), northern long-eared bat (Myotis septentrionalis; NLEB), Mead's milkweed (Asclepias meadii), and rusty patched bumble bee (Bombus affinis; RBPP). These species will be covered using the Federal Highway Administration, Federal Rail Administration, and Federal Transit Administration's Indiana bat, northern long-eared bat, and tricolored bat Rangewide Programmatic Consultation process and implement all applicable avoidance and minimization measures.

The proposed project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be 12 to 14 feet wide and would terminate near U.S. 231 to the north and W. 133rd Avenue to the south. U.S. 41 will be widened in both directions through the length of the proposed construction area. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound U.S. 41 at W. 133rd Avenue. Outside shoulders would be widened to 8 feet between W. 125th Avenue and U.S. 231. Concrete curb and gutter will be added beginning north of W. 135th Place and ending north of W. 125th Avenue. Driveways along U.S. 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at U.S. 231 and W. 133rd Place will be replaced. New drainage detention basins will be excavated along the U.S. 41 roadway in some areas.

Adjacent land use consists of maintained and unmaintained roadside vegetation, wooded areas, natural areas, wetland areas, residential areas, and commercial areas. Suitable habitat for Mead's Milkweed in the project area is limited to the prairie habitat associated with the Indiana Department of Natural Resources (IDNR) Biesecker Prairie Nature Preserve. A site inspection involving the IDNR ecologist did not identify any Mead's milkweed in the proposed construction area. IDNR ecologist Matthew Beatty indicated that Mead's milkweed is known to occur in the central area of the preserve, and not near the right-of-way.

The project area is also located within a RPBB high priority zone (HPZ). Suitable habitat for the RPBB is present within the project area at Biesecker Prairie Nature Preserve. Approximately 0.02 acre of the preserve will be disturbed as part of this project; however, recent bumble bee surveys have not found RPBB in the area. The project proponents completed the assisted RPBB determination key located in Appendix A of the Rusty Patched Bumble Bee (Bombus affinis) Endangered Species Act Section 7(a)(2) Voluntary Implementation Guidance (USFWS 2024) and received "not likely to adversely affect" determination. The Service has reviewed the answer key and concurs with the resulting determination.

The Service has reviewed the information you provided, including applicable avoidance and minimization measures, and concurs your project is not likely to adversely affect Mead's milkweed or RPBB.

We recommend that a native seed mixture be used in the area within and adjacent to Biesecker Nature Preserve where practicable.

Wetland and stream impacts may require permits from the US Army Corps of Engineers, the Indiana Department of Environmental Management's Water Quality Certification program, and the Indiana Department of Natural Resources. Wetland impacts should be avoided, and any unavoidable impacts should be compensated for in accordance with the Corps of Engineer's mitigation guidelines.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 902-1752.

Sincerely,

Robin

Robin McWilliams Munson
Fish and Wildlife Biologist/Transportation Liaison
U.S. Fish and Wildlife Service
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403
Robin_McWilliams@fws.gov
***NEW* 812-902-1752**

Mon-Thurs 8:30-4:30p

From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Tuesday, May 6, 2025 9:08 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>; Michels, Stewart <SMichels@indot.IN.gov>
Cc: Bowman, Sandra A <SBowman@indot.IN.gov>; Leever, Jonah <JLeever@indot.IN.gov>; C.J. Cunningham <CCunningham@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>
Subject: RE: [EXTERNAL] USFWS Coord - Des. No. 1700025, U.S. 41 Roadway Project

Good morning Robin,

I confirmed the below information with our design team.

For #19: Traffic is not expected to increase. Travel lane capacity remains the same (Existing 4 lanes, Proposed 4 Lanes) with an additional two-way left-turn lane for safety.

For #31: This question was answered yes because typical INDOT Seed Mixture Type R (which contains non-native species) would be used reseed areas adjacent to the roadway throughout most of the corridor; however, native wetland mixtures will be utilized in areas of wetlands.

- From INDOT Standard Specifications (https://www.in.gov/dot/div/contracts/standards/book/sep23/2024%20Standard%20Specifications.pdf)
    1. Seed Mixture R This seed mixture shall be applied at the rate of 202.5 lb/ac consisting of 100 lb/ac of low endophyte Tall Fescue, 50 lb/ac of turf type Perennial Ryegrass, 50 lb/ac of Creeping Red Fescue, and 2.5 lb/ac of White Dutch Clover. Seed used in this mixture shall be drought tolerant. Fertilizer and mulching material, where specified or directed, 230 shall be applied in accordance with 621.05.

Please let me know if there is any other information I can provide.

Thank you!

Ashley

LOCHMUELLER GROUP

Web: http://lochgroup.com

Ashley Taylor
Environmental Specialist III
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From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, May 5, 2025 5:06 PM
To: Michels, Stewart <SMichels@indot.IN.gov>; Ashley Taylor <Ashley.Taylor@lochgroup.com>
Cc: Ashley Taylor <Ashley.Taylor@lochgroup.com>; Bowman, Sandra A <SBowman@indot.IN.gov>; Leever, Jonah <JLeever@indot.IN.gov>
Subject: Re: [EXTERNAL] USFWS Coord - Des. No. 1700025, U.S. 41 Roadway Project

EXTERNAL

HI Stew and Ashley,

I have a question on the RPBB key that was included. Item 19.0 asks if the addition of travel lanes is likely to increase traffic in an HPZ. Your answered "no", so I take that to mean there is no change in traffic volume expected after the new lanes are added, correct?

Also wondering what type of non-native plant species are being referred to in item 31.0.

Thanks,
Robin

Robin McWilliams Munson
Fish and Wildlife Biologist/Transportation Liaison
U.S. Fish and Wildlife Service
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403
Robin_McWilliams@fws.gov
***NEW* 812-902-1752**

Mon-Thurs 8:30-4:30p

From: Michels, Stewart <SMichels@indot.IN.gov>
Sent: Monday, May 5, 2025 9:36 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Cc: Ashley Taylor <Ashley.Taylor@lochgroup.com>; Bowman, Sandra A <SBowman@indot.IN.gov>; Leever, Jonah <JLeever@indot.IN.gov>
Subject: [EXTERNAL] USFWS Coord - Des. No. 1700025, U.S. 41 Roadway Project

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Robin,

I hope all is well with you. Attached for your review is a Standard Informal Consultation letter pertaining to Mead's Milkweed (*Asclepias meadii*) and the Rusty Patched Bumble Bee (*Bombus affinis*) that was prepared by Ashley Taylor, of the Lochmueller Group. On behalf of the FHWA, INDOT is seeking your concurrence with a "May Affect – Not Likely to Adversely Affect" determination for these species. Please let us know if you need any additional information. Thank you very much for your consideration.
Best,
Stew

Stewart Michels
Environmental Manager Supervisor
Indiana Department of Transportation
LaPorte District
Cell: (219) 402-7315
Email: SMichels@indot.in.gov
Find us on social media!

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

Date: January 21, 2026

Robin McWilliams-Munson
U.S. Fish and Wildlife Service (USFWS)
Indiana Ecological Services Field Office
620 S. Walker Street
Bloomington, Indiana 47403

Re: Standard Informal Consultation for the Eastern Prairie Fringed Orchid
Des. No. 1700025
U.S. 41, from 3.25 miles south of U.S. 231 to U.S. 231
Roadway Project
Lake County, Indiana

Dear Ms. McWilliams-Munson:

The Indiana Department of Transportation (INDOT) is acting on behalf of Federal Highway Administration (FHWA) and submitting this letter for standard informal consultation for the Eastern Prairie Fringed Orchid (EPFO) (*Platanthera leucophaea*). Prior coordination dated June 2, 2025 regarding the Rusty Patched Bumble Bee (*Bombus affinis*) and Mead's Milkweed (*Asclepias meadii*) resulted in a Not Likely to Adversely Affect (NLAA) finding for those species. A revised USFWS official species list was generated through the USFWS Information for Planning and Consultation (IPaC) portal on August 5, 2025 and regenerated on January 14, 2026 to include as part of the National Environmental Policy Act (NEPA) documentation. This revised species list included an additional federally listed species, the EPFO (*Platanthera leucophaea*).

The existing site conditions and proposed improvements have not changed compared to those introduced in the original informal consultation letter dated May 2, 2025. Therefore, the NLAA findings for the Rusty Patched Bumble Bee and the Mead's Milkweed have not changed. This informal consultation letter will focus solely on the project's interaction with the EPFO.

Existing EPFO Habitat and Assessment of Suitable Habitat

EPFO was first listed as threatened under the Endangered Species Act on September 28, 1989 (USFWS ECOS 2025). No critical habitat for EPFO has been designated. A Recovery Plan was approved on September 29, 1999 (USFWS 1999). The most recent 5-Year Review for the species was published on December 15, 2020 (USFWS 2020).

EPFO is listed as an Indiana state endangered species by the Indiana Department of Natural Resources (IDNR) (IDNR 2025). EPFO is designated by NatureServe as global imperiled (G2), rare or uncommon globally (G3), and critically impaired in the state (S1) (IDNR 2025).

Suitable habitat for EPFO includes mesic prairies and wetlands. Potentially viable wetland habitat ranges from disturbed ditches to high quality wetland habitat, including fens, marshes, and bogs (USFWS 1999; USFWS ECOS 2025). Generally speaking, the orchid prefers full sun habitat but may occur in partially shaded areas along edge

habitat (USFWS 1999; USFWS ECOS 2025). Factors inducing the decline of EPFO include habitat conversion, fire suppression, woody vegetation encroachment, impacts to pollinator populations, and competition from non-native plant species (USFWS 1999).

Habitat areas within the project area consist of clay/loam soils with invasive-dominated ditch wetlands, disturbed roadside vegetation, prairies, and forested land. The majority of the project area contains disturbed soils because of residential and/or commercial development, roadside disturbance to perpetuate drainage along U.S. 41, and/or undisturbed forested areas. Suitable habitat for EPFO within and near the project areas includes prairie habitat associated with the IDNR Biesecker Prairie Nature Preserve, potential prairie habitat along the corridor, and potentially along the edges of the ditch wetland habitat.

According to the IDNR Division of Nature Preserves 2022 *Annual Report* (IDNR DNP 2022), six stems of the EPFO were observed at a single site in 2022. The specific location was not disclosed within the report, but additional coordination with Matthew Beatty, IDNR Regional Ecologist indicated the nearest historical location was from Hartsdale from 1926, approximately six miles north of the project area. The species was not documented in 2023 despite thorough searches at the IDNR Biesecker Prairie Nature Preserve and in other suitable locations (IDNR DNP 2023). Mr. Beatty indicated he was not aware of any current EPFO populations in or near the project area. Additionally, Scott Namestnik, IDNR State Botanist, indicated he was not aware of any surveys specifically for the EPFO occurring at Biesecker Prairie Nature Preserve. He also noted that he has visited the site during the time the EPFO would be in flower, but it has never been observed there. Additionally, Mr. Namestnik indicated the likelihood of the EPFO occurring within the project area is low, but the only way to know for sure would be through surveys at the appropriate time of year. Mr. Namestnik also noted that this species can occur both in wetlands (ranging from high quality bogs and fens to degraded wetlands dominated by common reed and cattail) and in uplands (mesic prairie, including prairie with shrub encroachment). While marginal suitable habitat conditions may be present, individuals of EPFO are not currently known to be present in the proposed areas of disturbance.

An additional level of analysis was completed utilizing the *Species Survey Guidelines: Eastern Prairie Fringed Orchid* (USFWS 2019) procedures. A floristic quality assessment (FQA) for each of the 31 wetlands identified within the project area (Appendix C). Of these wetlands, total of six wetlands (Wetlands B, G, L, Q, R, and CC) had a native mean C value of greater than 3.5 and were therefore determined to be of high quality according to the species survey guidelines. However, there were not four or more associate plant species identified at any of these six wetlands. Therefore, it is concluded that the EPFO is not likely to be present.

One potentially prairie (GPS Coordinates: 41.400751, -87.470421) is located within the project area. This area contained species such as big bluestem (*Andropogon gerardii*), compass plant (*Silphium laciniatum*), prairie dock (*Silphium terebinthinaceum*), little bluestem (*Schizachyrium scoparium*), and fuzzy wuzzy sedge (*Carex hirsutella*). A full FQA was not completed for this area due to lack of standardized data collection; however, the only two associate species were identified at that time (*Andropogon gerardii* and *Carex sp.*). According to the Google Street View, the area between the adjacent billboard and edge of pavement was mowed between the Waters of the U.S. site visit on June 10, 2024 and the end of June 30, 2024. This would further reduce the chances of the EPFO being at full height and able to flower during its bloom period of June 28 through July 11. The construction limits in this potential prairie area range from 25 to 35 feet from the edge of the pavement. It is unlikely that the EPFO is present in this location.

Avoidance and Minimization Measures (AMMs)

Based on the scope of work anticipated for the U.S. 41 Roadway Project, no AMMs beyond the original AMMs identified from the Rusty Patched Bumble Bee and Mead's Milkweed informal consultation letter (Appendix A),

USFWS concurrence verification letter (Appendix A), and USFWS response email dated June 2, 2025 (Appendix B) are warranted for EPFO to maintain compliance with the determination of effect concluded from this assessment.

Conclusion

Suitable habitat for EPFO is limited to the Biesecker Prairie Nature Preserve, ditch wetlands, and other prairie habitat throughout the project area. Impacts related to the proposed roadway improvement project are anticipated to be limited to previously disturbed ground immediately adjacent to U.S. 41, including Biesecker Prairie Nature Preserve. No individuals of EPFO are known to be present within or adjacent to the project area according to IDNR staff. Additionally, FQAs of wetland habitat and general assessment of other prairie habitat do not provide strong evidence of the presence of associate species to the EPFO. Therefore, the disturbance resulting from the project is unlikely to affect EPFO. The FHWA has determined the proposed project has an effect finding of "May Affect- Not Likely to Adversely Affect" for the federally threatened EPFO.

The FHWA is requesting USFWS concurrence with this project's "May Effect – Not Likely to Adversely Affect" determination for the Eastern Prairie Fringed Orchid.

Please contact Ashley Taylor (Ashley.Taylor@lochgroup.com) if you have any questions or require additional information. We appreciate your attention to this project.

Sincerely,

Ashley Taylor
Environmental Project Manager – Northern Indiana
Lochmueller Group, Inc.

Attachments:

Appendix A

- Standard Informal Consultation Letter for the Mead's Milkweed & Rusty Patched Bumble Bee (May 2, 2025)

Appendix B

- USFWS Response Email (June 2, 2025)
- USFWS Official Species List (August 5, 2025)

Removed to avoid duplication; Refer to Appendix C

- Additional Email Correspondence with Matt Beatty (IDNR Regional Ecologist) (November 19, 2025; December 4, 2025) and Scott Namestnik (IDNR State Botanist) (December 5, 2025; January 20, 2026)
- FQA Summary Table for Wetlands

References:

Indiana Department of Natural Resources (IDNR). (2025). Indiana County Endangered, Threatened, and Rare Species List: Lake County. https://www.in.gov/dnr/nature-preserves/files/np_lake.pdf

IDNR Division of Nature Preserves (DNP). (2022) Indiana DNR Division of Nature Preserves 2022 Annual Report. https://www.in.gov/dnr/nature-preserves/files/np-nature-preserves-annual-report-2022.pdf

IDNR DNP. (2023) Indiana DNR Division of Nature Preserves 2023 Annual Report. https://www.in.gov/dnr/nature-preserves/files/np-nature-preserves-annual-report-2023.pdf

USFWS Environmental Conservation Online System (ECOS). (2025) Eastern Prairie Fringed Orchid (*Platanthera leucophaea*). https://ecos.fws.gov/ecp/species/601#crithab

USFWS. (1999). Eastern Prairie Fridge Orchid *Platanthera leucophaea* (Nuttall) Lindley Recovery Plan. https://ecos.fws.gov/docs/recovery_plan/990929.pdf

USFWS. (2019). Species Survey Guidelines: Eastern Prairie Fringed Orchid. https://ipac.ecosphere.fws.gov/guideline/survey/population/984/office/31131.pdf

USFWS. (2020). 5-Year Review Eastern Prairie Fringed Orchid (*Platanthera leucophaea*). https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/3211.pdf

Appendix B

Additional Correspondence for the Standard Informal Consultation Letter for the Eastern Prairie Fringed Orchid

Ashley Taylor

From: Namestnik, Scott A <SNamestnik@dnr.IN.gov>
Sent: Tuesday, January 20, 2026 1:15 PM
To: Ashley Taylor
Cc: C.J. Cunningham; Carson Hoogewerf; Wilcox, Mitchell; Reuter, Andrew; Hellmich, Ron; Beatty, Matthew
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

Follow Up Flag: Follow up
Flag Status: Flagged

External email

Hi Ashley. I have reviewed the information you have provided, and I have read back through the email correspondence below. Given that there is at least marginally appropriate habitat for eastern prairie fringed orchid within the project area (not just the area at Biesecker Prairie Nature Preserve, but also south of there on both sides of the road), and that the area has not been specifically surveyed at the time of year when eastern prairie fringed orchid would be in bloom, I would not be able to say with certainty that eastern prairie fringed orchid is not present within the project area. I do think the likelihood of it occurring within the project area is low, but the only way to know for sure would be through surveys at the appropriate time of year. Please note that this species can occur both in wetlands (ranging from high quality bogs and fens to degraded wetlands dominated by common reed and cattail) and in uplands (mesic prairie, including prairie with shrub encroachment), so potential habitat may not be limited to the delineated wetlands.

Scott.

Scott Namestnik
Botanist
Indiana Department of Natural Resources
Division of Fish, Wildlife, & Nature Preserves, Indiana Natural Heritage Data Center
402 W. Washington Street, Room W-267
Indianapolis, Indiana 46204
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463-203-7596 (Cell)
www.dnr.IN.gov

Please let us know about the quality of our service by taking this brief customer survey.

From: Ashley Taylor <ashley.taylor@lochgroup.com>
Sent: Monday, January 19, 2026 8:15 AM
To: Namestnik, Scott A <SNamestnik@dnr.IN.gov>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>; Beatty, Matthew <MBeatty1@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Good morning Scott,

I hope you are doing well. I'm reaching back regarding this U.S. 41 roadway project where the eastern prairie fringed orchid has been identified on the USFWS species list. As part of our ongoing coordination with Robin from USFWS, she indicated she would defer to the DNR botanists if you have a strong opinion on the potential presence of the orchid along US 41. I have attached a KMZ of the total investigated area. All construction limits will be contained within this area; however, not all of the investigated area will be disturbed. I have also included an excerpt of the approved Waters of the U.S. report showing wetland areas within the investigated boundary.

When you have a moment, could you please review the attached materials and let me know if you have any concerns regarding the potential presence of the eastern prairie fringed orchid? If there is any additional information I can provide, please let me know.

Thank you very much for your time and assistance!

Ashley

LOCHMUELLER GROUP

Web: http://lochgroup.com

Ashley Taylor
Environmental Project Manager

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From: Namestnik, Scott A <SNamestnik@dnr.IN.gov>
Sent: Friday, December 5, 2025 11:03 AM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>; Ashley Taylor <ashley.taylor@lochgroup.com>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

EXTERNAL

Hi Ashley. I agree with everything Matt has said in the emails below. I am not aware of surveys specifically for Platanthera leucophaea taking place at Biesecker Prairie Nature Preserve. We've updated records for the rare plants that Matt mentioned and several others that occur at Biesecker Prairie Nature Preserve in the last six years, and I've been to the site near the time that Platanthera leucophaea would be in flower, but maybe not during the peak bloom time, but it's never been observed there.

Scott.

Scott Namestnik
Botanist
Indiana Department of Natural Resources
Division of Fish, Wildlife, & Nature Preserves, Indiana Natural Heritage Data Center
402 W. Washington Street, Room W-267
Indianapolis, Indiana 46204
snamestnik@dnr.IN.gov
317-233-9244 (Office)
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Please let us know about the quality of our service by taking this brief customer survey.

From: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Sent: Thursday, December 4, 2025 11:51 AM
To: Ashley Taylor <ashley.taylor@lochgroup.com>; Namestnik, Scott A <SNamestnik@dnr.IN.gov>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

Hi Ashley,

I don't think we have specifically surveyed for EPFO at Biesecker Prairie in the 4 years that I have been with DNR. We have only done targeted surveys for Mead's Milkweed and Hill's Thistle. I am not sure when the last time the prairie was specifically surveyed for EPFO.

Matt Beatty
Kankakee Regional Ecologist
Indiana Department of Natural Resources
Division of Fish, Wildlife & Nature Preserves
219-204-6231 (C)
mbeatty1@dnr.in.gov
www.dnr.IN.gov

From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Tuesday, November 25, 2025 12:12 PM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

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Good morning Matt,

I just wanted to touch base regarding the below email. I want to ensure that I understand the DNR's efforts for surveying for plant species especially at the Biesecker Prairie Nature Preserve each year and am able to accurately respond to USFWS. If the whole prairie is not surveyed each year, could you please let me know when it was last surveyed for all plant ETR species (not just monitoring the Mead's milkweed population)?

I greatly appreciate your help with this!

Have a great Thanksgiving!

Ashley

LOCHMUELLER GROUP

Web: http://lochgroup.com

Ashley Taylor
Environmental Specialist III
Lochmueller Group
1690 Broadway, Building 19, Suite 410, Fort Wayne, IN 46802
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From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Wednesday, November 19, 2025 12:41 PM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

Thank you Matt! Would it be safe to assume that Biesecker Prairie is surveyed every year for ETR plant species (including Mead's milkweed and the EPFO)? One of Robin's questions was whether anyone is actually looking specifically for the EPFO at the Biesecker Prairie.

Thank you again for all of your help!

Ashley

Ashley Taylor
Environmental Specialist III
Lochmueller Group
Direct: 260.399.3621
Mobile: 260.205.2452

From: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Sent: Wednesday, November 19, 2025 12:00 PM
To: Ashley Taylor <ashley.taylor@lochgroup.com>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: Re: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

EXTERNAL

Hi Ashley,

You are correct that a population of Mead's Milkweed is still extant at Biesecker Prairie, and is monitored annually by DNR staff. There are historical collections of EPFO from a few places in northern Lake County, but it has never been documented at Biesecker Prairie, and there are no current known populations in Lake County. We have done periodic surveys for EPFO in likely habitat in Lake County in recent years, and we have plans to continue to do so in the future as time allows, though likely not on an annual basis.

I hope this answers your questions, please let me know if there is anything else I can assist with.

Matt Beatty
Kankakee Regional Ecologist
Indiana Department of Natural Resources
Division of Fish, Wildlife & Nature Preserves
219-204-6231 (C)
mbeatty1@dnr.in.gov
www.dnr.IN.gov

From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Wednesday, November 19, 2025 8:51 AM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

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Good morning Matt,

During our coordination with USFWS, Robin requested additional information regarding whether surveys have specifically been conducted at Biesecker Prairie Nature Preserve to look for the eastern prairie

fringed orchid (EPFO) and Mead's milkweed. The 2024 annual report (https://www.in.gov/dnr/nature-preserves/files/np-nature-preserves-annual-report-2024.pdf) mentions both species and based on our prior correspondence, I am assuming the Mead's milkweed records mentioned in that report were specifically from Biesecker Prairie Nature Preserve. I'm not sure where the EPFO occurrences were within the state. Is Biesecker Prairie Nature Preserve annually surveyed for these species in particular? Or is there a survey schedule for monitoring extant populations and searching for new populations at the preserve?

I greatly appreciate any additional information you can provide about the surveys conducted at Biesecker Prairie Nature Preserve in particular.

Thank you!

Ashley

LOCHMUELLER GROUP

Web: http://lochgroup.com

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Mobile: 260.205.2452

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From: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Sent: Wednesday, August 20, 2025 5:02 PM
To: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

EXTERNAL

Hi Ashley,

I am not aware of any current EPFO populations in or near the project area. The nearest historical location was from Hartsdale, about 6 miles to the north of the project area, where a specimen was collected in 1926. Let me know if you there is any other information I can provide regarding this species.

Matt Beatty

Kankakee Regional Ecologist

Indiana Department of Natural Resources

Division of Fish, Wildlife & Nature Preserves

219-204-6231 (C)

mbeatty1@dnr.in.gov

www.dnr.IN.gov

From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Wednesday, August 20, 2025 7:40 AM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <ccunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

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Good morning Matt,

I hope you are doing well! A new species, the eastern prairie fringed orchid (*Platanthera leucophaea*), was identified on USFWS's Information for Planning and Consultation (IPaC) official species list for this

U.S. 41 project. We previously coordinated regarding Mead's milkweed on the Biesecker Prairie Nature Preserve and I wanted to reach out to see if you were aware of any individuals of the eastern prairie fringed orchid either on the prairie property itself or in the general area of this project. I've attached a map of the approximate investigation area used for our Waters of the U.S. investigation for reference.

Thank you for all of your help on this project!

Ashley

LOCHMUELLER GROUP

Web: http://lochgroup.com

Ashley Taylor
Environmental Specialist III

Lochmueller Group
1690 Broadway, Building 19, Suite 410, Fort Wayne, IN 46802

Email: Ashley.Taylor@lochgroup.com

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Mobile: 260.205.2452

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From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Tuesday, May 21, 2024 1:42 PM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell R <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

Good afternoon Matt,

Let's plan on meeting Thursday, May 30th at 9:30 am on-site along the edge of the property, which abuts U.S. 41. I'd like to also hold Tuesday, June 4th at 9:30 am as a backup date in the event that the weather is uncooperative. I will follow-up this email with a meeting invite for those days. I will also keep you posted as May 30th gets closer, but right now it looks like it will be mostly sunny there with a low chance of rain, so it should be a good day 😊

Thank you again for meeting us out there and we look forward to meeting you in person!

Ashley

Ashley Taylor
Environmental Specialist II
Lochmueller Group
Direct: 260.399.3621
Mobile: 260.205.2452

From: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Sent: Tuesday, May 21, 2024 8:54 AM
To: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell R <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: Re: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

EXTERNAL

Hi Ashley,

I'm available the following times;

Monday, May 27 at 9:30am

Tuesday, May 28 between 9:30am and 1:30pm

Thursday, May 30 at 9:30am

Tuesday, June 4 between 9:30am and 1:30pm

Let me know which works best for you.

Matt Beatty

Kankakee Regional Ecologist

Indiana Department of Natural Resources

Division of Nature Preserves

219-204-6231 (C)

mbeatty1@dnr.in.gov

www.dnr.IN.gov

From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Tuesday, May 21, 2024 7:36:33 AM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell R <mitchell.wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: RE: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

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

Good morning Matt,

I hope you are doing well! I just wanted to follow up with you to see if any of the proposed time frames below would work for you to potentially meet on site for a couple of hours. If other days/times would work better for you, please let me know and we can work something out.

Thank you!

Ashley

Ashley Taylor
Environmental Specialist II
Lochmueller Group
7223 Engle Road, Suite 105, Fort Wayne, IN 46804
Email: Ashley.Taylor@lochgroup.com
Direct: 260.399.3621
Mobile: 260.205.2452
Web: http://lochgroup.com

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From: Ashley Taylor <Ashley.Taylor@lochgroup.com>
Sent: Monday, May 6, 2024 7:36 AM
To: Beatty, Matthew <MBeatty1@dnr.IN.gov>
Cc: C.J. Cunningham <CCunningham@lochgroup.com>; Carson Hoogewerf <CHoogewerf@lochgroup.com>; Wilcox, Mitchell <Mitchell.Wilcox@mbakerintl.com>; Reuter, Andrew <AReuter@dnr.IN.gov>; Hellmich, Ron <rhellmich@dnr.IN.gov>
Subject: Field Work - Des. No. 1700025, US 41 Roadway, Lochgroup #123-3037-01

Good morning Matt,

We are working towards scheduling field work for a Waters of the U.S. /Wetland Delineation Report for this U.S. 41 project. As we've discussed, the Biesecker Prairie Nature Preserve is located near the northern end of the project area. As part of our field work, we regularly must dig holes to confirm the presence/absence of wetland features, and we want to be as careful as possible to minimize our disturbance to this area.

Due to the sensitive nature of this property and its flora and fauna, we wanted to coordinate with you to see if you would be interested and available to meet us on-site while we complete our investigations along the property edge. We are tentatively looking at sometime during the last two weeks of May, though it may extend into the first week of June (weather dependent). Are there any days and/or times that would work best (or don't work at all) for you during that window (approx. May 20th-June 7th)? Once we have a couple of dates, I will send out a poll and choose a primary date and back-up date in case of inclement weather and put those on our calendars. I would anticipate spending a couple of hours at most along the edge of this property during our investigation if we were to identify wetland areas.

If there are any state or federally protected species identified within the investigation area, then we would also plan on mapping those areas as well. We would greatly appreciate your trained eyes to ensure that we are not disturbing the property.

Thank you,

Ashley

Ashley Taylor
Environmental Specialist II
Lochmueller Group
Direct: 260.399.3621
Mobile: 260.205.2452

FQA Summary Table

Assessment Name	Date	FQA Database	Native FQI	Native Mean C	No. Species from Associate Plant Species List	Specific Associate Species Identified in Wetland
A	5/30/2024	Indiana, 2019	3	1.5	N/A	N/A
AA	5/30/2024	Indiana, 2019	1	1	N/A	N/A
B	5/30/2024	Indiana, 2019	7.1	5	0	N/A
BB	6/11/2024	Indiana, 2019	0	0	N/A	N/A
C	5/30/2024	Indiana, 2019	4.2	3	N/A	N/A
CC	6/11/2024	Indiana, 2019	7	7	0	N/A
D	5/30/2024	Indiana, 2019	0	0	N/A	N/A
DD	6/10/2024	Indiana, 2019	0	0	N/A	N/A
E	5/31/2024	Indiana, 2019	0	0	N/A	N/A
EE	6/10/2024	Indiana, 2019	5	2.5	N/A	N/A
F	5/30/2024	Indiana, 2019	0	0	N/A	N/A
G	5/30/2024	Indiana, 2019	9.2	5.3	2	Carex molesta, Carex conoidea
H	5/31/2024	Indiana, 2019	2.8	2	N/A	N/A
I	5/31/2024	Indiana, 2019	0	0	N/A	N/A
J	5/31/2024	Indiana, 2019	0	0	N/A	N/A
K	6/10/2024	Indiana, 2019	6.3	2.8	N/A	N/A
L	6/10/2024	Indiana, 2019	4	4	0	N/A
M	6/10/2024	Indiana, 2019	4.2	3	N/A	N/A
N	6/10/2024	Indiana, 2019	0	0	N/A	N/A
O	6/10/2024	Indiana, 2019	0	0	N/A	N/A
P	6/10/2024	Indiana, 2019	5.6	2.3	N/A	N/A
Q	5/31/2024	Indiana, 2019	7	7	0	N/A
R	6/10/2024	Indiana, 2019	7.6	3.8	1	Carex lasiocarpa
S	5/31/2024	Indiana, 2019	3	3	N/A	N/A
T	6/11/2024	Indiana, 2019	7.6	2.1	N/A	N/A
U	5/31/2024	Indiana, 2019	3.5	2.5	N/A	N/A
V	5/31/2024	Indiana, 2019	2	2	N/A	N/A
W	5/30/2024	Indiana, 2019	0	0	N/A	N/A
X	6/11/2024	Indiana, 2019	0	0	N/A	N/A
Y	6/11/2024	Indiana, 2019	8.1	2.7	N/A	N/A
Z	6/11/2024	Indiana, 2019	2.1	1.5	N/A	N/A

Note: The data used for these calculations was extracted from the wetland data sheets associated with the approved Waters of the U.S. report. These wetland data sheets are representative of the wetland; however, may not represent the entire species list identified within each wetland.

Ashley Taylor

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Wednesday, February 4, 2026 11:23 AM
To: Michels, Stewart; Ashley Taylor
Subject: Re: [EXTERNAL] Eastern Prairie Fringe Orchid - USFWS Coord Stand info - Des. No. 1700025, U.S. 41 Roadway Project

External email

Dear Stew,

This responds to your recent letter dated February 3, 2026, requesting our concurrence on a "not likely to adversely affect" determination for eastern prairie fringed orchid (*Platanthera leucophaea*; EPFO) for the aforementioned project. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act (ESA) of 1973, as amended, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area along U.S. 41 in Lake County . The TWLTL would be 12 to 14 feet wide and would terminate near U.S. 231 to the north and W. 133rd Avenue to the south. In order to establish the TWLTL, U.S. 41 will be widened in both directions through the length of the proposed construction area. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound U.S. 41 at W. 133rd Avenue. Outside shoulders would be widened to 8 feet between W. 125th Avenue and U.S. 231. Concrete curb and gutter will be added beginning north of W. 135th Place and ending north of W. 125th Avenue. Driveways along U.S. 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at U.S. 231 and W. 133rd Place will be replaced. New drainage detention basins will be excavated along the U.S. 41 roadway in some areas. Construction is slated to begin in the summer of 2026.

As stated in your letter, the project is within the range of the EPFO. The EPFO is typically found in mesic prairies and wetlands such as sedge meadows, marsh edges, and even bogs. It grows best in full sun in areas with high diversity and grass and sedge dominated plant communities. In Indiana there is one known extant population in White County.

Your letter indicates impacts related to the proposed roadway improvement project are anticipated to be limited to previously disturbed ground immediately adjacent to U.S. 41, including in the area adjacent to Biesecker Prairie Nature Preserve. No individuals of EPFO are known to be present within or adjacent to the project area according to interviews with the Indiana Department of Natural Resources (IDNR) staff. Floristic Quality Assessments utilizing the Service's *Species Survey Guidelines: Eastern Prairie Fringed Orchid (USFWS 2019)* were completed. Out of 31 wetlands assessed, six were determined to be of high quality, although lacked an assemblage of plants considered to be typically associated with EPFO.

Based on the project area description, project impact area, IDNR information, and floristic quality assessments, the Service concurs that the project is not likely to adversely affect the federally listed EPFO.

If you have any questions regarding our response or if you need additional information, please feel free to contact me.

Sincerely,
Robin

Robin McWilliams Munson
Fish and Wildlife Biologist/Transportation Liaison
U.S. Fish and Wildlife Service
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403
Robin_McWilliams@fws.gov
NEW 812-902-1752

Mon-Thurs 8:30-4:30p

From: Michels, Stewart <SMichels@indot.IN.gov>
Sent: Tuesday, February 3, 2026 10:12 AM
To: McWilliams, Robin <robin_mcwilliams@fws.gov>
Subject: [EXTERNAL] Eastern Prairie Fringe Orchid - USFWS Coord Stand info - Des. No. 1700025, U.S. 41 Roadway Project

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Robin,

Please find attached a "May Affect – Not Likely to Adversely Affect" (NLAA) finding pertaining to the eastern prairie fringed orchid (*Platanthera leucophaea*) prepared by Ashley Taylor (Lochmueller Group) and submitted for your consideration. Please note that you previously provided NLAA concurrence on this project for the rusty patched bumble bee (*Bombus affinis*) and Mead's milkweed (*Asclepias meadii*). Please let us know if you have any questions or concerns. Thank you again for your consideration.
Best,
Stew

Stewart Michels
Environmental Manager Supervisor
Indiana Department of Transportation
LaPorte District
Cell: (219) 402-7315

Categorical Exclusion

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

SECTION 1

Submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B-1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B-9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicant if the Minor Projects PA does not apply.

Part I: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff)*

**A qualified professional historian (QP) is not required to complete Part I. INDOT-CRO staff will be responsible for completion of Part II.*

Original Submission Date: 8/6/2020 **Amended Submission Date*:** 11/8/2024 & 5/21/2025

Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below.* ***Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization): Hannah Blad, Lochmueller Group

Project Designation Number: 1700025

Route Number: US 41

Feature crossed (if applicable): N/A

City/Township: Hanover Township **County:** Lake County

Project Description:*

The need for the project is due to overall deficient safety performance along the corridor based on the occurrence of traffic accidents. Between 2013 and 2016, there were 80 crashes within the project limits. These crashes resulted in 10 fatal or incapacitating injury crashes, 22 non-incapacitating injury crashes, and 55 property damage only crashes. The purpose of the project is to improve the safety of the corridor; a crash analysis predicted the preferred alternative would reduce crashes by over 50% throughout the length of the project.

The project will consist of widening US 41 to allow for the construction of a two-way left turn lane (TWLTL) from 3.25 miles south of US 231 to US 231 in Lake County. The TWLTL would be 12 to 14 feet wide and would terminate near US 231 to the north and West 133rd Avenue to the south. In order to establish the TWLTL, US 41 will be widened in both directions through the length of the proposed construction area. Dedicated left turn lanes and raised concrete center medians will be added to northbound and southbound US 41 at W 133rd Ave. Outside shoulders will be widened to 8 feet between W 125th Ave and US 231. Concrete curb and gutter will be added beginning north of W 135th Place and ending north of W 125th Ave. Driveways along US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at US 231 and W 133rd Place will be replaced. New drainage detention basins will be excavated along the US 41 roadway in some areas, though the locations have not yet been determined. Additional right-of-way (ROW) acquisition is anticipated. This project is anticipated to require approximately 18.9 acres of new permanent ROW, 0.7 acre of temporary ROW, and 6.1 acres of ROW re-acquisition. Approximately 3.5 acres of tree clearing will be required.

Three curb ramps will be reconstructed at the NE, SW, and SE quadrants at US 41 and W 133rd Ave. One curb ramp will be constructed at the NW quadrant at US 41 and W 133rd Ave.

Additionally, new permanent lighting will be installed in the northwest, southwest, and southeast quadrants of the intersection of U.S. 41 and W. 133rd Avenue. The existing permanent lighting in the northeast quadrant of this intersection would be replaced in-kind.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work:
Curb ramp reconstruction locations: NE, SW, & SE quadrants at US 41 and W 133rd Ave
Curb ramp construction location: NW quadrant at US 41 and W 133rd[d] Ave
Concrete curb and gutter will be added beginning north of W 135th Place and ending north of W 125th Ave.

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type: N/A

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (https://www.in.gov/indot/2531.htm)?
☐ **Yes** ☐ **No**

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.
☐ **Yes** ☐ **No**
Inventory Page #_____

Will there be right-of-way acquisition as part of this project?
☒ **Yes** ☐ **No**

If yes was checked above, please check all that apply:
☒ **Permanent** ☒ **Temporary** ☒ **Reacquisition**

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way: This project is anticipated to require approximately 18.9 acres of new permanent ROW, 0.7 acre of temporary ROW, and 6.1 acres of ROW re-acquisition.

Is there *any* potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?
☐ **Yes** ☒ **No**

Archaeology (check one):

☐ **All proposed activities are presumed to occur in previously disturbed soils.***
**INDOT-CRO will notify you if project area includes undisturbed soils and requires an archaeological reconnaissance.*

☒ **Project takes place in undisturbed soils and the archaeology report is included with the submission.***
**If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO Archaeology Team Lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (INDOT will highlight applicable conditions in yellow**):**

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and

pavement marking, under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

One of the two conditions listed below must be satisfied *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the Division of Historic Preservation and Archaeology (DHPA) and any archaeological site form information will be entered directly into the State Historic Architectural and Archaeological Database (SHAARD) by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on IN SCOPE.

Condition B (Above-Ground Resources)

One of the two conditions listed below must be satisfied *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below *(EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below)*:

   a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

   b. Unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and historic brick or stone retaining walls are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions *(1, 2, or 3)* listed below must be fulfilled:

      1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
      2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.
      3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians.

B-2. Installation of new lighting, signals, signage and other traffic control devices under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied)*:

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on IN SCOPE.

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions *[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]*:

Condition A (Archaeological Resources)

One of the two conditions listed below must be met *(EITHER Condition i or Condition ii must be satisfied):*

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Check ☐ if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included.

Check ☐ if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included.

Part II: Completed by INDOT-CRO

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photographs ☒ Soil survey data ☐

General project area photos ☐ Archaeology Reports ☒ Historic Property Reports ☐

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/iTAMS ☐ Historic Bridge Inventory Database ☐

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☒

Other (please specify): County GIS data (accessed via https://portico.mygisonline.com/); project information provided by Cardno, Inc. dated 7/7/2020 and on file at INDOT-CRO;

Settle, Kathleen D. and Veronica Parsell
2020 Phase Ia Archaeological Reconnaissance for the US 41 Auxiliary Lanes, Two-way Left Turn Lanes from 3.25 Miles South of US 231, Lake County, Indiana. Cardno, Indianapolis.

Are there any commitments associated with this project? If yes, please explain and include in the Additional Comments Section below. Yes ☒ No ☐

Does the project result in a de minimis impact to a Section 4(f) protected historic resource? If yes, please explain in the Additional Comments Section below. Yes ☐ No ☒

Additional Comments:

Above-ground Resources

With regard to above-ground resources, an INDOT-Cultural Resources Office (CRO) historian, who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61, first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Lake County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Lake County Interim Report* (1996; Hanover Township; Cedar Lake Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The SHAARD information was checked against the Interim Report hard copy maps. The following IHSSI sites are recorded within 0.25 mile of the project:

Hanover Township
IHSSI #089-565-80005 (Amoco Gas Station; 10729 Wicker Ave.; 1952; "contributing")
IHSSI #089-565-80013 (House; 11211 Wicker Ave.; c. 1900; "contributing")
IHSSI #089-565-80020 (House; 11519 W 119th Ave.; c. 1915; "contributing")
IHSSI #089-565-80019 (House; 12412 Wicker Ave.; c. 1860; "contributing")—demolished

Cedar Lake Scattered Sites
IHSSI #089-565-81046 (House; 11054 W 129th Ave.; c. 1935; "contributing")
IHSSI #089-565-81047 (House; 12939 Wicker Ave.; c. 1900; "contributing")—demolished
IHSSI #089-565-81048 (House; 13124 Wicker Ave.; c. 1940; "contributing")
IHSSI #089-565-81049 (House; 13114 Schneider St.; c. 1940; "contributing")
IHSSI #089-565-81050 (House; 13136 Schneider St.; c. 1930; "contributing")
IHSSI #089-565-81051 (Schreiber House; 13115 Schneider St.; c. 1935; "contributing")
IHSSI #089-565-81052 (House; 11412 W 133rd Ave.; c. 1910; "contributing")
IHSSI #089-565-81053 (House; 11306 W 133rd Ave.; c. 1940; "contributing")
IHSSI #089-565-81054 (Michael Miller Bus Barn; 11306 W 133rd Ave.; c. 1945; "contributing")—demolished
IHSSI #089-565-81055 (House; 11104 W 133rd Ave.; c. 1925; "contributing")
IHSSI #089-565-81056 (Hanover Center Historical Marker; W 133rd Ave.; 1855; "contributing")
IHSSI #089-565-81057 (Holy Name Catholic Church and Cemetery; 11000 W 133rd Ave.; 1932; "notable")
IHSSI #089-565-81061 (House; 10805 W 133rd Ave.; c. 1935; "contributing")
IHSSI #089-565-81062 (House; 10819 W 133rd Ave.; c. 1935; "contributing")
IHSSI #089-565-81063 (House; 11105 W 133rd Ave.; c. 1940; "contributing")—demolished
IHSSI #089-565-81064 (House; 11107 W 133rd Ave.; c. 1930; "contributing")—demolished
IHSSI #089-565-81065 (House; 11113 W 133rd Ave.; c. 1930; "contributing")—demolished
IHSSI #089-565-81066 (House; 11317 W 133rd Ave.; c. 1900; "contributing")—demolished
IHSSI #089-565-81067 (Gas Station; 13305 Wicker Ave.; c. 1930; "contributing")—demolished
IHSSI #089-565-81068 (House; 13311 Wicker Ave.; c. 1920; "contributing")—demolished
IHSSI #089-565-81069 (House; 13317 Wicker Ave.; c. 1940; "contributing")—demolished
IHSSI #089-565-81070 (House; 13321 Wicker Ave.; c. 1940; "contributing")
IHSSI #089-565-81071 (House; 13336 Wicker Ave.; c. 1940; "contributing")

According to the IHSSI rating system, generally properties rated "contributing" do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

IHSSI #089-565-81057 (Holy Name Catholic Church and Cemetery; "notable") is set back from 133rd Avenue roughly 100 feet and located approximately 550 feet east of the project area. Several buildings and mature deciduous trees along with the church's set back help shield the building from view of the project. For the purposes of this determination, IHSSI #089-656-81057 is not considered adjacent to the project area.

The project takes place along a semi-urban corridor with agricultural fields and scattered buildings present along the roadway in the northern half of the project, giving way to an increasingly dense mixed commercial and residential area within the town of Cedar Lake in the southern half of the project area. The majority of the buildings, both commercial and residential, along the project route date from the early-to-mid twentieth century. However, based on a review of online street-view imagery and aerial photography, there is no evidence to suggest that any of the resources within 0.25 mile of the project possess the significance and integrity necessary to be considered potentially eligible for the National Register for the purposes of this determination.

March 2025 Update—The INDOT historian reviewed the structures adjacent to the project area utilizing online aerial, street-view photography, and the Lake County GIS website to account for updated scope of work and to review any resources that would be 50 years old or older by project letting in 2026. For the purposes of this determination, only those structures immediately adjacent to the project area were reviewed. Given the limited nature of the scope of work, only these properties have the potential to be impacted by the project. As previously described, scattered above-ground resources are present in the northern half of the project while the southern half of the project has increasingly dense mixed commercial and residential above-ground development. The buildings

along the project area were constructed between the late nineteenth century and the twenty-first century with the majority dating to the mid-twentieth century. However, many of the resources along the project area have experienced alterations, such as additions and replacement of character defining features, or are common types of buildings that are not excellent examples of a particular style, form, or type. Based on the historian's review, there is no evidence that any of the resources adjacent to the project possess the significance and integrity necessary to be considered potentially eligible for the National Register for the purposes of this determination.

All road work activities, curb and gutter and drainage installation, and driveway reconstruction are covered by Categories B-1 and B-3. The traffic signal work at the intersection of US 41 & 133rd Avenue falls under Category A-5.

June 2025 Update—The scope of work has been updated to include the installation of streetlights and construction of ADA curb ramps at the intersection of US 41 & 133rd Avenue. While new streetlights will be added in the northwest, southwest, and southeast corners of the intersection, there is currently parking lot lighting present in each of these quadrants already as well as utility poles. The introduction of one streetlight in each quadrant will not drastically alter the setting. Therefore, only those properties immediately adjacent to the intersection have the potential to be impacted by the project. Previous reviews did not find any potentially eligible resources adjacent to the project area. The properties immediately adjacent to the intersection of US 41 & 133rd Avenue include twenty-first-century commercial buildings in the northwest, southwest, and southeast corners, and an altered early twentieth-century commercial building in the northeast corner. These properties are still not considered eligible for the National Register. Categories B-1 and B-2 have been added to the project to cover the added scope of work.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

Archaeological Resources

An archaeological records check and Phase Ia field reconnaissance were conducted by Cardno personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 (Settle and Parsell 2020). The records check identified no previously recorded sites within or adjacent to the project area but revealed that small portions had been covered by or were directly adjacent to previous archaeological surveys. The survey area consisted of an approximately 5.5 km (3.4 mi) linear area and encompassed approximately 29.5 ha (73 ac) of land. The reconnaissance consisted of systematic shovel probing (n=628) and visual inspection of inundated, sloping, disturbed, and developed areas. Many shovel probes (n=234) were found to contain disturbed soils, and the remaining undisturbed shovel probes (n=394) were negative.

One archaeological site (12La276) was newly identified during the survey. This site consisted of a scatter of mid-20th century artifacts observed on the surface around a drainage ditch. A shovel probe placed within the site limits did not contain artifacts. This site is a mid-20th century dump site that may be related to a circa 1954 residence that was formerly located nearby. The site is not eligible for the National Register, and no additional investigation was recommended. It is not known whether the site may extend outside of the surveyed area, and so avoidance or additional investigation is recommended for any portion of the site that may exist outside of the current project limits.

The report has been reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Cardno (Settle and Parsell 2020). Therefore, there are no archaeological concerns.

March 2025 Update – Areas of additional R/W were examined by an INDOT-CRO archaeologist who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. The areas were primarily

small extensions of temporary r/w for drive reconstruction or were located in commercially developed settings and were previously disturbed. Therefore, there are no archaeological concerns provided the project scope and footprint do not change.

Any portion of site 12La726 located outside of the current project R/W must be avoided by all ground disturbing activities. The project limits at the site location should be marked for avoidance on the ground during construction, and the area outside of the project limits should be marked on the plan sheet as "Do Not Disturb - Environmentally Sensitive Area."

June 2025 Update: INDOT-CRO was notified of project scope additions consisting of the addition of curb ramp reconstructions (n=4) and new permanent lighting fixtures (n=4) at the intersection of U.S. 41 and W. 133rd Avenue, one of which is being replaced in kind. The newly added construction activities will occur in previously disturbed soils within the existing ROW. Therefore, there are no additional archaeological concerns.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Kelyn Alexander and Matt Coon

INDOT Approval Date: 8/6/2020

Amendment Approval Date (if applicable): 3/21/2025 & 6/27/2025

****Be sure to attach this form to the National Environmental Policy Act documentation for this project. Also, the NEPA documentation shall reference and include the description of the specific stipulation in the PA that qualifies the project as exempt from further Section 106 review.*

Please attach the following to this form:

- **General Location Map.** This map should allow the INDOT-CRO reviewer to quickly locate the project.
- **Aerial photography map(s) of project area.** This map must include project limits. It may also include SHAARD data, but SHAARD data is not required.
- **Map depicting potential temporary and/or permanent right-of-way acquisitions.**
- **Project plans, if available.**
- **If bridge or small structure project, please attach photographs of bridge or small structure.** Photographs can be found in inspection reports located in INDOT's Bridge Inspection Application System (BIAS), as well as other project documents, such as engineering assessments or mini-scopes.

In the email submission to INDOT-CRO, please also include:

- **A GIS polygon shapefile or KMZ file of the project area** (shapefiles are preferred). Shapefiles should depict the project area, including all existing and proposed right-of-way and construction limits, and should use the "NAD_1983_UTM" projected coordinate system. In addition, these files should contain the following *text* attribute field: DES_NO. The project designation number should be entered in this field.
- **If the project takes place in undisturbed soils, attach the results of the archaeological investigation.**

Category A consists of projects that, by their nature, have no effect on properties listed in or eligible for inclusion in the National Register of Historic Places (hereinafter referred to as the "National Register") and do not require review by INDOT Cultural Resources Office. All of the work under this Category must occur in previously disturbed soils, which are defined as soils that have been completely altered or displaced by earthmoving or other modern manipulation.

1. Any work on bridges limited to substructure or superstructure elements without replacing, widening, or elevating the superstructure under the conditions listed below ***(BOTH Conditions A and B must be met)*****.** This category **does not** include bridge replacement projects (when both superstructure and substructure are removed):

   A. The project takes place in previously disturbed soils; *AND*
   B. With regard to the bridges, at least one of the conditions (i, ii or iii) listed below must be satisfied:
      i. The latest Historic Bridge Inventory identified the bridge as non-historic (see http://www.in.gov/indot/2531.htm);
      ii. The bridge was built after 1945, and is a common type as defined in Section V. of the *Program Comment Issued for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges* issued by the Advisory Council on Historic Preservation on November 2, 2012 for so long as that Program Comment remains in effect AND the considerations listed in Section IV of the Program Comment do not apply;
      iii. The bridge is part of the Interstate system and was determined not eligible for the National Register under the Section 106 Exemption Regarding Effects to the Interstate Highway System adopted by the Advisory Council on Historic Preservation on March 10, 2005, for so long as that Exemption remains in effect.

2. All work within interchanges and within medians of divided highways in previously disturbed soils.

3. Replacement, repair, lining, or extension of culverts and other drainage structures that do not exhibit wood, stone or brick structures or parts therein and are in previously disturbed soils.

4. Roadway work associated with surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking within previously disturbed soils where replacement, repair, or installation of curbs, curb ramps or sidewalks will not be required.

5. Repair, in-kind replacement or upgrade of existing lighting, signals, signage, and other traffic control devices in previously disturbed soils.

6. Repair, replacement, or upgrade of existing safety appurtenances such as guardrails, barriers, glare screens, and crash attenuators in previously disturbed soils.

7. Repair or in-kind replacement of fencing and hardscape landscaping elements and/or replacement of existing plant materials in previously disturbed soils and installation of new fencing and hardscape landscaping elements and plant materials limited to locations within interstate right-of way within previously disturbed soils.

8. Installation of new or modification of existing traffic control devices and systems, including signs, signals, markings, illumination, other warning devices and their supports, to improve safety at railway crossings in previously disturbed soils.

9. Installation, repair, or replacement of erosion control measures along roadways, waterways and bridge piers within previously disturbed soils.

10. Routine roadside maintenance activities necessary to preserve existing infrastructure or maintain roadway safety in previously disturbed soils.

11. Rehabilitation of existing rest areas and truck weigh stations within previously disturbed soils.

12. Removal and disposal of hazardous waste.

13. Work on concrete and asphalt decks of bridges identified in the Historic Bridge Inventory as National Register-listed or National Register-eligible (see http://www.in.gov/indot/2531.htm), which is limited to pavement resurfacing, overlay, pavement repair, pavement grinding, pavement marking, seal coating, joint repair, and in-kind replacement or repair of existing concrete curbs, curb ramps or sidewalks in previously disturbed soils, provided none of these actions impact structural members of the bridge.

14. Repair and/or replace existing MSE walls, retaining walls and noise walls in previously disturbed soils, using similar design, dimensions and materials.

Document Information

Prepared for	The Troyer Group, Inc.
Project Name	Phase Ia Archaeological Reconnaissance for the US 41 Auxiliary Lanes, Two-way Left Turn Lanes from 3.25 Miles South of US 231, Lake County, Indiana
INDOT Des. No.	1700025
Cardno PN	J191018300
INDOT PM	Michael Grylewicz
Cardno PM	Greg Quartucci
Date	July 31, 2020

Prepared and Submitted By Kathleen D. Settle and Veronica Parsell

Principal Investigator Veronica Parsell

Veronica Parsell

Prepared for:

The Troyer Group, Inc.
550 Union Street, Mishawaka, Indiana 46544

Prepared by:

Cardno
3901 Industrial Boulevard, Indianapolis, Indiana, 46254

Executive Summary

The Troyer Group, Inc. (Troyer Group) contacted Cardno, Inc. (Cardno) to conduct a Phase Ia archaeological records review and reconnaissance (Phase Ia) for the proposed SR 41 auxiliary lanes, two-way left turn lanes from 3.25 miles south of US 231 to US 231 in Lake County, Indiana. (INDOT Des. No. 1700025). The project is located along the common lines of Sections 4 and 5, 8 and 9, 16 and 17, 20 and 21, Township 34 North, Range 9 West on the St. John, Indiana USGS 7.5' topographic map quadrangle. Additionally, the project area extends along the common lines of Sections 28 and 29, Township 34 North, Range 9 West on the Lowell, Indiana USGS 7.5' topographic map quadrangle. The proposed project will involve widening US 41 to allow for the construction of two-way left turn lanes. Based on provided information, the proposed project is approximately 5.46 kilometers (km) (3.39 miles [mi]) in length, and consists of approximately 29.5 hectares (ha) (73 acres [ac]) of land. The project will require the acquisition of new right-of-way (ROW).

Research within a 1.6 kilometer (km) (1 mile [mi]) study radius around the proposed project area revealed three previously recorded archaeological sites and 43 Indiana Historic Sites and Structures Inventory (IHSSI-) listed resources, including one cemetery. Additionally, 27 previously recorded surveys have been conducted in the 1.6 km study radius. Initial fieldwork took place from July 7 to July 10, 2019. Following revisions to the project footprint, archaeologists returned to the project area to conduct a supplemental Phase Ia investigation on May 22, 2020.

As a result of the Phase Ia investigation, one new archaeological site was identified in the project area. Site 12La726 consists of a mid-twentieth century refuse scatter that includes approximately 40-50 historic artifacts consisting of glass, metal, concrete blocks, and ceramics. This historic refuse scatter also contains some modern trash, likely due to littering along the roadway. Based on the information presented in this report, site 12La726 does not appear to meet the eligibility criteria for listing in the National Register of Historic Places (NRHP), as it does not have the potential to provide additional information important to the history of the region.

Based on the results of the field reconnaissance and background research, there are no significant archaeological resources present in the project footprint; therefore, no archaeological resources eligible for the NRHP will be impacted by the proposed road improvement project. Cardno recommends that no further archaeological testing be required in order for the project to proceed as planned. This determination and recommendation is based on the current project boundaries. Should these boundaries change, additional investigation may be required.

5 Conclusions and Recommendations

The Troyer Group contacted Cardno to conduct a Phase Ia archaeological records review and reconnaissance for the proposed US 41 auxiliary lanes, two-way left turn lanes from 3.25 miles south of US 231 to US 231 in Lake County, Indiana (INDOT Des. No. 1700025). The project is located along the common lines of Sections 4 and 5, 8 and 9, 16 and 17, 20 and 21 Township 34 North, Range 9 West on the St. John, Indiana USGS 7.5' topographic map quadrangle. Additionally, the project area extends along the common lines of Sections 28 and 29 on the Lowell, Indiana USGS 7.5' topographic map quadrangle. Based on provided information, the proposed project is approximately 5.46 km (3.39 mi) in length, and the project will require the acquisition of new ROW. The goal of this survey was to identify cultural resources that may be affected by the proposed project and to provide a recommendation regarding their eligibility for inclusion in the NRHP.

The records on file at the IDNR-DHPA indicate that there are three previously recorded archaeological sites, one previously recorded cemetery, and 43 IHSSI recorded structures within 1.6 km (1 mi) of the project area. Additionally, 27 previously recorded surveys have been conducted in the 1.6 km (1 mi) study radius. Cardno surveyed the proposed area that will be impacted by the US 41 reconstruction project from July 7 to July 10, 2019 and completed a supplemental Phase Ia investigation on May 22, 2020 following small changes to the project footprint. The entire project area was surveyed through systematic shovel test investigation and visual inspection. During the field survey for this project, Cardno identified one new archaeological site, 12La726, which consists of a historic artifact scatter dating to the mid-twentieth century. Based on the data collected during this investigation, this site is not eligible for the NRHP and no further archaeological work is recommended. If project plans should change, then further archaeological work may be necessary to fully delineate this site and reassess its NRHP eligibility.

If archaeological artifacts or human remains are identified during project activities in any location, work within 30m (100 ft) of the discovery must stop and the Indiana Department of Transportation – Cultural Resources Office must be contacted immediately who will notify the Indiana Department of Natural Resources – Division of Historic Preservation and Archaeology within two (2) business days pursuant to Indiana Code 14-21-1.

Categorical Exclusion

Appendix E

Red Flag Investigation & Hazardous Materials

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 232-5113
FAX: (317) 233-4929

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: September 3, 2024

To: Site Assessment & Management (SAM)
Environmental Policy Office - Environmental Services Division (ESD)
Indiana Department of Transportation (INDOT)
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Carson J. Hoogewerf
Lochmueller Group
112 W. Jefferson Blvd., Suite 500
South Bend, Indiana
CHoogewerf@lochgroup.com

Re: RED FLAG INVESTIGATION ADDENDUM
DES 1700025, State Project
Auxiliary Lanes, Two-way Left Turn Lane
US 41, From 3.25 Miles South of US 231 to US 231
Lake County, Indiana

A review of the original RFI signed on September 9, 2020 for Des 1700025 indicated substantive changes have occurred to the RFI GIS layer since the approval of the original RFI that have resulted in changes to the impacted features. Additionally, the scope of the project has undergone minor changes. The revised scope no longer includes significant work to any drainage structures (culverts, etc.). Additionally, new permanent right-of-way (ROW) and temporary ROW acreages have changed: New permanent ROW, temporary ROW, and ROW re-acquisition are expected to total approximately 23.6, 0.9, and 0.7 acres, respectively. The maintenance of traffic (MOT) plan and proposed depth of excavation are expected to remain as indicated in the approved RFI.

The following features and/or items were not detailed in the original RFI document signed on September 9, 2020, but have since been identified as having an impact on the project area and requiring additional coordination.

Water Resources –

IDEM 303d Listed Streams and Lakes (Impaired): Fifteen (15) 303d Listed Stream segments are located within 0.5 mile search radius. One impaired stream segment, an unnamed tributary (UNT) to West Creek, is located within the project area. The UNT segment is listed as impaired for *E. coli* and Impaired Biotic Communities (IBC). Concerning *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. Concerning IBC, Best Management Practices (BMPs) will be used to avoid further degradation to the stream.

Rivers and Streams: Ninety-three (93) river and stream segments are located within the 0.5 search radius. Seven (7) river and stream segments, all of which are segments of unnamed tributaries (UNTs) to West Creek, are located within

the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI – Wetlands: One hundred fourteen (114) wetland polygons are located within the 0.5 mile search radius. Four (4) wetland polygons are located within or adjacent to the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Thirty-three (33) lake polygons are located within the 0.5 mile search radius. The nearest lake is located 0.05 mile east of the project area near W 123rd Ave. No impact is expected.

Hazardous Material Concerns –

Underground Storage Tank (UST) Sites: Seven (7) UST sites are located within the 0.5 mile search radius. One (1) UST site is located within the project area.

- Mees Insurance Agency, (a.k.a. CVS Store 6912, 13305 Wicker Ave, AI ID 23130), is located within the project area on the southeast corner of US 41 and West 133rd Avenue. See the Institutional Controls section below for more information.

Institutional Controls: Four (4) institutional control sites are located within the 0.5 mile search radius. All four (4) sites are located within the southern portion of the project area. Though the same sites are documented in the approved RFI, language and recommendations pertaining to Institutional Controls has changed.

- Mees Insurance Agency (a.k.a. CVS Store 6912, 13305 Wicker Ave, AI ID 23130) is located within the project area at the southeast corner of US 41 and W 133rd Ave. The site consists of three (3) parcels, each represented by an Institutional Control boundary. An Environmental Restrictive Covenant (ERC) was recorded on the properties on March 13, 2013. The site is a former fuel station and automotive repair and is now a CVS. The site consists of three (3) parcels. Three (3) USTs were removed from the site in 1998 and petroleum contamination was encountered during the removal. A Limited Phase II Investigation was prepared for the site on October 26, 2011. Petroleum contamination above residential default closure levels was encountered in soil near the west property line along the east side of US 41, and lead was encountered in soil near the middle of the property. Benzene and lead were encountered in groundwater. An additional Phase II Preliminary Site Investigation was conducted on January 20, 2012. This Phase II documented arsenic in soil near US 41 above RDCLs, however, those concentrations did not exceed the IDEM Direct Soil Contact screening level. Bis(2-ethylhexyl)phthalate was detected in groundwater above the RISC Residential DCL. The ERC restricts use of the site for residential purposes and restricts use or extraction of groundwater for any purpose other than environmental investigation/remediation. If dewatering is needed at this location, analysis for lead and VOCs may be necessary.
- Amoco Ss 20123 (a.k.a. Lakeshore Petro BP Gas Station) (13302 Wicker Road, AI ID 16914) is located within the project area at the southwest corner of US 41 and W 133rd Ave. The facility is an operating underground storage tank (UST) site. According to the No Further Action Approval Determination Pursuant to Remediation Closure Guide letter dated August 7, 2023, benzene and xylenes remain in the soil above the Remediation Closure Guide (RCG) residential direct contact screening levels (RDCLs). Benzene, MTBE, Napthalene, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, and xylenes remain in the groundwater above RCG residential tap water screening levels. An ERC was recorded on January 4, 2020. The ERC restricts the use or extraction of groundwater from the site for any purpose other than environmental investigation or remediation. If groundwater monitoring wells are encountered in the project area, they should be maintained in place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to

the INDOT Project Manager once the well has been abandoned. If dewatering is needed at this location, analysis for lead and VOCs may be necessary.

NPDES Facilities: Nineteen (19) NPDES facilities are located within the 0.5 mile search radius. Six (6) NPDES facilities are located within or adjacent to the project area.

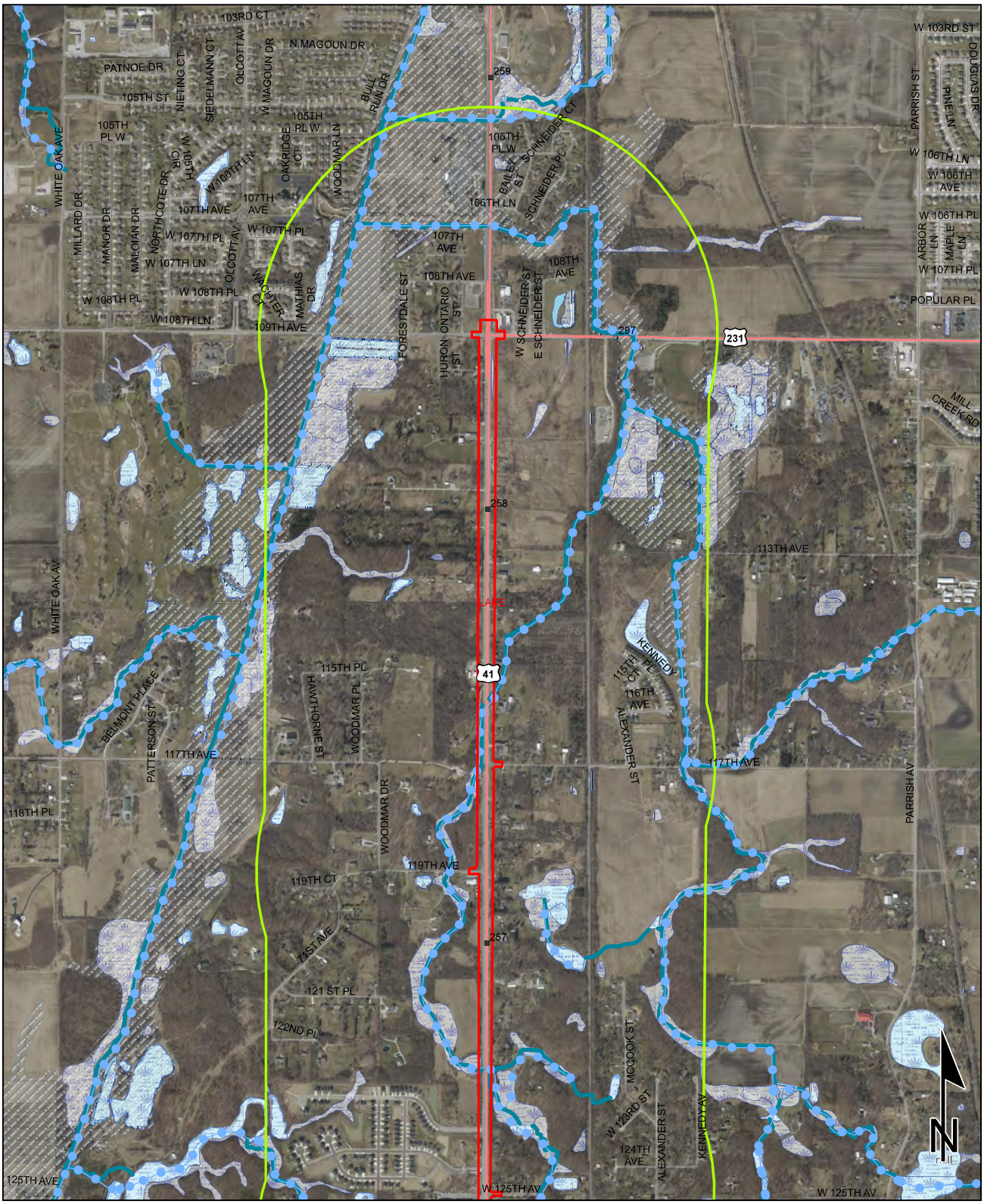
- Coyne Veterinary Center US 41 Lot 3 (10861 Wicker Ave, Permit No. INRA00994) is located adjacent to the northern project terminus. The permit was issued March 12, 2018 and expired March 11, 2023. An administrative permit termination occurred on June 8, 2023. No impact is expected.
- Bethel Church (13620 Wicker Ave, Permit No. INR10I999) is located adjacent to the southwest project terminus. The permit was issued September 6, 2014 and expired September 5, 2019. The permit status is terminated. No impact is expected.
- Lucky Brothers New Fuel Station St. John (10861 Wicker Ave, Permit No. INRA03405) is located within the project area at the northeast terminus. The permit was issued May 15, 2019 and was set to expire May 14, 2024, but its status remains effective. Coordination with Ben Carroll, Hutton will occur.
- Birchwood Farms (16th Ave. and Wicker Ave., Permit No. INRA04007) is located adjacent to the west side of the project area, north of 126th Ave. A permit was issued On August 2, 2019 and expires August 1, 2024. Coordinator with Todd Olthof, Hanover Development LLC will occur.
- Palmira Sub - Circuit 6906 Extension Phase 2 (10307 White Oak Ave, St. John, Permit No. INRA09155) is located within the project area at 117th Ave. A permit was issued February 17, 2022 and expires February 16, 2027. Coordination with Rowan Mitton, NIPSCO, will occur.
- 11127 Wicker Avenue Self-Storage Site (11127 Wicker Ave, Permit No. INRA09436) is located adjacent to the east end of the project area, south of US 231 and north of 117th Ave. A permit was issued on April 1, 2022 and expires March 31, 2027. Coordination with Jon Hutto, Brandon Arnold, LLC, will occur.

Prepared by: _____(Signature)
Carson J. Hoogewerf
Environmental Specialist
Lochmueller Group, Inc.

QA/QC Completed by: _____ (Signature)
C.J. Cunningham
Northern Indiana Environmental Team Lead
Lochmueller Group, Inc.

INDOT ESD concurrence: Peter Washburn Digitally signed by Peter Washburn Date: 2024.09.03 14:06:38 -04'00' (Signature)

Red Flag Investigation - Water Resources (Page 1 of 2)
US 41, From 3.25 Miles South of US 231 to US 231
Des. No. 1700025, Auxiliary Lanes, Two-way Left Turn Lane
Lake County, Indiana



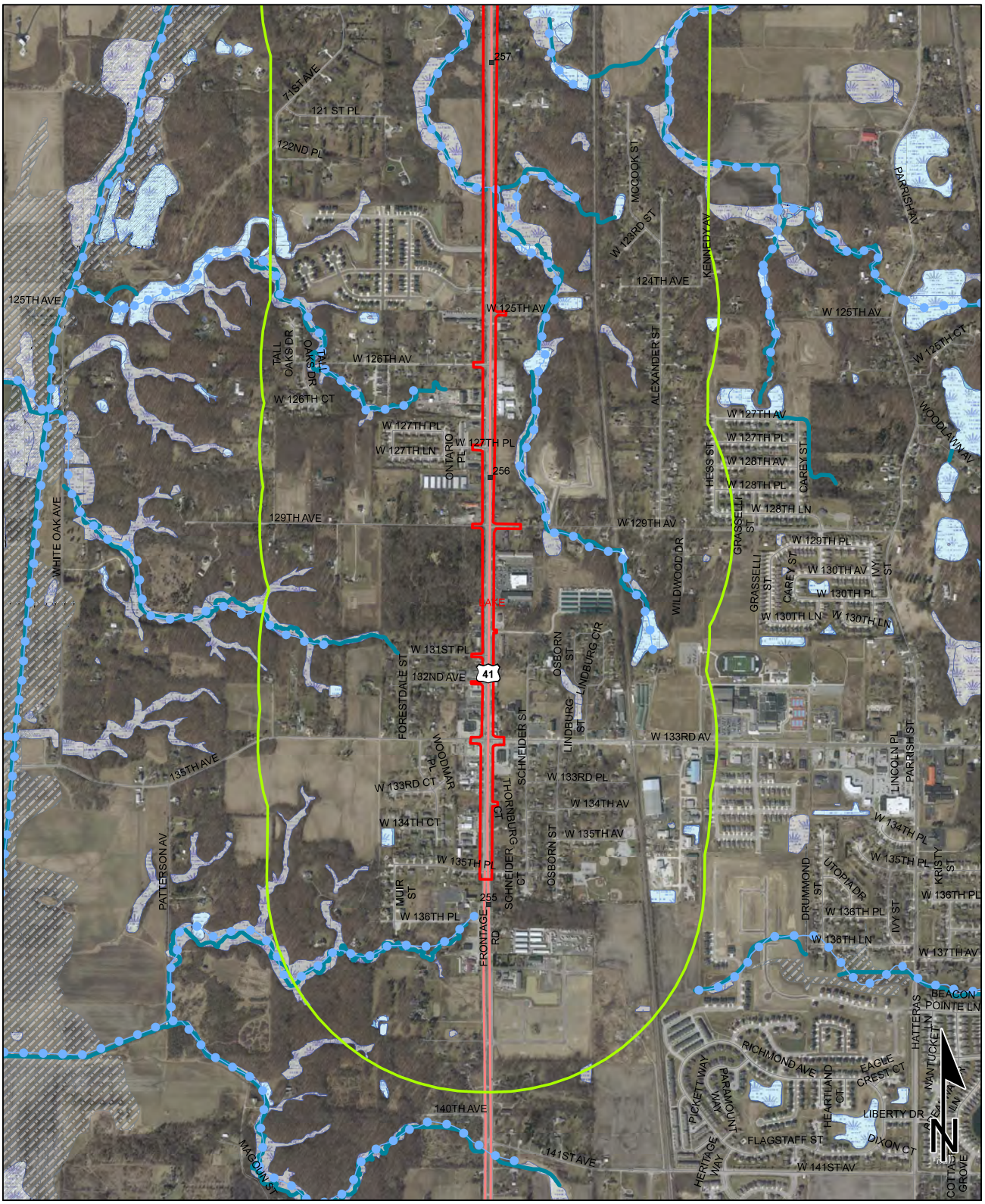
0.25 0.13 0 0.25 Miles

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

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

- Karst Spring
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources (Page 2 of 2)
US 41, From 3.25 Miles South of US 231 to US 231
Des. No. 1700025, Auxiliary Lanes, Two-way Left Turn Lane
Lake County, Indiana



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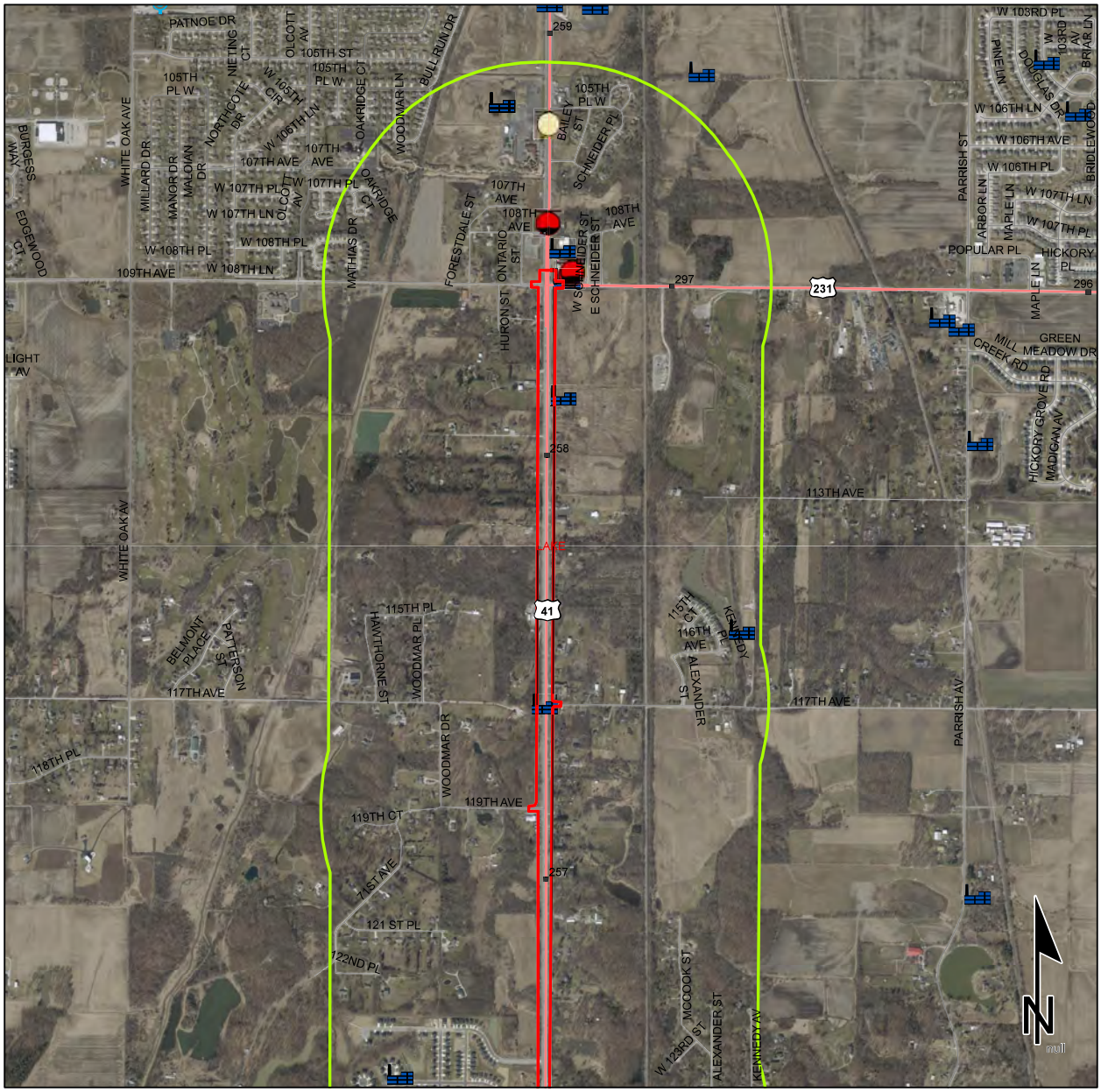
Red Flag Investigation - Hazardous Material Concerns (Page 1 of 2)
US 41, From 3.25 Miles South of US 231 to US 231
Des. No. 1700025, Auxiliary Lanes, Two-way Left Turn Lane
Lake County, Indiana



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

0.3 0.15 0 0.3 Miles

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Data - Obtained from the State of Indiana Geographical Information Office Library
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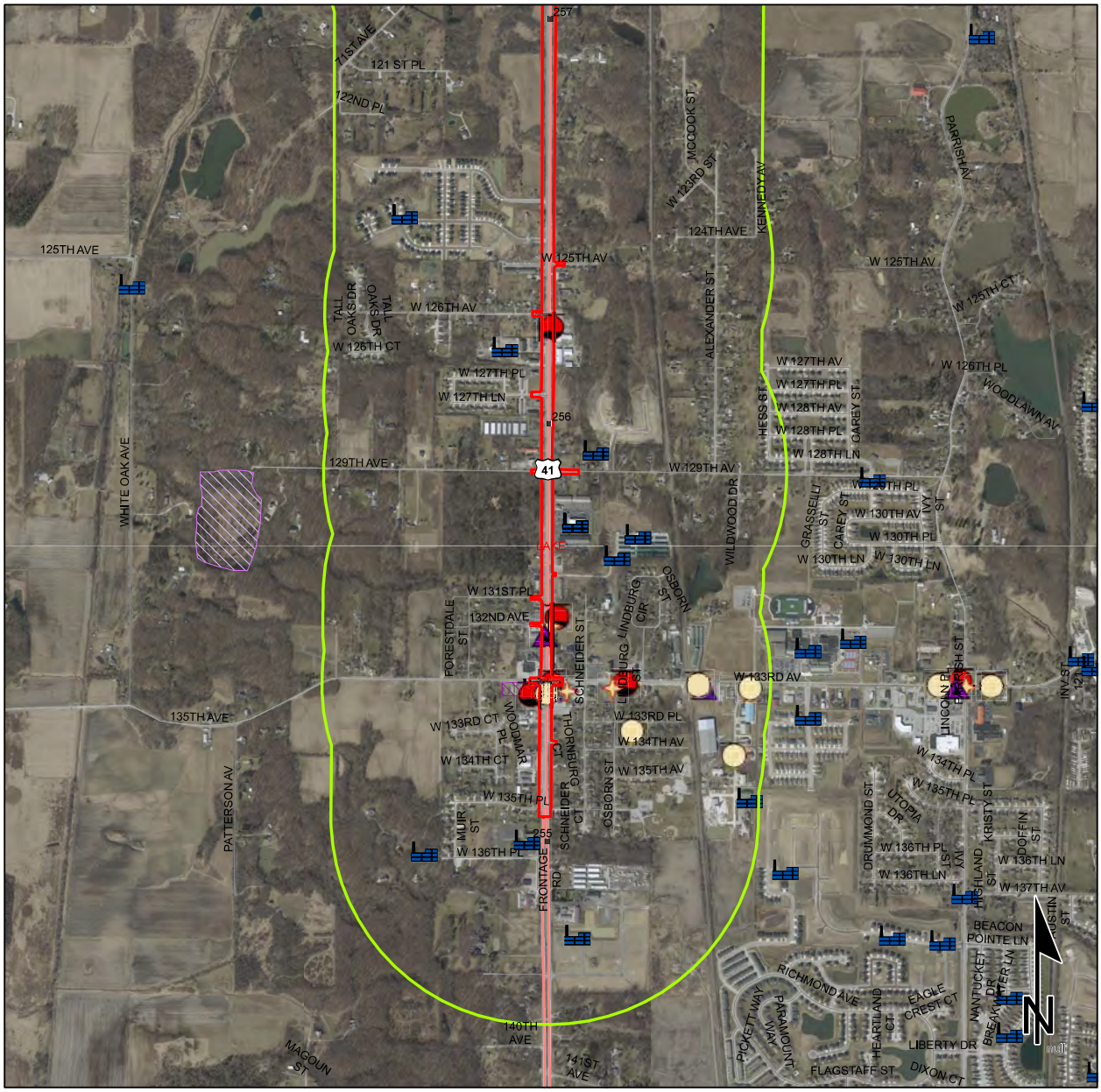
Red Flag Investigation - Hazardous Material Concerns (Page 2 of 2)
US 41, From 3.25 Miles South of US 231 to US 231
Des. No. 1700025, Auxiliary Lanes, Two-way Left Turn Lane
Lake County, Indiana



- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
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0.3 0.15 0 0.3 Miles

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INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: September 2, 2020

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

From: C.J. Cunningham
The Troyer Group (on behalf of INDOT, LaPorte District)
550 Union Street
Mishawaka, IN
cjc@troyergroup.com

Re: RED FLAG INVESTIGATION
DES #1700025, State Project
Auxiliary Lanes, Two-Way Left Turn Lane
US 41, From 3.25 Miles South of US 231 to US 231
Lake County, Indiana

PROJECT DESCRIPTION

Brief Description of Project:
The project, sponsored by the INDOT LaPorte District, is located along US 41 from 3.25 mile south of US 231 to US 231, in Lake County. This stretch of US 41 is classified as an Other Principal Arterial and the existing roadway is 52 ft through the project limits consisting of four 12 ft travel lanes and 4 ft paved shoulders and 6 ft useable shoulders.

The proposed scope of work is the addition of a two-way left turn lane between the sets of double travel lanes, widened shoulders throughout the corridor to meet current design standards and provide a safer condition for vehicles making left turn movements into the many drives accessing the roadway. This will require widening of the roadway and revisions to roadside drainage. The roadway centerline will remain generally along the alignment, while the travel lanes will be shifted outward. The roadside drainage swales will also be shifted outward. The widened pavement will consist of full-depth HMA pavement.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # CV 041-045-256.70, CV 041-045-257.55
If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary ☒ # Acres Quantity Unknown at this time
Permanent ☒ # Acres up to 13 acres Not Applicable ☐

Type of excavation: Excavation to a depth of approximately 4 feet (ft) to 6 ft will be necessary along both sides of US 41 and around the existing culverts and drainage structures to allow for additional pavement width as well as the relocation of roadside drainage ditches and proper grading tie-ins.

Maintenance of traffic: Maintenance of traffic will be phased, closing one lane of traffic in each direction to facilitate construction on US 41. No detour route is required for this project.

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

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**2**	Recreational Facilities	**4**
Airports[1]	**N/A**	Pipelines	**1**
Cemeteries	**1**	Railroads	**1**
Hospitals	**N/A**	Trails	**2**
Schools	**N/A**	Managed Lands	**1**

[1]In order to complete the required airport review, a review of public airports within 3.8 miles (20,000 feet) is required.

Explanation:
Religious Facilities – Two (2) religious facilities are located within the 0.5 mile search radius. The nearest facility is Bethel Community Bible Church, which adjacent to the southern terminus of the project area, west of US 41, south of 135th Place. Coordination with Bethel Community Bible Church will occur.

Cemeteries – One (1) cemetery is located within the 0.5 mile search radius. The cemetery, Holy Name Catholic Church, is located 0.11 mile east of the project area on 133rd Avenue. No impact is expected.

Recreational Facilities – Four (4) recreational facilities are located within the 0.5 mile search radius. The nearest recreational facility is Biesecker Prairie Nature Reserve, located adjacent to the east side of the northern terminus of the project area. Coordination with IDNR Division of Nature Preserves is recommended.

Pipelines – One (1) pipeline is located within the 0.5 mile search radius. The pipeline, associated with Northern Indiana Public Service Company, runs parallel to the east side US 41, north of 129th St. Coordination with INDOT Utilities and Railroads should occur.

Railroads – One (1) railroad is located within the 0.5 mile search radius. The railroad is located 0.19 mile east of the project area. No impact is expected.

Trails – Two (2) trails are located within the 0.5 mile search radius. The nearest trail is located 0.23 mile north of the project area. No impact is expected.

Managed Lands – One (1) managed land is located within the 0.5 mile search radius. The Biesecker Prairie Nature Preserve is located adjacent to the east side of the northern terminus of the project area. Coordination with IDNR Division of Nature Preserves is recommended.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**2**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**112**
Canal Structures – Historic	**N/A**	Lakes	**19**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**4**
NWI-Lines	**10**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**6**	Sinkhole Areas	**N/A**
Rivers and Streams	**22**	Sinking-Stream Basins	**N/A**

Explanation:
NWI-Points – Two (2) NWI-points are located within the 0.5 mile search radius. The nearest NWI-point is located 0.12 mile east of the project area southeast of the intersection with 119th Avenue. No impact is expected.

NWI-Lines – Ten (10) NWI-line segments are located within the 0.5 mile search radius. The nearest NWI-line segment is located 0.05 mile east of the project area at its nearest point near the intersection of 127th Place. No impact is expected.

IDEM 303d Listed Streams and Lakes (Impaired) – Six (6) 303d listed stream segments are located within the 0.5 mile search radius. The nearest 303d listed stream segment is West Creek, which is located 0.05 mile west of the project area at the southern terminus of the project area. No culvert work in anticipated in this area, therefore no impact is expected.

Rivers and Streams – Twenty-two (22) river and stream segments are located within the 0.5 mile search radius. The nearest river and stream segment, which is unnamed, flows through the project area north of 117th Ave. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI-Wetlands – One hundred and twelve (112) wetlands are located within the 0.5 mile search radius. Four wetlands are adjacent to the project area, all north of 126th Avenue. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Lakes – Nineteen (19) lake polygons are located within the 0.5 mile search radius. The nearest lake is located 0.09 mile west of the project area near 119th Street. No impact is expected.

Floodplain-DFIRM – Four (4) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain polygon is located 0.16 mile west of the northern terminus of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Explanation:
This project lies within the Lake County UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. Coordination with the appropriate MS4s will be necessary.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**N/A**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:
No mining or mineral resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**3**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**2**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**7**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**2**
Construction Demolition Waste	**N/A**	Institutional Controls	**3**
Solid Waste Landfill	**N/A**	NPDES Facilities	**9**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**
Leaking Underground Storage (LUST) Sites	**8**	Notice of Contamination Sites	**N/A**

Explanation:
RCRA Generator/ TSD – Three (3) RCRA Generator/ TSDs are located within the 0.5 mile search radius, two of which are near the project area:

- Custom Auto Sales (also listed as Ronald Ondra, owner), 13203 Wicker Ave., Cedar Lake, Lake County; Agency ID 22819, is located on the east side of US 41 at the 132nd Avenue intersection. A June 8, 2005, letter indicated the site was a one time generator in 2005. No impact is expected.
- Amoco Service Station 20123, 13302 Wicker Ave., Cedar Lake, Lake County; Agency ID 16914, is mapped to the eastern side of US 41; however, the site is located on the southwestern corner of US 41 and W 133rd Ave. The site was listed as a conditionally exempt small quantity generator in 2009. No impact is expected.

State Cleanup Sites – Two (2) State cleanup sites are located within the 0.5 mile search radius, one of which is near the project area:

- The nearest site, Gard Incorporated 1 (formerly Gard West Dry Cleaners), 13212 Wicker Ave., Cedar Lake, Lake County; Agency ID 23306, is located on the southwest corner of West 132nd Avenue and US 41. IDEM issued a No Further Action letter, dated March 11, 2010. Residual soil impacts appear to remain on-site to the west of the facility and do not extend into the project area. No impact is expected.

Underground Storage Tank (UST) Sites – Seven (7) UST sites are located within the 0.5 mile search radius , two of which are near the project area:

- Knabenhans Motor Sales, 10531 Wicker Ave., St. John, Lake County; Agency ID 18039, is located 0.34 mile north of the project area. A June 23, 2010 inspection reports the site to be in compliance. Therefore, no impacts are expected.
- Mees Insurance Agency, 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, is located adjacent to the project area on the southeast corner of US 41 and West 133rd Avenue. Three USTs were removed from the site in 1998 and petroleum contamination was encountered during the removal. The extents of the contamination was not delineated. A Phase II Environmental Site Assessment is recommended. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval. Please see the LUST and Institutional Control sections below.

Leaking Underground Storage (LUST) Sites – Eight (8) LUST sites are located within the 0.5 mile search radius, six of which are near the project area:

- Two icons associated with the same site, The Indiana Department of Transportation, are located on the on the northeast corner of US 231 & US 41, St. John, Lake County; Agency ID 22056. The site is a former INDOT facility. The IDEM issued a No Further Action Determination Pursuant to 1994 UST Branch Guidance letter, dated October 15, 2009; however, it appears as though residual soil and groundwater petroleum contamination remains on-site and may extend into US 231. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.
- Sam Mcintyre (also known as MEC Furniture), 12615 Wicker Ave., Cedar Lake, Lake County; Agency ID 19888, is located adjacent to the project area, east of US 41, south of 126th Ave. According to the NFA Determination issued by IDEM on February 15, 2007, contamination remains on-site and may extend into the project area. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.
- Ronald Ondra (also listed as Repair Service/Custom Auto Sales), 13203 Wicker Ave., Cedar Lake, Lake County; Agency ID 22819, is adjacent to the eastern edge of the project area east of 132nd Avenue. IDEM issued a No Further Action letter, dated January 5, 2005; however, residual contamination appears to remain on-site adjacent to US 41. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.
- Farmers Insurance Group, 133rd & US 41, Cedar Lake, Lake County; Agency ID 21130, is located adjacent to project area. Correspondence from IDEM dated May 8, 1996, reports contaminated drinking water in this vicinity; which may be associated with the former Mees Insurance Agency site discussed in the UST section above. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.
- Amoco Ss 20123, 13302 Wicker Rd., Cedar lake, Lake County; Agency ID 16914, is located adjacent to the project area at the southwest corner of US 41 at 133rd Ave. Petroleum chemicals of concern (CoCs) remain on-site and extend into the right-of-way of US 41 and West 133rd Avenue. In addition, an ERC was recorded on the deed of the property in January 2020. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

Brownfields – Two (2) brownfields are located adjacent the project area, one of which is located near the project area:

- CVS Store 6912 4120301, (former Mees Insurance Agency) 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, is located on the southeast corner of the intersection. Residual petroleum contamination remaining on-site from the historical UST removal activities was encountered during the removal of the hydraulic lift and pump islands. The extent of residual contamination was not delineated and concentrations of lead above the RCRA 20x rule were observed on-site. A Phase II Environmental Site Assessment is recommended. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval.

Institutional Controls – Three (3) institutional control polygons are located within the 0.5 mile search radius. All three polygons are related to Mees Insurance Agency, 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, located adjacent to the project area, near 133rd Ave. An environmental restrictive covenant (ERC) was placed on the property on March 13, 2013 due to high levels of benzene and lead in the groundwater, but not soil. Coordination will be conducted with the IDEM Project Manager identified in the VFC documentation before further site activities occur.

An additional institutional control not listed in the GIS data is related to Vick's BP, also known as Amoco Service Station, 13302 Wicker Ave., Cedar Lake, Lake County; Agency ID 16914, located adjacent to the project area, near 133rd Ave. An ERC was placed on the property on January 24, 2020 due to high levels of petroleum contaminants in the groundwater, both at the site and the right-of-way in the northwest quadrant of the intersection. Coordination will be conducted with the IDEM Project Manager identified in the VFC documentation before further site activities occur.

Groundwater monitoring wells remain onsite at Vick's BP. If groundwater monitoring wells are encountered in the project area, they should be maintained in place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned.

NPDES Facilities – Nine (9) NPDES Facilities are located within the 0.5 mile search radius.

- T & J Landscaping – Engineering Improvements Plans, 12634 Wicker Ave., Cedar Lake, Lake County; Agency ID 11391, is adjacent to the project area. No impacts are expected.
- Bobb Auto Dealership, 13007 Wicker Ave., Cedar lake, Lake County; Agency ID 114782, is adjacent to the project area. No impacts are expected.
- Bobb Auto Dealership – Offsite Grading, 13007 Wicker Ave., Cedar Lake, Lake County; Agency ID 114782, is adjacent to the project area. No impacts are expected.
- Lakeshore Petro BP Gas Station, 13302 Wicker Ave., Cedar Lake, Lake County; Agency ID 16914, is located adjacent to the project area. This Agency ID is associated with the Amoco Service Station 20123, located on the same site. The permit is associated with a construction permit and expired in November of 2020. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Lake County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did indicate the presence of ETR species within the 0.5 mile search radius. Coordination with USFWS and IDNR will occur.

The Lake County listing of the Indiana Natural Heritage Data Center information on ETR species and high quality natural communities has been removed from the RFI attachments and the most recent list can be found here: https://www.in.gov/dnr/nature-preserves/files/np_lake.pdf

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE:

Religious Facilities: One (1) religious facility is located adjacent to the southern terminus of the project area. Coordination with Bethel Community Bible Church will occur.

Recreational Facilities: One (1) recreational facility, Biesecker Prairie Nature Reserve, is located adjacent to the east side of the northern terminus of project area. Coordination with IDNR Division of Nature Preserves is recommended.

Pipelines: One (1) pipeline runs parallel to US 41. Coordination with INDOT Utilities and Railroads should occur.

Managed Lands: One (1) managed land, Biesecker Prairie Nature Preserve, is located adjacent to the east side of the northern terminus of project area. Coordination with IDNR Division of Nature Preserves is recommended.

WATER RESOURCES:

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

- One (1) river and stream segment flows through the project area.
- Four (4) wetlands are located adjacent to the project area.

URBANIZED AREA BOUNDARY: This project lies within the Lake County UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. Coordination with the appropriate MS4s will be necessary.

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS:

- USTs: Mees Insurance Agency, 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, is located adjacent to the project area on the southeast corner of US 41 and West 133rd Avenue. Three USTs were removed from the site in 1998 and petroleum contamination was encountered during the removal. The extents of the contamination was not delineated. A Phase II Environmental Site Assessment is recommended. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval. Please see the LUST and Institutional Control sections below.

- LUSTs: The presence of the following LUST sites require further coordination:

  The Indiana Department of Transportation owns a site located on the on the northeast corner of US 231 & US 41, St. John, Lake County; Agency ID 22056. The site is a former INDOT facility. The IDEM issued a No Further Action Determination Pursuant to 1994 UST Branch Guidance letter, dated October 15, 2009; however, it appears as though residual soil and groundwater petroleum contamination remains on-site and may extend

into US 231. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

Sam Mcintyre (also known as MEC Furniture), 12615 Wicker Ave., Cedar Lake, Lake County; Agency ID 19888, is located adjacent to the project area, east of US 41, south of 126th Ave. According to the NFA Determination issued by IDEM on February 15, 2007, contamination remains on-site and may extend into the project area. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

Ronald Ondra (also listed as Repair Service/Custom Auto Sales), 13203 Wicker Ave., Cedar Lake, Lake County; Agency ID 22819, is adjacent to the eastern edge of the project area east of 132nd Avenue. IDEM issued a No Further Action letter, dated January 5, 2005; however, residual contamination appears to remain on-site adjacent to US 41. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

Farmers Insurance Group, 133rd & US 41, Cedar Lake, Lake County; Agency ID 21130, is located adjacent to project area. Correspondence from IDEM dated May 8, 1996, reports contaminated drinking water in this vicinity; which may be associated with the former Mees Insurance Agency site discussed in the UST section above. In addition to petroleum contamination, it is likely that lead would be in the soil/groundwater. If excavation occurs in this area, it is likely that petroleum contamination will be encountered. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

Amoco Ss 20123, 13302 Wicker Rd., Cedar lake, Lake County; Agency ID 16914, is located adjacent to the project area at the southwest corner of US 41 at 133rd Ave. Petroleum chemicals of concern (CoCs) remain on-site and extend into the right-of-way of US 41 and West 133rd Avenue. In addition, an ERC was recorded on the deed of the property in January 2020. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater will be necessary.

- Brownfields: CVS Store 6912 4120301, (former Mees Insurance Agency) 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, is located on the southeast corner of the intersection. Residual petroleum contamination remaining on-site from the historical UST removal activities was encountered during the removal of the hydraulic lift and pump islands. The extent of residual contamination was not delineated and concentrations of lead above the RCRA 20x rule were observed on-site. A Phase II Environmental Site Assessment is recommended. Prior to any investigation activities, a scope of work plan will be prepared and submitted to INDOT SAM for review and approval.

- Institutional Controls: The presence of the following Institutional Control sites require further coordination:

  Mees Insurance Agency, 13305 Wicker Ave., Cedar Lake, Lake County; Agency ID 23130, located adjacent to the project area, near 133rd Ave. An environmental restrictive covenant (ERC) was placed on the property on March 13, 2013 due to high levels of benzene and lead in the groundwater, but not soil. Coordination will be conducted with the IDEM Project Manager identified in the VFC documentation before further site activities occur.

  Vick's BP, 13302 Wicker Ave., Cedar Lake, Lake County; Agency ID 16914, located adjacent to the project area, near 133rd Ave. An ERC was placed on the property on January 24, 2020 due to high levels of petroleum contaminants in the groundwater, both at the site and the right-of-way in the northwest quadrant of the intersection. Coordination will be conducted with the IDEM Project Manager identified in the VFC documentation before further site activities occur.

- Groundwater monitoring wells remain onsite at Vick's BP. If groundwater monitoring wells are encountered in the project area, they should be maintained in place. If they cannot be maintained, then the contractor must contact the INDOT Project Manager who will notify the INDOT Permits Group. The INDOT Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the contractor or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

INDOT Environmental Services concurrence: Nicole Fohey-Breting Digitally signed by Nicole Fohey-Breting Date: 2020.09.09 08:38:25 -04'00' (Signature)

Prepared by:
C.J. Cunningham
Manager – Environmental Services
Troyer Group

Graphics:

A map for each report section with a 0.5 mile search radius buffer around all project area(s) showing all items identified as possible items of concern is attached. If there is not a section map included, please change the YES to N/A:

SITE LOCATION: YES *Removed to avoid duplication, Refer to Appendix B*

INFRASTRUCTURE: YES

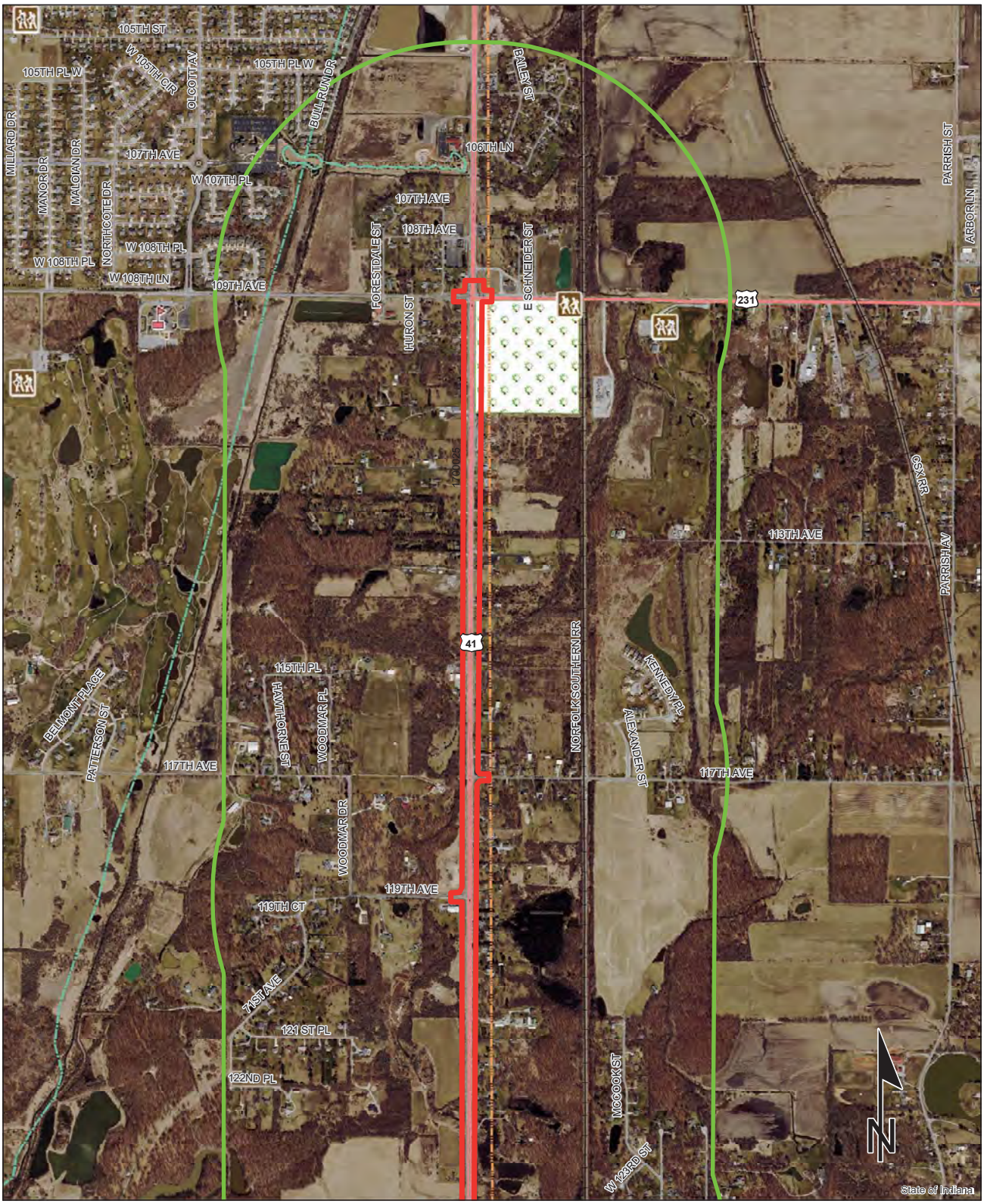
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Infrastructure (1 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana



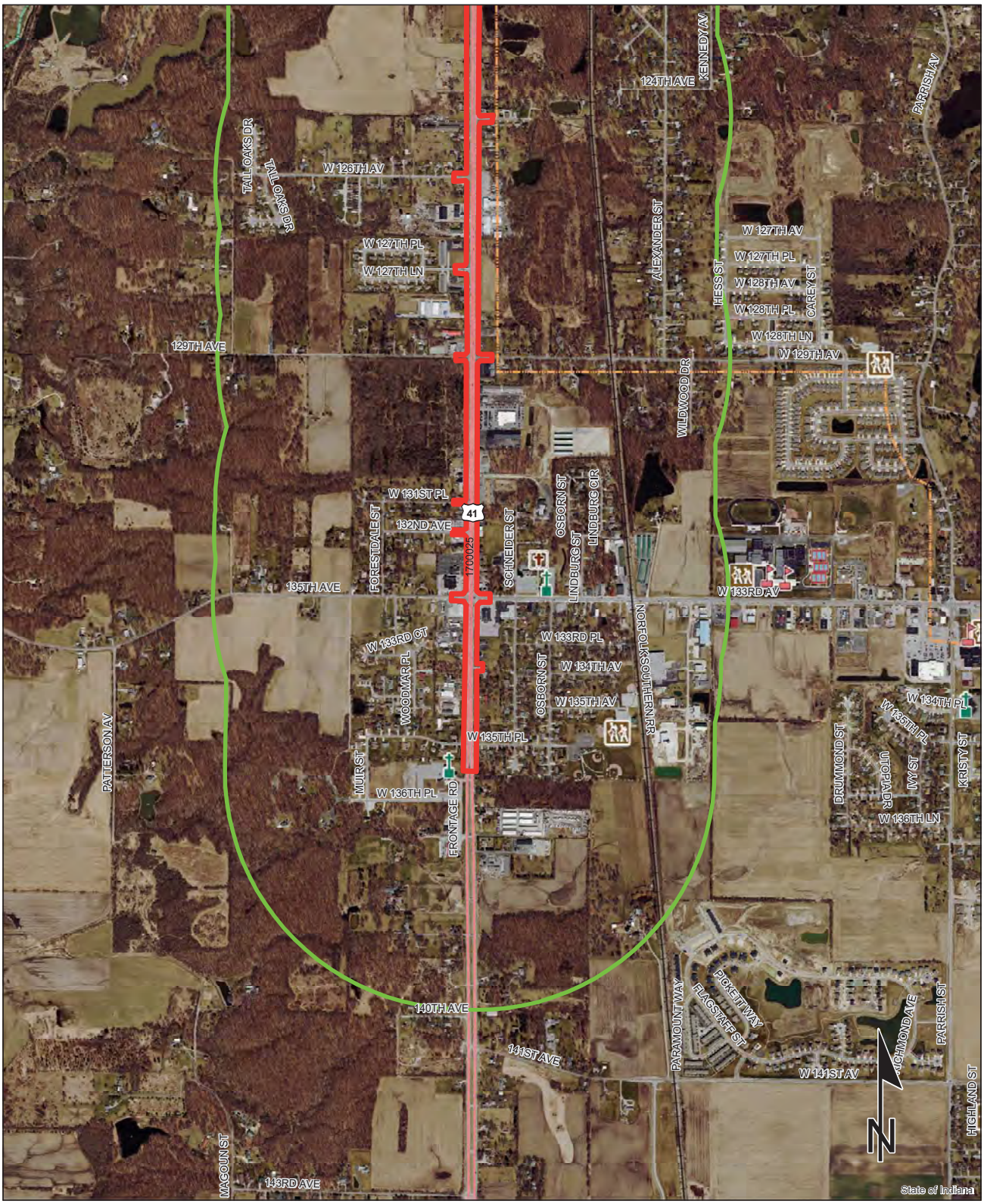
0.25 0.125 0 0.25 Miles

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

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

- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Infrastructure (2 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana



0.25 0.125 0 0.25 Miles

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- Project Area
- Half Mile Radius
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- US Route
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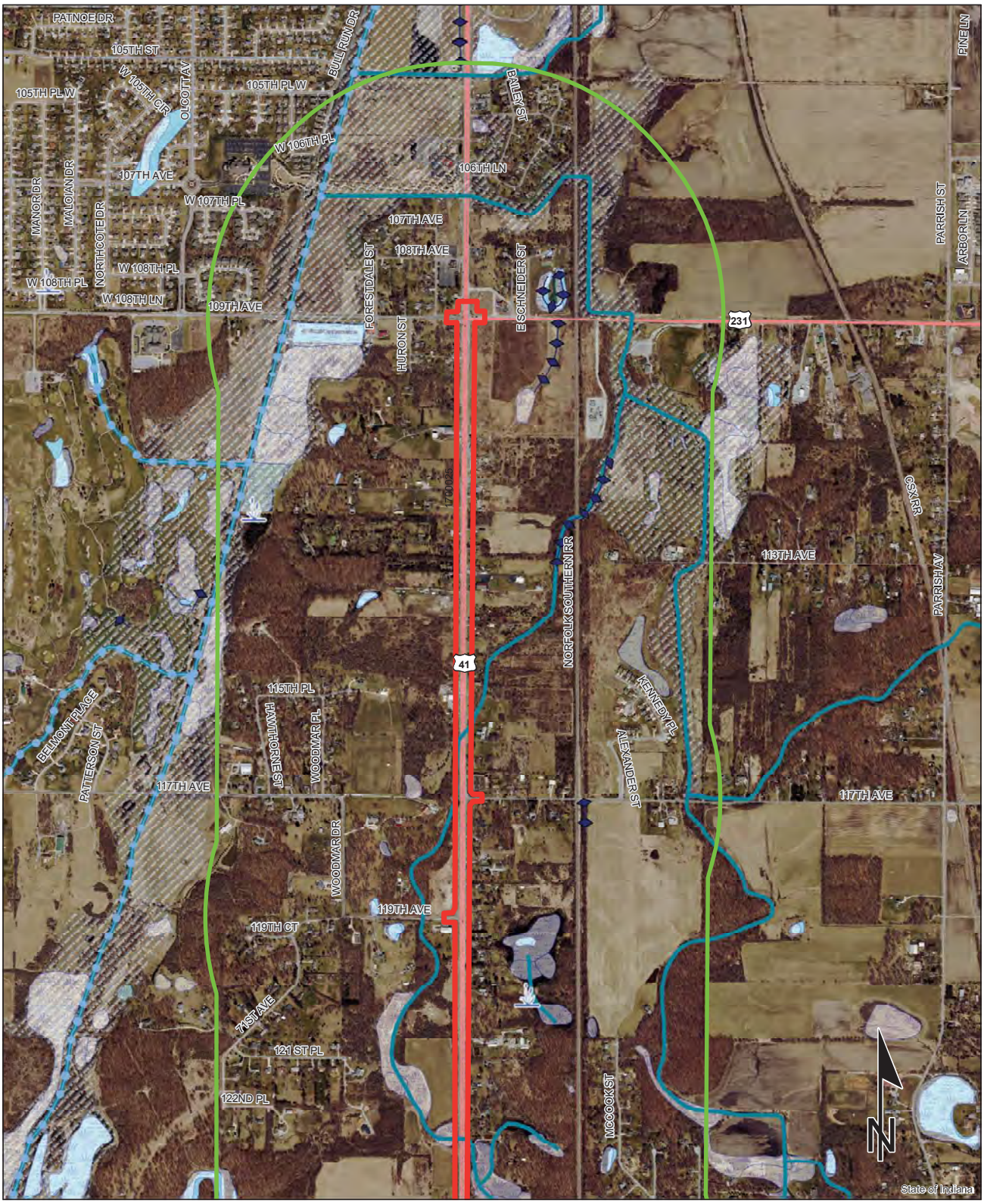
Red Flag Investigation - Water Resources (1 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana



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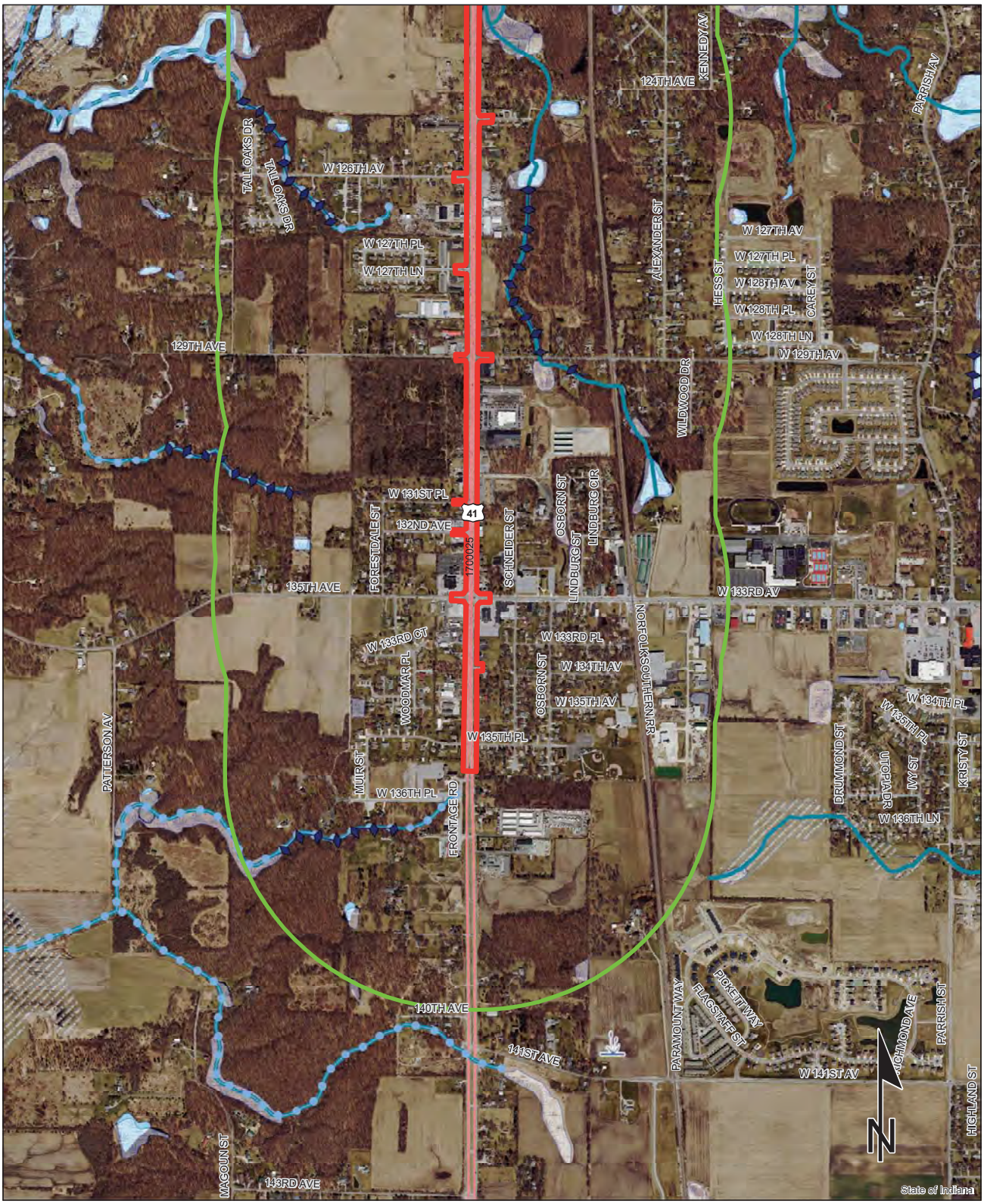
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources (2 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana



0.25 0.125 0 0.25 Miles

Sources:

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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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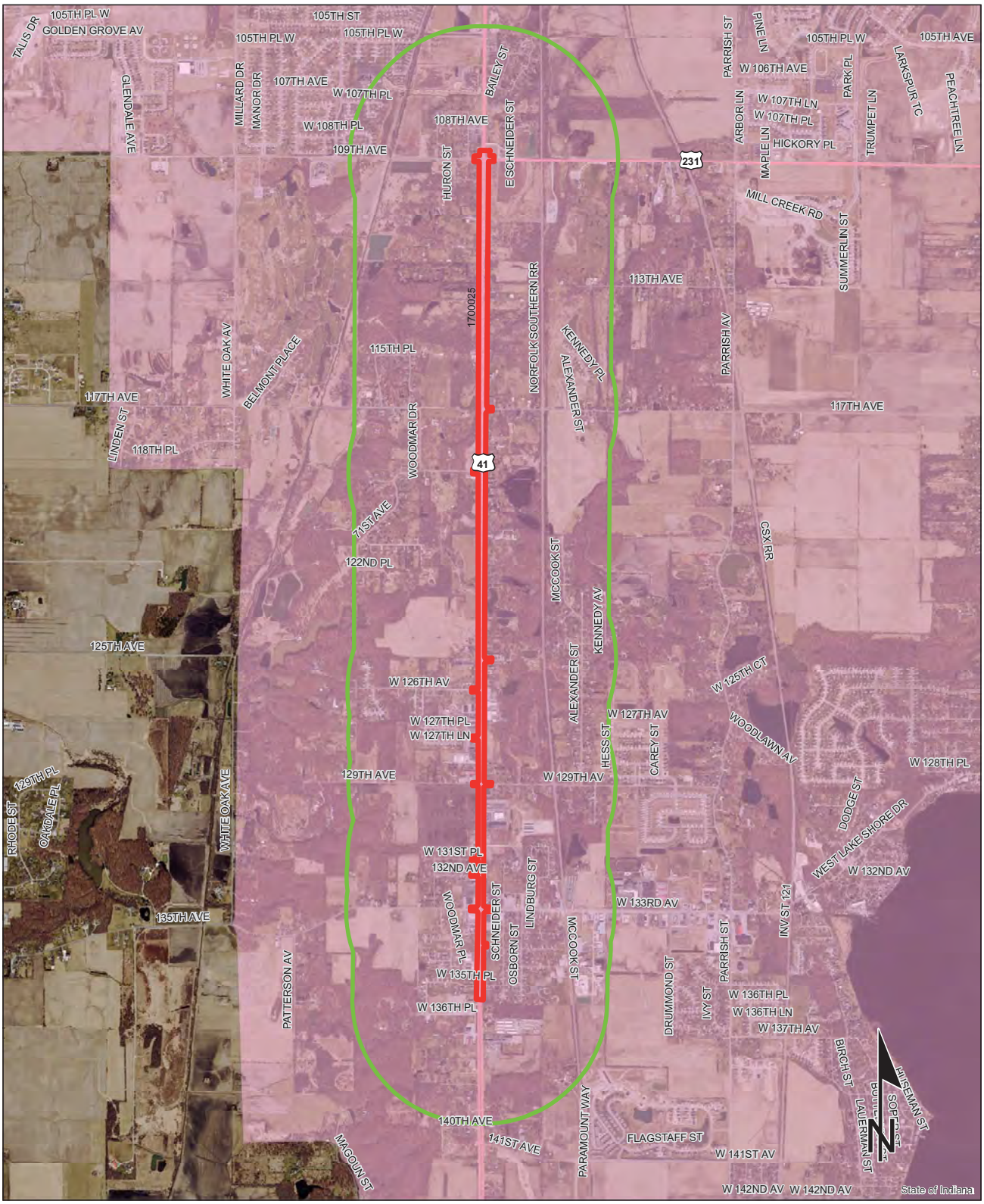
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Urbanized Area Boundary
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes, Two-way Left Turn Lanes
Lake County, Indiana



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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

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UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Hazardous Materials (1 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana

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

0.3 0.15 0 0.3 Miles

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

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

Red Flag Investigation - Hazardous Materials (2 of 2)
US 41, From 3.25 mi S of US 231 to US 231
Des. No.1700025, Auxiliary Lanes,Two-way Left Turn Lanes
Lake County, Indiana

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

0.3 0.15 0 0.3 Miles

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

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

Categorical Exclusion

Appendix F

Water Resources

Approved 4/3/2025
J.Leever

Excerpt from:

Waters of the US Determination
United States Highway (US) 41 Roadway Project
Lake County, Indiana
Des. No. 1700025
Contract No. R-40609
Completed Date: March 19, 2025

Preparer: Carson J. Hoogewerf, Lochmueller Group Inc.
Email: choogewerf@lochgroup.com
Phone Number: (574) 334-5491

Date of Field Reconnaissance:
May 30 and 31, 2024 and June 10, 11, and 15, 2024

Project Location
The project is located along United States Highway (US) 41, from 3.25 miles south of US 231 to US 231, in Lake County, Indiana (Pages A14 to A18).

- Sections 4, 5, 8, 9, 16, 17, 20, 21, 28, and 29, Township 34 North, Range 9 West
- Saint John and Lowell 1:24,000 United States Geological Survey (USGS) Quadrangles
- Hanover Township, Lake County, Indiana
- Latitude: 41.3972371, Longitude: -87.4700193

Project Description
The existing US 41 roadway is a north-south route, known locally as Wicker Avenue (Ave.)., and consists of four 12-foot-wide travel lanes, two in each direction, with 1- to 4- foot-wide paved outside shoulders.

The current proposed project (Des. No. 1700025) would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. The TWLTL would be located between the two sets of travel lanes, would be 12 to 14 feet wide, and would terminate near US 231 to the north and West 133rd Ave. to the south. In order to establish the TWLTL, US 41 would be widened in both directions through the length of the proposed construction area, preserving the existing roadway center line. Dedicated left turn lanes and raised concrete center medians would be added to northbound and southbound US 41 at W 133rd Ave. Outside shoulders would be widened to 8 feet between W 125th Ave. and US 231. Concrete curb and gutter would be added beginning north of W 135th Place (Pl.) and ending north of W 125th Ave. Driveways along US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. Traffic signals at US 231 and W 133rd Pl. will be replaced. New linear drainage detention basins will be excavated along the US 41 roadway in some areas, though their quantity, size, and location have not yet been determined.

A total of 15 streams (Unnamed Tributaries (UNTs) 1, 2, and 3 to West Creek, and UNT 1 to UNT 12), 31 wetlands (Wetlands A to Z and Wetlands AA to EE), and 30 roadside ditches (RSDs) were identified within the investigated area. The surrounding landscape consists of maintained roadside vegetation, forested land, agricultural land, commercial properties, residential properties, and Biesecker Prairie Nature Preserve. The Waters of the US (WOTUS) investigated area limits were established based on the scope of work expected for the US 41 roadway project.

Soils

According to the 2023 United States Department of Agriculture (USDA) Soil Survey Geographic (SSURGO) Database for Lake County, the investigated area contains soil areas considered to be non-hydric, predominantly non-hydric, and hydric (Pages A19 to A22).

Soil Summary Table

Soil Unit Name	Symbol	NRCS Flood Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Blount silt loam, Lake Michigan Lobe, 0 to 2 percent slopes	BlA	None	Somewhat poorly drained	Predominantly nonhydric (1-32%)	4% hydric
Elliott silt loam, 0 to 2 percent slopes	El	None	Somewhat poorly drained	Predominantly nonhydric (1-32%)	4% hydric
Milford silt loam, overwash	Mo	None	Very poorly drained	Hydric (100%)	100% hydric
Ozaukee silt loam, 2 to 6 percent slopes	OzaB	None	Moderately well drained	Predominantly nonhydric (1-32%)	6% hydric
Ozaukee silt loam, 6 to 12 percent slopes, eroded	OzaC2	None	Moderately well drained	Nonhydric (0%)	0% hydric
Ozaukee silty clay loam, 6 to 12 percent slopes, severely eroded	OzlC3	None	Moderately well drained	Nonhydric (0%)	0% hydric
Ozaukee silty clay loam, 18 to 25 percent slopes, severely eroded	OzlE3	None	Moderately well drained	Predominantly nonhydric (1-32%)	3% hydric
Pewamo silty clay loam	Pc	None	Poorly drained	Hydric (100%)	100% hydric
Urban Land	Ur	None	Well drained	Nonhydric (0%)	0% hydric

National Wetland Inventory Information

According to the Indiana National Wetland Inventory (NWI) database (IN_geodatabase_wetlands.gdb), five NWI features were identified within the investigated area (Pages A23 to A26). The NWI mapped features within the project area are identified as palustrine, forested, broad-leaved deciduous, seasonally flooded (PFO1C), palustrine, forested, broad-leaved deciduous, temporarily flooded, partially drained/ditched (PFO1Ad), palustrine, emergent, *Phragmites australis*, seasonally flooded (PEM5C), and riverine, lower perennial, unconsolidated bottom, semipermanently flooded, excavated (R2UBFx). These wetlands are summarized in the table below. Wetland types are based on *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin et al. 1979).

No wetlands were identified within the PFO1Ad feature associated with UNT 1 to West Creek. Portions of the NWI feature include an upland utility corridor and upland roadway embankment. The NWI feature also includes UNT 1 to West Creek and a dry wooded embankment west of the UNT. No data points were taken at this location.

NWI Summary Table

Wetland Type	Description	Location	Associated Feature
PFO1C	Palustrine, forested, broad-leaved deciduous, seasonally flooded	41.3963497, -87.4702820	Wetland R, Wetland T
PFO1Ad	Palustrine, forested, broad-leaved deciduous, temporarily flooded, partially drained/ditched	41.4072011, -87.4703121	UNT 1 to West Creek, RSD 7
PEM5C	Palustrine, emergent, *Phragmites australis*, seasonally flooded	41.4202735, -87.4697911	Wetland G
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semipermanently flooded, excavated	41.4088956, -87.4698262	UNT 1 to West Creek
R2UBFx	Riverine, lower perennial, unconsolidated bottom, semipermanently flooded, excavated	41.4211068, -87.4698459	Wetland B, Wetland G, RSD 1

12-Digit HUC and Flood Zones

The US 41 Roadway Project investigated area is within the 071200011308 (Bull Run-West Creek) and the 071200011309 (Klaasville-West Creek) 12-digit HUCs (Pages A15 to A18). The USGS StreamStats website (https://streamstats.usgs.gov/ss/) generated one watershed within the investigated area. The UNT to West Creek Watershed has an upstream drainage area of 1.019 square miles (Page A27). The Indiana Floodplain Information Portal (https://indnr.maps.arcgis.com/apps/webappviewer/index.html?id=05026dabc2e8461983e196d56a213c1e) Best Available Flood Zones data indicated that the investigated area is not located within an IDNR regulated floodway (Page A28).

Attached Documents

- Stream Summary Table (Page A1)
- Roadside Ditch Summary Table (Page A2 to A3)
- Wetland Summary Table (Page A4 to A9)
- Structure Summary Table (Page A10 to A13)
- Location Map (Page A14)
- USGS Quad Map (1:24,000) (Page A15) *Removed to avoid duplication, Refer to Appendix B*
- USGS Quad Maps (1:12,000) (Page A16 to A18)
- USDA SSURGO Soils Maps (Page A19 to A22)
- USFWS NWI Maps (Page A23 to A26)
- StreamStats Watershed Map (Page A27)
- IDNR Best Available Flood Hazard (Page A28)
- NHD Features Maps (Page A29 to A32)
- Water Resources Maps (Page A33 to A48)
- Photo Location Map (Page A49 to A89)
- Project Photos (Page A90 to A186) *Removed to avoid duplication and for brevity, Refer to Appendix B*
- Wetland Determination Data Sheets (Page A187 to A387)
- Preliminary Jurisdictional Determination Form (Page A388 to 391)

Field Reconnaissance

The area was investigated on May 30 and 31, 2024 and June 10, 11, and 15, 2024. Fifteen streams and thirty-one wetland features were identified during the field reconnaissance. Weather on the May 30,

2024 investigation was cool and mostly sunny and the May 31, 2024 investigation was warm and sunny. June 10, 2024 was cool and overcast, while June 11 and 15, 2024 were warm and mostly sunny. The last precipitation events in the area preceding the respective fieldwork dates occurred on May 29, 2024 at 0.18 inches and on June 5 and 6, 2024 at 0.39 and 0.08 inches, respectively, according to the Lowell WWTP weather station (https://www.weather.gov/wrh/Climate?wfo=lot). According to the Lowell WWTP Climate Analysis for Wetlands (WETS) station (years 2004 to 2024), the month of May was considered an abnormally dry month, and the month of June had normal precipitation (https://agacis.rcc-acis.org/?fips=18089).

Wetland determinations were conducted in accordance with the *Corps of Engineers Wetland Delineation Manual* (US Army Corps of Engineers 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0* (US Army Corps of Engineers 2010). Wetland determinations were completed using EcoBot, with forms derived from the US Army Corps of Engineers website (https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/reg_supp/).

Water resource boundaries were mapped using a Trimble R1 Receiver and Arrow 100 GNSS Receiver (sub-meter accuracy) and ESRI Field Maps as the Geographic Information System (GIS) data collection platform. For those features that displayed bed and bank, the ordinary high-water mark (OHWM) width and depth were measured at the maximum dimension observed beyond the influence of bridge and culvert structures.

Stream Features

According to the USGS Saint John and Lowell 1:24,000 topographic quadrangles, there are ten solid blue-line features and two intermittent blue-line features, one of which enters the investigated area in two places (Pages A15 to A18). All of these blue-line features corresponded with field-identified water resources. Wetlands A, B, D, E, F, G, K, Q, R, Z, UNT 2 to West Creek, UNTs 4, 11, 12, and RSDs 1, 3, 7, 8, 11, 23, and 27 were associated with solid blue-line features. Wetlands T, U, and V, and UNT 1 to West Creek were associated with intermittent blue-line features. See the Stream, Wetland, and RSD summary tables on pages A1 to A9.

The NHD GIS dataset included 26 classified NHD flowlines within the investigated area (Pages A29 to A32). All classified NHD flowlines were associated with field-identified features. Features associated with classified NHD flowlines included Wetlands A, B, D, E, F, G, K, L, Q, R, T, U, V, and Z; RSDs 1, 2, 3, 7, 8, 11, and 23; and UNT 1 to West Creek, UNT 2 to West Creek, and UNTs 4, 11, and 12. The NHD GIS dataset included eight unclassified NHD flowlines within the investigated area (Pages A29 to A32). Features associated with unclassified NHD flowlines included Wetlands K and Z; RSDs 7 and 23; UNT 3 to West Creek; and UNTs 4 and 7. Three unclassified NHD flowlines were not associated with field-identifiable features. All streams within the investigated area are located within the Kankakee River watershed.

The May and June 2024 field investigation identified 15 streams within the investigated area. Two intermittent relatively permanent waters (RPWs), UNT 1 to West Creek and UNT 3 to West Creek, are located within the investigated area and are described below. One ephemeral non-RPW, UNT 2 to West

Creek, exhibited downstream connectivity to a RPW but would likely not be considered jurisdictional due to ephemeral flow. Drainage swales that exhibited a defined bed and bank with minimal in-channel vegetation were considered streams (UNT 1 through UNT 12); in all instances, these streams exhibited ephemeral flow and did not exhibit a relatively permanent downstream connection to any RPW. Therefore UNT 1 through UNT 12 would likely not be considered jurisdictional. The total linear feet (LF) of all streams within the investigated area was 2,606 LF (2,960 LF including captured portions). The total LF of likely jurisdictional streams was 952 LF (1,092 LF including captured portions). See the Stream Summary Table for details on all streams observed within the investigated area (Page A1).

UNT 1 to West Creek

UNT 1 to West Creek is an intermittent stream which enters the investigated area from the west, just south of W 117th Ave, flows north along the west side of US 41, crosses under US 41 via Structure No. 608 (CLV-041-045-257.55), and progresses northeast out of the investigated area to the east. The OHWM is 7.5 feet wide by 0.8 feet wide. UNT 1 to West Creek is approximately 945 LF in length within the investigation area, with an additional 140 LF of encapsulated length. The upstream drainage area is 1.019 square miles. Stream morphology includes run (50%), riffle (35%), and pool (15%). Substrate includes sand (80%), silt (15%), and gravel (5%). Based on a qualitative analysis, the quality of UNT 1 to West Creek is excellent due to morphology and substrate complexity, moderate sinuosity, moderately complex riparian areas, and presence of extensive headwater wetlands.

UNT 1 to West Creek would be considered an intermittent RPW with a downstream connection to Kankakee River, a traditionally navigable water (TNW). UNT 1 to West Creek maintains a direct downstream connection to Kankakee River via West Creek and Singleton Ditch approximately 26.1 river miles southwest of the investigated area. Singleton Ditch and Kankakee River cross the Indiana State Line into Kankakee County, Illinois. Kankakee River is considered navigable throughout Indiana and within Will and Kankakee Counties in Illinois.

UNT 3 to West Creek

UNT 3 to West Creek is an intermittent stream which begins east of US 41 and north of 127th Pl., flows west to east for 7 LF, and exits the investigated area to the east. UNT 3 to West Creek begins at the outfall of Structure No. 554 (CLV-9475)/Str. 83 (CLV-9451/CLV-9449), where it formed a plunge pool. The OHWM was taken east of the investigated area boundary outside of the influence of the structure and plunge pool. The OHWM is 2.8 feet wide by 0.7 feet deep. Stream morphology includes run (90%) and pool (10%). Substrate includes silt (60%), sand (20%), and gravel (20%). The upstream drainage area of UNT 3 to West Creek is 1.019 square miles. Based on a qualitative analysis, the quality of UNT 3 to West Creek is poor due to encapsulation west of the stream, erosion at the culvert outlet, and poor riparian areas with presence of invasive species.

UNT 3 to West Creek would likely be considered an intermittent RPW with a downstream connection to Kankakee River. The downstream connectivity of UNT 3 to West Creek could not be field-verified and was determined using aerial imagery and NHD flowlines. UNT 3 to West Creek is represented by an unclassified NHD flowline. East of the investigated area, UNT 3 to West Creek connects to a classified

NHD flowline and continues north through a large wetland area via a series of classified NHD flowlines. The flowlines carrying UNT 3 to West Creek were observed containing water through multiple years of aerial imagery, suggesting they maintain intermittent flow. The stream then flows into a large wetland complex including Wetland V, Wetland U, and under US 41 to Wetland T. Observed through aerial imagery, Wetland T eventually drains north to UNT 1 to West Creek via a classified NHD flowline. UNT 1 to West Creek eventually drains to Kankakee River, a TNW, via West Creek and Singleton Ditch. UNT 3 to West Creek would likely be considered jurisdictional under Section 404 of the Clean Water Act due to the field-observed flow in combination with the evidence of flow and connectivity obtained during the desktop review.

All other streams observed within the investigated area would likely be considered non-jurisdictional under Section 404 of the Clean Water Act. UNT 1 through UNT 12 would likely be considered man-made drainage swales constructed in and draining wholly uplands, and do not hold a relatively permanent flow of water. One stream, UNT 2 to West Creek, connects directly to UNT 1 to West Creek, an RPW. UNT 2 to West Creek is an ephemeral non-RPW and would likely not be subject to USACE jurisdiction.

Roadside Ditch Features

The May and June 2024 field investigations identified 30 RSD features within the investigated area. See the Roadside Ditch Summary Table for details on all RSDs observed within the investigated area (Pages A2 to A3). Features described as RSDs were located in constructed roadside drainage swales, lacked a defined bed and bank, and did not meet all three wetland indicators to be considered wetlands. Therefore, the RSD features identified would not be considered Waters of the US and would not be subject to USACE jurisdiction under Section 404 of the Clean Water Act. Generally, these RSDs convey low-frequency and low-volume flows and only contain water after precipitation events, though some were impounded due to non-functioning culverts. RSDs were categorized as either Vegetated, Concrete-Lined, Riprap-Lined, or some combination of the three. Portions of some vegetated RSDs contained marginal sparse and/or interrupted erosional banks within the ditch bottom, but these areas were minimal and were determined to be insufficient for UNT development. Portions of some concrete-lined and riprap-lined ditches contained hydrophytic vegetation, but in instances where hydrophytic vegetation was completely contained within the ditch, the feature would not be considered wetland/Waters of the US due to insufficient soil development and their presence within areas constructed to convey drainage. The total length of all RSD features within the investigated area was 6,626 LF.

Wetland Features

The May and June 2024 field investigations identified 31 wetlands within the investigated area, including Wetlands A through Z and Wetlands AA, BB, CC, DD, and EE. See the Wetland Summary Table for details on all wetlands observed within the investigated area (Pages A4 to A9). The majority of identified wetlands were located within excavated concave drainage swales situated parallel to US 41 or other intersecting roads within the investigated area. Some wetland areas connected by culverts were considered one feature depending on the strength of hydrologic connection, similarity of vegetative

community, and distance between features. Wetlands separated by a roadway were considered separate features.

Wetlands located within roadside drainage swales were all considered to be poor-quality emergent wetlands (Wetlands A through S, U, W through Z, and AA through EE). The dominant vegetation found within most of these wetlands included narrow-leaf cat-tail (*Typha angustifolia*, OBL), common reed (*Phragmites australis*, FACW), reed canary grass (*Phalaris arundinacea*, FACW), and other common graminoid species. With the exception of Wetland R, these wetlands do not abut any RPW. While these wetlands are situated within the roadside drainage system which eventually drains to West Creek, any potential direct connection to an RPW would exist only during precipitation events or through a drainage structure. As a result, Wetlands A through Q, S, U, W through Z, and AA through EE would likely be considered non-jurisdictional under Section 404 of the Clean Water Act. According to the Indiana Department of Environmental Management (IDEM) under stipulations provided in IC 13-18-22, Wetlands A through Q, S, U, W through Z, and AA through EE would likely be considered Class I wetlands due to being located within a roadside ditch (https://www.in.gov/idem/wetlands/information-about/state-regulated-wetlands-program/understanding-state-regulated-wetland-exemptions/). INDOT acknowledges that Wetlands A through Q, S, U, W through Z, and AA through EE would not likely meet the definition of a Waters of the US under the Clean Water Act. However, INDOT may request that the USACE take jurisdiction of Wetlands A through Q, S, U, W through Z, and AA through EE, which have therefore been included on the Preliminary Jurisdictional Determination form.

One low-quality roadside ditch wetland, Wetland R, would be considered adjacent to and abutting an RPW; Wetland R is part of the same wetland complex as Wetland T, which is located adjacent to and abutting an RPW. Connectivity and jurisdictional status for Wetlands T and R are discussed in detail below.

Other higher-quality non-ditch wetlands were identified within the investigated area and are described in detail below (Wetlands T, V, and Y). Wetland T would likely be considered jurisdictional, and Wetlands V and Y would likely be considered non-jurisdictional. The total acreage of wetlands within the investigated area was 1.570 acres. The total acreage of likely jurisdictional wetlands within the investigated area was 0.432 acre.

Wetlands R and T

Wetland R is a 0.240-acre emergent wetland situated mostly along the roadside; a portion of the wetland extends west outside the investigated area and away from the roadway. Wetland T is a 0.192-acre scrub-shrub wetland situated along the roadside and extends west outside the investigated area. Both wetlands are located west of US 41 and north of W 123rd Ave. Both wetlands are part of the same wetland complex but were considered separate due to a difference in vegetative community within the investigated area. Wetlands R and T receive drainage from the roadside, surrounding agricultural land, from Wetland U via Str. 578-1 underneath US 41, and from Wetland V (Pages A298 to A300 and A316 to A318). Based on a qualitative assessment, Wetland R would be considered poor quality due to the

presence of invasive species and Wetland T would be considered excellent quality due to complex structure, large size, and native species presence (Pages A301 to A303, A319 to A321).

Downstream hydrologic connections from Wetlands R and T were not able to be directly observed within the investigated area and were not able to be field-verified. Connectivity determinations were therefore made via desktop reconnaissance using aerial imagery, NHD flowlines, and other data. Drainage from Wetlands R and T follow a classified NHD flowline north which eventually becomes UNT 1 to West Creek, an intermittent RPW. Within the investigation area, this flowline was observed in the field as a relatively wide and linear area of open water originating at Str. 578-1, which was considered part of Wetland T. This flowline progresses through more wetland areas and is observable across multiple years of aerial imagery. Therefore, Wetlands R and T would be considered adjacent to an RPW, UNT 1 to West Creek, and maintain a downstream connection with Kankakee River, a TNW, via UNT 1 to West Creek, West Creek, and Singleton Ditch. Wetlands R and T would therefore likely be considered jurisdictional under Section 404 of the Clean Water Act.

Wetland V

Wetland V is a 0.054-acre emergent wetland located 375 feet north of W 123rd Ave and east of US 41. Wetland V is located near the base of the US 41 embankment and extends east outside of the investigated area. This wetland receives drainage from the roadway and surrounding wooded area. Wetland V drains north to Wetland U via a driveway culvert (Str. 578). Wetland V is located within a palustrine, scrub-shrub, broad-leaved deciduous/emergent, persistent, seasonally flooded (PSS1/EM1C) NWI polygon. The NWI polygon is located outside of/adjacent to the investigated area, and Wetland V transitions to scrub-shrub conditions outside of the investigated area. Within the investigated area, Wetland V would be categorized as PEM1C. Based on a qualitative assessment of Wetland V, this wetland would be considered excellent quality based on its large size, vegetative structure, and prevalence of native species (Pages A325 to A327).

Wetland V drains to Wetland U via a driveway culvert (Str. 578). Wetland U drains to Wetland T underneath US 41 via Str. 578-1. Wetland V does not directly abut any RPW within or outside of the investigation area. Therefore, Wetland V would not likely be subject to USACE jurisdiction under Section 404. Wetland V would likely be considered a Class II isolated wetland based on its status as a palustrine scrub/shrub wetland dominated by native species and more than minimally disturbed by human activity (https://www.in.gov/idem/wetlands/files/state_regulated_guidance_class_determination.pdf). INDOT may request that the USACE take jurisdiction of Wetland V.

Wetland Y

Wetland Y is a 0.080-acre forested wetland located west of US 41 and south of W 129th Ave. Wetland Y extends west outside of the investigated area. Wetland Y would be classified as palustrine, forested, broad-leaved deciduous, seasonally flooded/saturated (PFO1E). This wetland receives drainage from the adjacent roadway and surrounding wooded, residential, and commercial areas. Based on a qualitative assessment, Wetland Y would be considered excellent quality due to relatively high diversity, large size, and multiple vegetative strata (Pages A349 to A351).

Downstream hydrologic connections from Wetland Y were not able to be directly observed within the investigated area and were not able to be field-verified. Connectivity determinations were therefore made via desktop reconnaissance using aerial imagery, NHD flowlines, and other data. An unclassified drainage flowline that originates at Wetland Z drains north through the wooded area that contains Wetland Y. Wetland Y was delineated along the south side of W 129th Ave and likely continues west to the NHD flowline. However, while this flowline eventually drains north to West Creek, it does not appear to abut West Creek. Therefore, Wetland Y would likely not be considered adjacent to any RPW and would likely not be considered jurisdictional under Section 404 of the Clean Water Act. Wetland Y would likely be considered a Class II isolated wetland based on its status as a palustrine forested wetland dominated by native species and more than minimally disturbed by human activity or development. (https://www.in.gov/idem/wetlands/files/state_regulated_guidance_class_determination.pdf). INDOT may request that the USACE take jurisdiction of Wetland Y.

Open Water Features

No open water features were identified within the investigated area.

Structures

Approximately 163 small structures are located within the investigated area. Approximately 103 structures are proposed to be repaired, removed, or replaced as part of the project within the US 41 investigated area limits. The attached Structure Summary Table (Pages A10 to A13) provides general information regarding the structures and their potential interaction with water resources. Some structures share the same asset number due to adjoining pipes and approximate location. Approximately 44 additional named structures appear on the project maps but do not appear on the attached table. These structures are outside the WOTUS investigated area but were identified as part of the topographic survey. The table identifies structures that were considered for impacts for the project and are comprehensive of the structures that interact with water resources within the investigated area.

Wildlife Evidence and Concerns

All drainage structures within the investigated area were examined on May 30 and 31, 2024 and June 10, 11, and 15, 2024 for the presence of bats and migratory birds and were found to show no direct or indirect signs of occupation.

All structures were investigated for use by wildlife. Evidence of wildlife use was not observed in structures within the investigated area. The majority of structures within the investigated area are small metal pipes which are not suitable for use by large wildlife.

Conclusion

The May and June 2024 field investigations for the US 41 Roadway Project identified 15 streams (UNTs 1, 2, and 3 to West Creek, and UNT 1 through UNT 12), 30 roadside ditches (RSDs 1 through 30), and 31 wetlands (Wetland A through Z and AA through EE) within the investigated area. Of these features, two streams (UNT 1 to West Creek and UNT 3 to West Creek) and two wetlands (Wetlands R and T) would

likely be considered jurisdictional under Section 404 of the Clean Water Act. Two wetlands, Wetlands V and Y, would likely be considered Class II isolated wetlands under 327 IAC 17-1-3. All other wetlands within the investigated area would likely be considered Class I wetlands under 327 IAC 17-1-7. INDOT may request that the USACE take jurisdiction of Wetlands A through Q, S, U, W through Z, and AA through EE. Wetlands A through Q, S, U, W through Z, and AA through EE have therefore been included on the Preliminary Jurisdictional Determination form.

Every effort should be taken to avoid and minimize impacts to water resources. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the USACE. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgement

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

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March 19, 2025
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Stream Summary Table

Feature Name	Photos	Lat/Long	Total Length (Culvert Length) (ft)	OHW Width (ft)	OHW Depth (ft)	Upstream Drainage Area	USGS Blue Line? Type?	Riffles? Pools?	Quality	Flow	Substrate	Likely Waters of the U.S.?
UNT 1	119, 120	41.411863, -87.469929	34	1.4	0.7	None	No	No No	Poor	Ephemeral	Silt (100%)	No
UNT 1 to West Creek	151-155, 158, 170-174	41.407332, -87.470275	1,085 (140)	7.5	0.8	1.019	Yes Dashed	Yes Yes	Excellent	Intermittent	Sand (80%) Silt (15%) Gravel (5%)	Yes
UNT 2 to West Creek	156, 157	41.408745, -87.469888	19	3.1	1.2	1.019	Yes	No No	Poor	Ephemeral	Silt (100%)	No
UNT 2	198-201	41.405660, -87.469902	222	1.25	0.4	1.019	No	No No	Poor	Ephemeral	Silt (80%) Sand (20%)	No
UNT 3	213, 224-230, 232	41.404023, -87.469913	180	0.3	0.8	1.019	No	No No	Poor	Ephemeral	Silt (100%)	No
UNT 4	251-257	41.401783, -87.469897	334 (77)	1	0.25	1.019	No	No No	Poor	Ephemeral	Silt (60%) Gravel (40%)	No
UNT 5	350-354	41.393756, -87.469881	133	0.8	0.25	0.595	No	No No	Poor	Ephemeral	Silt (100%)	No
UNT 6	367, 368	41.392555, -87.469886	24	2.4	0.5	1.019	No	No No	Poor	Ephemeral	Silt (100%)	No
UNT 3 to West Creek	411-415	41.388106, -87.469623	7	2.8	0.7	1.019	No	No Yes	Poor	Intermittent	Silt (60%) Sand (20%) Gravel (20%)	Yes
UNT 7	439-445	41.385184, -87.469844	201 (56)	2.1	0.25	0.595	No	No No	Poor	Ephemeral	Silt (60%) Gravel (40%)	No
UNT 8	487-491	41.381539, -87.469829	80 (29)	1.7	0.5	0.078	No	No No	Poor	Ephemeral	Silt (90%) Gravel (10%)	No
UNT 9	546-548	41.374977, -87.469840	126	1.1	0.3	7	No	No Yes	Poor	Ephemeral	Muck (100%)	No
UNT 10	549-551	41.374662, -87.469862	149 (9)	1.9	0.6	None	No	No No	Poor	Ephemeral	Silt (50%) Sand (40%) Gravel (10%)	No
UNT 11	573-578	41.373082, -87.470231	76	1.75	0.5	None	Yes Solid	No No	Poor	Ephemeral	Gravel (40%) Sand (30%) Silt (30%)	No
UNT 12	564-572	41.373055, -87.469800	290 (43)	1.9	0.4	None	Yes Solid	No Yes	Poor	Ephemeral	Silt (95%) Gravel (5%)	No

Roadside Ditch Summary Table

Feature Name	Photos	Lat/Long	Length (ft)	Flow Direction	Type
RSD 1	13, 14	41.4212705, -87.4695407	120	E to W	Vegetated
RSD 2	44, 45	41.4207111, -87.4702697	128	S to N	Concrete-Lined
RSD 3	89	41.4154147, -87.4702253	275	N to S	Concrete-Lined
RSD 4	85-87	41.4147001, -87.4699369	510	S to N	Vegetated
RSD 5	97	41.4143816, -87.4702443	61	N to S	Vegetated
RSD 6	150-151	41.4092814, -87.4698800	278	N to S	Vegetated
RSD 7	169	41.4087548, -87.4702419	126	N to S	Concrete-Lined
RSD 8	177-181	41.4073168, -87.4699280	361	S to N	Riprap-Lined/Vegetated
RSD 9	182, 196	41.4064077, -87.4698985	71	S to N	Concrete-Lined
RSD 10	231-234	41.4036175, -87.4698904	217	S to N	Vegetated
RSD 11	250	41.4024011, -87.4698876	72	N to S	Riprap-Lined
RSD 12	265-267	41.4010911, -87.4698862	81	S to N	Vegetated
RSD 13	271, 272, 275	41.3998342, -87.4698799	427	N to S	Concrete-Lined/Vegetated
RSD 14	321-322	41.3966843, -87.4698445	84	N to S	Vegetated
RSD 15	346, 347	41.3946082, -87.4701869	278	S to N	Concrete-Lined
RSD 16	359-361	41.3935105, -87.4701873	207	S to N	Concrete-Lined/Vegetated
RSD 17	362-366	41.3932266, -87.4698648	202	S to N	Vegetated
RSD 18	381, 382	41.3920981, -87.4698556	44	N to S	Vegetated
RSD 19	390	41.3899467, -87.4701817	96	N to S	Vegetated

Roadside Ditch Summary Table

Feature Name	Photos	Lat/Long	Length (ft)	Flow Direction	Type
RSD 20	406-409	41.3877930, -87.4701612	289	S to N	Vegetated
RSD 21	429-434	41.3865934, -87.4701832	12	N to S	Riprap-Lined/Vegetated
RSD 22	416-426	41.3861707, -87.4698586	834	S to N	Vegetated
RSD 23	435-438	41.3851681, -87.4701492	299	S to N	Vegetated
RSD 24	451-453	41.3844052, -87.4701459	655	S to N	Vegetated
RSD 25	458-460	41.3838842, -87.4698447	247	N to S	Concrete-Lined
RSD 26	482	41.3816369, -87.4702012	29	W to E	Vegetated
RSD 27	487, 493-494. 496	41.3807802, -87.4698444	441	S to N	Vegetated
RSD 28	508, 509	41.3801916, -87.4701507	56	S to N	Concrete-Lined
RSD 29	521-523	41.3777002, -87.4702787	73	N to S	Concrete-Lined
RSD 30	532-535	41.3755483, -87.4701883	53	N to S	Riprap-Lined/Vegetated

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
1	A	PEM	0.012	Poor	1-4	Str. 634	No	41.421481, -87.470298	*Phragmites australis*	Other*	A1, A2, A3, C8, D2, D5	Yes	*Soils appear to be disturbed as part of the roadside ditch, potentiall through ditch clearning efforts. Hydrophytic vegetation and hydrology are present. Wetland contained completely within roadside swale.
2								41.421471, -87.470306	*Schedonorus arundinaceus, Poa pratensis*	None	A3	No	
3	B	PEM	0.025	Poor	5-12	Str. 632	No	41.4214375, -87.4698884	*Eleocharis palustris, Juncus effusus*	F3	A3, C3, D2, D5	Yes	Wetland contained completely within roadside swale.
4								41.4214641, -87.4698956	*Trifolium repens*	None	None	No	
5	C	PEM	0.002	Poor	16-21	N/A	No	41.421063, -87.470613	*Scirpus atrovirens*	A11	D2, D5	Yes	Wetland contained completely within roadside swale.
6								41.421065, -87.47048	*Trifolium pratense, Plantago lancelota, Schedonorus pratensis*	F3	None	No	
7	D	PEM	0.008	Poor	22-29	Str. 633	No	41.420841, -87.470299	*Phragmites australis*	A4, F3, F6, F7	A1, A2, A3, C1, D2, D5	Yes	Wetland contained completely within roadside swale.
8								41.420845, -87.470319	*Phalaris arundinacea, Juglans nigra*	F6	None	No	
11	E	PEM	0.026	Poor	46-54	N/A	No	41.420347, -87.470362	*Phragmites australis*	A11, F3	A3, D5	Yes	Wetland located in low area west of US 41
12								41.420338, -87.470406	*Phragmites australis, Schendonorus arundinaceus*	F3	None	No	
9	F	PEM	0.134	Poor	55-79	Strs. 631, 630, 629-1, 629, 628, 627, 626, 625	No	41.420364, -87.470256	*Phragmites australis*	Other*	A1, A2, A3, D2, D5	Yes	*Soils appear to be disturbed as part of the roadside ditch, potentiall through ditch clearning efforts. Hydrophytic vegetation and hydrology are present. Wetland contained within roadside swale.
10								41.420364, -87.470262	*Schedonorus arundinaceus*	None	None	No	
15								41.416327, -87.470252	*Typha angustifolia*	F1	A1, A2, A3, B4, D2, D5	No	

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
13	G	PEM	0.105	Poor	30-32, 35-43	Str. 632	No	41.41876786, -87.46992666	*Carex molesta, Poa annua, Scirpus atrovirens*	F6	B8, B10, D2, D5	Yes	Wetland contained completely within roadside swale.
14								41.41876171, -87.46991257	*Poa annua, Quercus palustris*	F6	None	No	DP location was selected in coordination with IDNR Regional Ecologist to minimize harm to preserve
16	H	PEM	0.026	Poor	90-96	Str. 622	No	41.415005, -87.470249	*Typha angustifolia*	F6	A3, B3, B4, C3, C8, D2, D5	Yes	Wetland contained partially within roadside swale. A portion extends west away from the roadway.
17								41.415008, -87.470265	*Schedonorus arundinaceus, Lonicera maackii*	None	None	No	
18	I	PEM	0.055	Poor	97-109	Unk. Driveway Culvert, Strs. 621, 618, 617	No	41.413548, -87.470258	*Agrostis stolonifera*	A12	A1, A2, A3, D2, D5	Yes	Wetland contained completely within roadside swale.
19								41.413544, -87.470283	*Schedonorus arundinaceus, Picea abies, Rhamnus cathartica, Juniperus virginiana*	None	None	No	
20	N/A	N/A	N/A	N/A	115-118	N/A	No	41.41241521, -87.4699005	*Morus alba, Phalaris arundinacea, Dipsacus fullonum*	None	None	No	Negative Data Point
21	J	PEM	0.105	Poor	122-131	Strs. 617, 616, 616-1, 613, 612	No	41.412312, -87.470258	*Agrostis stolonifera, Typha angustifolia, Phalaris arundinacea*	Yes*	A2, A3, C8, D2, D5	Yes	*The soils were highly disturbed at this location. Plastic bags, plastic bottles, and glass bottles among other trash/debris were observed as the hole was excavated. Due to the presence of hydrophytic vegetation and hydrology, it is likely soils are present. Wetland contained completely within roadside swale.
22								41.412334, -87.470273	*Schedonorus arundinaceus*	None	None	No	
23	K	PEM	0.038	Poor	135-148	Strs. 611, 610, 609	No	41.40957237, -87.47024111	*Hordeum jubatum, Phragmites australis*	F3	A2, A3, D2, D5	Yes	Wetland drains south into UNT 1 to West Creek via RSD7, a concrete-lined non-jurisdictional ditch. Wetland contained completely within roadside swale.
24								41.40946532, -87.47028332	*Glechoma hederacea*	None	None	No	

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
25	L	PEM	0.060	Poor	159-168	Strs. 606, 605	No	41.40812999, -87.4699157	*Phalaris arundinacea, Scirpus atrovirens*	A11, F3	A3, C8, D2, D5	Yes	Wetland drains north to UNT 1 to West Creek (RPW) via UNT 2 to West Creek (non-jurisdictional). Wetland contained completely within roadside swale.
26								41.40812147, -87.46990181	*Schedonorus arundinaceus, Trifolium repens*	A11, F3	None	No	
27	M	PEM	0.004	Poor	183-188	Unk. Driveway Culvert, Str. 601	No	41.40649744, -87.4698101	*Phalaris arundinacea, Phragmites australis*	F6	A1, A2, A3, C8, D2, D5	Yes	Wetland contained completely within roadside swale.
28								41.40649127, -87.46980656	*Phalaris arundinacea, Glechoma hederacea*	None	A3	No	
29	N	PEM	0.008	Poor	189-196	Str. 600	No	41.40622742, -87.46990278	*Hordeum jubatum*	A11, F3	A1, A2, A3, B4, C8, D2, D5	Yes	Wetland contained completely within roadside swale.
30								41.4062363, -87.46989932	*Morus alba, Poa pratensis, Schedonorus arundinaceus*	None	None	No	
31	O	PEM	0.039	Poor	202-210, 212	Strs. 599, 598, 597	No	41.40498207, -87.469917	*Phragmites australis*	F3	A2, A3, D2, D5	Yes	Wetland contained completely within roadside swale.
32								41.40498812, -87.46989026	*Quercus rubra, Schedonorus arundinaceus, Asclepias syriaca, Quercus macrocarpa, Ulmus rubra, Ailanthus altissima*	None	None	No	
33	P	PEM	0.059	Poor	216-223	N/A	No	41.40425702, -87.47035829	*Fraxinus pennsylvanica, Schedonorus arundinaceus, Juncus tenuis*	F3	A3, D2, D5	Yes	Wetland partially contained within roadside swale.
34								41.4026373, -87.47036022	*Solidago canadensis, Elaeagnus umbellata, Fraxinus pennsylvanica, Robinia pseudoacacia*	A11	None	No	
35	Q	PEM	0.017	Poor	241-249	Str. 594, 593	No	41.40255914, -87.4698986	*Eleocharis palustris*	F3	A2, A3, D2, D5	Yes	Wetland contained completely within roadside swale.
36								41.40255566, -87.46989583	*Schedonorus arundinaceus*	F6	A3	No	
37	N/A	NA	NA	NA	261-264	N/A	No	41.40125335, -87.46989559	*Poa pratensis, Phragmites australis, Schedonorus arundinaceus*	None	D2	No	Negative Data Point

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
39	R	PEM	0.240	Poor	298-311, 316	Str. 581	Yes	41.39883011, -87.47029373	*Phalaris arundinacea, Sambucus nigra, Lonicera tatarica*	A10	A2, A3, D2, D5	Yes	Wetland contained partially within roadside swale, with portions extending away from the roadway. Wetland is part of the same complex as Wetland T, which abuts an RPW.
40								41.49883587, -87.47036372	*Acer saccharinum, Lonicera tatarica, Cirsium discolor, Circaea canadensis, Toxicodendron radicans*	F1	A2, A3	No	
41	S	PEM	0.090	Poor	278-297	Strs. 584, 583, 582, 580	No	41.39693591, -87.46983765	*Phragmites australis, Typha angustifolia, Phalaris arundinacea*	F3	A1, A3, B14, D2, D5	Yes	Wetland contained completely within roadside swale.
42								41.39694013, -87.46981232	*Picea glauca, Poa pratensis*	None	None	No	
38								41.39910253, -87.4698826	*Hordeum jubatum, Phalaris arundinacea, Ranunculus sceleratus*	F6	A1, A3, B14, D2, D5	Yes	
45	T	PSS	0.192	Average	312-315, 317-320	Unk. Driveway Culvert	Yes	41.39580879, -87.47030152	*Phalaris arundinacea, Poa pratensis, Cornus drummondii, Salix interior, Viburnum opulus, Toxicodendron radicans, Acer saccharinum, Ulmus americana, Parthenocissus quinquefolia*	F3	D2, D5	Yes	Wetland is partially contained within a roadside swale, but extends west outside the investigation area. Wetland abuts UNT 1 to West Creek outside the investigation area.
46								41.3957294, -87.47030458	*Schedonorus arundinaceus, Solidago canadensis, Toxicodendron radicans Lonicera tatarica, Salix interior*	None	None	No	
43	U	PEM	0.081	Poor	322-328	Str. 579, 578	No	41.39596635, -87.46981547	*Phalaris arundinacea, Typha angustifolia, Franxinus pennsylvanica*	F1	A1, A2, A3, B14, C3, D2, D5	Yes	Wetland contained partially within roadside swale, with a portion extending east outside the investigated area and away from the roadway.
44								41.39594156, -87.46974567	*Elymus repens, Acer negundo, Robinia pseudoacacia, Lonicera tatarica, Juglans nigra*	None	None	No	
48	V	PEM	0.054	Poor	329-344	Str. 578	No	41.39527349, -87.46976751	*Phalaris arundinacea, Franxinus pennsylvanica*	A11, F3, F6	A3, D2, D5	Yes	Wetland would be considered emergent in the area of the data point, but the greater wetland area would be considered scrub-shrub.
47								41.39525256, -87.46978966	*Quercus macrocarpa, Phalaris arundinacea, Franxinus pennsylvanica, Lonicera maackii*	None	None	No	
49	N/A	N/A	N/A	N/A	355-358	N/A	N/A	41.3936417, -87.46985851	*Phalaris arundinacea*	None	A1, A2, A3, B10, D2, D5	No	Negative Data Point

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
50	W	PEM	0.005	Poor	369-379	Strs. 570, 569	No	41.39240063, -87.46985717	*Typha angustifolia*	A11, F2	A3, B8, D2, D5	Yes	Portions of ditch bottom would be considered sparsely vegetated. Wetland contained completely within roadside swale.
51								41.39240612, -87.46985032	*Schedonorus arundinaceus*	None	None	No	
52	X	PEM	0.031	Poor	390-406	Str. 562, 561, 560, 559, 558, 557	No	41.38911452, -87.47021894	*Typha angustifolia*	F3	A2, A3, C8, D2, D5	Yes	Wetland contained completely within roadside swale.
53								41.38911838, -87.47020156	*Poa compressa*	None	None	No	
54	N/A	N/A	N/A	N/A	429-433	Strs. 552, 551	No	41.38661409, -87.47014978	*Phalaris arundinacea*	None	A3, D2, D5	No	Negative Data Point
55	Y	PFO	0.080	Excellent	449-451, 454-457	N/A	No	41.38445294, -87.47026398	*Cornus racemosa, Juncus dudleyi, Schedonorus arundinaceus, Fraxinus pennsylvanica, Ulmus americana, Pycanthemum virginianum, Pinus strobus*	F6	B6, B10, D2, D5	Yes	Wetland begins outside of the roadside swale, and does not appear to abut any RPW.
56								41.3844285, -87.4702276	*Schedonorus arundinaceus, Poa pratensis, Cornus racemosa*	A11	None	No	
57	Z	PEM	0.016	Poor	464-482	Strs. 536, 533, 532, 531, 530	No	41.38200359, -87.47018941	*Phragmites australis*	None	C3, D5	No	
58								41.38205343, -87.47021023	*Phragmites australis, Ulmus americana*	F2	A3, B4, B14, B10, D2, D5	Yes	Wetland partially contained within roadside swale, with a portion extending west away from the roadway.
59	AA	PEM	0.010	Poor	483-486	Strs. 52-B, 532	No	41.38164923, -87.46984647	*Poa pratensis*	F6	A1, A2, A3, D2, D5	Yes	No upland DP taken - incorrectly conculded negative in field. Wetland contained completely within roadside swale.
60	BB	PEM	0.010	Poor	497-506	Strs. 526, 529	No	41.38059039, -87.47016132	*Hordeum jubatum*	F6	A3, C8, D2	Yes	Wetland contained completely within roadside swale.
61								41.3805821, -87.4701799	*Poa pratensis, Glechoma hederacea*	F6	None	No	

Wetland Summary Table

Data Point	Wetland ID	Type	Acreage	Quality	Photo IDs	Associated structure ID	Likely WOTUS?	Lat/Long	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
62	CC	PEM	0.004	Poor	513-520	Str. 52, 51	No	41.37863363, -87.4701877	*Eleocharis palustris*	F6	A3, B8, C8, D2, D5	Yes	Wetland contained completely within roadside swale.
63								41.37863494, -87.47018528	*Schedonorus arundinaceus, Poa pratensis*	None	None	No	
64	DD	PEM	0.010	Poor	536-544	Str. 505	No	41.37499118, -87.47019312	*Typha angustifolia*	A11	A3, D2, D5	Yes	Wetland contained completely within roadside swale.
65								41.37500535, -87.47021136	*Schedonorus arundinaceus, Poa pratensis*	None	None	No	
66	EE	PEM	0.024	Poor	553-561	Str. 505, 502, Unk. Culvert	No	41.37409054, -87.47020781	*Juncus acuminatus*	F3	A2, A3, C8, D2, D5	Yes	Wetland contained completely within roadside swale.
67								41.37409639, -87.47022062	*Poa pratensis, Schedonorus arundinaceus*	None	None	No	

*Asterisk references Notes column

Structure Summary Table

Structure Number	INDOT Structure Number	Size (in)	Latitude	Longitude	Feature	Impact?
632	N/A	16	41.42116661	-87.46977028	Wetland B, Wetland G, RSD 1	Yes
634	CLV-9687	36X24	41.4211638	-87.4702848	Wetland A, Wetland D	Yes
633	N/A	36	41.42069979	-87.47027075	RSD 2	Yes
631	N/A	15	41.41991386	-87.47023687	Wetland F	Yes
630	N/A	15	41.41955139	-87.47023278	Wetland F	Yes
629-1	N/A	15	41.41850261	-87.47024029	Wetland F	Yes
629	N/A	12	41.4181631	-87.47024104	Wetland F	Yes
628	N/A	6	41.41775126	-87.47016036	Wetland F	Yes
627	N/A	15	41.41756152	-87.47024602	Wetland F	Yes
626	N/A	24	41.41641516	-87.47006447	Wetland F	Yes
625	N/A	15	41.41594312	-87.47024324	Wetland F, RSD 3	Yes
623	N/A	12	41.4157035	-87.46993151	RSD 4	Yes
624	N/A	12	41.41539604	-87.47024043	RSD 3	Yes
620	N/A	12	41.41469982	-87.46994208	RSD 4	Yes
622	N/A	12	41.4145771	-87.47023948	Wetland H, RSD 5	Yes
619	CLV-041-045-257.93	12	41.41414931	-87.46993227	RSD 4	Yes
621	N/A	15	41.41374231	-87.47023827	Wetland I	Yes
618	N/A	15	41.41333212	-87.47025257	Wetland I	Yes
615	N/A	15	41.41323311	-87.46989946	N/A	Yes
617	N/A	15	41.41281554	-87.47025826	Wetland I, Wetland J	Yes
616	N/A	15	41.41251743	-87.47025863	Wetland J	Yes
616-1	CLV-9603	15	41.41244024	-87.47011822	Wetland J	Yes
614	N/A	12	41.4117971	-87.46993166	UNT 1	Yes
613	N/A	18	41.41022756	-87.47029423	Wetland J	No
612	N/A	18	41.41017434	-87.47024261	Wetland J	Yes
612-1	N/A	12	41.41017017	-87.46991843	N/A	Yes
611	N/A	24	41.41002387	-87.47024518	Wetland K	Yes
610	N/A	30	41.4097149	-87.4702375	Wetland K	Yes
609	N/A	36X24	41.4091268	-87.47023401	Wetland K	Yes
608	CLV-041-045-257.55	144x60	41.40866126	-87.47006514	UNT 1 to West Creek	No
606	N/A	12	41.40825162	-87.46990838	Wetland L	No
607	N/A	48	41.40820093	-87.47029015	UNT 1 to West Creek	No
605	N/A	12	41.40774889	-87.46991854	Wetland L, RSD 8	Yes
604-1	N/A	12	41.40741501	-87.46994315	RSD 8	Yes
604	N/A	12	41.40718471	-87.46991634	RSD 8	Yes
603	CLV-9582	12	41.40676138	-87.46991987	RSD 8	No
602	CLV-9581	24	41.40659758	-87.47018356	UNT 1 to West Creek, RSD 8	No
601	CLV-9583	21	41.40655077	-87.46986787	RSD 8, Wetland M, RSD 9	Yes
600	N/A	12	41.40603438	-87.46989498	UNT 2, Wetland N	Yes

Structure Summary Table

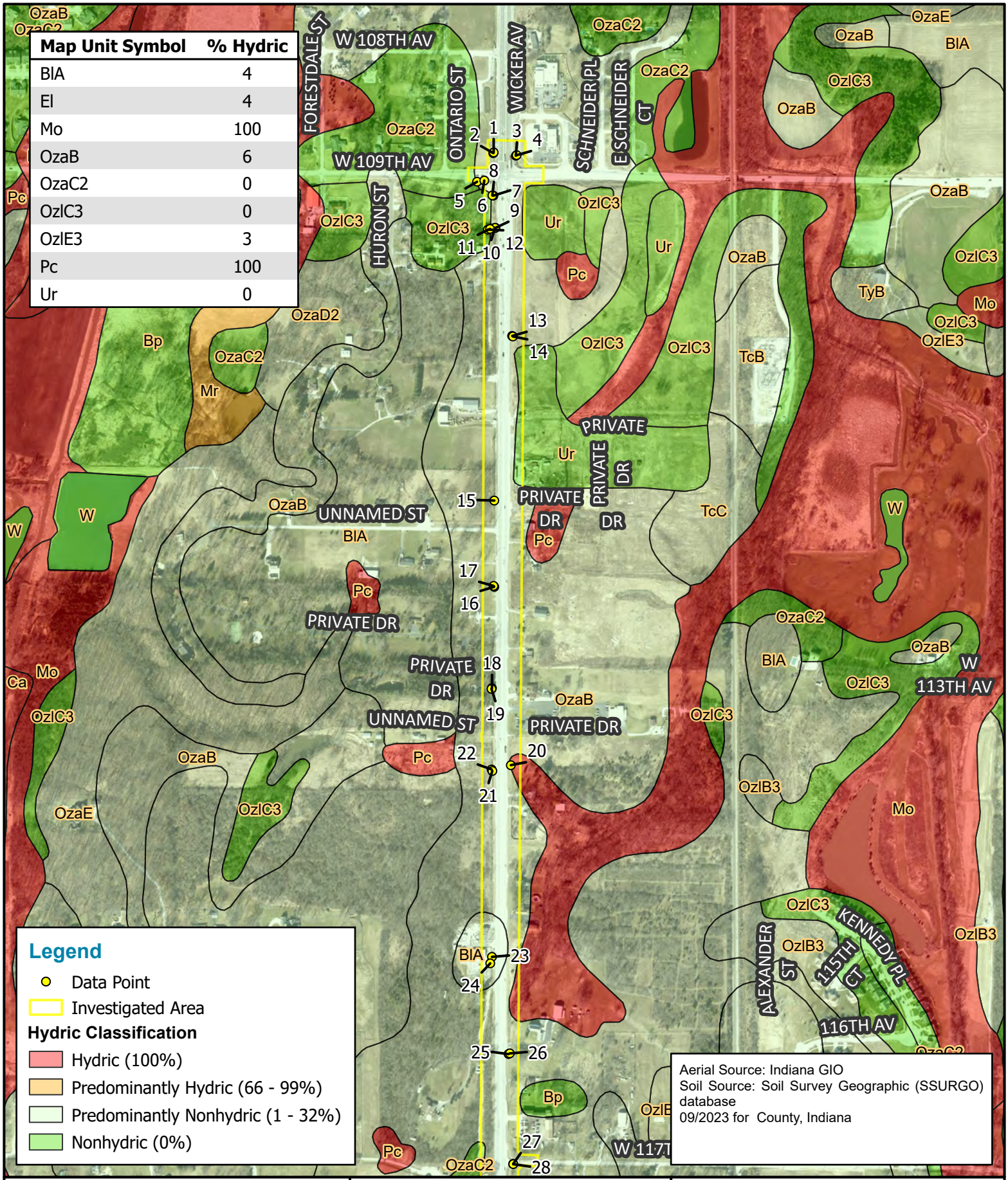
Structure Number	INDOT Structure Number	Size (in)	Latitude	Longitude	Feature	Impact?
599	N/A	12	41.40534537	-87.46988795	UNT 2, Wetland O	Yes
598	N/A	12	41.40458692	-87.4699072	Wetland O	Yes
597	N/A	12	41.40444734	-87.46990045	UNT 3, Wetland O	Yes
596	N/A	12	41.4039088	-87.46990131	UNT 3, RSD 10	Yes
594	N/A	12	41.40306491	-87.46989426	Wetland Q	Yes
593	N/A	12	41.40269708	-87.4698937	Wetland Q	Yes
95	N/A	15	41.40283441	-87.47046849	N/A	No
595	N/A	15	41.40265928	-87.47025736	N/A	No
592 (Drive)	N/A	16	41.40241132	-87.46998691	RSD 11	Yes
592	CLV-9575	15	41.40241132	-87.46998691	RSD 11	Yes
94	N/A	15	41.40239655	-87.47023177	N/A	No
591	N/A	12	41.4022424	-87.46988875	RSD 11, UNT 4	Yes
590	N/A	12	41.40216153	-87.46988862	UNT 4	Yes
589	N/A	12	41.40197197	-87.46989389	UNT 4	Yes
588	N/A	12	41.4018621	-87.46989115	UNT 4	Yes
587	N/A	12	41.40117337	-87.46988804	RSD 12	Yes
586	N/A	12	41.40098086	-87.46988733	RSD 12	Yes
585-1	N/A	12	41.40068512	-87.46987458	N/A	Yes
585	N/A	12	41.40018367	-87.46988611	RSD 13	Yes
584	N/A	12	41.39920351	-87.46988207	RSD 13, Wetland S	Yes
583	N/A	12	41.39855621	-87.46986477	Wetland S	Yes
582	N/A	12	41.39792018	-87.46986385	Wetland S	Yes
581	N/A	12	41.39691445	-87.47021793	Wetland R	Yes
580	N/A	12	41.39682176	-87.46983033	Wetland S, RSD 14	Yes
579	CLV-041-045-256.73 CLV-041-045-256.71	12	41.39639072	-87.46982696	Wetland U	No
578-1	CV 041-045-256.70	60	41.3960816	-87.47005288	Wetland U, Wetland T	No
578	N/A	18	41.39580147	-87.46983826	Wetland U, Wetland V	No
577	N/A	15	41.3942284	-87.47017398	RSD 15	Yes
575	N/A	12	41.39349602	-87.46987204	RSD 17	Yes
574	N/A	12	41.39330517	-87.46986767	RSD 17	Yes
576	N/A	12	41.39316373	-87.4701728	RSD 16	Yes
573	N/A	12	41.39308948	-87.46986604	RSD 17	Yes
570	N/A	12	41.39245909	-87.46986226	UNT 6, Wetland W	Yes
572	N/A	12	41.39225682	-87.47016744	N/A	Yes
569	N/A	12	41.39221079	-87.46985602	RSD 18, Wetland W	Yes
568	N/A	15	41.39202708	-87.46986042	RSD 18	Yes
88	CLV-041-045-256.43	15	41.3919422	-87.46983402	N/A	No
87	CLV-041-045-256.41	15	41.39187097	-87.46984017	N/A	Yes
571	N/A	12	41.39178765	-87.47018389	N/A	Yes
567	N/A	15	41.39156598	-87.46984793	N/A	Yes
566	N/A	12	41.3915387	-87.47017661	N/A	Yes
565	N/A	12	41.39134982	-87.4701661	N/A	Yes
564	N/A	18	41.3910897	-87.46984248	N/A	Yes

Structure Summary Table

Structure Number	INDOT Structure Number	Size (in)	Latitude	Longitude	Feature	Impact?
563	CLV-9357 CLV-9365	18	41.39012788	-87.47016741	RSD 19	Yes
562	N/A	18	41.38976674	-87.47016277	Wetland X, RSD 19	Yes
561	N/A	18	41.38898082	-87.47016042	Wetland X	Yes
560	N/A	18	41.38884069	-87.4701589	Wetland X	Yes
559	N/A	18	41.38874497	-87.47016006	Wetland X	Yes
558	N/A	24	41.38835199	-87.47016341	Wetland X	Yes
557	N/A	24	41.38828546	-87.47023121	Wetland X, RSD 20	No
555	N/A	18	41.38820207	-87.46985063	UNT 3 to West Creek	No
556	CLV-9383	6	41.38807833	-87.47022476	RSD 20	No
83	CLV-9451 CLV-9449	24	41.38807727	-87.46980282	UNT 3 to West Creek	No
554	CLV-9475	24	41.38807262	-87.46999548	UNT 3 to West Creek, RSD 20	No
553	N/A	18	41.38797815	-87.46985302	UNT 3 to West Creek, RSD 22	No
79	CLV-9395	15	41.38708465	-87.47014845	RSD 20	No
549	N/A	18	41.38682377	-87.46985536	RSD 22	Yes
77	CLV-9399	15	41.38677114	-87.4701496	N/A	No
78	N/A	8	41.38669255	-87.47021588	N/A	No
552	CLV-9407	15	41.38663662	-87.47015068	RSD 21	No
551	CLV-9445	15	41.38643751	-87.47015298	RSD 21	No
550	CLV-9459	8	41.38620486	-87.47016944	N/A	No
74	CLV-9483	15	41.38600576	-87.47015188	N/A	No
545	N/A	18	41.38587392	-87.46985	RSD 22	Yes
548	CLV-9467	8	41.38584363	-87.47017743	N/A	No
73	CLV-9485	15	41.38580938	-87.47015157	N/A	No
544	N/A	18	41.38568714	-87.46985285	RSD 22	Yes
547	CLV-9489	15	41.38568274	-87.4701541	RSD 23	No
546	N/A	24	41.3854373	-87.47015284	RSD 23	Yes
543	N/A	18	41.38531967	-87.46984884	RSD 22, UNT 7	Yes
542	N/A	18	41.38504345	-87.46984804	UNT 7	Yes
541	CLV-041-045-255.92	18	41.38481399	-87.46984305	UNT 7	No
540	CLV-9497 CLV-9493	15	41.38465731	-87.47018482	RSD 23, RSD 24	Yes
539	CLV-9441 CLV-9439	18	41.38464853	-87.46981736	UNT 7, RSD 25	Yes
538	N/A	12	41.38395986	-87.469843	RSD 25	Yes
62	N/A	15	41.38367322	-87.4698423	RSD 25	Yes
537	N/A	15	41.38337376	-87.46984025	N/A	No
535	N/A	15	41.38308302	-87.46979212	N/A	No
59	CLV-9495	15	41.38206859	-87.46992826	Wetland Z	Yes
536	CLV-041-045-255.74	15	41.38206707	-87.47008145	Wetland Z	Yes
534	N/A	15	41.38196703	-87.46984841	Wetland AA	No
533	N/A	12	41.38178557	-87.4701545	Wetland Z	No
532	N/A	12	41.38154021	-87.47015208	Wetland Z	No
52-B	N/A	15	41.38146083	-87.46984719	UNT 8	Yes
531	N/A	12	41.38136952	-87.47015162	Wetland Z	No
530	N/A	12	41.38125268	-87.47015348	Wetland Z	Yes

Structure Summary Table

Structure Number	INDOT Structure Number	Size (in)	Latitude	Longitude	Feature	Impact?
527	N/A	18	41.38107107	-87.4698488	RSD 27	Yes
57	N/A	12	41.38088175	-87.46979978	RSD 27	Yes
529	N/A	12	41.38091962	-87.47015236	Wetland BB	Yes
526	CLV-9499 CLV-9501	12	41.38025965	-87.47015869	Wetland BB, RSD 28	Yes
522	N/A	18	41.3802333	-87.46985506	RSD 27	No
525	N/A	15	41.37982482	-87.47015677	RSD 28	No
524	N/A	12	41.37951251	-87.4701624	N/A	No
52-A	N/A	12	41.37887723	-87.47015354	Wetland CC	Yes
51	N/A	12	41.37853874	-87.47015863	Wetland CC	No
50	N/A	10	41.37836882	-87.4702156	N/A	No
519	N/A	12	41.37760251	-87.47034125	RSD 29	No
520	CLV-9505	12	41.37760344	-87.47023774	N/A	No
36	N/A	12	41.37749647	-87.46979779	N/A	Yes
518	N/A	18	41.37748545	-87.47014593	N/A	Yes
515	N/A	12	41.37746946	-87.46981227	N/A	Yes
37	CLV-9503	12	41.37743266	-87.47017487	N/A	Yes
35	N/A	12	41.3774037	-87.46978214	N/A	Yes
34	N/A	12	41.37737063	-87.4694712	N/A	Yes
28	N/A	12	41.37729186	-87.46977937	N/A	Yes
517	N/A	12	41.37727997	-87.47005565	N/A	Yes
25	N/A	12	41.37727315	-87.47026827	N/A	Yes
17	N/A	12	41.37703505	-87.47021268	N/A	No
19	N/A	6	41.37705674	-87.47017329	N/A	No
516	N/A	4	41.37698829	-87.4701764	N/A	No
511	N/A	15	41.37639606	-87.47019512	N/A	No
508	N/A	10	41.37617093	-87.46977434	N/A	No
2	N/A	3	41.37586117	-87.4698619	N/A	No
510	N/A	18	41.37583293	-87.47016717	RSD 30	No
507	N/A	12	41.37576889	-87.46977993	N/A	No
509	N/A	18	41.37564752	-87.47016621	RSD 30	No
1	N/A	15	41.3755279	-87.46985935	N/A	No
506	N/A	15	41.37520306	-87.46985885	UNT 9	No
505	N/A	24	41.37444235	-87.47019076	Wetland DD, Wetland EE	No
503	N/A	12	41.37433372	-87.46986161	UNT 10	No
501	N/A	6	41.37365156	-87.46985962	N/A	No
502	N/A	24	41.37353766	-87.47020966	Wetland EE	No
500	N/A	24	41.3728906	-87.46978899	UNT 12	No
96	CLV-9511	24	41.37283897	-87.47021766	UNT 11	No



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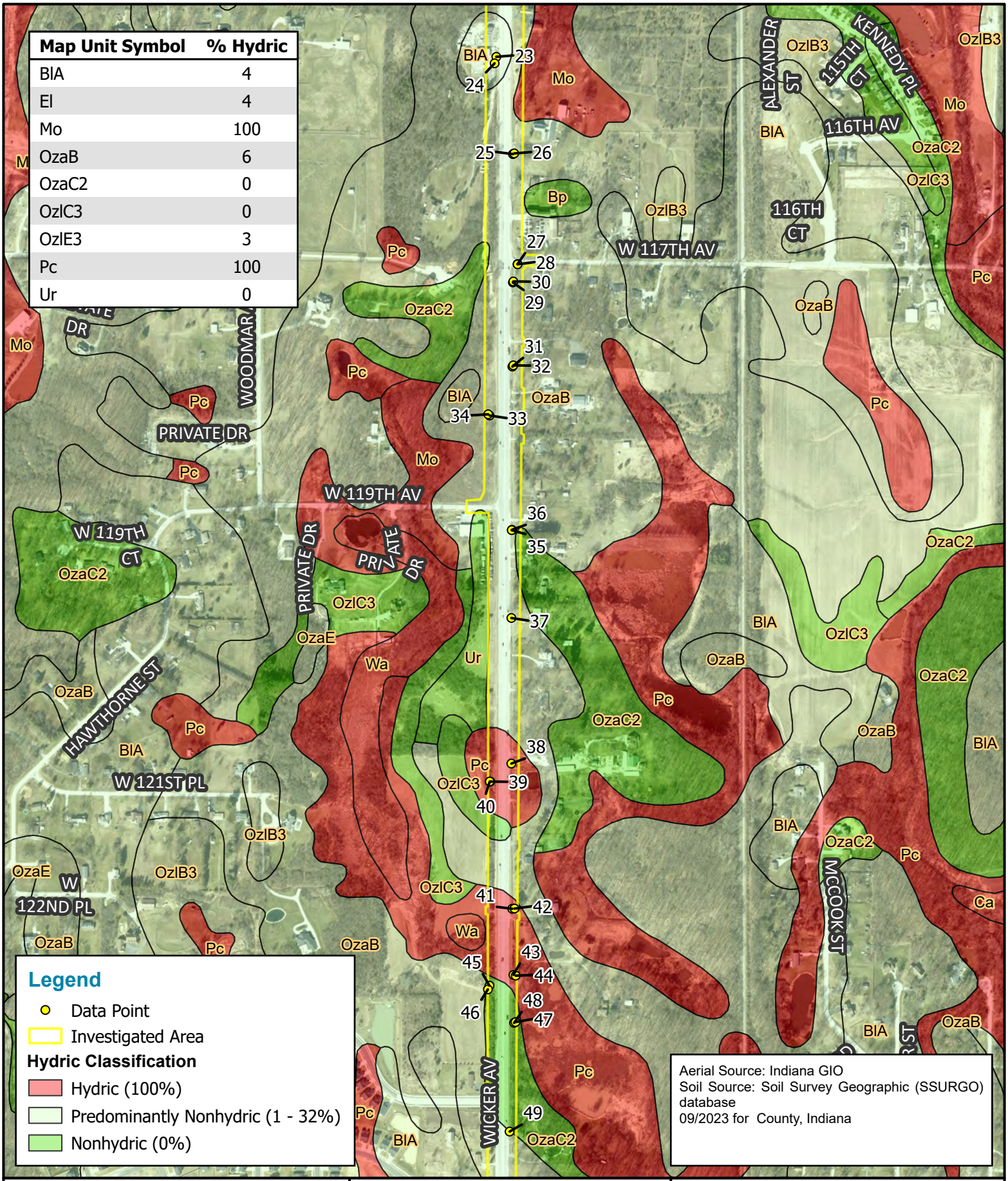
USDA SSURGO Soils Map

Des. No. 1700025
Waters of the U.S. Report

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 11/12/2024, CHoogewerf



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USDA SSURGO Soils Map
Des. No. 1700025
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0 400 800 Feet

N

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US 41 from 3.25 Mi. S. of US 231 to US 231
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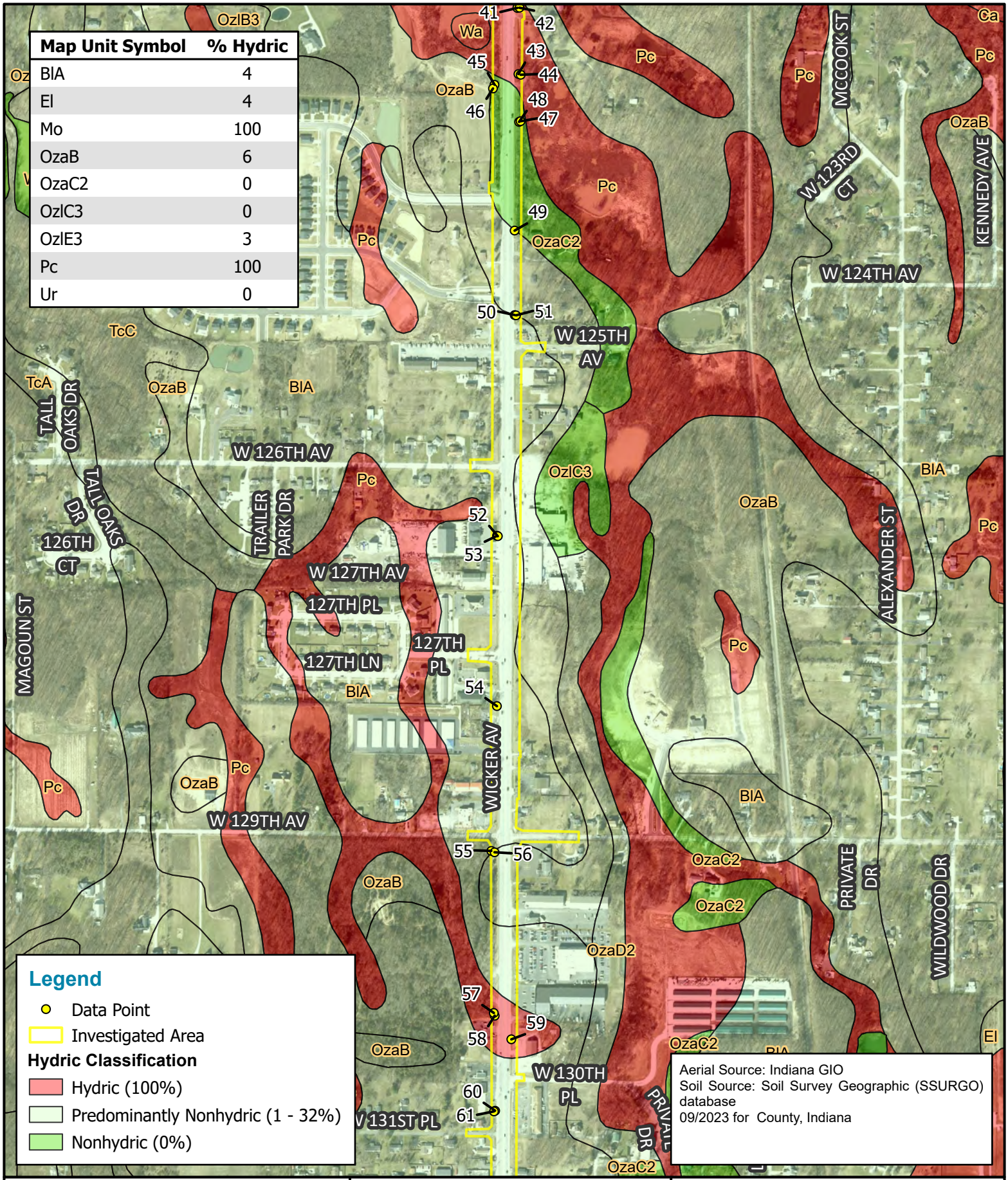

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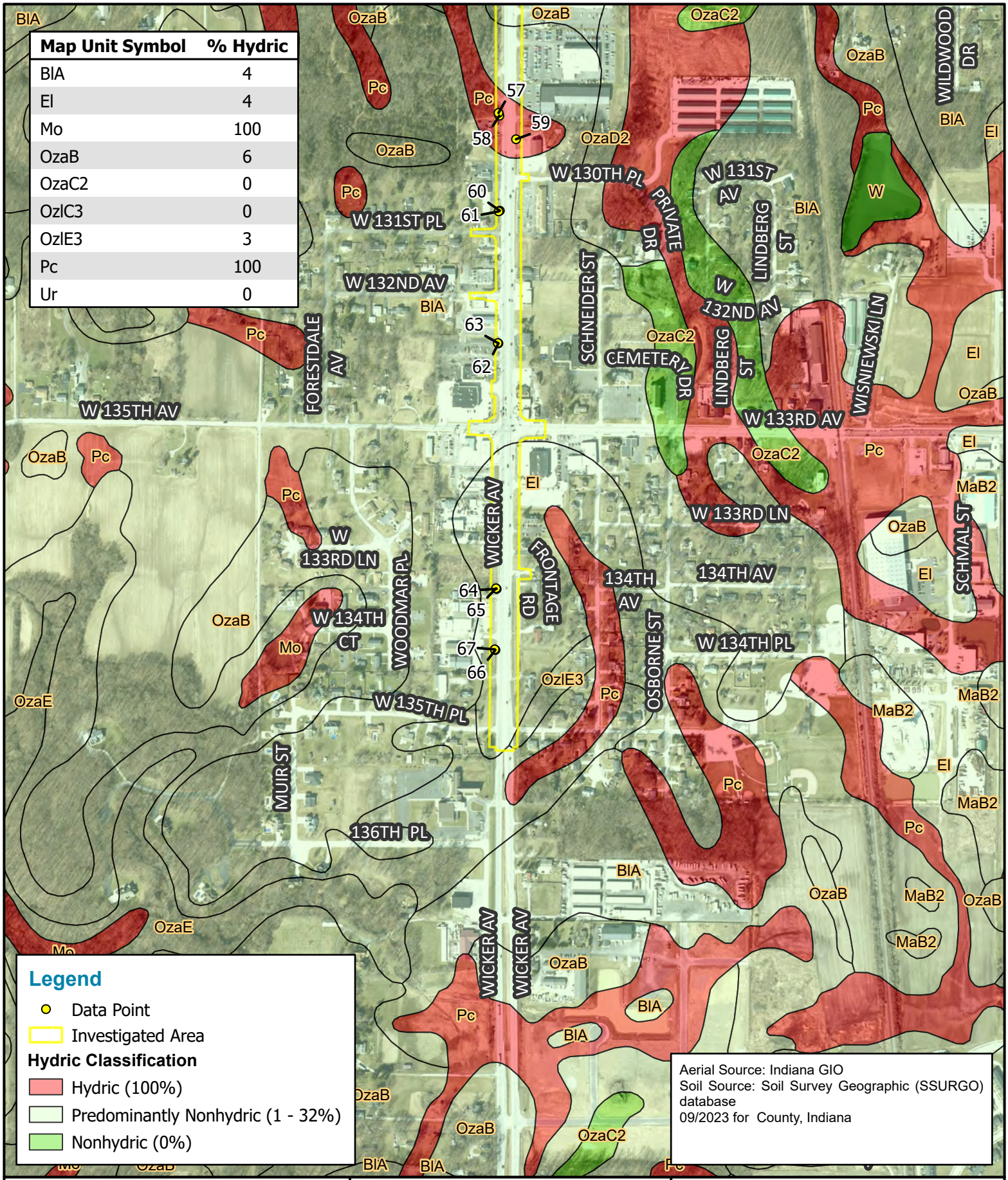

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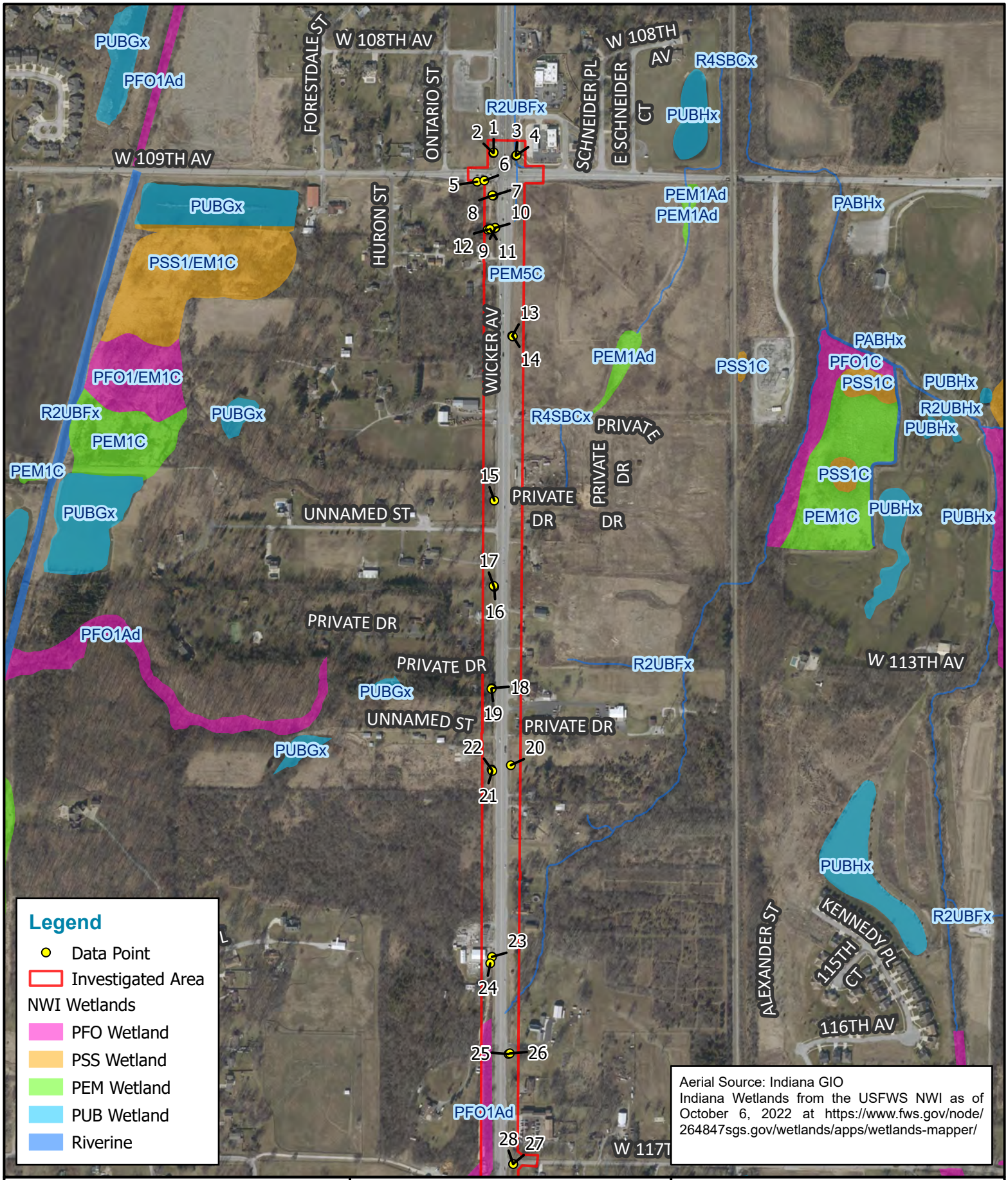

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USFWS NWI Map
Des. No. 1700025
Waters of the U.S. Report

0 400 800 Feet

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County: Lake
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US 41 from 3.25 Mi. S. of US 231 to US 231
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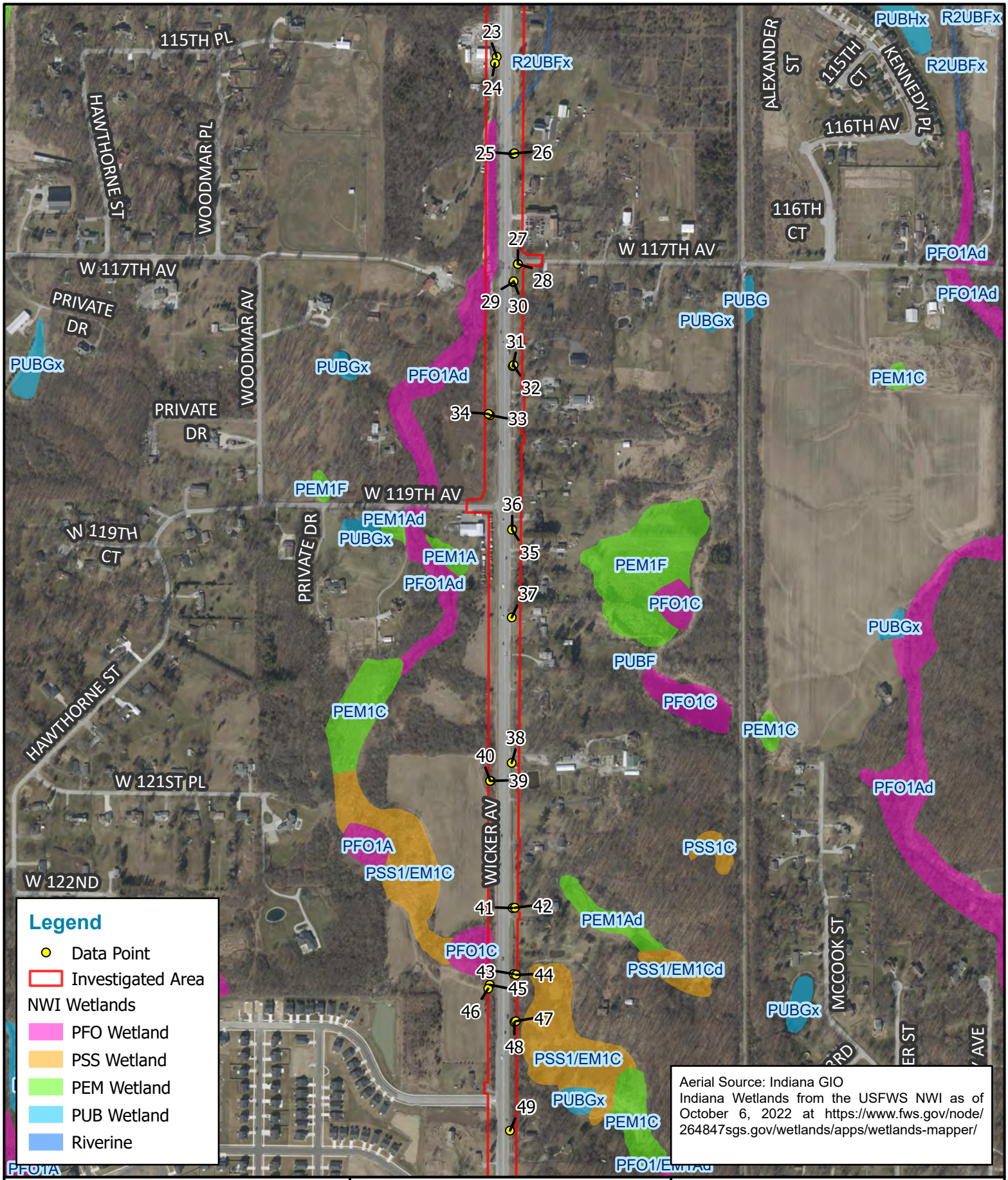
Created: 11/12/2024, CHoogewerf



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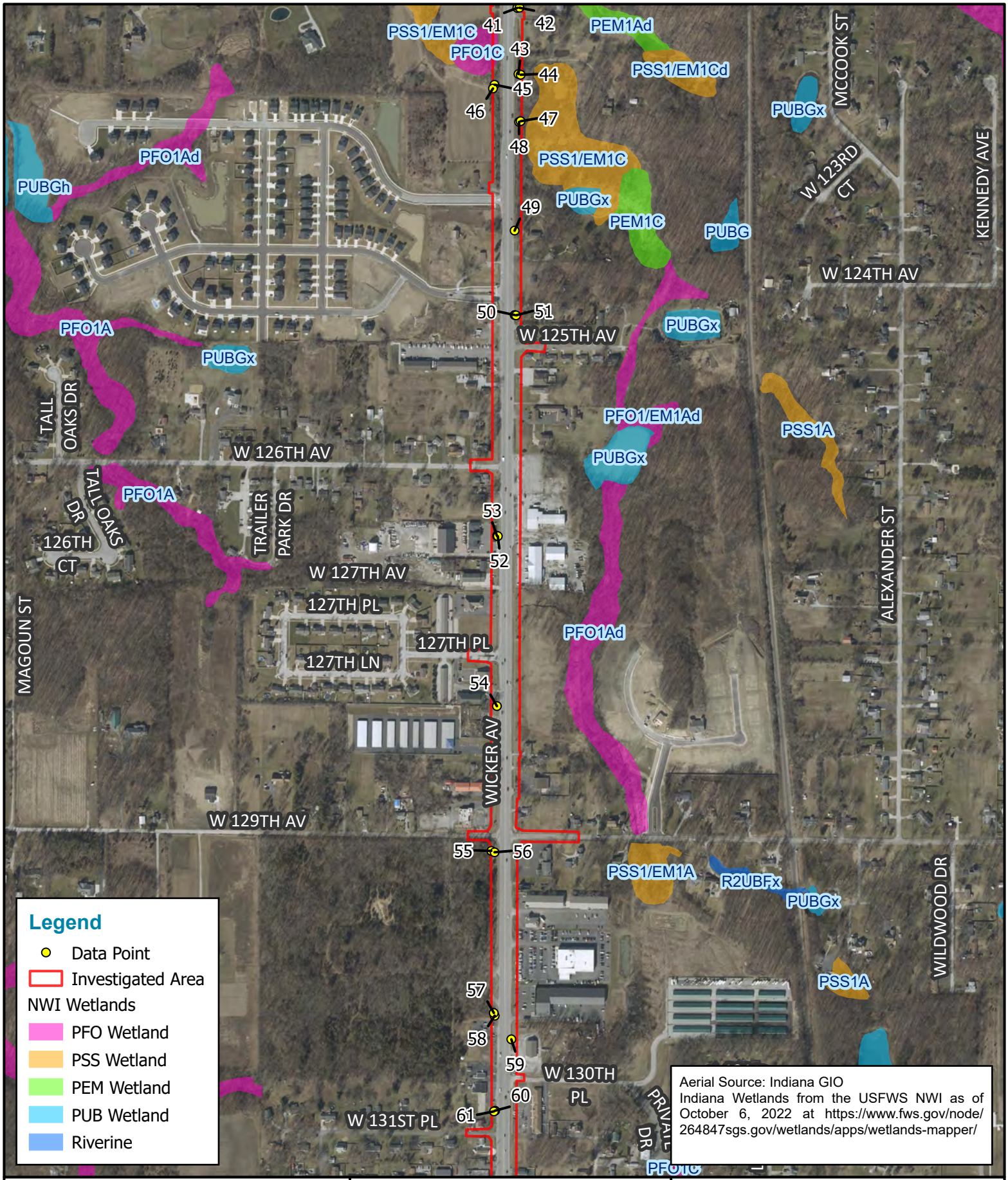

Legend

- Data Point
- Investigated Area

NWI Wetlands

- PFO Wetland
- PSS Wetland
- PEM Wetland
- PUB Wetland
- Riverine

Aerial Source: Indiana GIO
Indiana Wetlands from the USFWS NWI as of October 6, 2022 at https://www.fws.gov/node/264847sgs.gov/wetlands/apps/wetlands-mapper/

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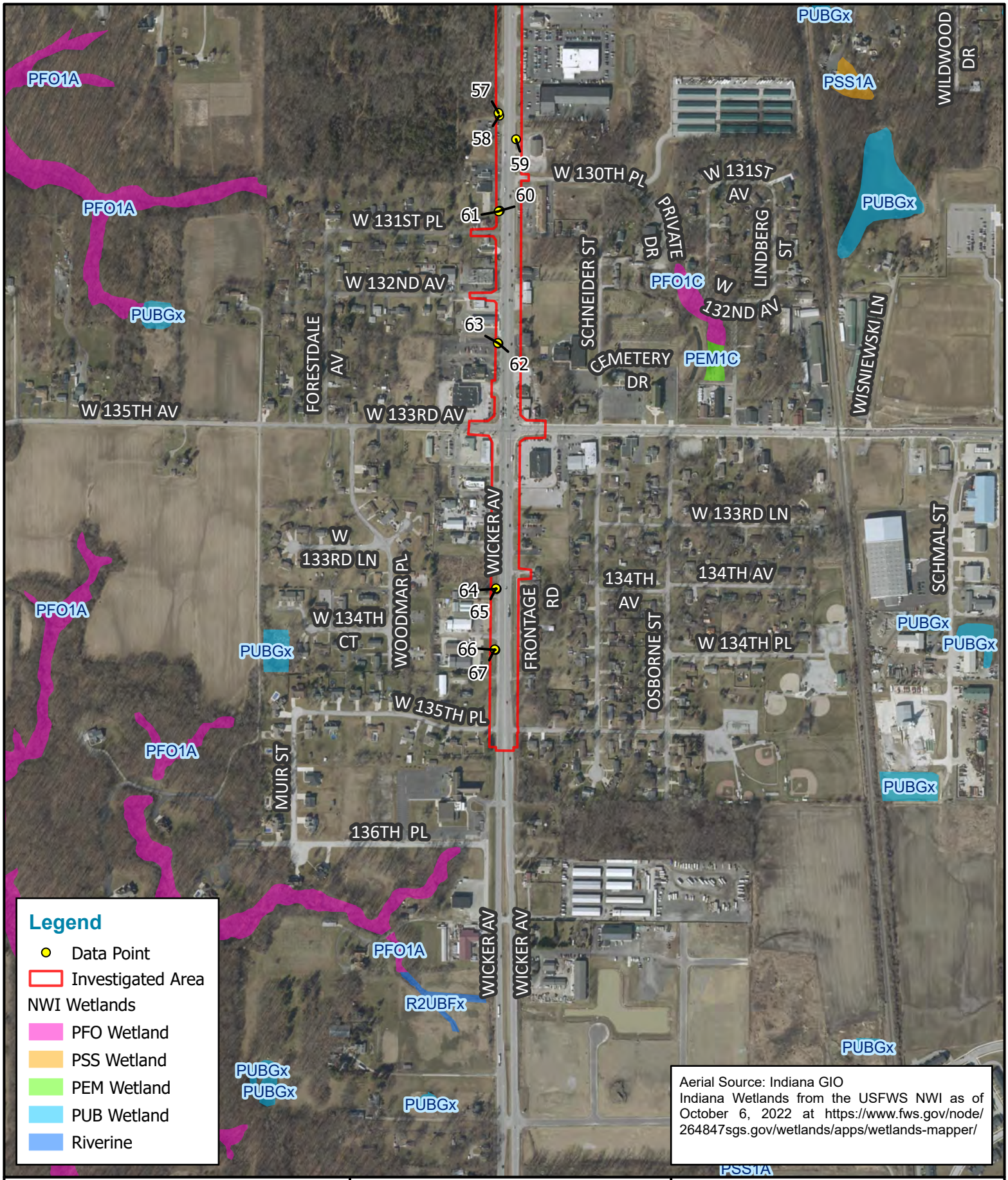

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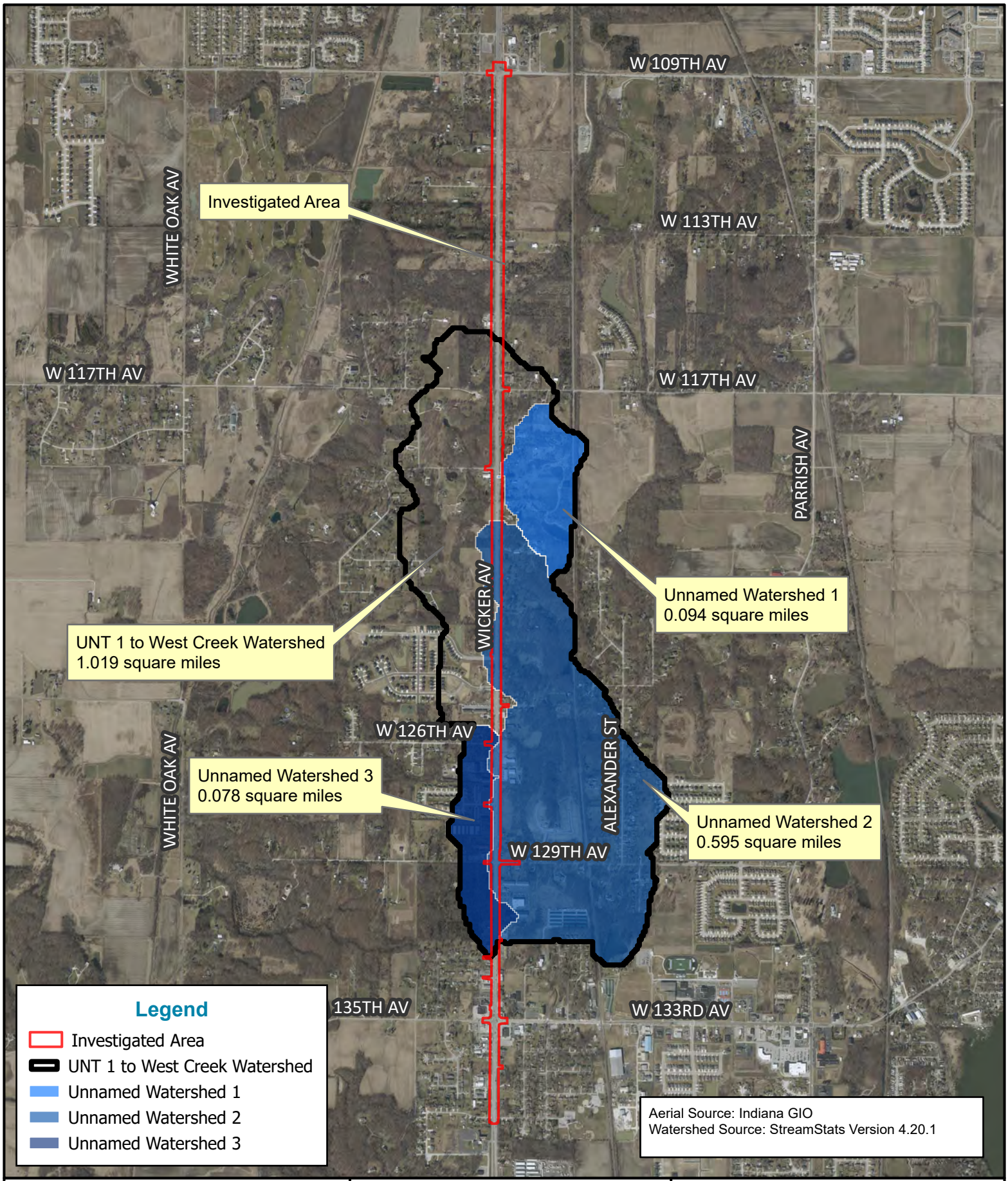

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StreamStats Watershed Map

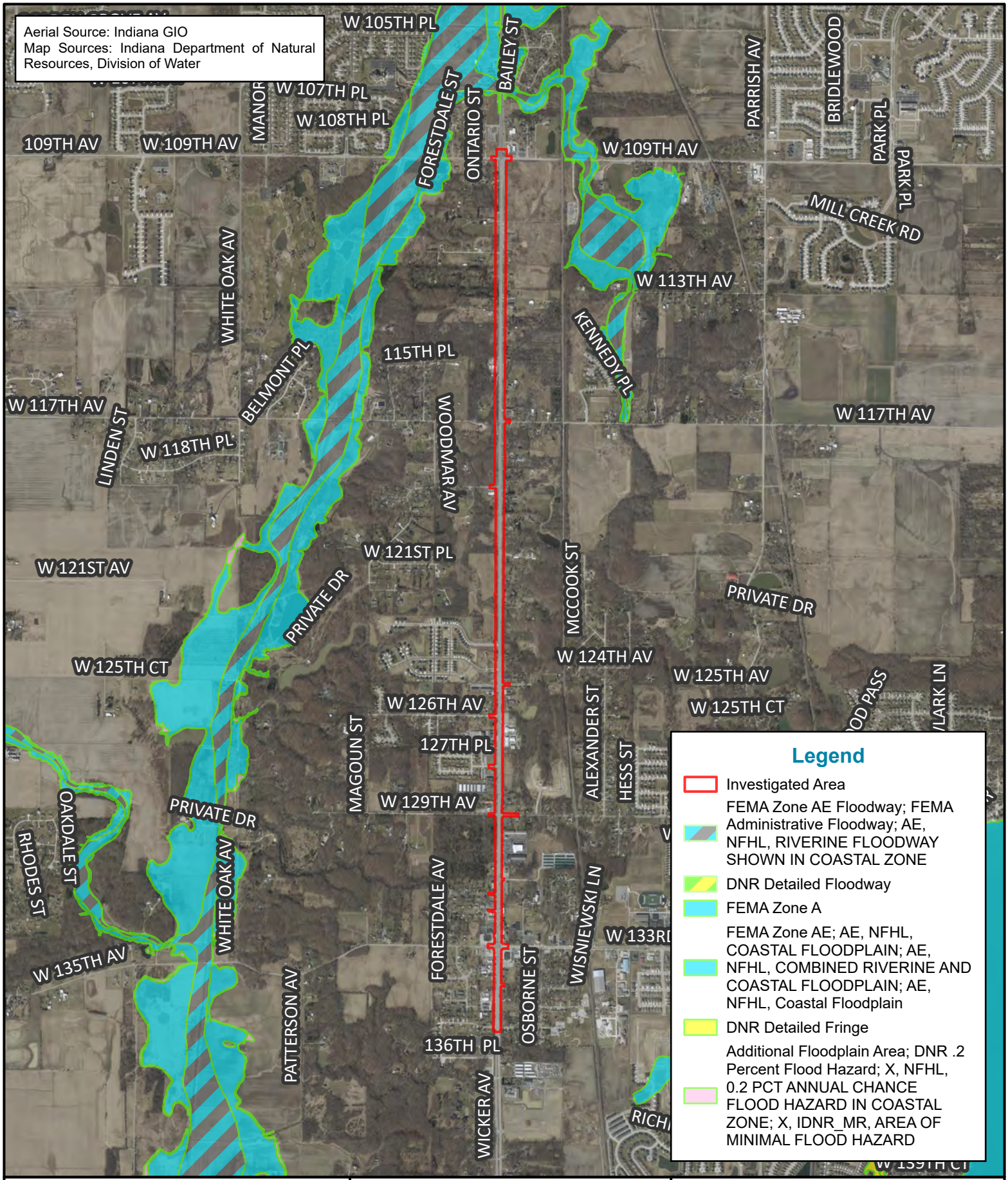
Des. No. 1700025
Waters of the U.S. Report

0 1,250 2,500 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 11/11/2024, CHoogewerf



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IDNR Best Available Floodplain Map
Des. No. 1700025
Waters of the U.S. Report

0 1,500 3,000 Feet

N

County: Lake
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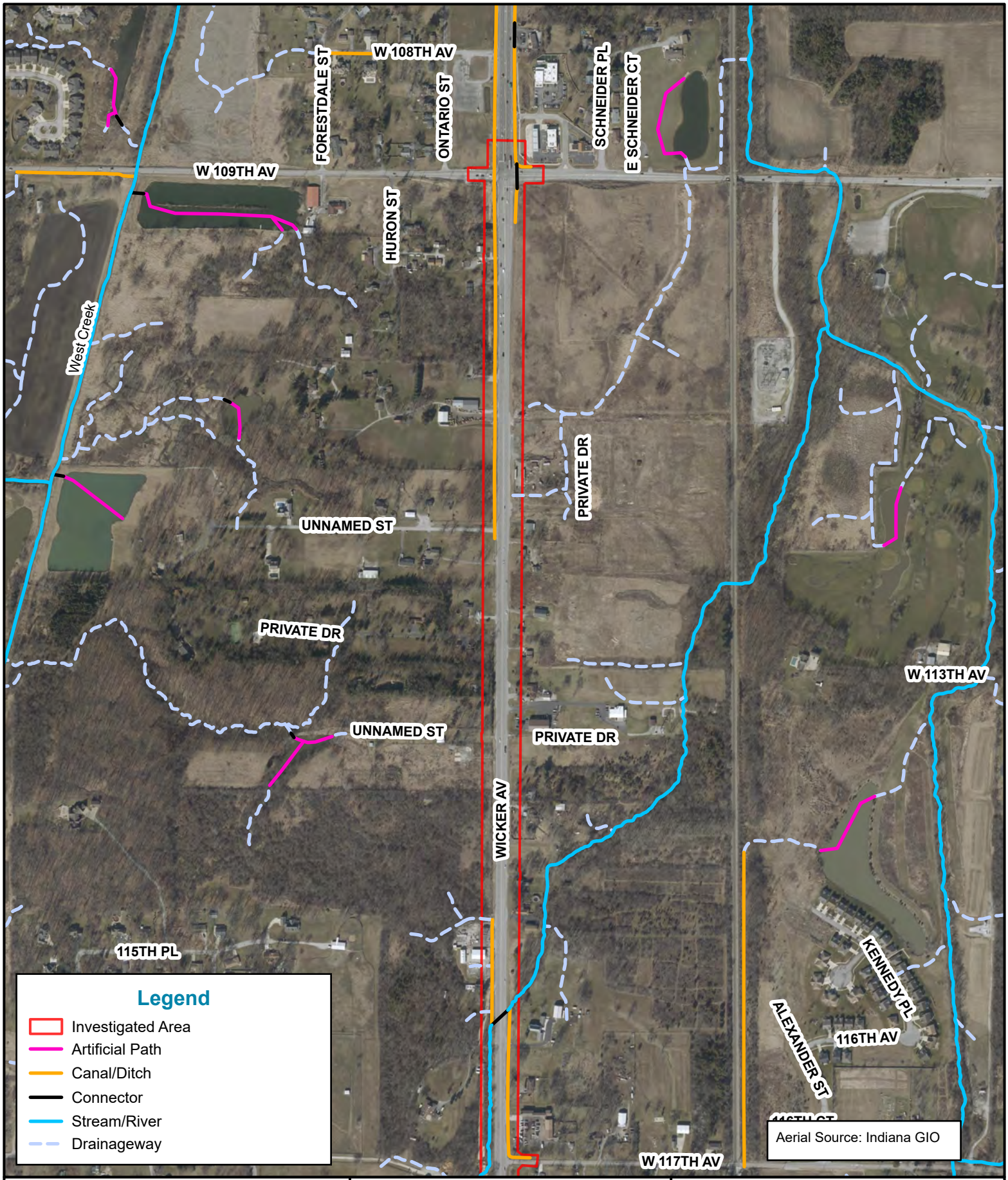
US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 11/12/2024, CHoogewerf



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NHD Features Map

Des. No. 1700025
Waters of the U.S. Report

0 400 800 Feet

N

County: Lake
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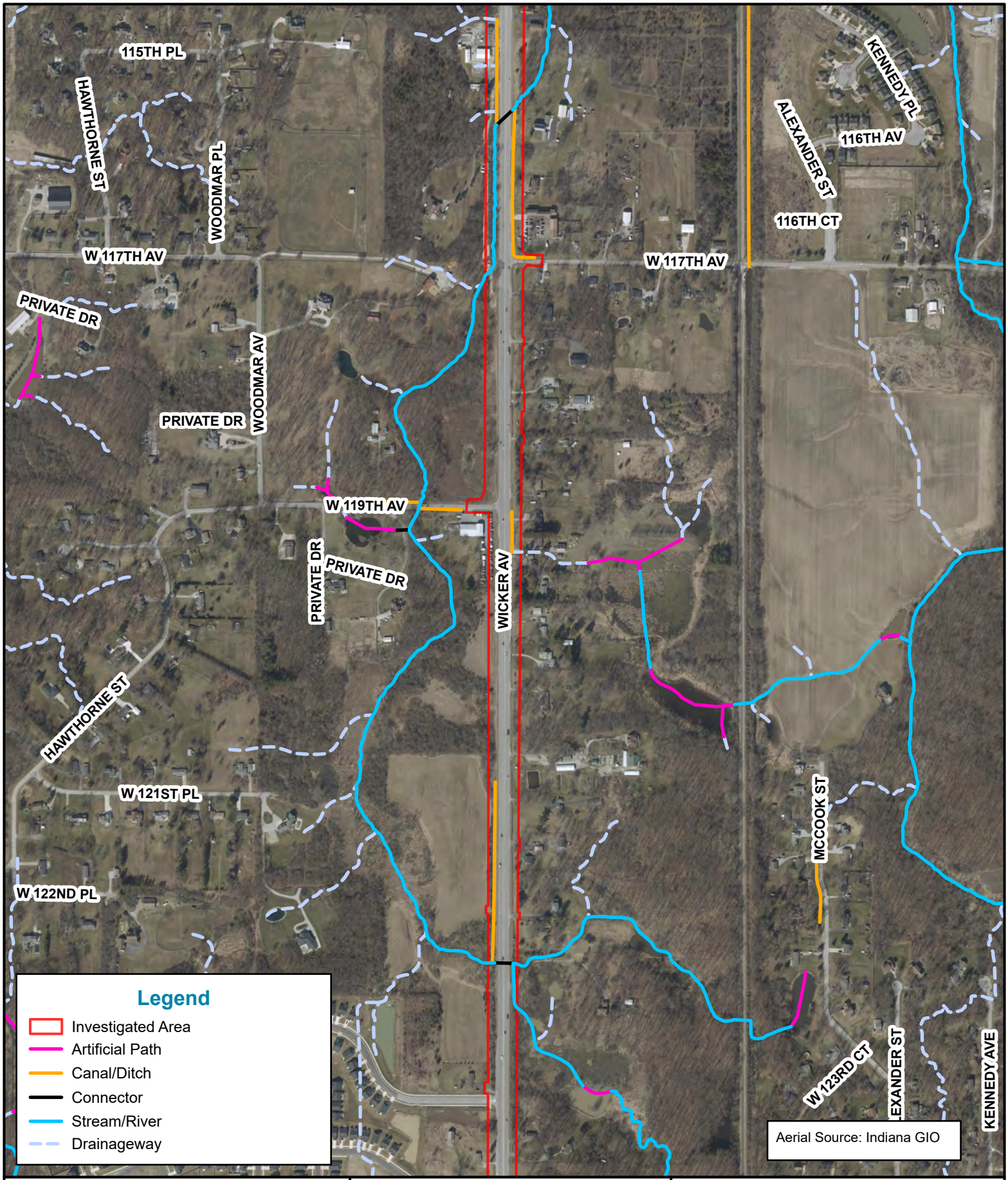
US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 11/12/2024, CHoogewerf



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NHD Features Map
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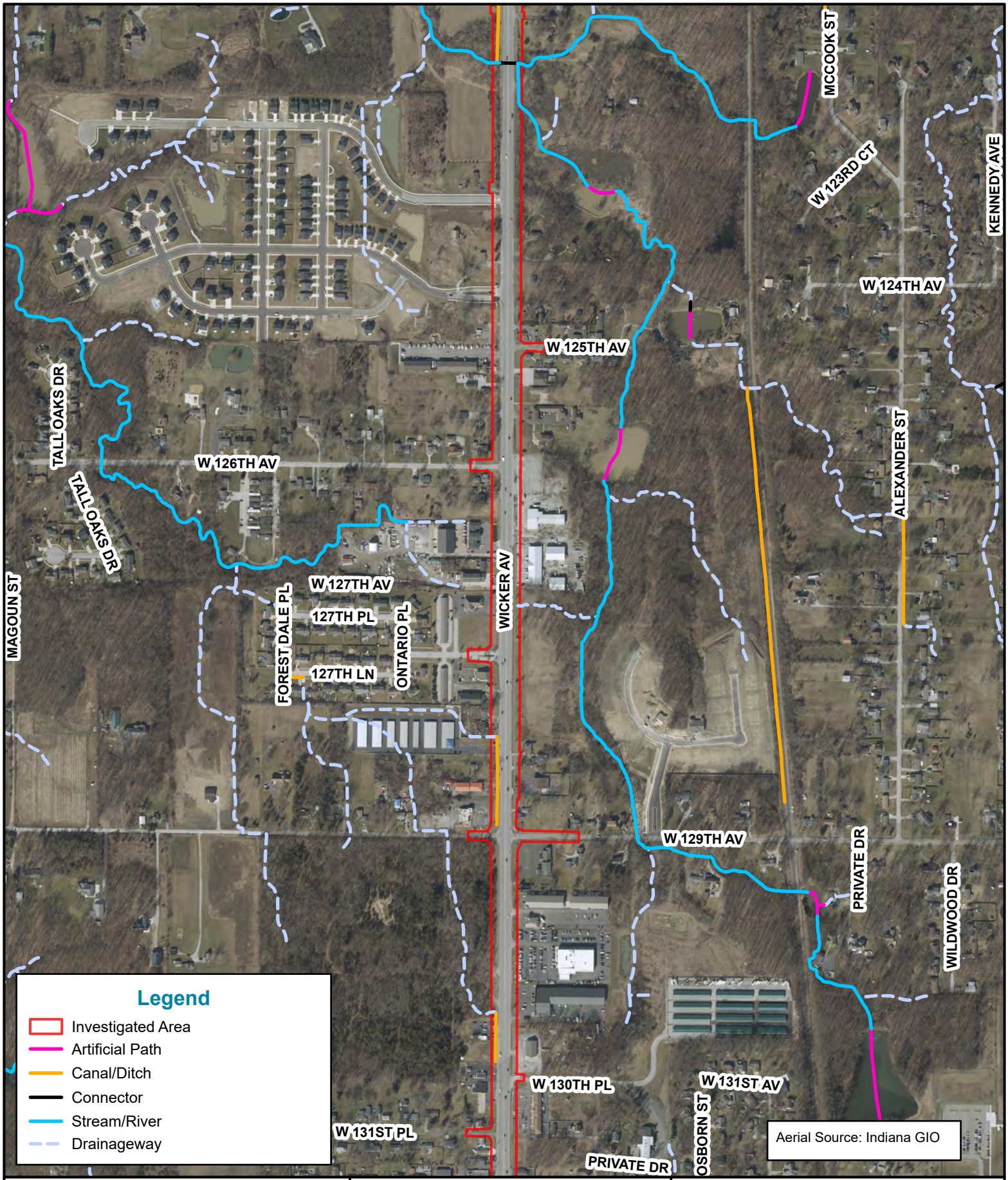

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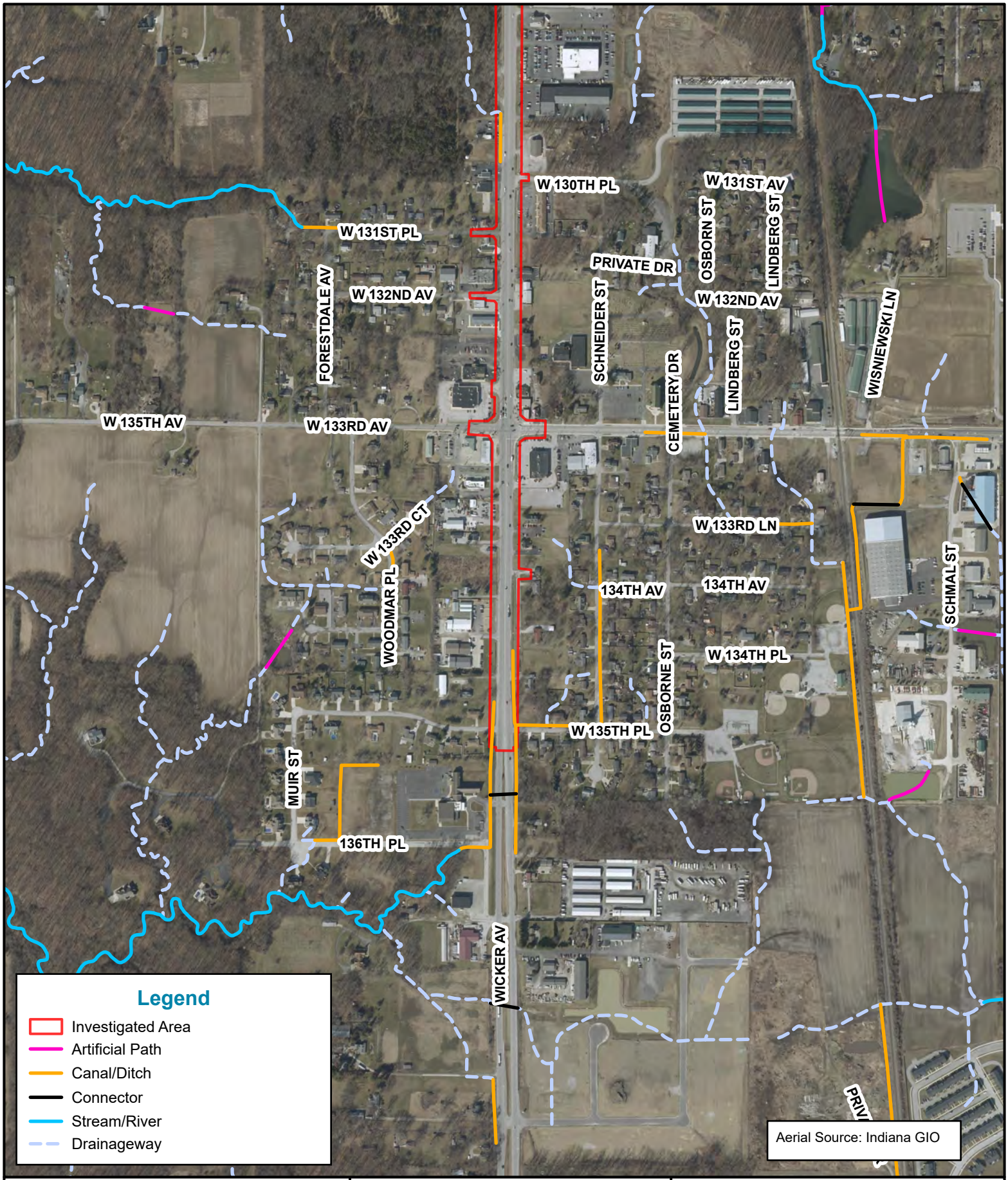

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NHD Features Map
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Waters of the U.S. Report

0 400 800 Feet

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County: Lake
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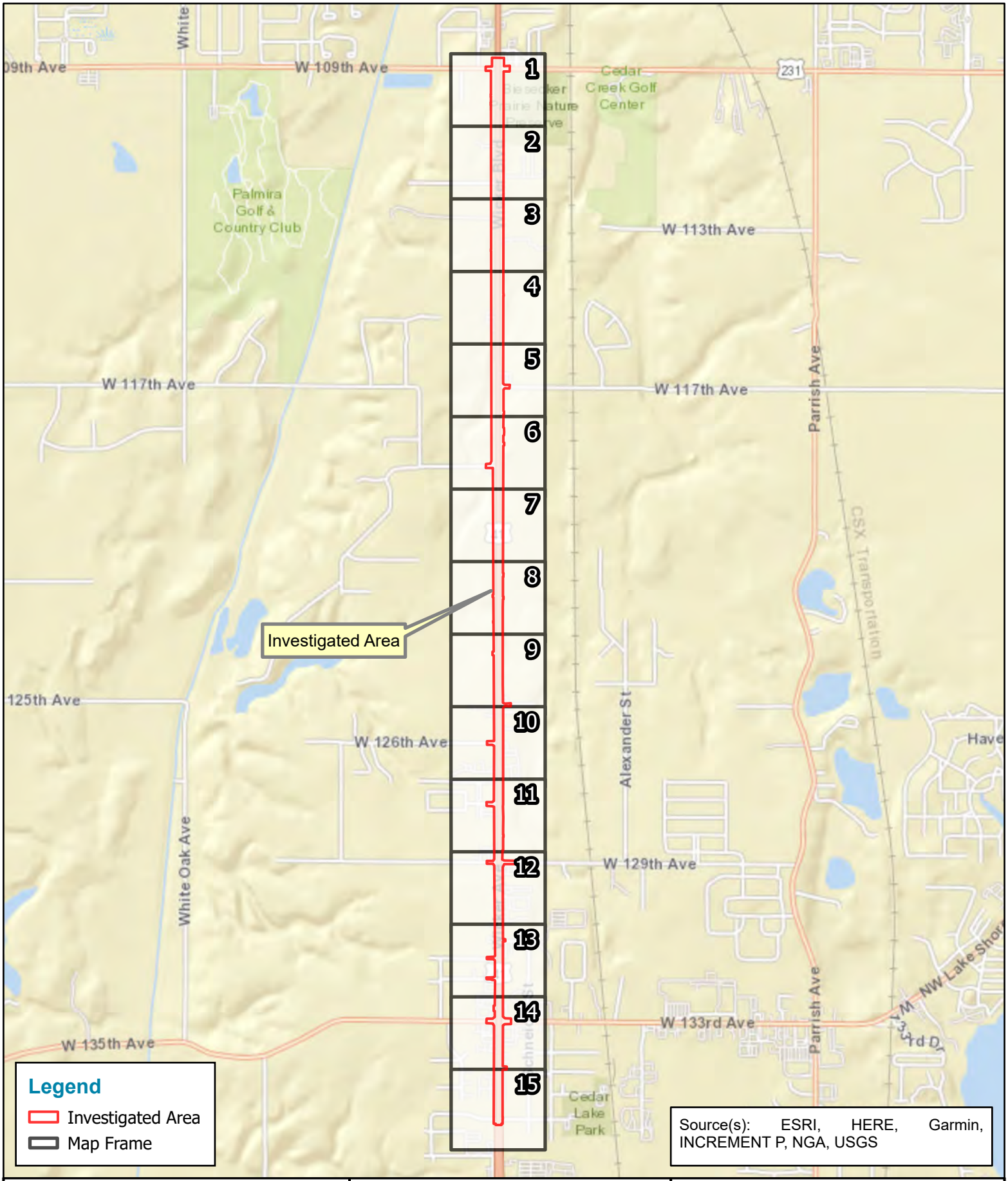
US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 11/12/2024, CHoogewerf



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Water Resources Map Index
Des. No. 1700025
Waters of the U.S. Report

0 0.25 0.5 Miles

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
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Water Resources Map

Des. No. 1700025
Waters of the U.S. Report

0 100 200 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
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Water Resources Map

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Waters of the U.S. Report

0 100 200 Feet

N

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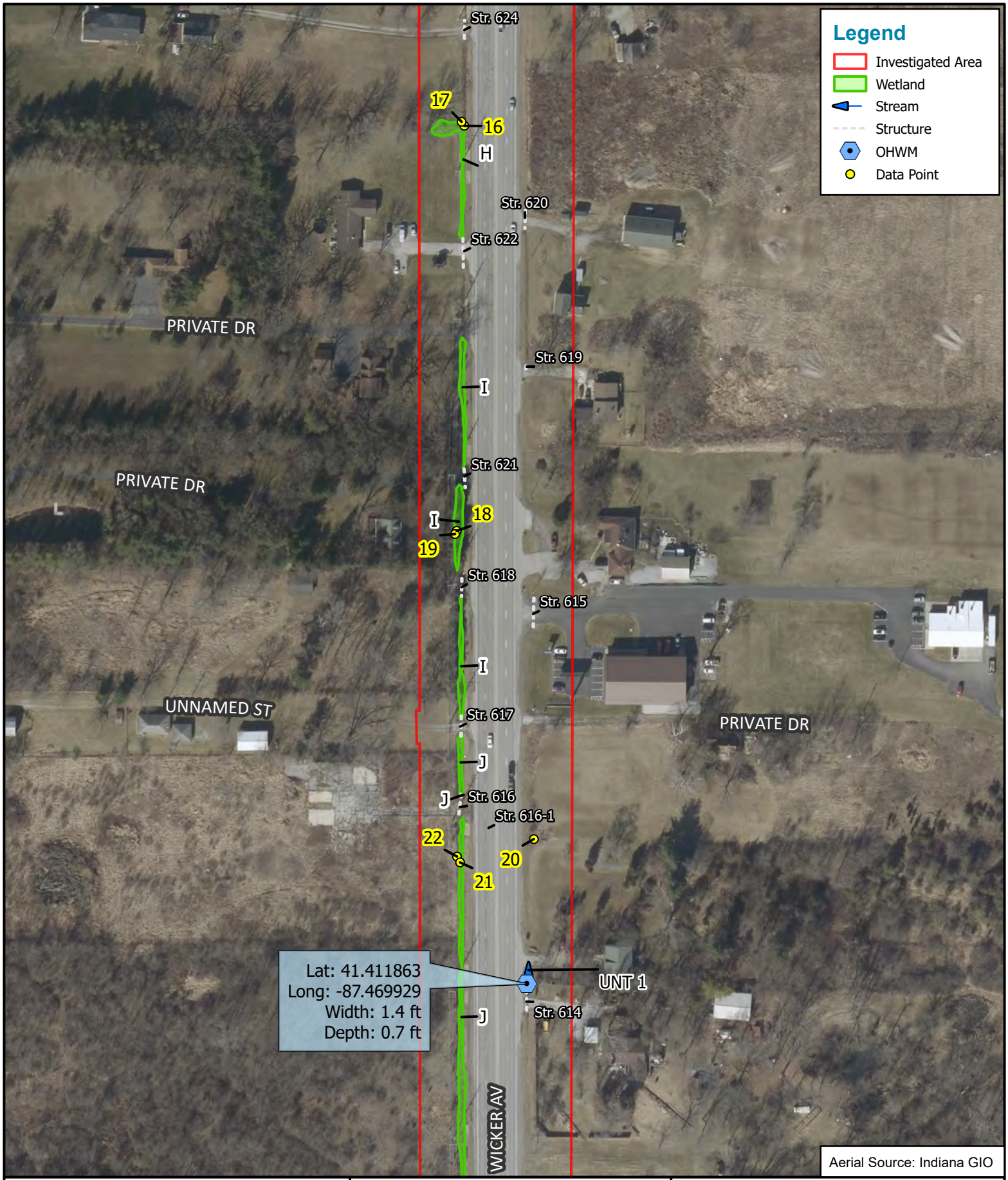
US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 2/21/2025, CHoogewerf



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Water Resources Map

Des. No. 1700025
Waters of the U.S. Report

0 100 200 Feet

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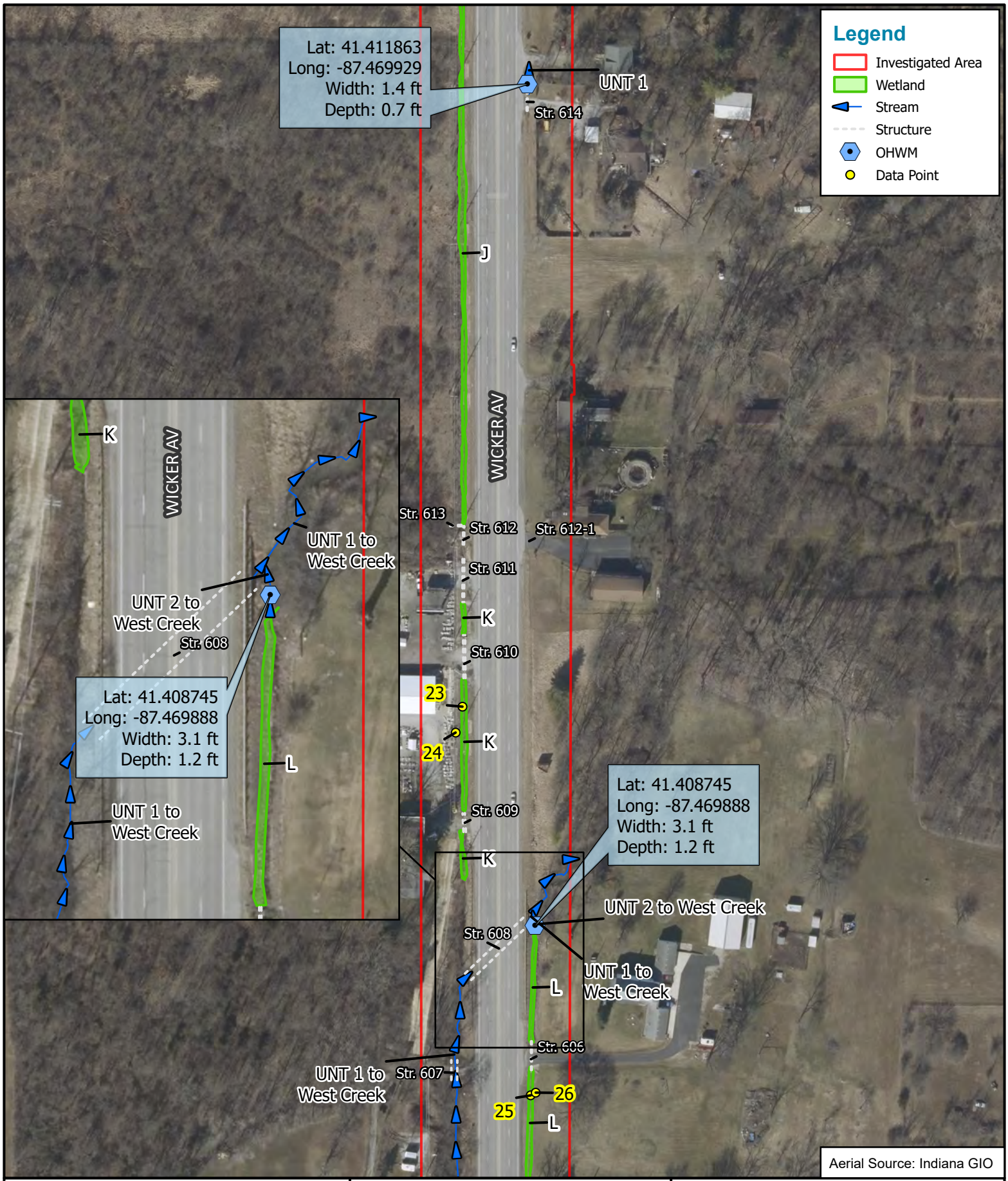

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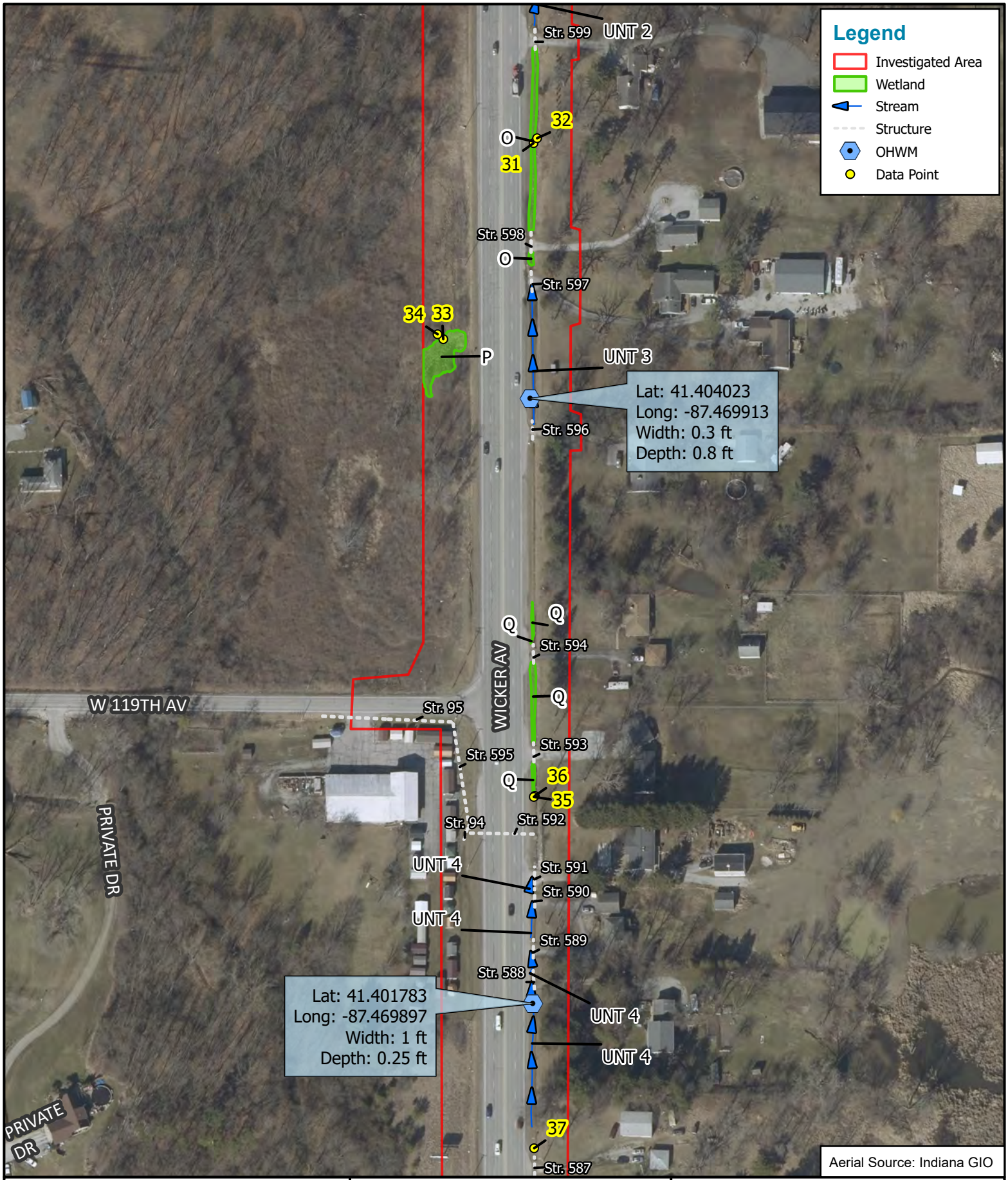

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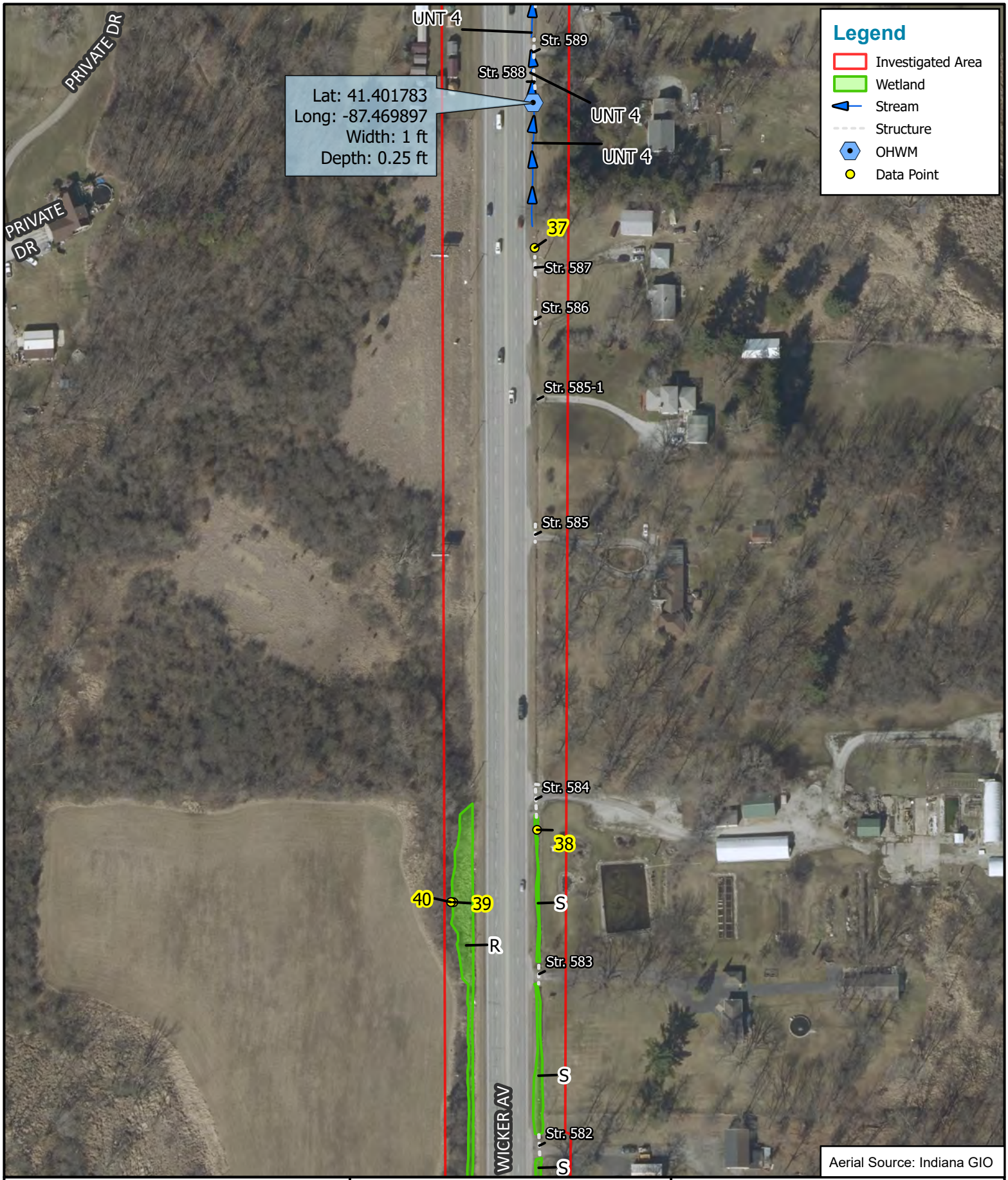

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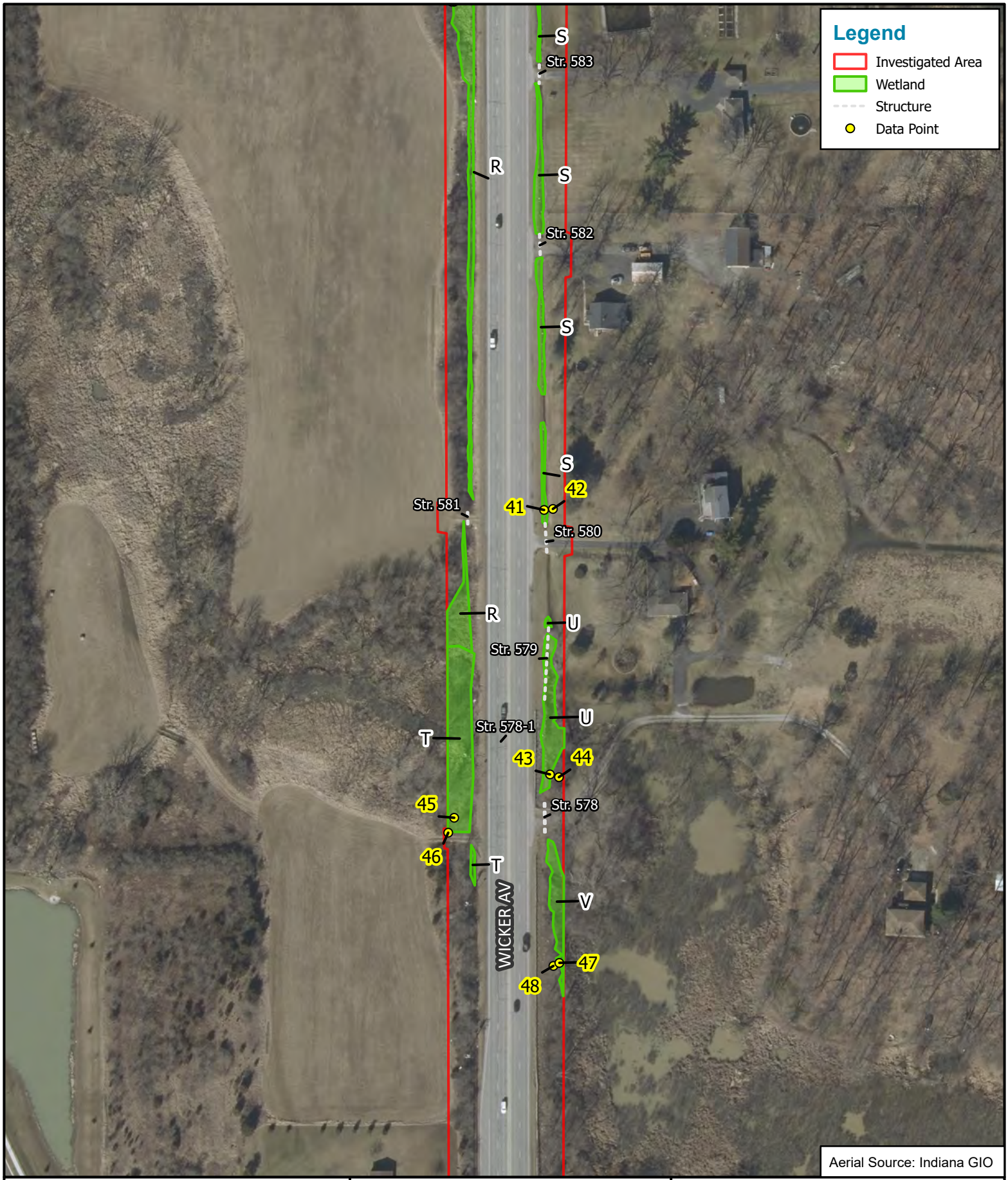

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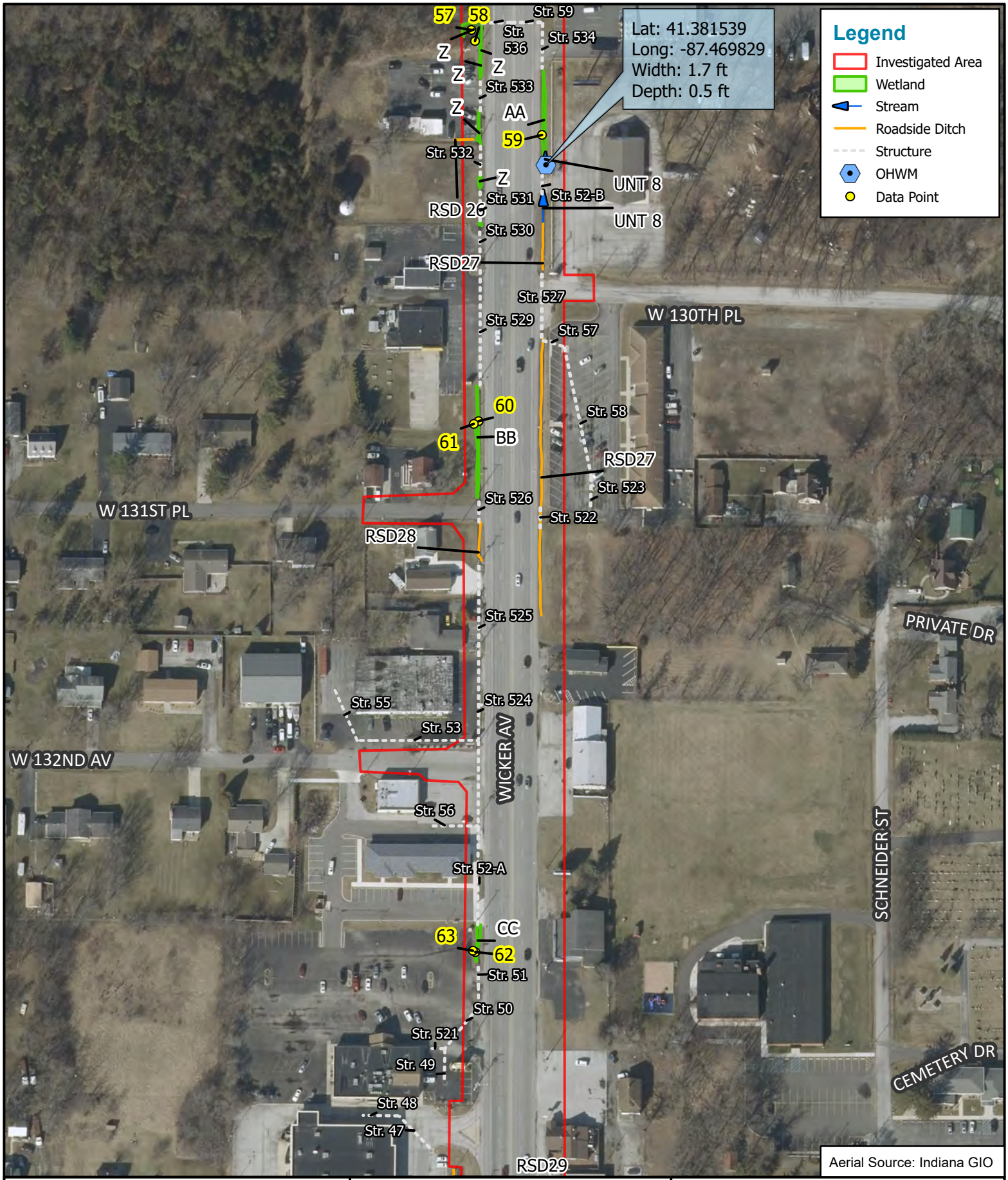

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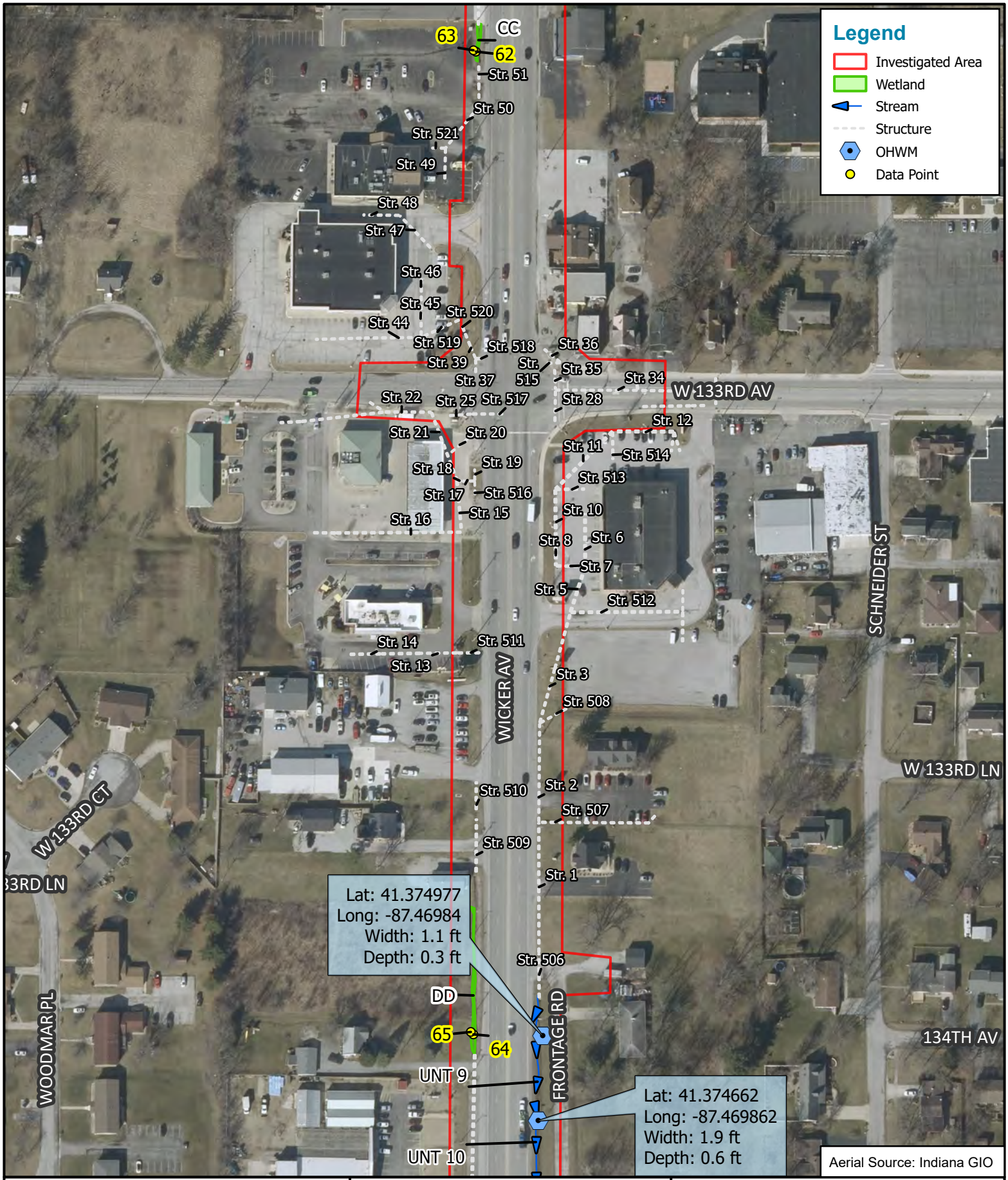

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Phone: (574) 334-5460

Water Resources Map

Des. No. 1700025
Waters of the U.S. Report

County: Lake
Township: Hanover
State: Indiana

0 100 200 Feet

N

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 2/21/2025, CHoogewerf

LOCHMUELLER GROUP
112 West Jefferson Blvd., Suite 500
South Bend, IN 46601
Phone: (574) 334-5460

Water Resources Map

Des. No. 1700025
Waters of the U.S. Report

0 100 200 Feet

N

County: Lake
Township: Hanover
State: Indiana

US 41 from 3.25 Mi. S. of US 231 to US 231
Roadway Project
Created: 2/21/2025, CHoogewerf

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: March 19, 2025

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Carson Hoogewerf, 112 W Jefferson Blvd., South Bend, IN 46601

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The project is located along US 41, from 3.25 miles south of US 231 to US 231, in Lake County, IN. The current proposed project (Des. No. 1700025) would establish a Two-Way Left-Turn Lane (TWLTL) throughout the project area. US 41 will be widened in both directions through the length of the proposed construction area. Outside shoulders would be widened to 8 feet between W 125th Ave and US 231. US 41 will be reconfigured to accommodate the new width, driveway approaches will be overlayed, and driveway culverts will be replaced, as necessary. New drainage detention basins will be excavated in some areas, though the locations have not yet been determined. 15 streams and 30 wetlands were identified. 2 streams (UNTs 1 and 3 to West Creek) and 2 wetlands (Wetlands R and T) would likely be considered jurisdictional.

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

State: IN County/parish/borough: Lake County City: St.John/Cedar Lake

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

Lat.: 41.3972371 Long.: -87.4700193

Universal Transverse Mercator: 460708.91 E, 4582962.24 N, Zone 16T

Name of nearest waterbody: West Creek

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site Number	Latitude	Longitude	Amount	Type	Geographic Authority
UNT 1	41.411863	-87.469929	34 LF (0.001 Ac)	non-wetland waters	Section 404*
UNT 1 to West Creek	41.407332	-87.470275	1,085 LF (0.187Ac)	non-wetland waters	**Section 404**
UNT 2 to West Creek	41.408745	-87.469888	19 LF (0.001 Ac)	non-wetland waters	Section 404*
UNT 2	41.405660	-87.469902	222 LF (0.006 Ac)	non-wetland waters	Section 404*
UNT 3	41.404023	-87.469913	180 LF (0.001 Ac)	non-wetland waters	Section 404*
UNT 4	41.401783	-87.469897	334 LF (0.008 Ac)	non-wetland waters	Section 404*
UNT 5	41.393756	-87.469881	133 LF (0.002 Ac)	non-wetland waters	Section 404*
UNT 6	41.392555	-87.469886	24 LF (0.001 Ac)	non-wetland waters	Section 404*
UNT 3 to West Creek	41.388106	-87.469623	7 LF (<0.001 Ac)	non-wetland waters	**Section 404**
UNT 7	41.385184	-87.469844	201 LF (0.010 Ac)	non-wetland waters	Section 404*
UNT 8	41.381539	-87.469829	80 LF (0.003 Ac)	non-wetland waters	Section 404*
UNT 9	41.374977	-87.469840	126 LF (0.003 Ac)	non-wetland waters	Section 404*
UNT 10	41.374662	-87.469862	149 LF (0.006 Ac)	non-wetland waters	Section 404*
UNT 11	41.373082	-87.470231	76 LF (0.003 Ac)	non-wetland waters	Section 404*
UNT 12	41.373055	-87.469800	290 LF (0.013 Ac)	non-wetland waters	Section 404*
Wetland A	41.421481	-87.470298	0.012	wetland	Section 404*
Wetland B	41.4214375	-87.4698884	0.025	wetland	Section 404*
Wetland C	41.421063	-87.470613	0.002	wetland	Section 404*
Wetland D	41.420841	-87.470299	0.008	wetland	Section 404*
Wetland E	41.420347	-87.470362	0.026	wetland	Section 404*
Wetland F	41.420364	-87.470256	0.134	wetland	Section 404*
Wetland G	41.41876786	-87.46992666	0.105	wetland	Section 404*
Wetland H	41.415005	-87.470249	0.026	wetland	Section 404*
Wetland I	41.413548	-87.470258	0.055	wetland	Section 404*
Wetland J	41.412312	-87.470258	0.105	wetland	Section 404*
Wetland K	41.40957237	-87.47024111	0.038	wetland	Section 404*
Wetland L	41.40812999	-87.4699157	0.060	wetland	Section 404*
Wetland M	41.40649744	-87.4698101	0.004	wetland	Section 404*
Wetland N	41.40622742	-87.46990278	0.008	wetland	Section 404*
Wetland O	41.40498207	-87.469917	0.039	wetland	Section 404*
Wetland P	41.40425702	-87.47035829	0.059	wetland	Section 404*
Wetland Q	41.40255914	-87.4698986	0.017	wetland	Section 404*
Wetland R	41.39883011	-87.47029373	0.240	wetland	**Section 404**
Wetland S	41.39693591	-87.46983765	0.090	wetland	Section 404*
Wetland T	41.39580879	-87.47030152	0.192	wetland	**Section 404**
Wetland U	41.39596635	-87.46981547	0.081	wetland	Section 404*
Wetland V	41.39527349	-87.46976751	0.054	wetland	Section 404*
Wetland W	41.392388	-87.469852	0.005	wetland	Section 404*
Wetland X	41.38911452	-87.47021894	0.031	wetland	Section 404*
Wetland Y	41.38445294	-87.47026398	0.080	wetland	Section 404*
Wetland Z	41.38205343	-87.47021023	0.016	wetland	Section 404*
Wetland AA	41.38164923	-87.46984647	0.010	wetland	Section 404*
Wetland BB	41.38059039	-87.47016132	0.010	wetland	Section 404*
Wetland CC	41.37863363	-87.4701877	0.004	wetland	Section 404*
Wetland DD	41.37499118	-87.47019312	0.010	wetland	Section 404*
Wetland EE	41.37409054	-87.47020781	0.024	wetland	Section 404*

* Potentially non-jurisdictional

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Aerial, USGS Topo, NWI, NRCS Soils, USGS StreamStats, IDNR BAFHA.
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [x] U.S. Geological Survey Hydrologic Atlas: NHD and Watersheds courtesy of Indiana GIO.
  - [x] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Saint John & Lowell1:24,000 Quads.
- [x] Natural Resources Conservation Service Soil Survey. Citation: September 2023 SSURGO.
- [x] National wetlands inventory map(s). Cite name: USFWS wetlands geodatabase (IN_geodatabase_wetlands.gdb).
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: IDNR Best Available Flood Zones.
- [x] 100-year Floodplain Elevation is: 714.7.(National Geodetic Vertical Datum of 1929)
- [ ] Photographs: [x] Aerial (Name & Date): Indiana GIO 2023.
  or [x] Other (Name & Date): Field Photos taken May 30 and 31, 2024 and June 10, 11, and 15, 2024.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____.

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

_____	Carson J Hoogewerf Digitally signed by Carson J Hoogewerf Date: 2025.03.19 10:55:23 -04'00'
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

Categorical Exclusion

Appendix G

Public Involvement

VS ENGINEERING, INC.

Civil • Structural • Transportation • Environmental

Sample Notice of Survey

NOTICE OF SURVEY

May 15, 2019

RE: U.S. 41 Auxiliary Travel Lane
Lake County, Indiana

Dear Property Owner:

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

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

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey work may also include the identification and mapping of wetlands, archaeological investigations (which may include excavation of small shovel test probes), and various other environmental studies. The survey is needed for the proper planning and design of this highway project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown herein.

Sincerely,

VS Engineering, Inc.
Andrew B. McClelland, P.S.
Project Surveyor
317-293-3542, x-178

Des. No. 1700025

4275 North High School Road Indianapolis, Indiana 46254
(317) 293-3542 Tel (317) 293-4737 Fax
www.vsengineering.com

LOCHMUELLER GROUP
112 W. Jefferson Blvd., Suite 500, South Bend, Indiana 46601

May 6, 2024

«Owner_1_First» «Owner_1_Last»
«Owner_2_First» «Owner_2_Last»
«Address»
«City», «State» «Zip»

Sample Notice of Survey

NOTICE OF SURVEY

RE: U.S. 41 Roadway Project from 3.25 miles south of U.S. 231 to U.S. 231 in Lake County, Indiana
Lochmueller Group Project No.: 123-3037-01
INDOT Des. No. 1700025

Dear Property Owner:

Research of county records indicates that you own or occupy property(s) near this proposed road improvement project. Our employees will be doing a survey of the project area(s) in the near future. It may be necessary for them to come onto your property to complete this work. These procedures are allowed by Indiana Code IC 8-23-7-26. If you are available, our surveyors will show identification before coming onto your property. If you have sold this property, or it is occupied by someone else, please advise us of the name and address of the current owner/occupant so that we may contact them about the survey.

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

The survey work may include the identification and mapping of wetlands and streams, and various other environmental features. This work is necessary for the proper planning and design of this proposed road improvement project.

Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact our field crew or call me at **(574-334-5464)**, email me at ccunningham@lochgroup.com or write to me at the above address. Thank you in advance for your cooperation.

Sincerely yours,

LOCHMUELLER GROUP, INC.

C.J. Cunningham
Environmental Team Leader – Northern Indiana
Lochmueller Group, Inc.

troyer group
3930 Edison Lakes Parkway
Mishawaka, IN 46545
574.259.9976 | troyergroup.com
Together, We Will

Project # 18190.00

LAKE COUNTY STAKEHOLDER MEETING MINUTES

Project:	DES-1700025, US 41 TWLTL, 3.25 S of US 231 to US 231
Mtg. Date:	December 11, 2020
Issue Date:	December 18, 2020
Location:	Teams Meeting
Present:	INDOT - John Krueckeberg, Alan Holderread Lake County - Duane Alverson Troyer Group - Chris Waidner, Francisco Perez, CJ Cunningham, Stephan Summers
Copies To:	Ned Kovachevich (Lake County)

Introductions

Discussion Items:

- Initial presentation covered the proposed changes to the corridor from Cedar Lake north to US 231.
- Duane Alverson requested copies of the project plans
  - *Sent on December 15, 2020 to Duane*
- Stakeholders along Lake County portion of US 231
  - Duane will check with the Plan Commission for a list of Stakeholders
  - Troyer Group offered to use Lake County GIS to determine property owner information
    - Old Junkyard on North end of project needs to be contacted to address their access
- Access along the corridor
  - Duane noted that Plan Commission is working on proposed zoning changes. He will contact them for these changes.
  - Lake County will work with INDOT on better access along the corridor
- 117th and 119th Streets
  - Visibility issues when trying to turn on US 41
    - During peak travel times on US 41, turning is more difficult from 117th and 119th Streets
  - Possible addition of overhead street lighting
    - Outside of corporate limits, usually requires a lighting warrant
    - Overhead lighting is based on night-time crashes
    - Alan will check on crash data at each intersection
    - If light is not warranted one can still be installed, but lighting would be paid via the entity requesting it (municipality or property owner) – typically on a monthly basis
- Southwest Corner US 41 at US 231 (109th Avenue)
  - INDOT and Lake County agree that the property should remain undeveloped
  - On 109th Approach to US 41, there is hill that reduces visibility
  - Developers have requested full access to US 41 and 109th
    - INDOT and Lake County deny this request due to safety concerns
  - Property has access issues onto 109th and US 41

    - Let Duane know of any proposed improvements around US 231 (109th Avenue)
- Development along US 41 within the Lake County portion
    - No developments are planned at the time of the meeting
        - *Update: proposed storage business at 11101 Wicker Ave*
        - *Update: proposed development at 11042 Wicker Ave*
- Environmental
    - Red Flag Investigation
        - Hazmat sites long US 41, Phase II ESA is needed. TG will begin coordinating its scope with a HazMat sub and INDOT SAM.
        - Old filling stations within corridor
        - CVS is located on a brownfield site
        - Monitoring wells may be within the project area and should be relocated if still active *(this will be negotiated during ROW process)*
        - Lead Fuel Sites
        - Items will not hold-up NEPA approval
            - They can be addressed via Commitments and USPs
            - Likeliest mitigation will be by way ofClass 2 removal/replacement
    - Nature Preserve on SE Corner of US 41 and US 231
        - Section 4(f) eligible property
    - Early Coordination has not been initiated and will occur after project scope has been finalized
    - Waters Report awaiting assignment of DES# on Structure before being finalized
        - Wetland impacts between 0.1 acre to 1-acre range
        - Any necessary mitigation will be handled by way of in lieu fee payment rather than a mitigation site designed and constructed by INDOT.

We believe these minutes reflect the intent of the events, discussions and decisions made during the meeting. Please notify this office in writing within forty-eight (48) hours if participants find any errors, omissions, or discrepancies.

Respectfully submitted,

Stephan M. Summers
Program Manager

Categorical Exclusion

Appendix H

Air Quality

Northwestern MPO

Transportation Improvement Program Fiscal Year Adoption 2024-2028

415 Projects Listed

2401749 (Ver 1) 26-00,26-00 **FEDERAL**

Title: Added Travel Lanes Project **County:** Lake **District:** LaPorte

Work Type: Added Travel Lanes

Limits: **Total 2026 - 2029:** $4,677,600

Description: SR 53 from US 231 to 93rd Ave

Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
PE	NHPP Non Interstate	$4,637,600	$0	$0	$0	$0
RW	NHPP Non Interstate	$40,000	$0	$0	$0	$0

1700025 (Ver 6) 26-00,26-00 **FEDERAL**

Title: Adding center left turn lane **County:** Lake **District:** LaPorte

Work Type: Auxiliary Lanes, Two-way Left Turn Lanes

Limits: From US 231 to 141st of Distance (mile) 3.25 Milepost begins at 254.75 ends at 258 **Total 2026 - 2029:** $16,232,950

Description: Adding two way center left turn lane on US 41 from US 231 to 3.25 miles south. This will help prevent rear end and T-Bone crashes along this stretch of road.

Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CN	NHPP Non Interstate	$0	$16,232,950	$0	$0	$0

1900050 (Ver 6) 26-00,26-00 **STATE**

Title: Intersection Improvement Project **County:** Laporte **District:** LaPorte

Work Type: Auxiliary Lanes, Two-way Left Turn Lanes

Limits: Nearest Crossstreet: Fail Rd **Total 2026 - 2029:** $10,835,611

Description: Intersection Improvement Project at US 20 & Fail Rd, 3.1mi E of SR 39. This is a busy intersection east of La Porte. This project will improve the safety at this intersection.

Phase	Fund Source	FY 2026	FY 2027	FY 2028	FY 2029	FY 2030
CE	HSIP State	$175,000	$0	$0	$0	$0
CN	HSIP State	$10,660,611	$0	$0	$0	$0

FY 2026-2030 Statewide Transportation Improvement Program (STIP)

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2026 - 2030

SPONSOR	CONTRACT # / LEAD DES	PROJECT GROUP #	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Toal Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2026	2027	2028	2029	2030
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are PE FY 2026. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
East Chicago	2301105		Init.	ST 1001	Other Type Project (Miscellaneous)	LaPorte	0	STBG		Local Funds	PE	$0.00	$0.00	$0.00				
										Northwest Indiana MPO	PE	$0.00	$0.00	$0.00				
Performance Measure Impacted: Safety																		
Location: Purchase of electric service vehicles, (1-Street Sweeper)																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are PE FY 2026. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Hobart	2301203		P 01	ST 1008	Other Type Project (Miscellaneous)	LaPorte	0	STBG	$1,401,600.00	Local Funds	PE	$0.00	$120,320.00	$120,320.00			$0.00	
										Northwest Indiana MPO	PE	$481,280.00	$0.00	$481,280.00			$0.00	
Performance Measure Impacted: Safety																		
Location: Purchase of Alternative fuel vehicles																		
Comments:For specific funding changes to dollar amounts and FY, please see A26-MPO-01 on the STIP Webpage NIRPC MPO Link																		
Hobart	2301204		Init.	ST 1008	Other Type Project (Miscellaneous)	LaPorte	0	STBG		Local Funds	PE	$0.00	$0.00				$0.00	
										Northwest Indiana MPO	PE	$0.00	$0.00				$0.00	
Performance Measure Impacted: Safety																		
Location: CNG Station upgrades																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are PE FY 2029. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Lake County	2401591		P 01	IR 1001	Sign Modernization (Series Of Units)	LaPorte	1	STBG		Local Safety Program	PE	$0.00	$0.00	$0.00				
										Local Funds	PE	$0.00	$0.00	$0.00				
Performance Measure Impacted: Safety																		
Location: County Wide Sign Modernization																		
Comments:For specific funding changes to dollar amounts and FY, please see A26-MPO-01 on the STIP Webpage NIRPC MPO Link																		
East Chicago	39624 / 1601146		P 01	ST 1033	Bike/Pedestrian Facilities	LaPorte	.7	STBG		Northwest Indiana MPO	CN	$0.00	$0.00	$0.00				
										Local Funds	CN	$0.00	$0.00	$0.00				
Performance Measure Impacted: Safety																		
Location: Marquette Greenway Trail, Indianapolis Blvd (US20) to Kennedy Ave																		
Comments:For specific funding changes to dollar amounts and FY, please see A26-MPO-01 on the STIP Webpage NIRPC MPO Link																		
Indiana Department of Transportation	40609 / 1700025		Init.	US 41	Auxiliary Lanes, Two-way Left Turn Lanes	LaPorte	3.246	NHPP		Safety Construction	CN	$0.00	$0.00		$0.00			

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

FY 2026-2030 STIP (cont.)

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2026 - 2030

SPONSOR	CONTRACT # / LEAD DES	PROJECT GROUP #	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Toal Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2026	2027	2028	2029	2030
Performance Measure Impacted: Reliability and Freight Reliability																		
Location: From 3.25 mi S of US 231 to US 231																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are CN FY 2027. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Indiana Department of Transportation	42079 / 1383615		Init.	SR 55	Intersection Improvement, Roundabout	LaPorte	0	NHPP		Local Funds	CN	$0.00	$0.00		$0.00			
										Safety Construction	CN	$0.00	$0.00		$0.00			
Performance Measure Impacted: Safety																		
Location: At 73rd Ave., 1.0 mi N of US 30																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are CN FY 2027. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Gary	42183 / 1802973		Init.	ST 1012	Road Reconstruction (3R/4R Standards)	LaPorte	.75	STBG		Local Funds	CN	$0.00	$0.00	$0.00				
										Northwest Indiana MPO	CN	$0.00	$0.00	$0.00				
Location: 15th Avenue Gateway Project																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are CN FY 2026. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Hammond	42311 / 1901900		M 01	IR 1025	Bike/Pedestrian Facilities	LaPorte	2.1	STBG	$3,892,000.00	Northwest Indiana MPO	CN	-$497.00	$0.00	($3,681,497.00)	$3,681,000.00			
										Local Funds	CN	$0.00	-$375.00	($920,375.00)	$920,000.00			
Performance Measure Impacted: Safety																		
Location: Marquette Greenway Trail																		
Comments:CN funds moved from FY 26 to FY 27 NIRPC 26-15																		
Hammond	42311 / 1901900		Init.	IR 1025	Bike/Pedestrian Facilities	LaPorte	2.1	STBG		Local Funds	CN	$0.00	$0.00		$0.00			
										Northwest Indiana MPO	CN	$0.00	$0.00		$0.00			
Performance Measure Impacted: Safety																		
Location: Marquette Greenway Trail																		
Comments:Project included in NIRPC initial TIP incorporated into the STIP. Phases included is/are CN FY 2026. For specific funding amounts and FY information please refer to INDOT?s STIP website FY 2026 ? FY 2029 link.																		
Merrillville	42316 / 1901951		P 01	ST 1024	Bike/Pedestrian Facilities	LaPorte	.54	STBG		Northwest Indiana MPO	CN	$0.00	$0.00		$0.00			
										Local Funds	CN	$0.00	$0.00		$0.00			
Performance Measure Impacted: Safety																		
Location: Sidewalk on Catherine St from 70th Ave to 71 St Ave																		

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

Categorical Exclusion

Appendix I

Other

Structure Summary Table								
Structure Number	INDOT Structure Number	Structure Material	Size (in)	Length (ft)	Latitude	Longitude	Feature	Proposed Work
632	N/A	CMP	16	90	41.42116661	-87.46977028	Wetland B, Wetland G, RSD 1	Extend for Widening
634	CLV-9687	RCP	36X24	102	41.4211638	-87.4702848	Wetland A, Wetland D	Extend for Widening
633	N/A	CMP	36	24	41.42069979	-87.47027075	RSD 2	Extend for Widening
631	N/A	CMP	15	26	41.41991386	-87.47023687	Wetland F	Replace In-Kind
630	N/A	CMP	15	31	41.41955139	-87.47023278	Wetland F	Replace In-Kind
629-1	N/A	CMP	15	26	41.41850261	-87.47024029	Wetland F	Replace In-Kind
629	N/A	CMP	12	29	41.4181631	-87.47024104	Wetland F	Replace In-Kind
628	N/A	RCP	6	26	41.41775126	-87.47016036	Wetland F	Extend for Widening
627	N/A	CMP	15	80	41.41756152	-87.47024602	Wetland F	Replace In-Kind
626	N/A	RCP	24	88	41.41641516	-87.47006447	Wetland F	Extend for Widening
625	N/A	CMP	15	60	41.41594312	-87.47024324	Wetland F, RSD 3	Replace In-Kind
623	N/A	CMP	12	25	41.4157035	-87.46993151	RSD 4	Replace In-Kind
624	N/A	CMP	12	26	41.41539604	-87.47024043	RSD 3	Replace In-Kind
620	N/A	CMP	12	25	41.41469982	-87.46994208	RSD 4	Replace In-Kind
622	N/A	CMP	12	43	41.4145771	-87.47023948	Wetland H, RSD 5	Replace In-Kind
619	CLV-041-045-257.93	CMP	12	11	41.41414931	-87.46993227	RSD 4	Replace In-Kind
621	N/A	CMP	15	26	41.41374231	-87.47023827	Wetland I	Replace In-Kind
618	N/A	PVC	15	25	41.41333212	-87.47025257	Wetland I	Replace In-Kind
615	N/A	CMP	15	40	41.41323311	-87.46989946	N/A	Replace In-Kind
617	N/A	CMP	15	29	41.41281554	-87.47025826	Wetland I, Wetland J	Replace In-Kind
616	N/A	CMP	15	33	41.41251743	-87.47025863	Wetland J	Replace In-Kind
616-1	CLV-9603	RCP	15	33	41.41244024	-87.47011822	Wetland J	Extend for Widening
614	N/A	CMP	12	25	41.4117971	-87.46993166	UNT 1	Replace In-Kind
613	N/A	CUSUS	18	15	41.41022756	-87.47029423	Wetland J	Extend for Widening
612	N/A	CMP	18	25	41.41017434	-87.47024261	Wetland J	Replace In-Kind
612-1	N/A	CMP	12	25	41.41017017	-87.46991843	N/A	Replace In-Kind
611	N/A	RCP	24	58	41.41002387	-87.47024518	Wetland K	Replace In-Kind
610	N/A	RCP	30	58	41.4097149	-87.4702375	Wetland K	Replace In-Kind
609	N/A	Conc. Box Culvert	36X24	26	41.4091268	-87.47023401	Wetland K	Replace In-Kind
608	CV 041-045-257.55; Asset No. 93004812	Conc. Box Culvert	144x60	110	41.40866126	-87.47006514	UNT 1 to West Creek	None
606	N/A	CMP	12	39	41.40825162	-87.46990838	Wetland L	Replace In-Kind
607	N/A	Conc. Box Culvert	48	27	41.40820093	-87.47029015	UNT 1 to West Creek	None
605	N/A	CMP	12	27	41.40774889	-87.46991854	Wetland L, RSD 8	Replace In-Kind
604-1	N/A	CMP	12	40	41.40741501	-87.46994315	RSD 8	Replace In-Kind
604	N/A	CMP	12	39	41.40718471	-87.46991634	RSD 8	Replace In-Kind
603	CLV-9582	CMP	12	84	41.40676138	-87.46991987	RSD 8	None
602	CLV-9581	RCP	24	107	41.40659758	-87.47018356	UNT 1 to West Creek, RSD 8	None
601	CLV-9583	RCP	21	34	41.40655077	-87.46986787	RSD 8, Wetland M, RSD 9	Replace In-Kind
600	N/A	CPP	12	26	41.40603438	-87.46989498	UNT 2, Wetland N	Replace In-Kind
599	N/A	CPP	12	32	41.40534537	-87.46988795	UNT 2, Wetland O	Replace In-Kind
598	N/A	CMP	12	29	41.40458692	-87.4699072	Wetland O	Replace In-Kind

Structure Summary Table								
Structure Number	INDOT Structure Number	Structure Material	Size (in)	Length (ft)	Latitude	Longitude	Feature	Proposed Work
597	N/A	CMP	12	33	41.40444734	-87.46990045	UNT 3, Wetland O	Replace In-Kind
596	N/A	CMP	12	26	41.4039088	-87.46990131	UNT 3, RSD 10	Replace In-Kind
594	N/A	CMP	12	26	41.40306491	-87.46989426	Wetland Q	Replace In-Kind
95	N/A	RCP	15	180	41.40283441	-87.47046849	N/A	None
593	N/A	CMP	12	27	41.40269708	-87.4698937	Wetland Q	Replace In-Kind
595	N/A	RCP	15	152	41.40265928	-87.47025736	N/A	None
592	CLV-9575	RCP	15	90	41.40241132	-87.46998691	RSD 11	Extend for Widening
592	N/A	RCP	16	90	41.40241132	-87.46998691	RSD 11	Extend for Widening
94	N/A	MP	15	22	41.40239655	-87.47023177	N/A	None
591	N/A	CMP	12	24	41.4022424	-87.46988875	RSD 11, UNT 4	Replace In-Kind
590	N/A	CMP	12	27	41.40216153	-87.46988862	UNT 4	Replace In-Kind
589	N/A	CMP	12	26	41.40197197	-87.46989389	UNT 4	Replace In-Kind
588	N/A	CMP	12	27	41.4018621	-87.46989115	UNT 4	Replace In-Kind
587	N/A	CMP	12	25	41.40117337	-87.46988804	RSD 12	Replace In-Kind
586	N/A	CMP	12	19	41.40098086	-87.46988733	RSD 12	Replace In-Kind
585-1	N/A	CMP	12	32	41.40068512	-87.46987458	N/A	Replace In-Kind
585	N/A	CMP	12	25	41.40018367	-87.46988611	RSD 13	Replace In-Kind
584	N/A	RCP	12	44	41.39920351	-87.46988207	RSD 13, Wetland S	Replace In-Kind
583	N/A	CMP	12	26	41.39855621	-87.46986477	Wetland S	Replace In-Kind
582	N/A	CPP	12	31	41.39792018	-87.46986385	Wetland S	Replace In-Kind
581	N/A	CMP	12	23	41.39691445	-87.47021793	Wetland R	Replace In-Kind
580	N/A	RCP	12	42	41.39682176	-87.46983033	Wetland S, RSD 14	Replace In-Kind
579	CLV-041-045-256.73 CLV-041-045-256.71	RCP	12	102	41.39639072	-87.46982696	Wetland U	None
578-1	CV 041-045-256.70; Asset No. 93004962	RCP	60	98	41.3960816	-87.47005288	Wetland U, Wetland T	None
578	N/A	CMP	18	42	41.39580147	-87.46983826	Wetland U, Wetland V	None
577	N/A	RCP	15	21	41.3942284	-87.47017398	RSD 15	Replace In-Kind
575	N/A	CMP	12	26	41.39349602	-87.46987204	RSD 17	Extend or Replace In-Kind
574	N/A	RCP	12	26	41.39330517	-87.46986767	RSD 17	Extend or Replace In-Kind
576	N/A	RCP	12	25	41.39316373	-87.4701728	RSD 16	Extend or Replace In-Kind
573	N/A	CMP	12	54	41.39308948	-87.46986604	RSD 17	Extend or Replace In-Kind
570	N/A	CMP	12	37	41.39245909	-87.46986226	UNT 6, Wetland W	Extend or Replace In-Kind
572	N/A	RCP	12	26	41.39225682	-87.47016744	N/A	Extend or Replace In-Kind
569	N/A	CMP	12	34	41.39221079	-87.46985602	RSD 18, Wetland W	Extend or Replace In-Kind
568	N/A	CMP	15	72	41.39202708	-87.46986042	RSD 18	Extend or Replace In-Kind
88	CLV-041-045-256.43	MP	15	23	41.3919422	-87.46983402	N/A	None
87	CLV-041-045-256.41	MP	15	15	41.39187097	-87.46984017	N/A	Adjust to Grade
571	N/A	RCP	12	41	41.39178765	-87.47018389	N/A	Extend or Replace In-Kind
567	N/A	CMP	15	45	41.39156598	-87.46984793	N/A	Extend or Replace In-Kind
566	N/A	RCP	12	24	41.3915387	-87.47017661	N/A	Extend or Replace In-Kind
565	N/A	RCP	12	25	41.39134982	-87.4701661	N/A	Extend or Replace In-Kind

Structure Summary Table								
Structure Number	INDOT Structure Number	Structure Material	Size (in)	Length (ft)	Latitude	Longitude	Feature	Proposed Work
564	N/A	CMP	18	23	41.3910897	-87.46984248	N/A	Extend or Replace In-Kind
563	CLV-9357 CLV-9365	RCP	18	49	41.39012788	-87.47016741	RSD 19	Extend or Replace In-Kind
562	N/A	CMP	18	25	41.38976674	-87.47016277	Wetland X, RSD 19	Extend or Replace In-Kind
561	N/A	CMP	18	25	41.38898082	-87.47016042	Wetland X	Extend or Replace In-Kind
560	N/A	RCP	18	41	41.38884069	-87.4701589	Wetland X	Extend or Replace In-Kind
559	N/A	CMP	18	28	41.38874497	-87.47016006	Wetland X	Extend or Replace In-Kind
558	N/A	RCP	24	24	41.38835199	-87.47016341	Wetland X	Extend or Replace In-Kind
557	N/A	CPP	24	25	41.38828546	-87.47023121	Wetland X, RSD 20	None
555	N/A	CMP	18	75	41.38820207	-87.46985063	UNT 3 to West Creek	None
556	CLV-9383	PVC	6	23	41.38807833	-87.47022476	RSD 20	None
83	CLV-9451 CLV-9449	RCP	24	29	41.38807727	-87.46980282	UNT 3 to West Creek	None
554	CLV-9475	RCP	24	83	41.38807262	-87.46999548	UNT 3 to West Creek, RSD 20	None
553	N/A	CMP	18	142	41.38797815	-87.46985302	UNT 3 to West Creek, RSD 22	None
79	CLV-9395	CPP	15	205	41.38708465	-87.47014845	RSD 20	None
549	N/A	CMP	18	21	41.38682377	-87.46985536	RSD 22	Extend or Replace In-Kind
77	CLV-9399	CPP	15	80	41.38677114	-87.4701496	N/A	None
78	N/A	0	8	40	41.38669255	-87.47021588	N/A	None
552	CLV-9407	CPP	15	35	41.38663662	-87.47015068	RSD 21	None
551	CLV-9445	RCP	15	158	41.38643751	-87.47015298	RSD 21	None
550	CLV-9459	PVC	8	31	41.38620486	-87.47016944	N/A	None
74	CLV-9483	RCP	15	106	41.38600576	-87.47015188	N/A	None
545	N/A	CMP	18	27	41.38587392	-87.46985	RSD 22	Extend or Replace In-Kind
548	CLV-9467	PVC	8	7	41.38584363	-87.47017743	N/A	None
73	CLV-9485	RCP	15	36	41.38580938	-87.47015157	N/A	None
544	N/A	CMP	18	27	41.38568714	-87.46985285	RSD 22	Extend or Replace In-Kind
547	CLV-9489	CMP	15	25	41.38568274	-87.4701541	RSD 23	None
546	N/A	CMP	24	26	41.3854373	-87.47015284	RSD 23	Extend or Replace In-Kind
543	N/A	RCP	18	42	41.38531967	-87.46984884	RSD 22, UNT 7	Extend or Replace In-Kind
542	N/A	RCP	18	25	41.38504345	-87.46984804	UNT 7	Extend or Replace In-Kind
541	CLV-041-045-255.92	CMP	18	32	41.38481399	-87.46984305	UNT 7	None
540	CLV-9497 CLV-9493	CMP	15	59	41.38465731	-87.47018482	RSD 23, RSD 24	Replace In-Kind
539	CLV-9441 CLV-9439	CMP	18	51	41.38464853	-87.46981736	UNT 7, RSD 25	Replace In-Kind
538	N/A	RCP	12	27	41.38395986	-87.469843	RSD 25	Extend or Replace In-Kind
62	N/A	CPP	15	130	41.38367322	-87.4698423	RSD 25	Extend or Replace In-Kind
537	N/A	CPP	15	57	41.38337376	-87.46984025	N/A	None
535	N/A	RCP	15	65	41.38308302	-87.46979212	N/A	None
59	CLV-9495	PVC	15	63	41.38206859	-87.46992826	Wetland Z	Adjust to Grade
536	CLV-041-045-255.74	RCP	15	81	41.38206707	-87.47008145	Wetland Z	Extend or Replace In-Kind

Structure Summary Table								
Structure Number	INDOT Structure Number	Structure Material	Size (in)	Length (ft)	Latitude	Longitude	Feature	Proposed Work
534	N/A	RCP	15	61	41.38196703	-87.46984841	Wetland AA	None
533	N/A	CPP	12	41	41.38178557	-87.4701545	Wetland Z	None
532	N/A	CMP	12	41	41.38154021	-87.47015208	Wetland Z	None
52-B	N/A	CMP	15	30	41.38146083	-87.46984719	UNT 8	Extend or Replace In-Kind
531	N/A	CMP	12	44	41.38136952	-87.47015162	Wetland Z	None
530	N/A	CMP	12	28	41.38125268	-87.47015348	Wetland Z	Replace In-Kind
527	N/A	CMP	18	91	41.38107107	-87.4698488	RSD 27	Extend or Replace In-Kind
529	N/A	RCP	12	158	41.38091962	-87.47015236	Wetland BB	Extend or Replace In-Kind
57	N/A	0	12	29	41.38088175	-87.46979978	RSD 27	None
526	CLV-9499 CLV-9501	CMP	12	32	41.38025965	-87.47015869	Wetland BB, RSD 28	Extend or Replace In-Kind
522	N/A	CMP	18	30	41.3802333	-87.46985506	RSD 27	None
525	N/A	CMP	15	188	41.37982482	-87.47015677	RSD 28	None
524	N/A	CMP	12	47	41.37951251	-87.4701624	N/A	None
52-A	N/A	CMP	12	250	41.37887723	-87.47015354	Wetland CC	Extend or Replace In-Kind
51	N/A	CMP	12	53	41.37853874	-87.47015863	Wetland CC	None
50	N/A	CMP	10	70	41.37836882	-87.4702156	N/A	None
520	CLV-9505	RCP	12	11	41.37760344	-87.47023774	N/A	None
519	N/A	Unknown	12	55	41.37760251	-87.47034125	RSD 29	None
36	N/A	CMP	12	28	41.37749647	-87.46979779	N/A	Replace In-Kind If Needed
518	N/A	RCP	18	11	41.37748545	-87.47014593	N/A	Replace In-Kind If Needed
515	N/A	CMP	12	19	41.37746946	-87.46981227	N/A	Replace In-Kind If Needed
37	CLV-9503	RCP	12	24	41.37743266	-87.47017487	N/A	Replace In-Kind If Needed
35	N/A	CPP	12	28	41.3774037	-87.46978214	N/A	Replace In-Kind If Needed
34	N/A	CPP	12	216	41.37737063	-87.4694712	N/A	Replace In-Kind If Needed
28	N/A	RCP	12	43	41.37729186	-87.46977937	N/A	Replace In-Kind If Needed
517	N/A	CMP	12	44	41.37727997	-87.47005565	N/A	Replace In-Kind If Needed
25	N/A	CMP	12	33	41.37727315	-87.47026827	N/A	Replace In-Kind If Needed
19	N/A	PVC	6	15	41.37705674	-87.47017329	N/A	None
17	N/A	Unknown	12	15	41.37703505	-87.47021268	N/A	None
516	N/A	PVC	4	18	41.37698829	-87.4701764	N/A	None
511	N/A	RCP	15	34	41.37639606	-87.47019512	N/A	None
508	N/A	PVC	10	43	41.37617093	-87.46977434	N/A	Extend for Widening
2	N/A	PVC	3	133	41.37586117	-87.4698619	N/A	None
510	N/A	CMP	18	36	41.37583293	-87.47016717	RSD 30	None
507	N/A	CMP	12	150	41.37576889	-87.46977993	N/A	None
509	N/A	CMP	18	71	41.37564752	-87.47016621	RSD 30	None
1	N/A	PVC	15	175	41.3755279	-87.46985935	N/A	None
506	N/A	PVC	15	60	41.37520306	-87.46985885	UNT 9	None
505	N/A	CMP	24	260	41.37444235	-87.47019076	Wetland DD, Wetland EE	None
503	N/A	CPP	12	17	41.37433372	-87.46986161	UNT 10	None
501	N/A	PVC	6	36	41.37365156	-87.46985962	N/A	None
502	N/A	CMP	24	161	41.37353766	-87.47020966	Wetland EE	None
500	N/A	RCP	24	42	41.3728906	-87.46978899	UNT 12	None
96	CLV-9511	RCP	24	574	41.37283897	-87.47021766	UNT 11	None

INDIANA DEPARTMENT OF TRANSPORTATION

LaPorte District
315 E. Boyd Boulevard
LaPorte, Indiana, 46352

PHONE: (855) 464-6368

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Excerpt from:

ENGINEERING ASSESSMENT REPORT

ROAD PROJECT

US41, From 3.25mi S of US231 to US231

Note to Reviewer: See email correspondence at the end of this document that supplements the design criteria discussed in this document.

PROJECT NUMBER: 1700025
CONTRACT: R-40609

Prepared by LaPorte District Technical Services Division
January, 2018 // ① Rev February 2019

www.in.gov/dot/
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ENGINEERING ASSESSMENT REPORT

PROJECT NUMBER: 1700025

ROUTE IDENTIFICATION:
US41, From 3.25mi S of US231 (West 135th Place) to US231

PROJECT LOCATION: Hannover Township, Lake County, Sections 8, 9, 16, 17, 20, 21, 28 & 29, Twp 34N, Range 9W, Town of Cedar Lake

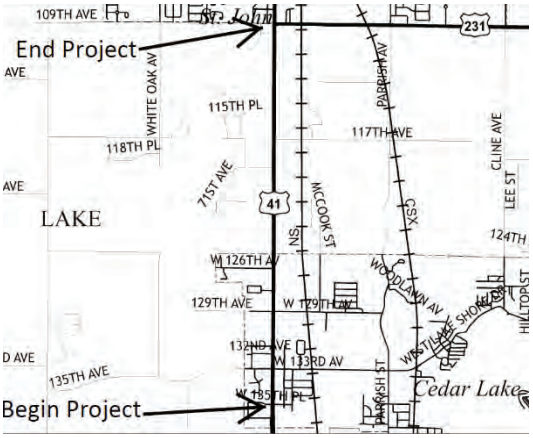
REFERENCE POST: From 255+08 to 258+40

Purpose of Report

The purpose of this report is to document the engineering assessment phase of project development, including all coordination that has been completed in preparation for this bridge project. This document outlines the proposal and is intended to serve as a guide for subsequent survey, design, environmental, right of way and other project activities leading to construction. The preferred alternative identified in this document is considered predecisional, pending the outcome of environmental studies.

Project Location

This project is located on US41, from 3.25 miles south of US 231 to US231 in Lake County. The GPS coordinates for the POB are 41°22'22.6" North and 87°28'11.8" West at the intersection of West 135th Place and US41. The GPS coordinates for the POE are 41°25'15.9" North and 87°28'12.1" West at the intersection of US231/109th Avenue and US41. The project is in the Indiana Department of Transportation's LaPorte District, Gary Sub-District. This location is in a rural planning organization region, the Northwest Indiana Regional Planning Commission (NIRPC).



Project Need and Purpose

The purpose of this project is to improve safety along US41 within the project limits.

The existing safety performance is considered deficient based on the occurrence of traffic accidents. Between 2013 and 2016 there were a total of 80 crashes within the project limits. These crashes have resulted in 10 fatal or incapacitating injury crashes, 22 non-incapacitating injury crashes, and 55 property damage only crashes.

Existing Facilities

The existing roadway facility is classified as an Other Principal Arterial, is part of the US National Highway System (NHS), and on the National Truck Network. The posted speed limit at the project location varies from 35 mph to 55 mph within the project limits. Photos of the existing roadway conditions are provided in Appendix A.

Roadway

The existing roadway is 52 ft through the project limits consisting of 12 foot travel lanes and 4 ft paved shoulders and 6 ft useable shoulders. The existing shoulder widths are substandard.

Roadway Information			
Geometric Criteria			
Design Speed	35 mph (POB-130 PI) 45 mph (130 PI-129 PI) 55 mph (129 PI-POE)	Functional Class	Principal Arterial-Other
Design Criteria	3R (Non Freeway)	Rural/Urban	Urban - Intermediate
Terrain	Level	Access Control	None
Approach Cross Section			
IDM Figure Reference	IDM 55-3E (Intermediate)		
Travel Lane Count	4	Travel Lane Width	12' (existing) 12' (proposed)
Shoulder Width (Usable)	6' (exist) 6' (proposed)	Shoulder Width (Paved)	4' (exist) 4' (proposed)
Mainline Pavement	HMA on Conc	Shoulder Pavement	HMA & Agg (exist) HMA (proposed)
Alignment			
Horizontal	Tangent (exist & prop)	Vertical	Straight grade (exist)

Road History

US41 Pavement History Within Project Limits		
Year	**Width**	**Type of Work**
1927	18'	Grading and concrete pavement
1936	22'	Concrete widening, grading and paving
1946	40'	HMA Overlay (Rock Asphalt) on old concrete
1959	40'	HMA Overlay (HAC Binder) on old RA on old concrete
1964	2@24'	Divided lane; HMA resurface on old conc & 8' Rt & Lt conc base widening
1976	2@24'	HMA Minor Structural Overlay (Surface & Binder)
1992	2@24'	HMA Minor Structural Overlay (Surface & Binder)
2016	2@24'	HMA Minor Structural Overlay

Intersections/Traffic Signals

Generally speaking there are no significant intersection upgrades to the stop controlled public side streets. Existing stop controlled side street intersections shall be reviewed and widened to facilitate the additional two-way left turn lane through the length of the project.

US41 & W 133rd Ave (Signal location 01-045-099): This is the first signalized intersection north of the POB of the project. It is currently configured with five lanes for both legs of US41 consisting of two through lanes for each direction plus a right turn lane.

US421 & US231 (109th Ave) (Signal location 01-045-228): This intersection is located at the project POE. It is currently configured with five lanes for the north leg (US41), three lanes on the west leg (two thru and one left turn lane) (W 109th Ave), four on the east leg (right turn, left turn and two thru lanes)

(US231), and six lanes on the south leg (four thru lanes, left turn and right turn lanes) (US41). A project planned in 2019 will remove the raised center lane concrete block north of US231.

Drainage

Existing Drainage through the project is primarily through sheet flow away from the road into road side ditch lines. No drainage problems exist in the project area. There is no evidence of standing water on the roadway. The existing side road ditch lines shall require relocation due to shoulder widening and maintaining a safe fore slope within the clear zone. The West Creek Lateral #2 drain begins at approximately STA 626+33 crossing west under US41 through STR CV 041-045-256.70, flows north, roughly paralleling US41 and crossed east under US41 through STR CV 041-045-257.55. It runs north adjacent to the US41 ROW for approximately 883 feet immediately south of CV 041-045-257.55.

① The existing conditions of these two structures are as follows:

STR NO	Year Built	Size/ Type	Cover (ft)	Scour Critial	Super Structure	Sub Structure	CV Overall
CV 041-045-256.70	2014	60" CMP	3	7	N	N	6
CV 041-045-257.55		8x4 RCB	2	5	N	N	6

Railroads

There are no active railroad crossings within the project limits.

Traffic & Crash Information

Traffic Data

The table below shows the data provided through INDOT's Traffic Count Database System.

TRAFFIC DATA			
Year	AADT (VPD)	DHV	TRUCK AADT
2016	19,488	8%	1,659 (9%)

Crash Data & Analysis

Crash data was analyzed for the years 2013 through 2015 along US41 within the project limits. For the purpose of this study, only crashes between the timeframe of 2013 to 2015 were analyzed. Upon review of the three years of data, we found a total of 80 crashes occurred within the project limits. Of these 80 crashes, there were 32 crashes resulting in injury and 10 resulting in incapacitating injury or fatality. Review of the crash data indicates there is a safety issue associated with the current configuration of US41. Based on a review of the existing roadway, and noting no horizontal and vertical geometric deficiencies, it appears that the lack of dedicated left turn facilities is a significant factor in a majority of the accidents that occur within the project limits. No crashes were attributed to roadside safety conditions, and existing embankment conditions may remain in the proposed roadway section to facilitate Open Roads/Practical Design.

Analysis of the addition of a TWLTL on US41 returned a crash correction index of 1.24 for the length of the project. The analysis also predicted a crash reduction of 57% throughout the project length.

Alternatives and Recommendations

Alternate A: Do Nothing

This alternate would allow the existing roadway and remain in place with no improvements to facilitate safety. This alternative will maintain a condition that limits the safe operation of this portion of the US41 corridor. This alternative meets none of the needs and purposes of the project and will not be considered further.

Alternate B: Add a Two-Way Left Turn Lane

This alternative meets the need and purpose of the project and is the preferred alternative.

Details of Preferred Alternate

The original roadbed construction consisted of approximately 18 ft. concrete pavement, in each direction. The concrete pavement has since been widened, providing an existing concrete pavement base of 40 ft (20 ft each side of the roadway centerline). Additionally, the roadway has been overlaid multiple times with HMA. The intent of this project is to saw cut, generally, along a line 25 ft. from the pavement crown in each direction. This will facilitate a clean joint along a proposed lane line to widen the pavement. It is expected that this line will be reviewed and finalized as part of the design process. The widened pavement will consist of full-depth HMA pavement, with the portion of roadway between the saw cut lines overlaid with an HMA surface layer.

Construct dedicated left-turn lanes at signal 01-045-099 (US41 & W. 133rd Ave) in both directions (north and south). Sufficient width exists on the current pavement structure to accomplish the left-turn lane configuration, although this will require narrowing of lanes and possibly eliminating the right-turn lanes. The mainline signal phases will be un-split-phased and protected-permissive left-turn phasing with 4-section flashing yellow arrow added to the signal phasing. The controller and MMU will need to be checked for compatibility by INDOT. A signal plan sheet will be needed to show this work.

Signal 01-045-299 (US41 & US231) will require the removal of the flush concrete median on the south approach. Install physical lane dividers (such as an approved product like Tuff-Curb) on US41 for 350' from the stop bar to the south. This mirrors what is being done on the north approach of US41 on DES 1383695 (the TWLTL project on US41 north of US231).

① Structure CV 041-045-256.70 should be cleaned and extended in kind to facilitate the proposed five lane section. The overall condition of the structure does not warrant rehabilitation or replacement at this time. Inlet and outlet conditions shall be reviewed and armored erosion control measures re-established as required. Hydraulic analysis of the extended structure is optional.

① Structure CV 041-045-257.55 shall not be changed or extended as part of this project. The overall condition of the structure does not warrant rehabilitation or replacement at this time. Extension to the west is infeasible due to the channel alignment adjacent to US41. Additionally, extension of this structure will require additional channel work, increasing the potential environmental impacts of the project. The guardrail connection to the top of the structure shall be reviewed and inspected to determine condition of the existing connection to the top of the concrete box structure. If needed, guardrail shall be removed and replaced using Std Plan E 601-NWGA.

Design standards used for this project shall be as shown in Appendix B2 "Level 1 Design Criteria".

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

This project is proposed to take place in construction year 2022. It is anticipated that a complete construction season will be needed for this project, plus an additional year for turf establishment once the project is accepted.

Cost Estimate

The cost of Alternative B is as follows:

Construction Cost (CN)	**$3,627,800.00**
Right-of-Way (RW)	$2,500,000.00
Preliminary Engineering (PE)	$363,000.00
Railroad Coord (RR)	$0.00
Utility (UT)	$109,000.00
Construction Engineering (CE)	$127,000.00
Total Project Cost	$6,726,800.00

Environmental Issues

This project will likely require preparation of a CE Level 2. The District or the District's consultant will prepare an environmental document in accordance with the National Environmental Policy Act, National Historic Preservation Act, and other relevant laws. A final permits determination shall be made during design.

A Section 4(f) analysis will be necessary as part of the environmental documentation prepared for the project to determine the potential of historic properties within project limits. No impacts to Section 4(f) properties are anticipated as a result of the project.

A waters report and wetland delineation map will be required as ditch lines will be relocated and existing drainage structures extended to facilitate wider paved shoulders.

A Rule 5 erosion control permit will be needed for the project. It is anticipated that this project may require a Level 2 Storm Water Quality Control Plan (SWQCP) per 205-R-636.

This project is expected to have a restriction prohibiting tree clearing from April 1st to September 30th in consideration of the Indiana Bat.

Right-of-Way Impact

The existing apparent right of way per to original construction plans varies either side of centerline. This project is expected to require the purchase of permanent right of way. Based on the exact location of the existing right-of-way, as well as the ditch line relocations, up to 13 acres of additional right-of-way may be needed. Designer shall take every measure to minimize the total amount of proposed right-of-way required for this project.

Utilities

Based on the site visit and existing plans, various utilities appear to exist within the project limits. Overhead electric lines run parallel to SR39 on both sides of the right-of-way, with various overhead transverse crossings. Relocation of pole lines may be required due to shoulder widening.

Refer to the attached 811 utility locate report in the appendices for a list of utility companies within the limits of the project. Utility coordination procedures will be in accordance with the design manual.

Utility Type	Utility Name	Contact	Contact Information
Electric	NIPSCO ELECTRIC (CROWN POINT)	Dave Schaafsma	dschaafsma@nisource.com
Gas	NIPSCO	Dave Schaafsma	dschaafsma@nisource.com
Water	Town of St. John	Bob Phyarazan	(219) 365 - 4655 9350 Hack St St John, IN 46373 jmillis.peo@stjohnin.com
Other	LEVEL 3 COMMUNICATIONS		Relo@level3.com
Other	AT&T - Distribution	Matt Spindler	(317) 265-3050 240 N. Meridian St., Rm 1791 Indianapolis, IN 46204 ms4822@att.com

Traffic Maintenance During Construction

One lane of traffic shall be closed in each direction to facilitate construction on US41. No detour route is required for this project.

Related Projects

The following projects within the corridor will have an impact on the design and construction of this project.

Contract	Des	Route	Description	Work Type	Construct
RS-37239	1296516	US41	From 2.57 mi S of US 231 (135th Ave) to 0.27 mi N of US 30	HMA Overlay, Minor Structural	2016
R-40635	1383695	US41	From US 231 to 1.99 mi N of US 231 (93rd Avenue)	Aux Lane, TWLTL	2019

Concurrence

①

This document was prepared by:

2/8/2019

Paul South, PE
District Scoping Manager, LaPorte District

Reviewed by:

Alan Holderread

Digitally signed by Alan Holderread
Date: 2019.03.28 13:54:04 -05'00'

2/8/2019

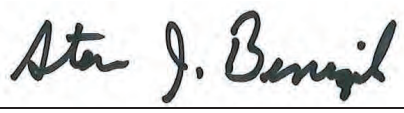
Alan Holderread, PE
District Traffic Engineer, LaPorte District
Recommend: APPROVAL / DISAPPROVAL

Reviewed by:

// Review Omitted, see signature above //

Paul South, PE
Scoping Manager, LaPorte District
Recommend: APPROVAL / DISAPPROVAL

Reviewed by:



2/8/2019

Steve Benczik, PE
System Asset Manager, LaPorte District
APPROVE / DISAPPROVE

Appendices

Appendix A Graphics
- A1: Location Map
- A2: Project Layout (Typical Section)

Appendix B Data & Analysis
- B1: Traffic Data (Pending)
- B2: Level 1 Design Criteria

Appendix C Project Photos

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 1/2

Settings: Indiana state settings	Version: Version 4.1	
Location	US 41 Cedar Lake	
GIS		
Post		
Analyst	Lauren Waite	
Date	5/29/2025	

INPUT	
Road Facility Type	Rural multilane Segment
Beginning	0
End	3.29
AADT (veh/day)	19488
Intersection Density (int/mi)	
First Year with Crash Data (yyyy)	2013
Last Year with Crash Data (yyyy)	2015
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	10
Non-Incapacitating and Possible Injury Crashes	32
Property Damage Only Crashes	38
Route or Road Type	Rural multilane Segment
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2442800
Non-Incapacitating and Possible Injury Crashes	368100
Property Damage Only Crashes	31600
Crash Cost Year (yyyy)	2017
OUTPUT	
Segment Length (mi)	3.29
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	1.696
Non-Incapacitating and Possible Injury Crashes	1.05
Property Damage Only Crashes	6.47
All Crashes	9.22
Index of Crash Frequency	**2.27**
Index of Crash Cost	**1.39**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Page 2/2

Settings: Indiana state settings	Version: Version 4.1	
Location	US 41 Cedar Lake	
GIS		

Post		
Analyst	Lauren Waite	
Date	5/29/2025	

Comments:

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated April 2025)

No.	Project Number	Sub Project Code	County	Property
1	1800005	1800005	Lake	Dowling Park
2	1800011	1800011	Lake	Tolleston Park
3	1800012	1800012	Lake	Washington Park
4	1800040	1800040	Lake	Homestead Park
5	1800055	1800055	Lake	Sheppard Memorial Park
6	1800059	1800059	Lake	Cheever Park
7	1800062	1800062	Lake	Leroy Township Park
8	1800063	1800063	Lake	Markley Memorial ParkEllendale Park
9	1800071	1800071	Lake	Cheever Park
10	1800087	1800087	Lake	Sheppard Memorial Park
11	1800102	1800102	Lake	Grand Boulevard Lake Recreation Area
12	1800108	1800108	Lake	Riverview Park
13	1800137	1800137	Lake	Northgate Park
14	1800150	1800150	Lake	Meadows Park
15	1800168	1800168	Lake	Sunnyside Park
16	1800170	1800170	Lake	Howe Park
17	1800189	1800189	Lake	Dowling Park
18	1800193	1800193	Lake	Harrison Park
19	1800194	1800194	Lake	Martin Luther King Jr. Park (Formerly Maywood Park
20	1800199	1800199	Lake	Ridgeway Park
21	1800202	1800202	Lake	Hatcher Park
22	1800206	1800206	Lake	Meadows Park
23	1800226	1800226	Lake	Hoosier Prairie Nature Preserve
24	1800227	1800227	Lake	Liberty Park
25	1800231	1800231	Lake	Pheasant Hills Community Park & Cherry Hill Tot-Lot
26	1800237	1800237	Lake	Wolf Lake Park (N & S)
27	1800239	1800239	Lake	Bluebird Park
28	1800253	1800253	Lake	Centennial Park
29	1800272	1800272	Lake	Wolf Lake Park (N & S)
30	1800273	1800273	Lake	Grand Kankakee Marsh County Park
31	1800302	1800302	Lake	Munster Community Park
32	1800329	1800329	Lake	Jackson Park
33	1800369	1800369H	Lake	Harrison Park
34	1800369	1800369D	Lake	Lemon Lake County Park
35	1800377	1800377	Lake	Main Square Park
36	1800386	1800386	Lake	Gibson Woods Nature Preserve & Tolleston Ridges Nature Preserve
37	1800405	1800405G	Lake	Clark and Pine Dune Swale Nature Preserve
38	1800414	1800414	Lake	Wolf Lake Park (N & S)
39	1800417	1800417	Lake	Centennial (Dan Rabin) Plaza & Trail
40	1800424	1800424	Lake	Lake Etta County Park
41	1800455	1800455	Lake	Deep River - Woods Mill County Park
42	1800464	1800464	Lake	Festival Park & Lakefront Park
43	1800473	1800473	Lake	Oak Ridge Prairie Co. Park
44	1800488	1800488	Lake	Marquette Park
45	1800489	1800489	Lake	Festival Park & Lakefront Park
46	1800522	1800522	Lake	Pavese Park
47	1800523	1800523	Lake	Lakewood Park
48	1800523.5	1800523.5	Lake	River Drive Park
49	1800528	1800528	Lake	Lowell Sports Park
50	1800533	1800533	Lake	Hobart City Ball Park
51	1800555	1800555	Lake	Scherwood Golf Course
52	1800580	1800580	Lake	Oak Ridge Park
53	1800586	1800586	Lake	Teibel Nature Park
54	1800586.1	1800586.1	Lake	Teibel Nature Park
55	1800590	1800590	Lake	Deep River County Park
56	1800622	1800622	Lake	Fireman's Park
57	1800636	1800636	Lake	Parrish Avenue Park
58	1800649	1800649	Lake	Autumn Chase Park

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with Indiana State Parks, Community Grants & Trails Section, should occur.

US41 Cedar Lake – Two-Way Left-Turn Lane

INDOT Des. No. 1700025

From 3.25 miles south of US231 to US231

Biesecker Nature Preserve Alternatives Review – Parcel 149

Project Need and Purpose:

The purpose of this project is to improve safety along US41 within the project limits. The existing safety performance is considered deficient based on the occurrence of traffic accidents. Between 2013 and 2016 there were a total of 80 crashes within the project limits. These crashes have resulted in 10 fatal or incapacitating injury crashes, 22 non-incapacitating injury crashes, and 55 property damage only crashes.

October 15, 2024

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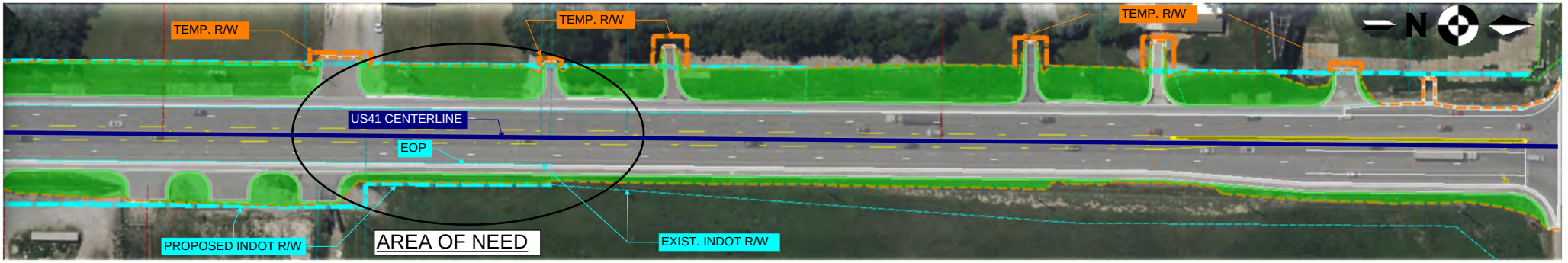
US41 Cedar Lake – Alternative 1
Permanent R/W or Easement

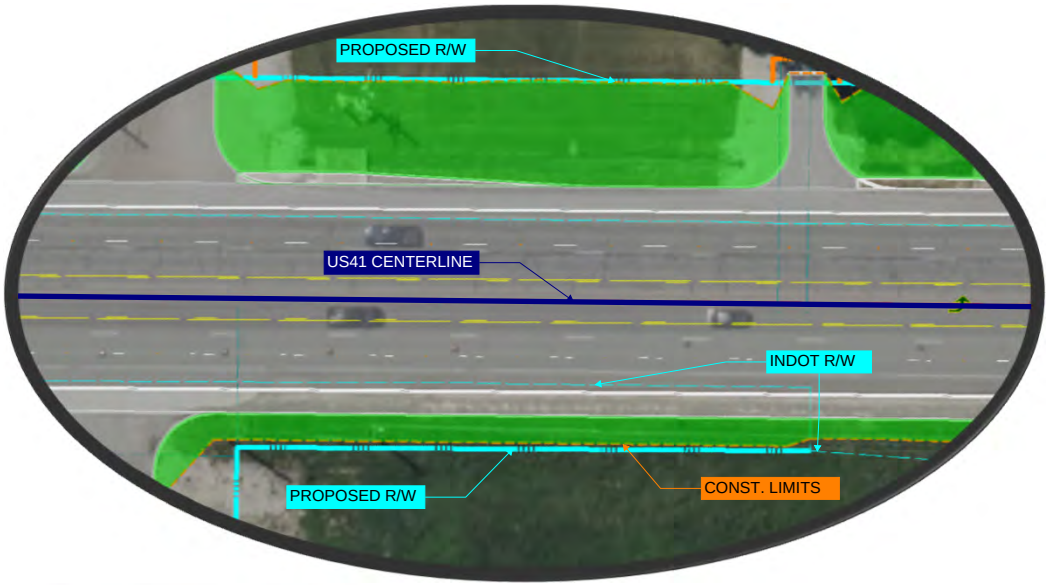


Design Features:

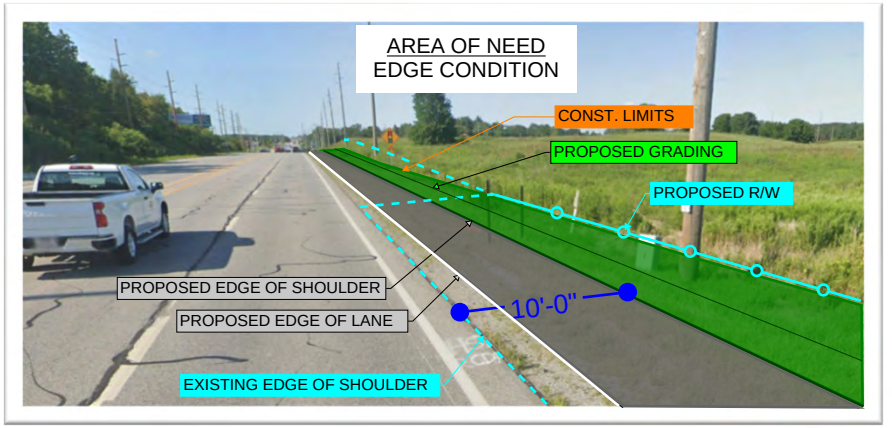
- Alignment is not shifted and matches existing alignment throughout. Lane and shoulder widths meet all design criteria.
- Permanent R/W or Easement is required.
- Paved shoulder will replace current gravel area.
- Grading will be revised to meet hydraulics needs while avoiding utility relocations.

Design Concerns:

- Grading on east side of roadway will ensure proper drainage flow and use the area as part of detention.
- Special grading at and around power poles will be required to eliminate relocations.



AREA OF NEED
DETAIL VIEW



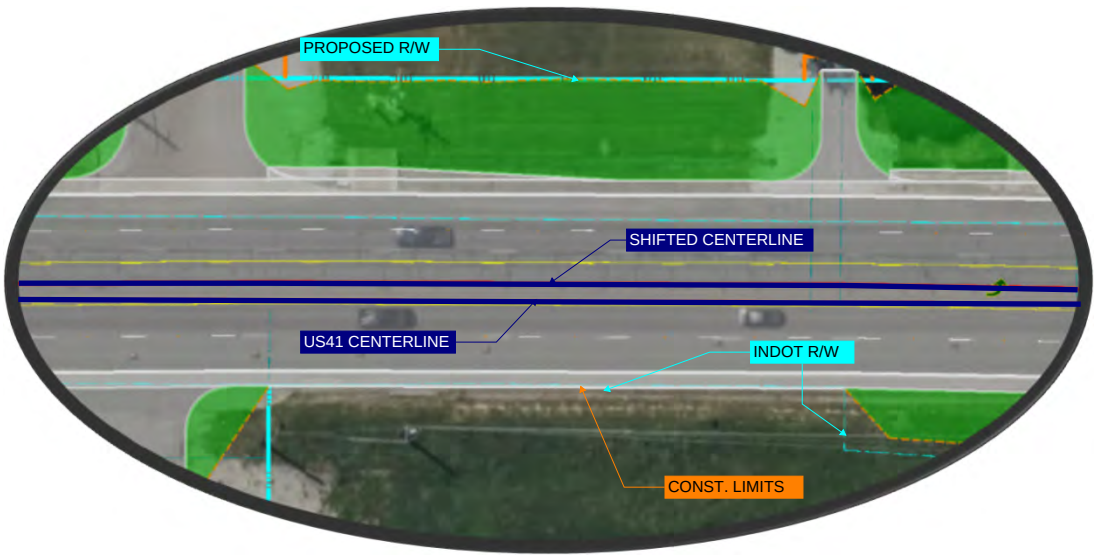
US41 Cedar Lake – Alternative 2
No Additonal R/W

Design Features:

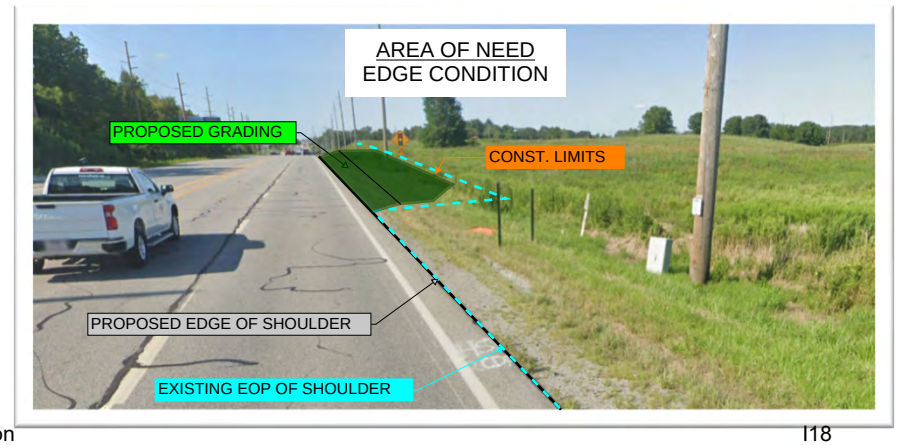
- Alignment is shifted 6-ft off centerline, starting 600-ft before the Biesecker Preserve Parcel.
- Across the Biesecker parcel, shoulder and right lane widths are reduced.
- No additonal R/W is required.
- Grading will end before the current edge of pavement outside of INDOT R/W, and before utility poles within INDOT R/W.

Design Concerns:

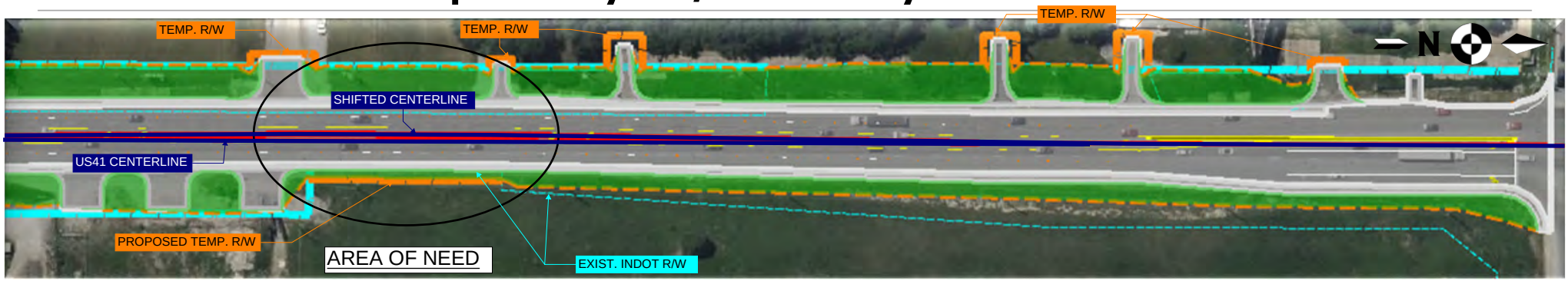
- The alignment shift and reduced lane and shoulder widths, are atypical and may cause driver confusion in the area. Purpose of project is to improve safety and is funded with safety funds.
- Inability to grade slightly at the southern end of the parcel requires more detention on northern section of parcel inside INDOT R/W (0.31 acres more than Alternative 1) and subsequent pole relocations.
- The 6-ft shift with reduced pavement width requires an additonal 2-ft of disturbance on the west side of the roadway for an additonal 1,080-ft, adding approximately $50K dollars to the project in excavation and pavement costs.
- Overhead electric on the west side may require special protection and coordination, but reduced shift and lane/shoulder widths mitigate relocation risk.



AREA OF NEED
DETAIL VIEW



US41 Cedar Lake – Alternative 3
Temporary R/W Only

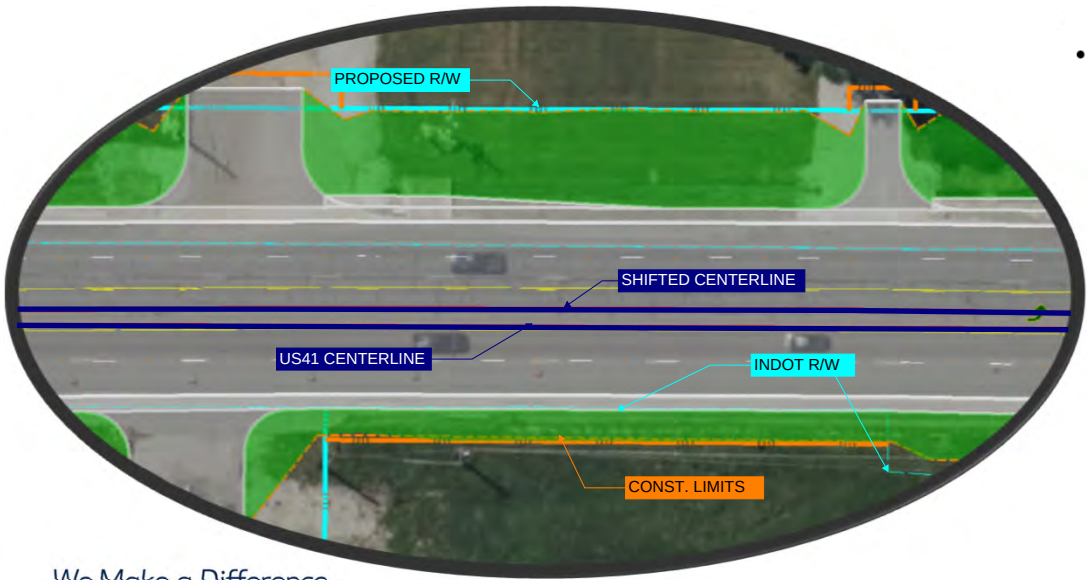


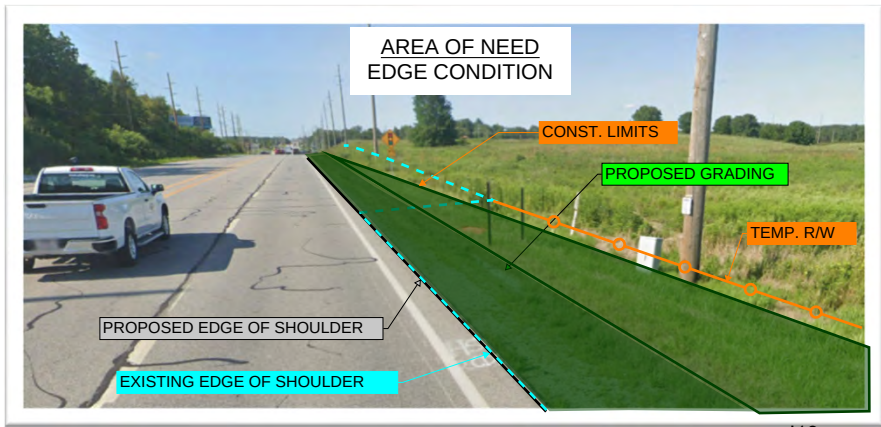
Design Features:

- Alignment is shifted 6-ft off centerline, starting 600-ft before the Biesecker Preserve Parcel.
- Across the Biesecker parcel, shoulder and right lane widths are reduced.
- Temporary R/W Only is required
- Grading will end before overhead electric poles, thus ensuring no need to relocate.

Design Concerns:

- The alignment shift and reduced lane and shoulder widths, are atypical and may cause driver confusion in the area. Purpose of project is to improve safety and is funded with safety funds.
- The 6-ft shift with reduced pavement width requires an additonal 2-ft of disturbance on the west side of the roadway for an additonal 1,080-ft, adding approximately $50K dollars to the project in excavation and pavement costs.
- Overhead electric on the west side may require special protection and coordination, but reduced shift and lane/shoulder widths mitigate relocation risk.
- Ability to re-grade slightly alleviates some drainage concerns, but special considerations for the area are required without permanent R/W.





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Summary of Alternatives:

Based on the purpose and need of the project, which is to improve safety along this section of US41, we prefer Alternative 1. By ensuring that no inordinate shifts in the roadway alignment are created and that lane and shoulder widths remain at standard, typical widths, safety is given priority. Additionally, by being able to control drainage flow in the area with regrading, we believe the overall impact to the ecology in the area is reduced.

If Alternative 1 cannot be accepted, we ask that Alternative 3 which establishes only Temporary R/W for grading be considered.

If Alternative 1 and 3 cannot be accepted, we intend to move forward with Alternative 2, which is not ideal from a safety standpoint, but can be implemented for a short stretch. However, we do ask that the downstream consequences of disturbance on the west side of US41 and that along the east side of US41 (west side of the preserve) be considered as we anticipate additional disturbance within our R/W will be needed if drainage regrading cannot occur.