PARSONS

Appendix F

Water Resources

U.S. Fish and Wildlife Service
National Wetlands Inventory

SR 912 and Michigan Avenue Bridges

February 14, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

1:18056

-87.441 41.652 Degrees

Waters of the U.S. Report

Excerpts

SR 912 and Michigan Avenue Bridges Project

Des. 1800067 (Lead)

Des. 1800067 is no longer associated with this project. The new lead Des. is 1703011.

Lake County, Indiana

LaPorte District

Includes areas that are outside the project study area and covered under separate environmental documents. Pertinent portions have been highlighted.

Prepared for:
Indiana Department of Transportation and Federal Highway Administration

January 18, 2022

Parsons • 101 West Ohio Street, Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000

WATERS OF THE U.S. REPORT

SR 912 AND MICHIGAN AVENUE BRIDGES PROJECT

Lake County, Indiana

INDOT Designation (Des.) Number 1800067 (Lead)

Prepared By: Benjamin K. Blocher, Environmental Planner, PWS

January 18, 2022

Des. 1800067 is no longer associated with this project. The new lead Des. is 1703011.

I. PROJECT INFORMATION

FIELDWORK DATES:

Fieldwork for this report was conducted on July 14 to 16, and October 5, 2021.

CONTRIBUTORS:

Gregory Moushon, Senior Environmental Planner, PWS
Benjamin Blocher, Environmental Planner, PWS
Keaton Veldkamp, Environmental Planner
Cedric Diefenbaugh, Associate Environmental Planner
Kirsten Roys, Associate Drainage Engineer

PROJECT LOCATION:

Includes areas that are outside the project study area and covered under separate environmental documents. Pertinent portions have been highlighted.

Whiting Quadrangle
Sections 18 and 19 of Township 37 North, Range 10 West
Sections 15, 22, 23, 26, and 27 of Township 37 North, Range 9 West
1.34 miles west of US 12, Reference Post (RP) 0+0.817 to 6+0.151
Lake County, Indiana
Latitude/Longitude: 41.65712, -87.50455 (Section A); 41.65157, -87.44175 (Section B); 41.64111, -87.43185 (Section C); 41.63543, -87.432407 (Section D)

PROJECT DESCRIPTION:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) proposes interchange improvements (Lead Des. 1800067) at the State Road (SR) 912 and Michigan Avenue interchange and pavement reconstruction of various ramps providing connections to SR 912 in the vicinity of the interchange. The project is within North Township, and on the Whiting, IN USGS Topographic Quadrangle, in Sections 15, 22, 23, 26, and 27 of Township 37 North, Range 9 West as well as Section 18 and 19 of Township 37 North, Range 10 West. The project is located in a highly urban area of East Chicago, Lake County, Indiana (Appendix B, page 1). It is surrounded by industrial, commercial, and residential properties. There are multiple railroad (RR) right-of-way (ROW) corridors to the north of INDOT ROW.

For the purposes of this report, there are four study area sections and they are as follows: Section A begins at the Calumet Avenue ramp to SR 912 and includes the SR 912 exit ramp to Calumet Avenue and extends east 0.43 mile along SR 912; Section B begins 0.28 mile west of SR 912 over Block Avenue, includes the Inland Steel Opas interchange and the Aldis Street interchange, and extends approximately 0.24 mile east of the Aldis Street bridge over SR 912; Section C includes

0.09 mile of the eastbound SR 912 exit ramp to Guthrie Street and 0.12 mile of the entrance ramp from E 140th Street to westbound SR 912; Section D begins at the ramp from eastbound SR 912 to 0.23 mile east of the intersection of Cline Avenue and Industrial Highway.

The preferred alternative for interchange improvements (Section B) would reconfigure the existing interchange into a roundabout, which would eliminate the Ramp B over B Bridge (Structure No. 912-45-06596 B; NBI No. 33035). This alternative includes reconstruction of bridges: the seven-span Michigan Avenue bridge over SR 912, ramps; and three railroads: Norfolk Southern, Wisconsin Central, and Indiana Harbor Belt Railroads. The new roundabout is proposed for the southern portion of the interchange. Multiple ramps will be rehabilitated. The closed pedestrian bridge will be removed. Ramp 4A access from eastbound SR 912 to Michigan Avenue will be closed to traffic with the installation of a temporary traffic barrier wall and the existing concrete pavement will be removed. Replacement of overhead sign structures and installation of a new roundabout lighting system are also anticipated. Additionally, drainage issues south of SR 912 would be addressed with new inlet structures and curb cuts.

The preferred alternative for pavement reconstruction of associated ramps (Sections A, C, and D) will reconstruct the concrete pavement of various ramps and sections of roadways. The typical section of SR 912 and ramps will remain the same. Existing SR 912 has four, 12-foot-wide travel lanes, two lanes in each direction with inside and outside shoulders of varying widths. The ramps have one, 16-foot-wide travel lane with inside and outside shoulders of varying widths. Full depth pavement reconstruction would occur.

II. OFFICE EVALUATION

METHODOLOGY:

The study area was based on the design alternatives evaluated for the National Environmental Policy Act (NEPA) document. The study area was approximately 67.08 acres in size.

A desktop review of the study area was conducted to identify potential waterways (streams, wetlands, ponds, etc.). This included a review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for follow-up field reconnaissance. United States Geological Survey (USGS) topographic mapping, National Wetlands Inventory (NWI) mapping, National Hydrography Dataset (NHD) mapping, floodplain mapping, Natural Resources Conservation Service (NRCS) mapped soil units, and historic drainage mapping were also reviewed. Any noted items were flagged for follow-up field reconnaissance.

AERIAL PHOTOGRAPHY:

During review of current and historical aerial photography, several areas were identified within the study area that displayed potential wetland signatures associated with water ponding, darkened soils, and/or shifts in vegetation. Each flagged area was investigated during field reconnaissance.

USGS MAPPING:

During review of USGS 7.5-minute series topographic mapping (Appendix B, page 2), no streams were noted within the study area.

NWI AND FLOODPLAIN MAPPING:

During review of NWI and floodplain mapping, shown on the USGS topographic map (Appendix B, page 2), no NWI features were mapped within the study area. A total of three NWI wetlands were identified outside of the study area. No NWI-mapped

streams were noted within the study area. No floodplains were mapped within the study area, but one floodplain was mapped adjacent to the study area.

MAPPED SOIL UNITS AND NHD MAPPING:

The NRCS classifies soil types as follows: hydric (100%), predominantly hydric (66-99%), partially hydric (33-65%), predominantly non-hydric (1-32%), and not-hydric (0%). According to the Soil Survey Geographic (SSURGO) Database for Lake County, Indiana, the study area is comprised of not hydric and partially hydric soil types (Appendix B, pages 3 to 23). The mapped soil units within the study area are summarized in Table 1 (Appendix A, page 1).

NHD was mapped on the soils background (Appendix B, pages 3 to 23). No potential drainage features were identified within or adjacent to the study area. Roadside ditches were also noted within the study area.

HISTORIC DRAINAGE:

The Lake County Soil Survey (USDA, 1972) was reviewed for historic drainage features within the study area. No drainage features were mapped within the study area (Appendix B, pages 24 and 25).

STREAMSTATS:

USGS StreamStats was reviewed for potential drainages within the study area. Drainages identified via StreamStats were flagged for follow-up field reconnaissance (Appendix B, pages 26 to 28).

WATERSHED:

The study area is located within one hydrologic unit code 12-digit (HUC 12) watershed: Calumet River-Frontal Lake Michigan (040400010603).

III. FIELD RECONNAISSANCE

METHODOLOGY:

Parsons conducted field investigations on July 14 to 16, and October 5, 2021 to determine the presence of waterways, including streams, wetlands, lakes, and ponds, within the study area. The entire study area was reviewed for resources via a walking survey. All areas flagged during desktop review were investigated and documented. A resource map showing all identified features is attached for reference (Appendix B, pages 3 to 23).

Vegetation, soil, and hydrology data were collected using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0)* (USACE, 2012). Wetland indicator statuses for plants were obtained from the National Wetland Plant List (USACE, 2020). A hand-held GPS unit (Trimble Geo 7 Series) was used to collect the boundary of each identified wetland, as well as all data points. Data forms for each data point are included in this report for reference (Appendix D). The area for each wetland was calculated. A qualitative assessment of each wetland's quality was conducted, which included grading them (poor, average, or excellent) based on ecological function, size, species diversity, invasive species prevalence, and amount of disturbance.

Photographs were taken throughout the study area. This included photographs of each feature identified within the study area (Appendix C, pages 22 to 103). A photograph orientation map is included for additional reference (Appendix C, pages 1 to 21).

STREAMS:

Field investigations did not identify any streams or waterways within the study area.

WETLANDS:

Includes areas that are outside the project study area and covered under separate environmental documents. Pertinent portions have been highlighted.

Sampling locations were determined by the presence or absence of hydrophytic vegetation and hydrology indicators. A total of five likely jurisdictional wetlands, totaling 0.599 acre, were identified within the study area. All five identified wetlands are likely waters of the State. However, INDOT is requesting USACE take jurisdiction over them. The Wetland Summary Table (Table 2, Appendix A, page 1) and Data Point Summary Table (Table 3, Appendix A, page 2) summarize the data collected on these features. A Pre-Jurisdictional Determination Form is attached for reference (Appendix E, pages 1 to 4).

Wetland 1

Wetland 1 is an emergent wetland that is approximately 0.042 acre in size. It is located to the south of SR 912 and north of Callahan Place. The wetland is located approximately 43 feet south of SR 912 in a depression (Appendix B, page 9, Section B). Wetland 1 had low species diversity, is located within INDOT's maintained right-of-way, and was dominated by invasive species. Because of this, it was classified as a poor-quality wetland. Wetland 1 is predominantly contained within a depression along the roadside and is likely hydrologically isolated. Therefore, Wetland 1 is likely a water of the State. INDOT acknowledges that Wetland 1 is likely a water of the State. However, INDOT is requesting USACE take jurisdiction over it.

The area associated with Data Point 1 IN (DP-1-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Phragmites australis* (common reed, FACW, 70%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and the prevalence index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. One primary indicator (Saturation [A3]) and two secondary indicators (Surface Soil Cracks [B6] and FAC-Neutral Test [D5]) of wetland hydrology were observed. Since all three wetland criteria were met at DP-1-IN, this area was identified as Wetland 1.

Data Point 1 OUT (DP-1-OUT) was taken up-slope and east from DP-1-IN. The sapling/shrub stratum was dominated by *Rhus typhina* (staghorn sumac, UPL, 5%) and *Frangula alnus* (glossy false buckthorn, FAC, 5%). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 60%), *Securigera varia* (crownvetch, UPL, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile did not meet the hydric soil criterion. No indicators of wetland hydrology were observed. Since none of the three wetland criteria were met at DP-1-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 1, which was determined based on changes in vegetation and topography.

Wetland 2

Wetland 2 is an emergent wetland that is approximately 0.030 acre in size. It is located underneath the Inland Steel Opas crossing over SR 912. Wetland 2 is located to the southwest of SR 912 (Appendix B, page 12, Section B). Wetland 2 had high species diversity, did not have the presence of invasive species, and is located within INDOT's maintained right-of-way. Because of this, it was classified as an average-quality wetland. Wetland 2 is predominantly contained within a depression and is likely hydrologically isolated. Therefore, Wetland 2 is likely a water of the State. INDOT acknowledges that Wetland 2 is likely a water of the State. However, INDOT is requesting USACE take jurisdiction over it.

The area associated with Data Point 2 IN (DP-2-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Juncus effusus* (lamp rush, OBL, 20%), *Cyperus echinatus* (globe flat sedge, FAC, 20%), *Agrostis gigantea* (black bent, FACW, 20%), and *Eleocharis acicularis* (needle spike-rush, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the dominance test and the prevalence index. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark

Surface (F6) indicators. Two primary indicators (High Water Table [A2] and Saturation [A3]) and one secondary indicator (FAC-Neutral Test [D5]) of wetland hydrology were observed. Since all three wetland criteria were met at DP-2-IN, this area was identified as Wetland 2.

Data Point 2 OUT (DP-2-OUT) was taken up-slope and southwest from DP-2-IN. The herbaceous stratum was dominated *Schedonorus arundinaceus* (tall false rye grass, FACU, 45%) and *Poa pratensis* (Kentucky blue grass, FACU, 25%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it passed the Redox Dark Surface (F6) indicator. No indicators of wetland hydrology were observed. Since only one of the three wetland criteria was met at DP-2-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 2, which was determined based on changes in vegetation and topography.

Wetland 3

Outside study area

Wetland 3 is an emergent wetland that is approximately 0.484 acre in size within the study area. It is located between westbound SR 912 and the railroad tracks to the northeast (Appendix B, pages 14 to 16, Section B). Wetland 3 had low species diversity, is located within INDOT's maintained right-of-way, and was dominated by invasive species. Because of this, it was classified as a poor-quality wetland. Wetland 3 is likely hydrologically isolated. Therefore, Wetland 3 is likely a water of the State. INDOT acknowledges that Wetland 3 is likely a water of the State. However, INDOT is requesting USACE take jurisdiction over it.

The area associated with Data Point 3 IN (DP-3-IN) was evaluated because it exhibited hydrophytic vegetation. The herbaceous stratum was dominated by *Schoenoplectus americanus* (chairmaker's club-rush, OBL, 50%), *Typha sp.* (cattail, OBL, 20%), and *Phragmites australis* (common reed, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and prevalence index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of wetland hydrology were observed. Since all three wetland criteria were met at DP-3-IN, this area was identified as Wetland 3.

Data Point 3 OUT (DP-3-OUT) was taken up-slope and northwest from DP-3-IN. The herbaceous stratum was dominated by *Poa pratensis* (Kentucky blue grass, FACU, 70%). This point did not meet the hydrophytic vegetation criterion. The soil profile did not meet the hydric soil criterion. No indicators of wetland hydrology were observed. Since none of the three wetland criteria were met at DP-3-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 3, which was determined based on changes in vegetation and topography.

Wetland 4

Outside study area

Wetland 4 is an emergent wetland that is approximately 0.006 acre in size. It is located between the Aldis Street flyover on-ramp to eastbound SR 912 (Appendix B, page 16, Section B). Wetland 4 had low species diversity, is located within INDOT's maintained right-of-way, and was dominated by invasive species. Because of this, it was classified as a poor-quality wetland. Wetland 4 is likely hydrologically isolated. Therefore, Wetland 4 is likely a water of the State. INDOT acknowledges that Wetland 4 is likely a water of the State. However, INDOT is requesting USACE take jurisdiction over it.

The area associated with Data Point 4 IN (DP-4-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Fraxinus pennsylvanica* (green ash, FACW, 5%). The herbaceous stratum was dominated by *Schoenoplectus americanus* (chairmaker's club-rush, OBL, 30%), *Juncus effusus* (lamp rush, OBL, 25%), and *Lythrum salicaria* (purple loosestrife, OBL, 20%). This point met the hydrophytic vegetation criterion because it passed the rapid test, dominance test, and the prevalence index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of hydrology were observed. Since all three wetland criteria were met at DP-4-IN, this area was identified as Wetland 4.

Data Point 4 OUT (DP-4-OUT) was taken up-slope and east from DP-4-IN. The herbaceous stratum was dominated by *Bromus arvensis* (field brome, FACU, 45%) and *Lythrum salicaria* (purple loosestrife, OBL, 20%), and *Poa pratensis*

(Kentucky blue grass, FACU, 20%). This point did not meet the hydrophytic vegetation criterion. The soil profile did not meet the hydric soil criterion. Only one secondary indicator (Geomorphic Position [D2]) of hydrology was observed. Since none of the three wetland criteria were met at DP-4-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 4, which was determined based on changes in vegetation and topography.

Wetland 5

Outside study area

Wetland 5 is an emergent wetland that is approximately 0.037 acre in size within the study area. It is located underneath the southbound SR 912 flyover to U.S. 12, between northbound SR 912 and Cline Avenue (Appendix B, page 22, Section D). Wetland 5 had high species diversity, is located within INDOT's maintained right-of-way, but was dominated by invasive species. Because of this, it was classified as a poor-quality wetland. Wetland 5 is likely hydrologically isolated. Therefore, Wetland 5 is likely a water of the State. INDOT acknowledges that Wetland 5 is likely a water of the State. However, INDOT is requesting USACE take jurisdiction over it.

The area associated with Data Point 5 IN (DP-5-IN) was evaluated because it exhibited hydrophytic vegetation. The sapling/shrub stratum was dominated by *Populus deltoides* (eastern cottonwood, FAC, 15%). The herbaceous stratum was dominated by eastern cottonwood, FAC, 20%, *Phragmites australis* (common reed, FACW, 20%), and *Eleocharis acicularis* (needle spike-rush, OBL, 15%). This point met the hydrophytic vegetation criterion because it passed the dominance test and the prevalence index. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) of wetland hydrology were observed. Since all three wetland criteria were met at DP-5-IN, this area was identified as Wetland 5.

Data Point 5 OUT (DP-5-OUT) was taken up-slope and southwest from DP-5-IN. The herbaceous stratum was dominated by *Bromus arvensis* (field brome, FACU, 85%). This point did not meet the hydrophytic vegetation criterion. The soil profile did not meet the hydric soil criterion. No indicators of wetland hydrology were observed. Since none of the three wetland criteria were met at DP-5-OUT, this point was determined to be upland. This data point helped establish the boundary of Wetland 5, which was determined based on changes in vegetation and topography.

NON-JURISDICTIONAL FEATURES:

Drainage Features

One roadside ditch (RSD), totaling approximately 879 linear feet within the study area, was investigated for potential water resources. The RSD lacked either an ordinary high-water mark or wetland characteristics. The RSD lacked hydrophytic vegetation and hydrology indicators. Hydric soil indicators were not investigated due to the lack of the other two indicators. Therefore, it was considered to be a non-jurisdictional feature. Immediately adjacent to but outside of the study area, several additional RSDs were present. However, these were not documented due to their location outside of the study area.

RSD 1 is located south of the Michigan Avenue entrance to eastbound SR 912 and runs northwest to southeast adjacent to the roadway for approximately 879 linear feet.

Additional Data Points

Two additional data points were investigated within the study area due to the location or presence of hydrophytic vegetation. The sample area surrounding the data point was further investigated to confirm or deny the presence of hydrophytic vegetation, hydric soils, and/or wetland hydrology.

Upland Data Point 1 (UPL-1) was taken within the emergent in-field of the SR 912 westbound off-ramp to Michigan Avenue (Appendix B, page 9, Section B). The herbaceous stratum was dominated by *Phragmites australis* (common reed, FACW, 50%) and *Solidago altissima* (tall goldenrod, FACU, 35%). This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11), Depleted Matrix (F3),

and Redox Dark Surface (F6) indicators. No indicators of wetland hydrology were observed. Since only one of the three wetland criteria was met at UPL-1, this point was determined to be upland.

Upland Data Point 2 (UPL-2) was taken along the emergent roadside to the south of eastbound SR 912 (Appendix B, page 14, Section B). The herbaceous stratum was dominated by *Schedonorus arundinaceus* (tall false rye grass, FACU, 85%). This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. No indicators of wetland hydrology were observed. Since none of the three wetland criteria were met at UPL-2, this point was determined to be upland.

IV. CONCLUSIONS

Based on the field investigations, the study area has features that are likely waters of the State. A total of five likely jurisdictional wetlands totaling 0.599 acre were identified within the study area. INDOT acknowledges that all five identified wetlands are likely waters of the State. However, INDOT is requesting USACE take jurisdiction over them.

All jurisdictional waters of the U.S. are under the regulatory authority of USACE under Section 404 of the Clean Water Act. Every effort should be taken to avoid and minimize impacts to the resources outlined in this report. If impacts are necessary, then mitigation may be required. Impacts must be minimized before mitigation can be considered. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by USACE and IDEM. This report is our best judgement based on the guidelines set forth by USACE.

A Preliminary Jurisdictional Determination Form is attached to the end of this report (Appendix E, pages 1 to 4).

V. REFERENCES

Cowardin, L.M, V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States.* US Department of the Interior, Fish and Wildlife Service, Washington DC.

United States Army Corps of Engineers. 2020. National Wetland Plant List, version 3.5. *http://wetland-plants.usace.army.mil/;* United States Army Corps of Engineers. Engineer Research and Development Center. Cold Regions Research and Engineering Laboratory, Hanover, NH.

United States Army Corps of Engineers. 2012. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0).* United States Army Engineer Research and Development Center, Washington DC.

United States Army Corps of Engineers, Waterway Experiment Station, Environmental Laboratory. 1987. *Wetlands Delineation Manual* (as amended). Wetlands Research Program Technical Report Y-87-1.

United States Department of Agriculture, Soil Conservation Service. 1972. Soil Survey of Lake County, Indiana.

VI. ACKNOWLEDGEMENTS

This report 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, USACE Jurisdictional Determination Form Instructional Guidebook, and other appropriate agency guidelines.

1/18/2022

Benjamin Blocher
Environmental Planner, PWS
Parsons

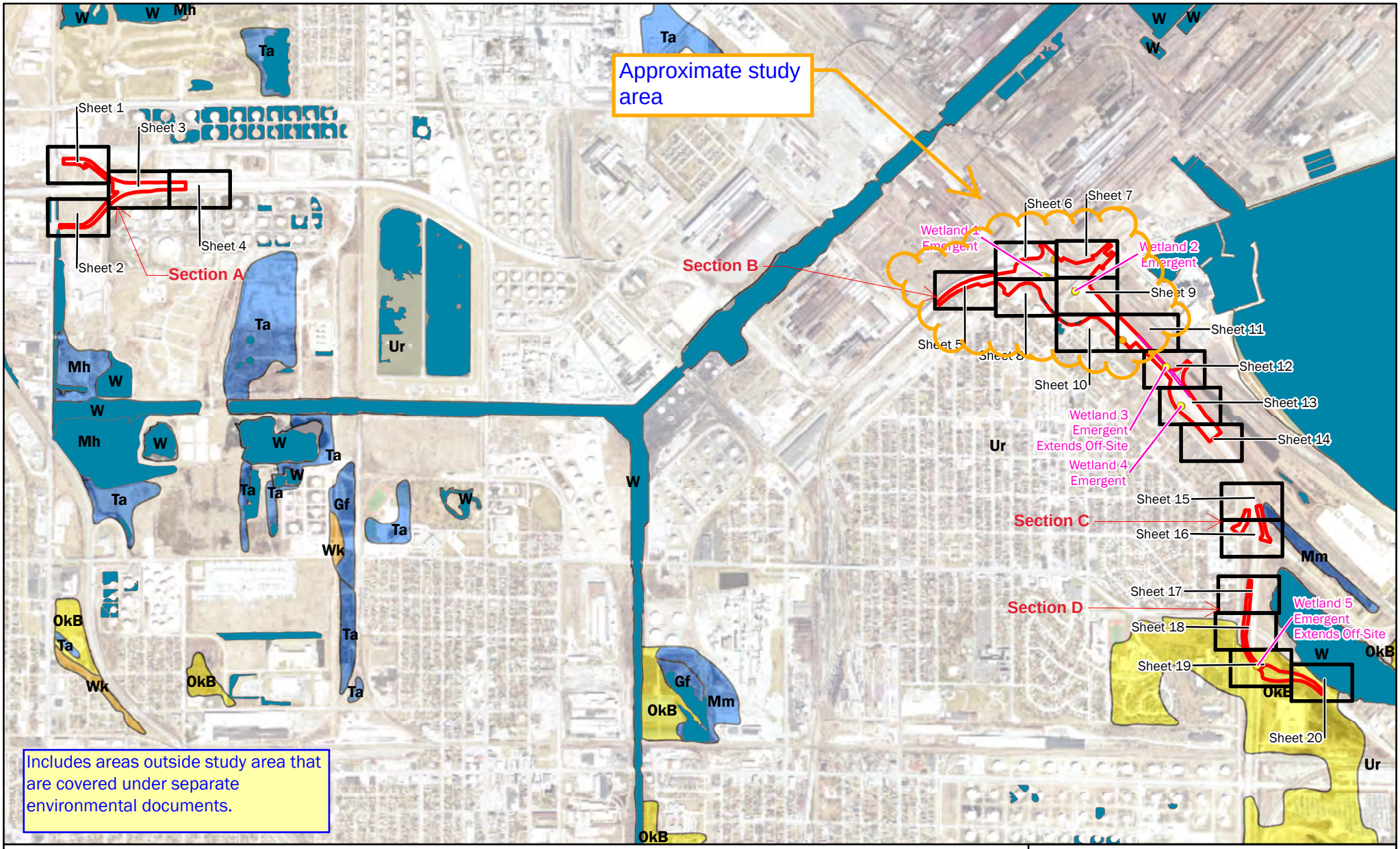
Table 1: Mapped Soil Units within the Study Area

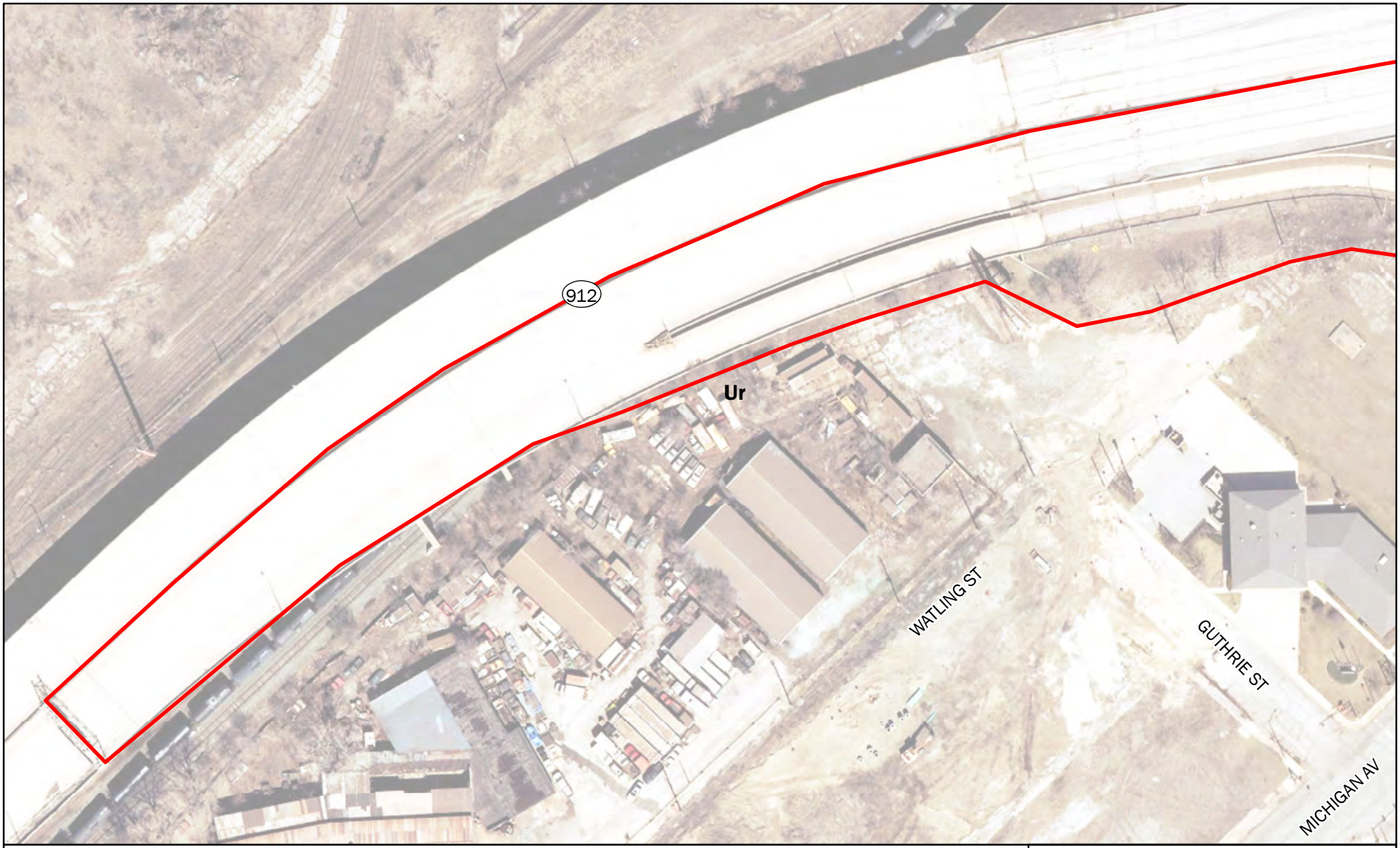
Soil Name	Soil Unit	Classification
Oakville-Adrian complex, 0 to 6 percent slopes	OkB	Partially Hydric (33-66%)
Urban land	Ur	Not Hydric (0%)

Table 2: Wetland Summary Table

Name	Photograph Number	Latitude/ Longitude	Wetland Type (Palustrine)	Area (acre)	Quality	Likely Water of the U.S. (Y/N)*	Isolated (Y/N) and Class I, II or III	Section	
Wetland 1	81-83, 155	41.65312/ -87.44551	Emergent	0.042	Poor	Y*	N	Section B	
Wetland 2	161, 163-165	41.65242/ -87.44341	Emergent	0.030	Average	Y*	N	Section B	
Wetland 3	211, 214, 215, 218, 220-222, 234, 235	41.64859/ -87.43740	Emergent	0.484	Poor	Y*	N	Section B	Outside study area
Wetland 4	240-242, 244, 246	41.64691/ -87.43661	Emergent	0.006	Poor	Y*	N	Section B	Outside study area
Wetland 5	300-302, 304, 305	41.63450/ -87.43166	Emergent	0.037	Poor	Y*	N	Section D	Outside study area
Totals				0.599					

*INDOT acknowledges that this wetland is likely a water of the State. However, INDOT is requesting the USACE take jurisdiction over it.


Approximate study area
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Section A
Section B
Section C
Section D
Sheet 5
Sheet 6
Sheet 7
Sheet 8
Sheet 9
Sheet 10
Sheet 11
Sheet 12
Sheet 13
Sheet 14
Sheet 15
Sheet 16
Sheet 17
Sheet 18
Sheet 19
Sheet 20
Wetland 1 Emergent
Wetland 2 Emergent
Wetland 3 Emergent Extends Off-Site
Wetland 4 Emergent
Wetland 5 Emergent Extends Off-Site
Includes areas outside study area that are covered under separate environmental documents.
Study Area
Index Sheet
Delineated Wetland
Data Point (IN)
Data Point (OUT)
Roadside Ditch
NHD Flowlines
NHD Waterbody
Hydric (100%)
Predominantly Hydric (66-99%)
Partially Hydric (33-65%)
Predominantly Non-Hydric (1-32%)
Not Hydric (0%)
0 1,000 2,000
Feet
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
SR 912 and Michigan Avenue Bridges Project
Lake County, Indiana
Field Identified Resources/NRCS Soils Index
Des. 1800067 (Lead)
Date: 1/5/2022
PARSONS
Created by: KDV
Des. 1800067 is no longer associated with this project. The new lead Des. is 1703011.



Study Area
Delineated Wetland
Data Point (IN)
Data Point (OUT)
Roadside Ditch
Feature Extends Off-Site
NHD Flowlines
NHD Waterbody
Hydric (100%)
Predominantly Hydric (66-99%)
Partially Hydric (33-65%)
Predominantly Non-Hydric (1-32%)
Not Hydric (0%)

0 50 100
Feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

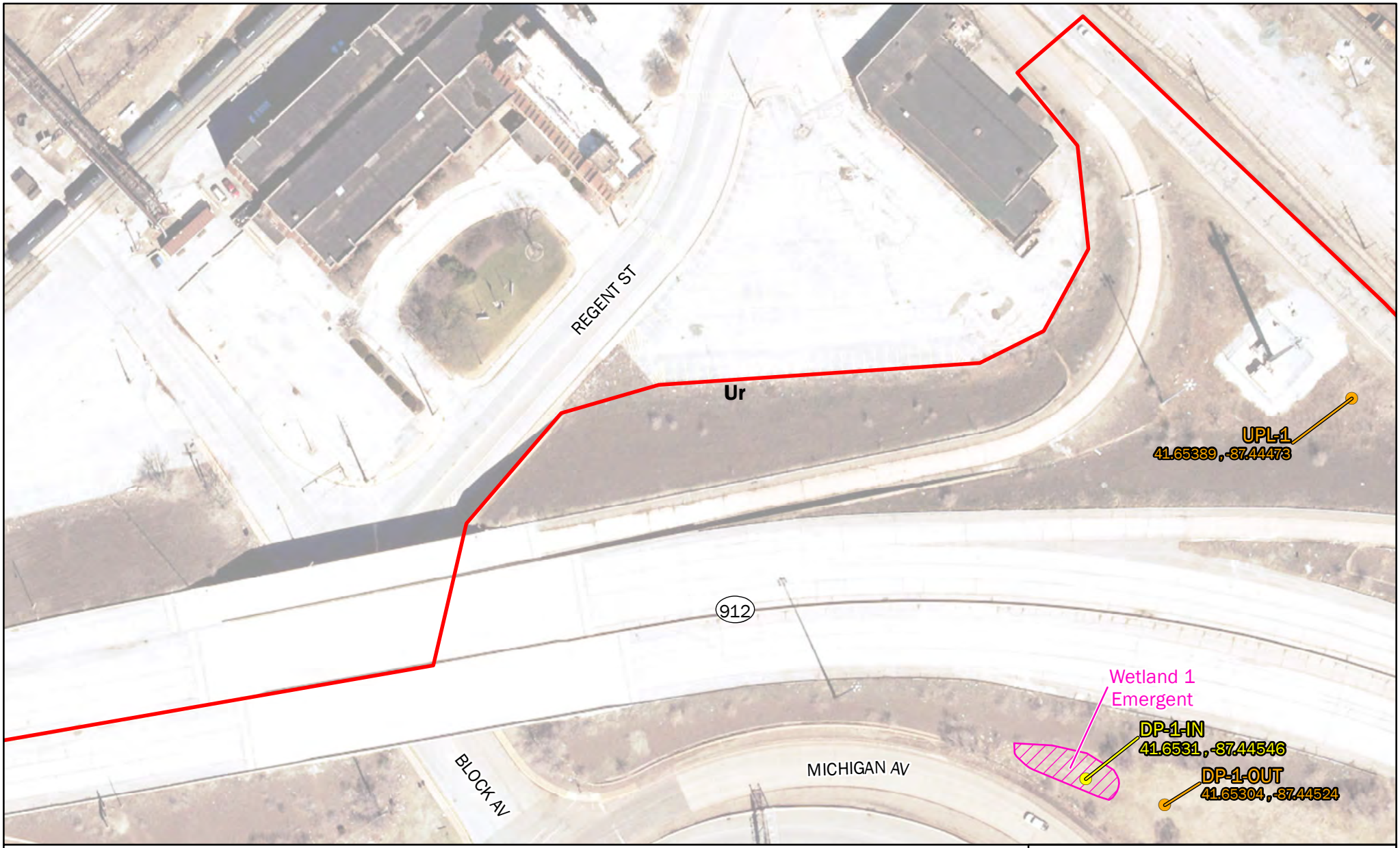
SR 912 and Michigan Avenue Bridges Project
Lake County, Indiana
Field Identified Resources/NRCS Soils

Des. 1800067 (Lead)
Date: 1/5/2022

PARSONS

Created by: KDV

Sheet 5 of 20
Section B



Study Area
Delineated Wetland
Data Point (IN)
Data Point (OUT)
Roadside Ditch
Feature Extends Off-Site
NHD Flowlines
NHD Waterbody
Hydric (100%)
Predominantly Hydric (66-99%)
Partially Hydric (33-65%)
Predominantly Non-Hydric (1-32%)
Not Hydric (0%)

0 50 100
Feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

SR 912 and Michigan Avenue
Bridges Project
Lake County, Indiana
Field Identified Resources/NRCS Soils

Des. 1800067 (Lead)
Date: 1/5/2022

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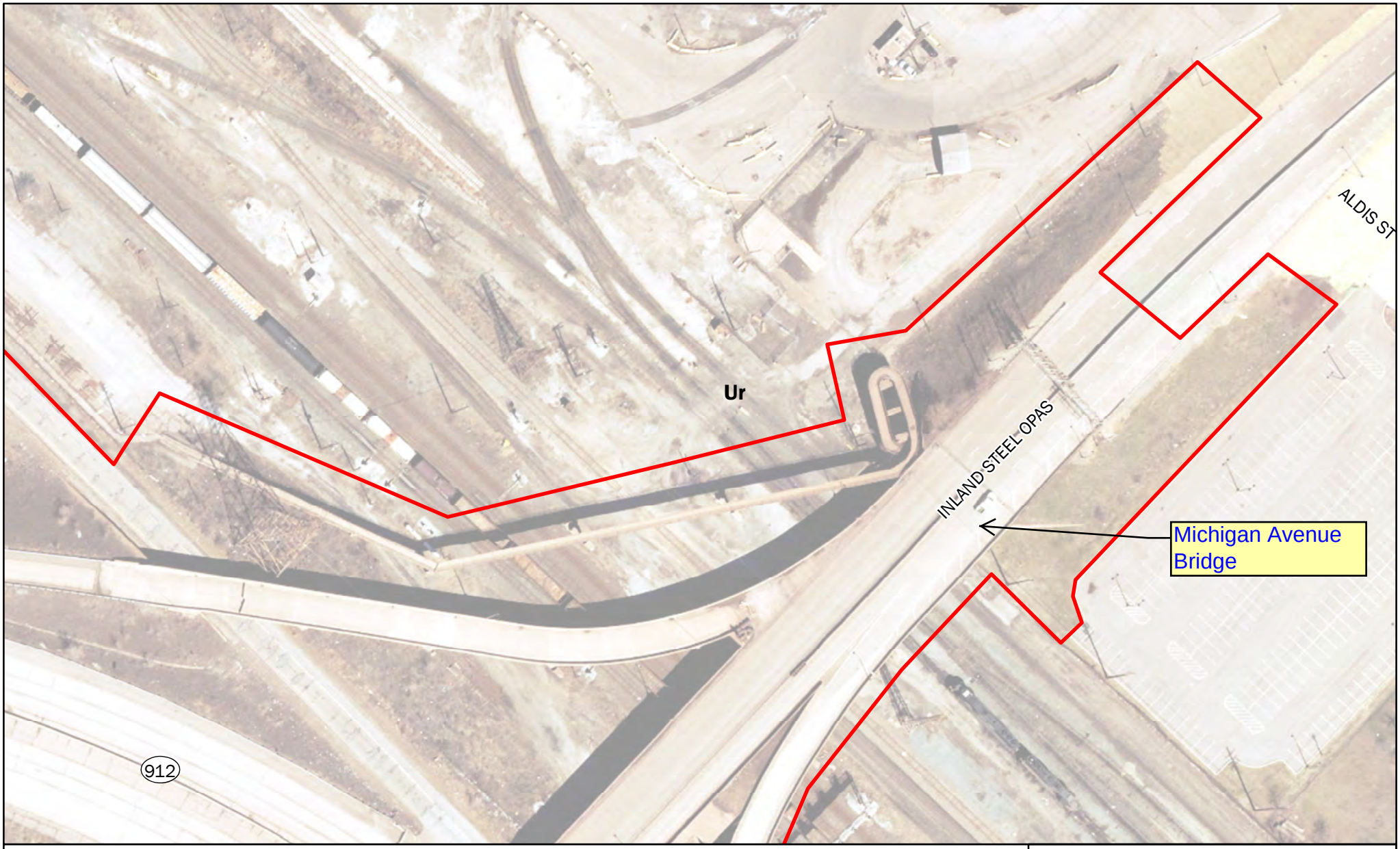
Created by: KDV

Sheet 6 of 20
Section B



Study Area
Delineated Wetland
Data Point (IN)
Data Point (OUT)
Roadside Ditch
Feature Extends Off-Site
NHD Flowlines
NHD Waterbody
Hydric (100%)
Predominantly Hydric (66-99%)
Partially Hydric (33-65%)
Predominantly Non-Hydric (1-32%)
Not Hydric (0%)

0 50 100
Feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

SR 912 and Michigan Avenue Bridges Project
Lake County, Indiana
Field Identified Resources/NRCS Soils

Des. 1800067 (Lead)
Date: 1/5/2022

PARSONS

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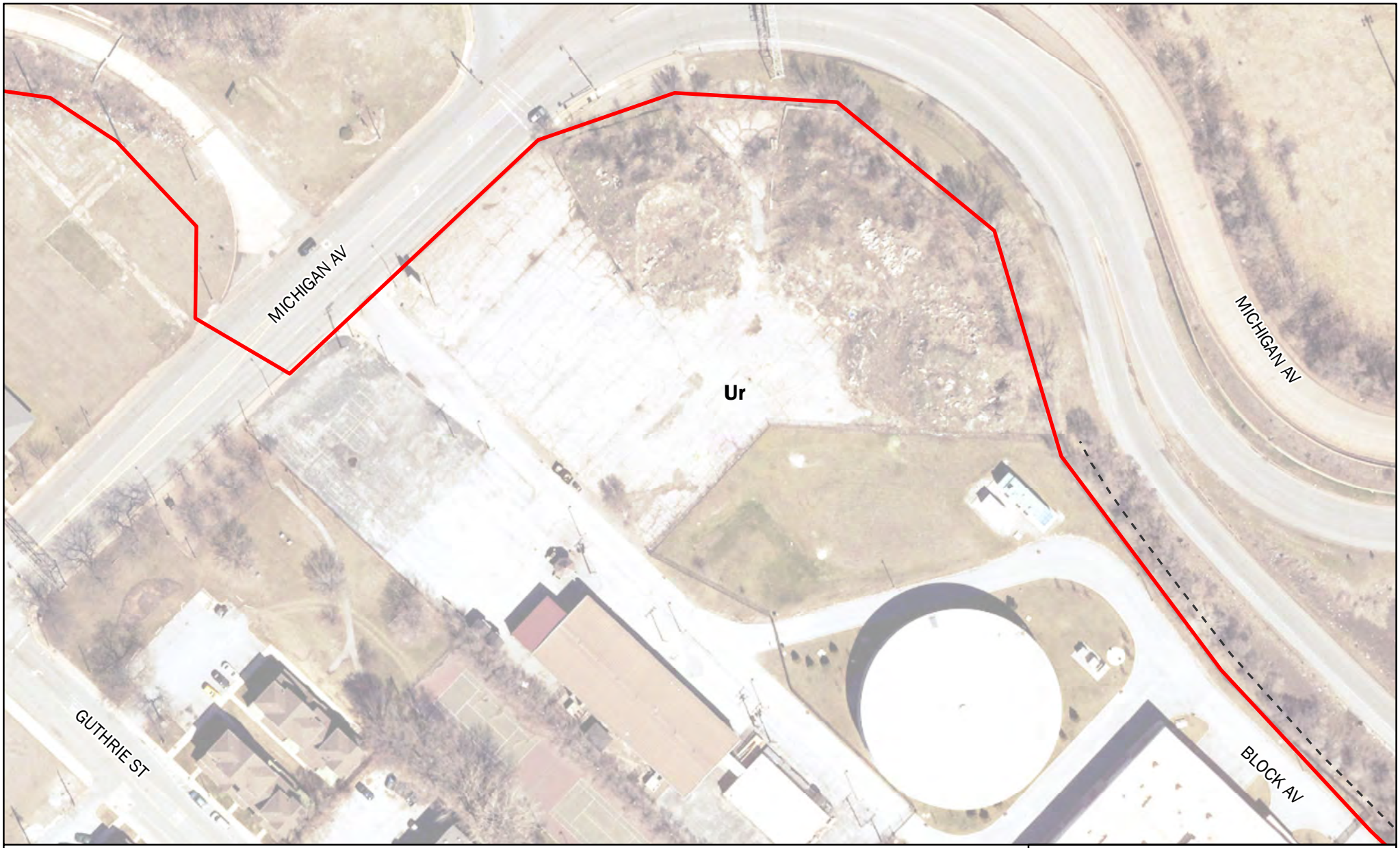
Section B



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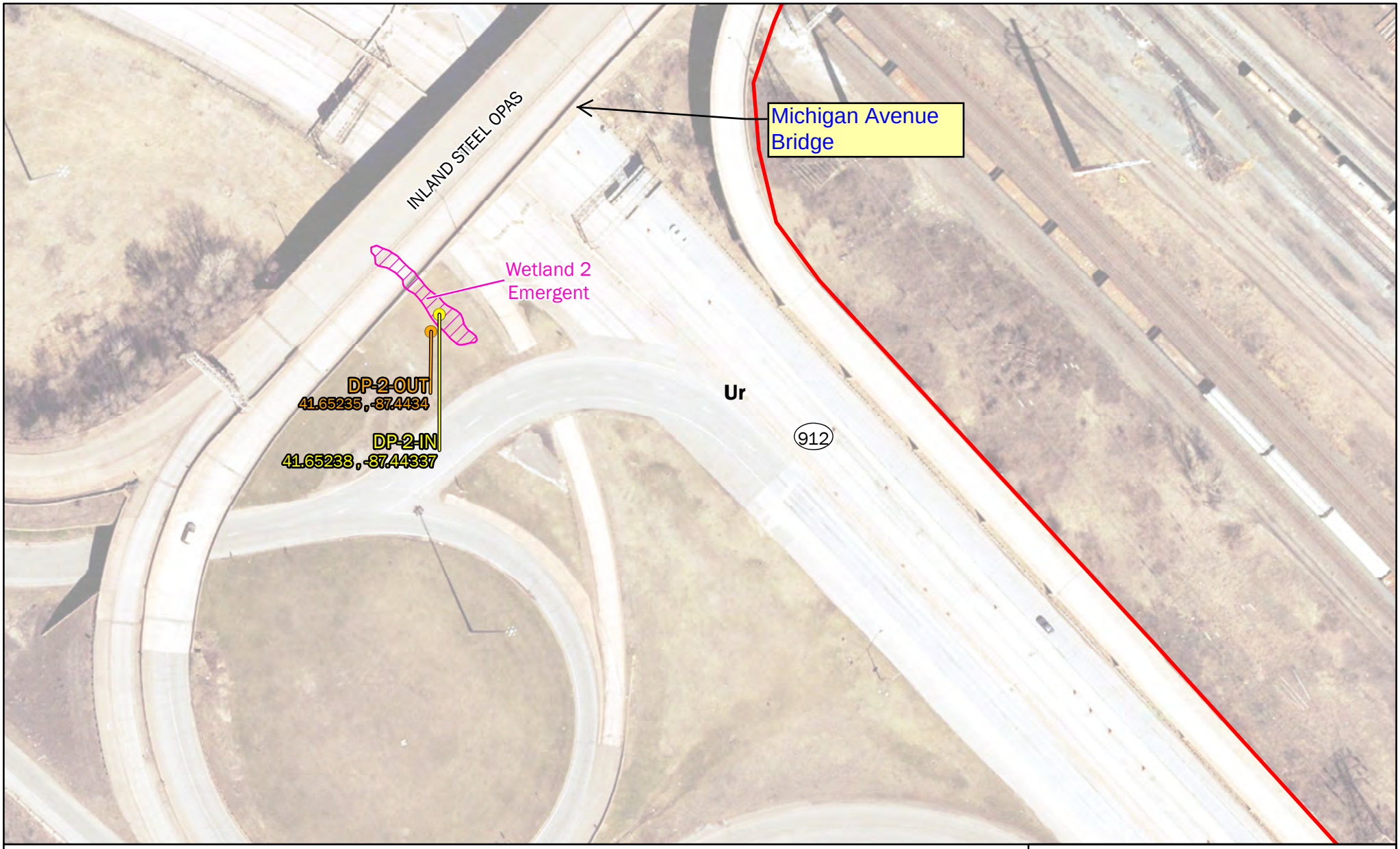
Section B



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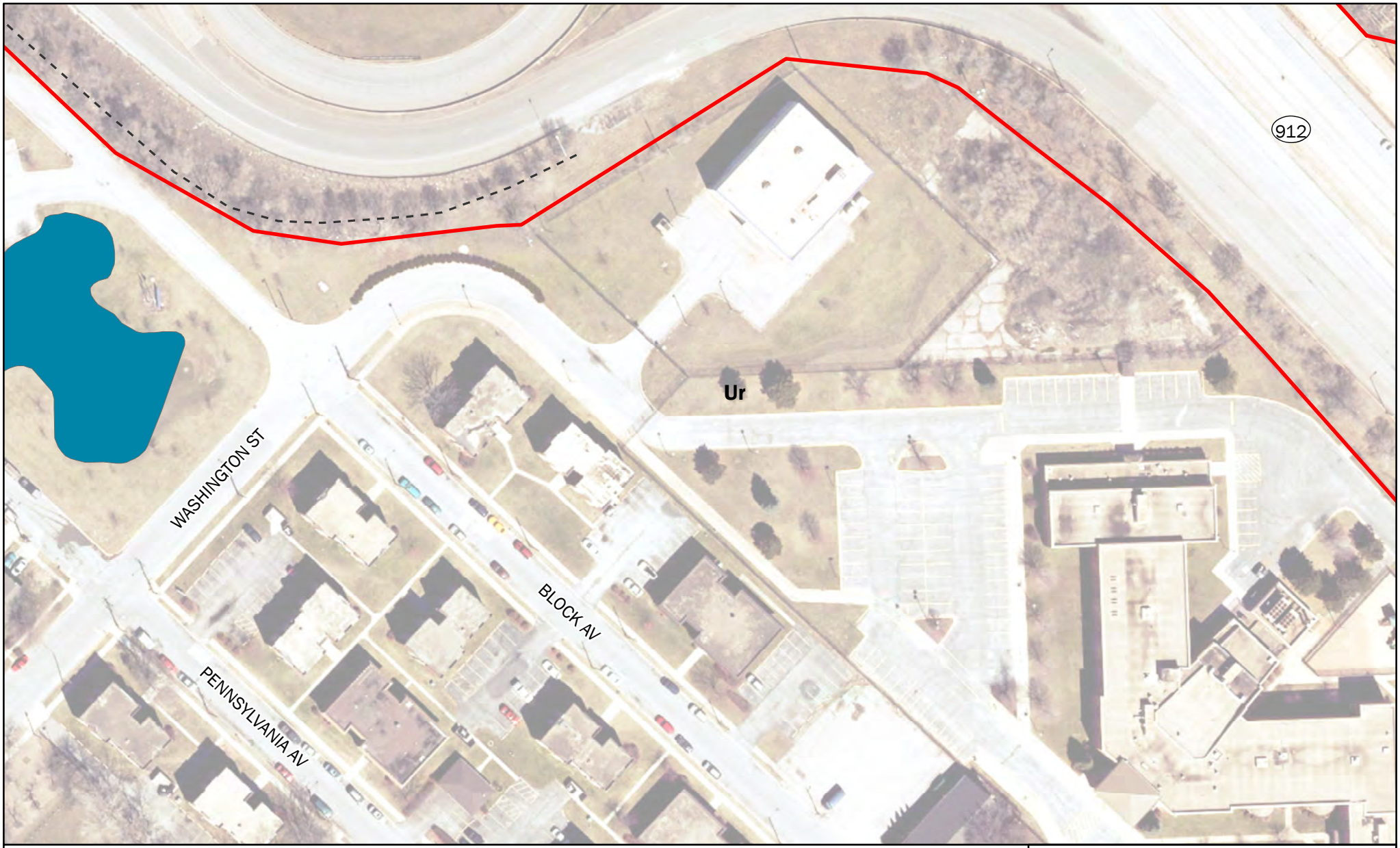

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Bridges Project
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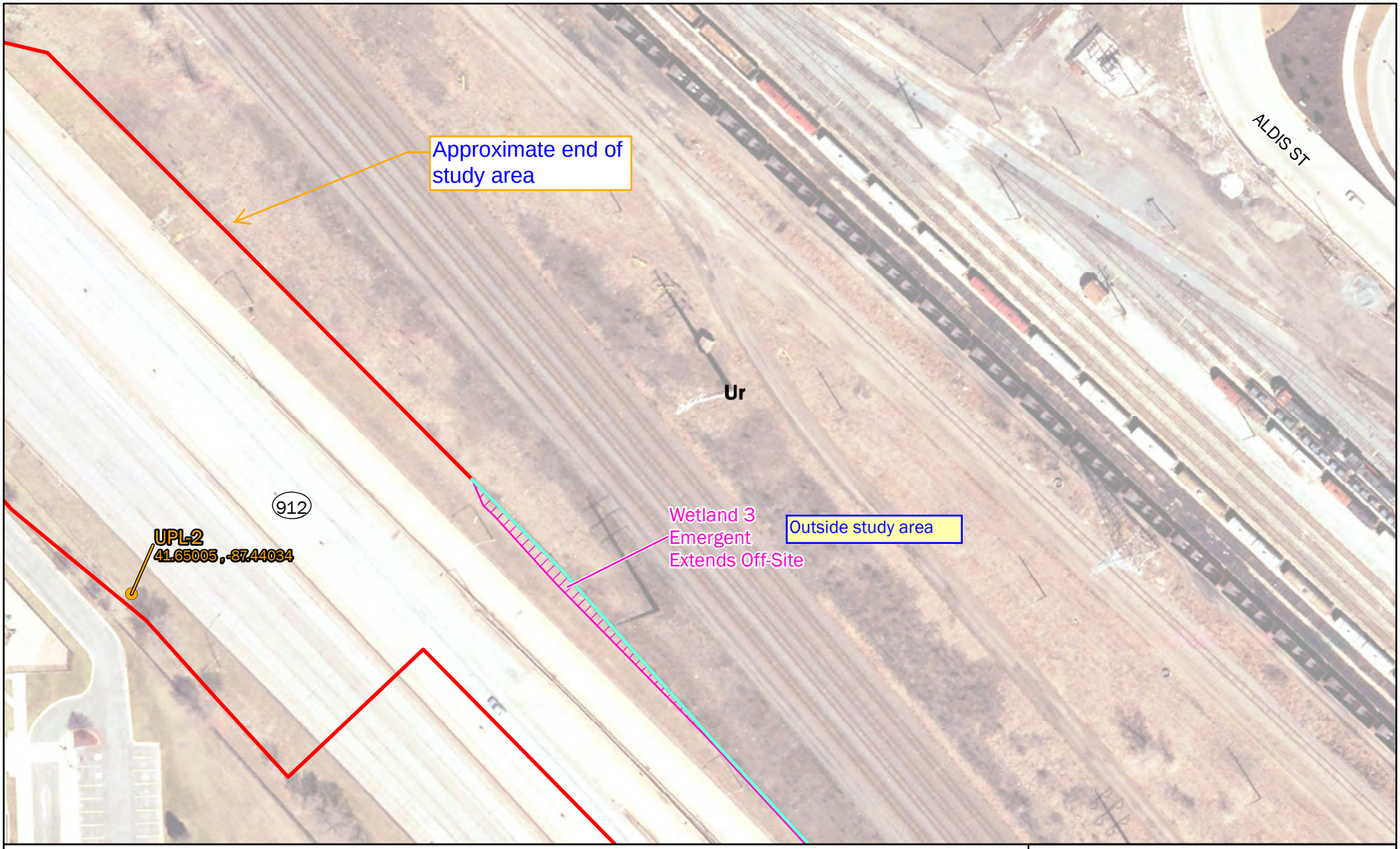
Section B



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Appendix E - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

FORM BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: January 18, 2022

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Benjamin K. Blocher (Parsons), 101 West Ohio Street, Suite 2121, Indianapolis, IN 46204

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Des. 1800067 is no longer associated with this project. The new lead Des. is 1703011.

Includes areas that are outside the project study area and covered under separate environmental documents.

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA) proposes interchange improvements (Lead Des. 1800067) at the State Road (SR) 912 and Michigan Avenue interchange and pavement reconstruction of various ramps providing connections to SR 912 in the vicinity of the interchange. The project is within North Township, and on the Whiting, IN USGS Topographic Quadrangle, in Sections 15, 22, 23, 26, and 27 of Township 37 North, Range 9 West as well as Section 18 and 19 of Township 37 North, Range 10 West. The project is located in a highly urban area of East Chicago, Lake County, Indiana (Appendix B, page 1). It is surrounded by industrial, commercial, and residential properties. There are multiple railroad (RR) right-of-way (ROW) corridors to the north of INDOT ROW.

For the purposes of this report, there are four study area sections and they are as follows: Section A begins at the Calumet Avenue ramp to SR 912 and includes the SR 912 exit ramp to Calumet Avenue and extends east 0.43 mile along SR 912; Section B begins 0.28 mile west of SR 912 over Block Avenue, includes the Inland Steel Opas interchange and the Aldis Street interchange, and extends approximately 0.24 mile east of the Aldis Street bridge over SR 912; Section C includes 0.09 mile of the eastbound SR 912 exit ramp to Guthrie Street and 0.12 mile of the entrance ramp from E 140th Street to westbound SR 912; Section D begins at the ramp from eastbound SR 912 to 0.23 mile east of the intersection of Cline Avenue and Industrial Highway.

The preferred alternative for interchange improvements (Section B) would reconfigure the existing interchange into a roundabout, which would eliminate the Ramp B over B Bridge (Structure No. 912-45-06596 B; NBI No. 33035). This alternative includes reconstruction of bridges: the seven-span Michigan Avenue bridge over SR 912, ramps; and three railroads: Norfolk Southern, Wisconsin Central, and Indiana Harbor Belt Railroads. The new roundabout is proposed for the southern portion of the interchange. Multiple ramps will be rehabilitated. The closed pedestrian bridge will be removed. Ramp 4A access from eastbound SR 912 to Michigan Avenue will be closed to traffic with the installation of a temporary traffic barrier wall and the existing concrete pavement will be removed. Replacement of overhead sign structures and installation of a new roundabout lighting system are also anticipated. Additionally, drainage issues south of SR 912 would be addressed with new inlet structures and curb cuts.

The preferred alternative for pavement reconstruction of associated ramps (Sections A, C, and D) will reconstruct the concrete pavement of various ramps and sections of roadways. The typical section of SR 912 and ramps will remain the same. Existing SR 912 has four, 12-foot-wide travel lanes, two lanes in each direction with inside and outside shoulders of varying widths. The ramps have one, 16-foot-wide travel lane with inside and outside shoulders of varying widths. Full depth pavement reconstruction would occur.

(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Lake City: East Chicago

Center coordinates of site (lat/long in degree decimal format):

Lat.: 41.65222 N Long.: 87.44361 W

Universal Transverse Mercator: NAD 1983, 16T 463061.87 m E, 4611258.82 m N

Name of nearest waterbody: Lake Michigan

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 (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland 1	41.65312 N	87.44551 W	0.042 ac.	Wetland	Section 404
Wetland 2	41.65242 N	87.44341 W	0.030 ac.	Wetland	Section 404
Wetland 3	41.64859 N	87.43740 W	0.484 ac.	Wetland	Section 404
Wetland 4	41.64691 N	87.43661 W	0.006 ac.	Wetland	Section 404
Wetland 5	41.63450 N	87.43166 W	0.037 ac.	Wetland	Section 404

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:

- ☒ Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: All attached maps prepared by Parsons.
- ☐ 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: _____.
- ☐ U.S. Geological Survey Hydrologic Atlas: _____.
  - ☐ USGS NHD data.
  - ☐ USGS 8 and 12 digit HUC maps.
- ☒ U.S. Geological Survey map(s). Cite scale & quad name: 7.5-min. Whiting Quadrangle.
- ☒ Natural Resources Conservation Service Soil Survey. Citation: Lake County, 1972.
- ☒ National wetlands inventory map(s). Cite name: USFWS NWI GIS Database.
- ☐ State/local wetland inventory map(s): _____.
- ☐ FEMA/FIRM maps: _____.
- ☐ 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Orthos 2018.
  or ☒ Other (Name & Date): Site Photographs (July 14 to 16, and October 5, 2021).
- ☐ 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.

_____	Deny K Black 1/18/2022
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.