

Waters of the U.S. Report

I-65/I-70 North Split Interchange Reconstruction

Marion County, Indiana

Designation No. 1592385 (Lead), Contract No. 36910



Prepared for the Indiana Department of Transportation

October 27, 2017

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WATERS OF THE U.S. REPORT
I-65/I-70 North Split Interchange Reconstruction
Marion County, Indiana
INDOT Designation (Des.) No. 1592385 (Lead), Contract No. 36910
Prepared By: Gregory R. Moushon, Senior Environmental Planner
October 27, 2017

I: Project Information**Fieldwork Dates:**

Fieldwork for this report was conducted on October 29-30, 2015 and April 25-27, May 24, and October 3-5, 2016.

Contributors:

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Project Location:

Indianapolis West Quadrangle
Sections 31 and 36 of Township 16 North, Range 3 East, &
Sections 1, 12, and 13 of Township 15 North, Range 3 East
Marion County, Indiana

Project Description:

The Indiana Department of Transportation (INDOT) is planning an Interchange Reconstruction Project at the I-65/I-70 interchange northeast of downtown Indianapolis, referred to as the North Split, which includes bridge rehabilitation/replacement, pavement reconstruction throughout the project area, pavement widening for an added travel lane, and traffic signal modifications in Marion County, Indiana. Des. No. 1592385 is the Lead Des. No. for this project (Contract No. 36910), which includes multiple Des. Nos. associated with individual bridge projects as part of this project. Refer to Table 2, page 17 of this report for the Bridge Summary Table.

As of October 2016, when the field investigations were concluded for this report, the scope of the project included reconstructing the North Split, rehabilitating or replacing 28 bridges, resurfacing existing pavement, and widening the roadway and bridges to accommodate an additional lane in the future. Two of the 28 bridges were located within the I-65/I-70 interchange southeast of downtown Indianapolis, referred to as the South Split. The limits of the study area for this Waters of the U.S. Report match the original scope of the project, and include the existing and apparent right-of-way from Pennsylvania Street to the west along I-65 (Mile 113.0), the entire North Split interchange, Commerce Street to the east along I-70 (Mile 83.6), and Washington Street to the south along I-65/I-70 (Mile 111.0). The two additional areas associated with bridges within the South Split interchange at Morris Street (Mile 80.8 and Mile 110.2) were also included. The study area was approximately 1.4 miles in length west to east and 1.5 miles south to north.

As of the time of this report (October 2017), the scope of the project has increased, and the project limits have been expanded. Additional investigations will be required for areas outside of the study area reviewed for this report. The project limits now include the North Split Interchange south along I-65/I-70 to the Washington Street interchange in downtown Indianapolis; including the portion of I-65 west of the North Split interchange to approximately Meridian Street and the portion of I-70 east of the North Split interchange to approximately the bridge over Valley Avenue (west of the Keystone Avenue/Rural Street interchange) in Marion County, Indiana. The two bridge locations in the South Split are still included in the scope of work. The Project Location Map on page 18 shows the original study area and the additional project area as of the date of this report. Specifically, this project is located within Center Township, Indianapolis United States Geological Survey (USGS) Topographic Quadrangle, in Section 36, Township 16N, Range 3E; Sections 1 and 12, Township 15N, Range 3E; and Section 31, Township 16N, Range 4E.

The revised project scope includes reconstruction of the North Split interchange, which now includes reconfiguration of the I-65 exit/entrance ramps along 11th and 12th Streets. Thirty-two bridges within the project area will now be rehabilitated or replaced. The additional four bridges are noted in red at the end of the Bridge Summary Table (page 17). Pavement throughout the project area will now be reconstructed instead of resurfaced. The pavement and bridges will be widened, and an additional through lane will now be added as part of the project. Per the findings in INDOT's Project Intent Report,

an additional mainline through lane within the interchange is required to meet the operational needs of the design year (2040); and, traffic signal modifications along I-65 westbound at 12th Street and Pennsylvania Street; I-65 westbound at 12th Street and Illinois Street; I-65 eastbound at 11th Street and Delaware Street; I-65/I-70 at Pine Street and Michigan Street; and I-65/I-70 at Ohio Street and College Avenue.

There are two to three travel lanes for I-70 eastbound, two travel lanes for I-70 westbound, and two travel lanes for I-65 north and southbound in the North Split interchange. There are two travel lanes in all through-directions of the South Split interchange. There are three travel lanes in both directions for I-65 and I-70 between the North and South Split. East of the North Split, there are three travel lanes in each direction for I-70. West of the North Split, there are three travel lanes in both directions on I-65. Much of the roadway and ramps are elevated above the ground surface.

The project right-of-way requirements have not yet been determined. The Maintenance of Traffic (MOT) plan is currently under development.

II: Office Evaluation

Methodology:

The study area was established for desktop and field review. This area included all the existing and apparent right-of-way from the North Split to Washington Street and areas around the affected bridges in the South Split (page 17). 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 field follow-up. National Wetlands Inventory (NWI) mapping, floodplain mapping, United States Geological Survey (USGS) topographic mapping, and mapped soil units were also reviewed. Any noted items were flagged for field review.

Aerial Photography:

During review of current and historical aerial photography, numerous areas were identified within the study area that displayed potential wetland signatures associated with ponded water, darkened soils, and/or shifts in vegetation (pages 38 to 52). As previously stated, these areas were marked and investigated during field reconnaissance.

USGS Mapping:

During review of USGS 7.5-minute series topographic mapping, no streams were identified within the study area (pages 18 to 32). Pogues Run is noted as a perennial (solid blue-line) stream east of the study area, before becoming encapsulated within a double box culvert for two miles. Pogues Run crosses under I-65 (within the study area) near Ohio Street. Pleasant Run is noted as a perennial (solid blue-line) stream southeast of the study area.

NWI and Floodplain Mapping:

During review of the NWI dataset, no NWI mapped wetland polygons, wetland lines, or streams were identified within the study area (pages 33 to 35). Two streams, Pogues Run and Pleasant Run, and associated NWI lines-riverine, R3UBHs, are noted east and southeast, respectively, of the study area and are shown on the NWI map set included in this report. None of the project area lies within a floodplain. The closest floodplain is associated with Pogues Run located approximately 500 feet east of the study area. Pleasant Run is located approximately 2,500 feet southeast of the study area.

Mapped Soil Units:

The Natural Resources Conservation Service (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 Marion County, Indiana, most of the study area is not hydric soils. Nearly all of the North Split is classified as not hydric soils (Urban land-Fox Complex (UfA)). A small portion of I-70 near Commerce Street is classified as predominantly non-hydric soils (Urban land-Westland Complex (UW)), and a smaller portion is classified as not hydric soils (Urban land-Miami Complex (UmC)). A small portion of I-65/I-70 near Washington Street is classified as not hydric soils (Urban land-Genesee Complex (Ug)), and a smaller portion is classified as not hydric soils (Urban land-Miami Complex (UmC)). The soils in the South Split are classified as not hydric soils (Urban land-Miami Complex (UmB)). SSURGO mapping is provided for reference (pages 33 to 35).

Soil Name	Hydric Classification
Urban land-Fox Complex (UfA)	Not hydric (0%)
Urban land-Genesee Complex (Ug)	Not hydric (0%)
Urban land-Miami Complex (UmB and UmC)	Not hydric (0%)
Urban land-Westland Complex (Uw)	Predominantly non-hydric (1-32%)

III: Field Reconnaissance

Methodology:

Parsons conducted field investigations on October 29-30, 2015 and April 25-27, May 24, and October 3-5, 2016 to determine the presence of waterways, including streams, lakes, ponds and wetlands within the study area. The entire study area, as well as its immediate surroundings, were reviewed for resources via a walking survey. All areas flagged during desktop review were assessed and documented. When observed, features located adjacent to, but outside of the study area were noted. Resource maps showing all identified features are attached for reference (pages 38 to 52).

Vegetation, soil, and hydrology data were collected using the routine delineation method as described in the 1987 Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0) (USACE 2010). Wetland indicator statuses for plants were obtained from the National Wetland Plant List (Lichvar et al. 2016). Data forms for each wetland are included in this report for reference (pages 90 to 193). 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. This data was used to calculate each wetland's size and length, which was measured along the center line of each wetland. 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, presence of invasive species, and amount of disturbance.

Photographs were taken throughout the study area. This included photographs of each feature identified within the study area (pages 53 to 89). Photo orientation maps are included for additional reference (pages 38 to 52).

Streams:

Field investigations did not identify any features that exhibit an ordinary high water mark (OHWM) or stream characteristics.

Wetlands:

Sampling locations were determined by the presence or absence of hydrophytic vegetation and hydrology indicators. Twenty-two temporarily flooded, palustrine, emergent wetlands (Cowardin et al. 1979) totaling 0.505 acre (2,929 linear feet) were identified within the study area. All wetlands were located within maintained right-of-way and exhibited low species diversity; therefore, were determined to be low quality. The entire study area was disturbed approximately 40 years ago, and any previously existing wetlands have likely been filled. All existing wetlands within the study area have likely formed in that time and are not likely historical. Each appears to receive hydrological input from surface water runoff or sporadic roadway underdrains. All wetlands lacked apparent hydrologic connectivity to a likely water of the U.S., and would therefore likely be considered isolated. INDOT will seek concurrence on the jurisdiction of these wetlands from the U.S. Army Corps of Engineers (USACE) under the Clean Water Act and the Rivers and Harbors Act. An Approved Jurisdictional Determination (JD) form is attached for reference. Isolated wetlands were classified as Class I, II, or III per guidance from the Indiana Department of Environmental Management (IDEM). All twenty-two wetlands identified within the study area were determined to likely be Class I wetlands. The Wetland Summary Table (Table 1, page 15) summarizes the data collected on these features.

Wetland A

The area associated with Data Point A IN (DP-A-IN, pages 93 to 94) was evaluated because it exhibited hydrophytic vegetation. DP-A-IN was taken on a roadside embankment. The herbaceous stratum was dominated by *Phragmites australis* (Common Reed, FACW, 70%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 30%). This point met the hydrophytic vegetation criterion because it passed the prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. Three primary indicators of hydrology (Surface Water [A1], High Water Table [A2], and Saturation [A3]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-A-IN, this area was identified as Wetland A.

Data Point A OUT (DP-A-OUT, pages 95 to 96) was taken upslope of DP-A-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 100%) in the herbaceous stratum. DP-A-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since all three of the wetland indicators were not met at DP-A-OUT, this area was determined to be upland. DP-A-OUT helped establish the boundary of Wetland A, which was determined based on a change in vegetation.

Wetland A is a *Phragmites australis* (Common Reed) and *Schedonorus arundinaceus* (Tall False Rye Grass) dominated, slope wetland approximately 0.008 acre (67 linear feet) in size. The wetland is located near the top of the roadside embankment at an underdrain outlet and continues down the roadside embankment to the lower in-field area. Wetland A is within the North Split interchange, north of eastbound I-65 and west of College Avenue (page 49).

Wetland B

The area associated with Data Point B IN (DP-B-IN, pages 97 to 98) was evaluated because it exhibited hydrophytic vegetation. DP-B-IN was taken on a roadside embankment. The herbaceous stratum was dominated by *Schoenoplectus tabernaemontani* (Soft-Stem Club Rush, OBL, 30%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Surface Water [A1]) and one secondary indicator of hydrology (FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-B-IN, this area was identified as Wetland B.

Data Point B OUT (DP-B-OUT, pages 99 to 100) was taken on a roadside embankment east of DP-B-IN. This location was dominated by *Poa pratensis* (Kentucky Blue Grass, FAC, 50%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 50%) in the herbaceous stratum. DP-B-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since all three of the wetland indicators were not met at DP-B-OUT, this area was determined to be upland. DP-B-OUT helped establish the boundary of Wetland B, which was determined based on a change in vegetation.

Wetland B is a *Schoenoplectus tabernaemontani* (Soft-Stem Club Rush) dominated, slope wetland approximately 0.014 acre (69 linear feet) in size. The wetland is located near the top of the roadside embankment at an underdrain outlet (stake observed) and continues partially down the roadside embankment. Wetland B is located in the in-field area of the North Split interchange, north of westbound I-65 and east of College Avenue (page 45).

Wetland C

The area associated with Data Point C IN (DP-C-IN, pages 101 to 102) was evaluated because it exhibited hydrophytic vegetation. DP-C-IN was taken on a roadside embankment. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 10%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Surface Water [A1]) and one secondary indicator of hydrology (FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-C-IN, this area was identified as Wetland C.

Data Point C OUT (DP-C-OUT, pages 103 to 104) was taken on a roadside embankment east of DP-C-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 30%) and *Poa pratensis* (Kentucky Blue Grass, FAC, 20%) in the herbaceous stratum. DP-C-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. No hydrology indicators were observed. Since two of the three wetland indicators were not met at DP-C-OUT, this area was determined to be upland. DP-C-OUT helped establish the boundary of Wetland C, which was determined based on a change in vegetation.

Wetland C is a *Typha sp.* (Cattails) dominated, slope wetland approximately 0.001 acre (18 linear feet) in size. The wetland is located near the middle of the roadside embankment at an underdrain outlet (stake observed) and continues partially down the roadside embankment. Wetland C is within the in-field area of the North Split interchange, north of eastbound I-65 and east of College Avenue (page 45). It is not contained within a roadside ditch.

Wetland D

The area associated with Data Point D IN (DP-D-IN, pages 105 to 106) was evaluated because it exhibited hydrophytic vegetation. DP-D-IN was taken on a roadside embankment. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 10% [Note the previous year's growth covered 60%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Surface Water [A1]) was observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-D-IN, this area was identified as Wetland D.

Data Point D OUT (DP-D-OUT, pages 107 to 108) was taken on a roadside embankment north of DP-D-IN. This location was dominated by *Setaria pumila* (Yellow Bristle Grass, FAC, 5%) in the herbaceous stratum (Note: Last year's growth covered much of the ground (likely *Panicum virgatum* [Switchgrass, FAC] Also present was last year's *Dipsacus fullonum* [Fuller's teasel, FACU]). This point met the hydrophytic vegetation criterion because it passed the dominance test. No hydric soil or hydrology indicators were observed. Since two of the three wetland indicators were not met at DP-D-OUT, this area was determined to be upland. DP-D-OUT helped establish the boundary of Wetland D, which was determined based on changes in vegetation.

Wetland D is a *Typha sp.* (Cattails) dominated, slope wetland approximately 0.006 acre (37 linear feet) in size. The wetland is located near the top of the roadside embankment at an underdrain outlet (stake observed) and continues down the

roadside embankment to the lower in-field area. Wetland D is within the North Split interchange, south of eastbound I-70, northeast of westbound I-65, and west of the Monon Trail (page 46).

Wetland E

The area associated with Data Point E IN (DP-E-IN, pages 109 to 110) was evaluated because it exhibited hydrophytic vegetation. DP-E-IN was taken near a drainage outlet. The herbaceous stratum was dominated by *Eleocharis obtusa* (Blunt Spike-Rush, OBL, 30%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two primary indicators of hydrology (Surface Water [A1] and Saturation [A3]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-E-IN, this area was identified as Wetland E.

Data Point EF OUT (DP-EF-OUT, pages 111 to 112) was taken east of DP-E-IN. This is a shared “OUT” data point with Wetland F. The data point was recorded at this location because this was the only area near the “IN” data point that was not covered in riprap or concrete. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 70%) in the herbaceous stratum. DP-EF-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since all three of the wetland indicators were not met at DP-EF-OUT, this area was determined to be upland. DP-EF-OUT helped establish the boundary of Wetland E, which was determined based on a change in vegetation.

Wetland E is an *Eleocharis obtusa* (Blunt Spike-Rush) dominated, triangular-shaped, depressional wetland approximately 0.009 acre (51 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment at a concrete drainage outlet. Wetland E is within the lower in-field area of the North Split interchange, south of eastbound I-70, northeast of westbound I-65, and west of the Monon Trail (page 46). It is not contained within a roadside ditch.

Wetland F

The area associated with Data Point F IN (DP-F-IN, pages 113 to 114) was evaluated because it exhibited hydrophytic vegetation. DP-F-IN was taken at a toe-of-slope between the I-70 East on-ramp and the Monon Trail (page 46). The herbaceous stratum was dominated by *Typha* sp. (Cattails, OBL, 5%) and *Rumex crispus* (Curly Dock, FAC, 2%). This point met the hydrophytic vegetation criterion because it passed the dominance and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-F-IN, this area was identified as Wetland F.

Data Point EF OUT (DP-EF-OUT, pages 111 to 112) was taken east of DP-E-IN. This is a shared “OUT” data point with Wetland E. The data point was recorded at this location, because this was the only area near the “IN” data point that was not covered in riprap or concrete. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 70%) in the herbaceous stratum. DP-EF-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since all three of the wetland indicators were not met at DP-EF-OUT, this area was determined to be upland. DP-EF-OUT helped establish the boundary of Wetland E, which was determined based on a change in vegetation.

Wetland F is a *Typha* sp. (Cattails) and *Rumex crispus* (Curly Dock) dominated, rectangular-shaped, depressional wetland approximately 0.010 acre (89 linear feet) in size. The wetland is located at the toe-of-slope of the concrete-lined roadside embankment, adjacent to the Monon Trail. Wetland F is within the North Split interchange, south of eastbound I-70 and northeast of westbound I-65 (page 46). It is not contained within a roadside ditch.

Wetland G

The area associated with Data Point G IN (DP-G-IN, pages 115 to 116) was evaluated because it exhibited hydrophytic vegetation. DP-G-IN was taken at the toe-of-slope of an embankment. The herbaceous stratum was dominated by *Typha* sp. (Cattails, OBL, 10%. [Note last year's growth covered 60%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) indicators. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-G-IN, this area was identified as Wetland G.

Data Point G OUT (DP-G-OUT, pages 117 to 118) was taken south of DP-G-IN. This location was dominated by *Elymus repens* (Creeping Wild-Rye, FACU, 40%) and *Securigera varia* (Crownvetch, UPL, 15%) in the herbaceous stratum. DP-G-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since all three

of the wetland indicators were not met at DP-G-OUT, this area was determined to be upland. DP-G-OUT helped establish the boundary of Wetland G, which was determined based on a change in vegetation.

Wetland G is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.001 acre (16 linear feet) in size. The wetland is located at the toe-of-slope of the riprap-lined roadside embankment and adjacent to the Monon Trail. Wetland G is within the North Split interchange, south of eastbound I-70 and northeast of westbound I-65 (page 46). It is not entirely contained within a roadside ditch.

Wetland H

The area associated with Data Point H IN (DP-H-IN, pages 119 to 120) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-H-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 60%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Redox Dark Surface (F6) indicators. Two primary indicators of hydrology (High Water Table [A2] and Saturation [A3]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-H-IN, this area was identified as Wetland H.

Data Point H OUT (DP-H-OUT, pages 121 to 122) was taken west of DP-H-IN. This location was dominated by *Securigera varia* (Crown vetch, UPL, 98%). DP-H-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-H-OUT was determined to be upland. DP-H-OUT helped establish the boundary of Wetland H, which was determined based on a change in vegetation.

Wetland H is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.007 acre (51 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment and adjacent to the Monon Trail. Wetland H is within the North Split interchange, south of eastbound I-70 and east of northbound I-65/I-70 (page 46). It is entirely contained within a roadside ditch.

Wetland I

The area associated with Data Point I IN (DP-I-IN, pages 123 to 124) was evaluated because it exhibited hydrophytic vegetation. DP-I-IN was taken at the toe-of-slope within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 70%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Problematic Hydric Soil indicator. The Problematic Hydric Soil Indicator was chosen because the chroma of the 3-14-inch layer was very close to meeting the Depleted Matrix indicator (F3), the adjacent out point met hydric soils, and hydrology was present at this location. Therefore, soils were considered hydric. Three primary indicators of hydrology (Surface Water [A1], High Water Table [A2], and Saturation [A3]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-I-IN, this area was identified as Wetland I.

Data Point I OUT (DP-I-OUT, pages 125 to 126) was taken west of DP-I-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 90%) in the herbaceous stratum. DP-I-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Therefore, the hydrology criterion was not met. Since two of the three wetland indicators were not met at DP-I-OUT, this area was determined to be upland. DP-I-OUT helped establish the boundary of Wetland I, which was determined based on a change in vegetation.

Wetland I is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.013 acre (99 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment and adjacent to the Monon Trail. Wetland I is within the North Split interchange, south of eastbound I-70 and east of north bound I-65/I-70 (page 50). It is entirely contained within a roadside ditch.

Wetland J

The area associated with Data Point J IN (DP-J-IN, pages 127 to 128) was evaluated because it exhibited hydrophytic vegetation. DP-J-IN was taken on a roadside embankment. The herbaceous stratum was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 40%) and *Typha sp.* (Cattails, OBL, 30%). This point met the hydrophytic vegetation criterion because it passed the prevalence test. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Saturation [A3]) was observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-J-IN, this area was identified as Wetland J.

Data Point J OUT (DP-J-OUT, pages 129 to 130) was taken northeast of DP-J-IN. The location of DP-J-OUT was chosen due to restrictions caused by the fence and riprap at the base of the slope. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 80%) in the herbaceous stratum. DP-J-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. No indicators of hydrology were observed. Since two of the three wetland indicators were not met at DP-J-OUT, this area was determined to be upland. DP-J-OUT helped establish the boundary of Wetland J, which was determined based on a change in vegetation.

Wetland J is a *Schedonorus arundinaceus* (Tall False Rye Grass) and *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.004 acre (35 linear feet) in size. The wetland is located at the toe-of-slope of the riprap-slope roadside embankment and adjacent to East 13th Street. Wetland J is within the North Split interchange, south of eastbound I-70 and east of the Monon Trail (page 46).

Wetland K

The area associated with Data Point K IN (DP-K-IN, pages 131 to 132) was evaluated because it exhibited hydrophytic vegetation. DP-K-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 40%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 20%). This point met the hydrophytic vegetation criterion because it passed the prevalence test. The soil profile met the hydric soil criterion because it exhibited the Redox Dark Surface (F6) indicator. Two primary indicators of hydrology (Surface Water [A1] and High Water Table [A2]) and one secondary indicator (Geomorphic Position [D2]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-K-IN, this area was identified as Wetland K.

Data Point K OUT (DP-K-OUT, pages 133 to 134) was taken north of DP-K-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 100%) in the herbaceous stratum. DP-K-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-K-OUT was determined to be upland. DP-K-OUT helped establish the boundary of Wetland K, which was determined based on a change in vegetation and topography.

Wetland K is a *Typha sp.* (Cattails) and *Schedonorus arundinaceus* (Tall False Rye Grass) dominated, depressional wetland approximately 0.003 acre (27 linear feet) in size. The wetland is located east of the North Split interchange, north of eastbound I-70, and south of westbound I-70 (page 47). Wetland K is adjacent to Wetland L and entirely contained within a roadside ditch.

Wetland L

The area associated with Data Point L IN (DP-L-IN, pages 135 to 136) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-L-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 50%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. 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. Three primary indicators of hydrology (Surface Water [A1], High Water Table [A2], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-L-IN, this area was identified as Wetland L.

Data Point L OUT (DP-L-OUT, pages 137 to 138) was taken northwest of DP-L-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 80%) in the herbaceous stratum. DP-L-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. No indicators of hydrology were observed. Since two of the three wetland indicators were not met at DP-L-OUT, this area was determined to be upland. DP-L-OUT helped establish the boundary of Wetland L, which was determined based on a change in vegetation and topography.

Wetland L is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.030 acre (148 linear feet) in size. The wetland is located east of the North Split interchange, north of eastbound I-70, and south of westbound I-70 (page 47). Wetland L is adjacent to Wetland K and is entirely contained within a roadside ditch.

Wetland M

The area associated with Data Point M IN (DP-M-IN, pages 139 to 140) was evaluated because it exhibited hydrophytic vegetation. DP-M-IN was taken near the toe-of-slope. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL,

40%) and *Eleocharis mamillata* (Soft-Stem Spike-Rush, OBL, 40%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Three primary indicators of hydrology (High Water Table [A2], Saturation [A3], and Oxidized Rhizospheres on Living Roots [C3]) and two secondary indicators (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-M-IN, this area was identified as Wetland M.

Data Point M OUT (DP-M-OUT, pages 141 to 142) was taken northwest of DP-M-IN, at a location where there was a vegetation shift from DP-M-IN. This location was dominated by *Lonicera maackii* (Amur honeysuckle, UPL, 10%) in the sapling/shrub stratum. This location was also dominated by *Phalaris arundinacea* (Reed Canary Grass, FACW, 100%) in the herbaceous stratum. DP-M-OUT did not meet the hydrophytic vegetation criterion tests. The soil profile met the hydric soil criterion because it exhibited the Thick Dark Surface (A12) indicator. One secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Since only two of the three wetland indicators were met at DP-M-OUT, this area was determined to be upland. DP-M-OUT helped establish the boundary of Wetland M, which was determined based on a change in vegetation.

Wetland M is a *Typha sp.* (Cattails) and *Eleocharis mamillata* (Soft-Stem Spike-Rush) dominated wetland approximately 0.006 acre (23 linear feet) in size. The wetland is located on the roadside embankment, east of the North Split interchange, north of westbound I-70, west of Commerce Avenue, and south of East 16th Street (page 48). Wetland M is not contained within a roadside ditch.

Wetland N

The area associated with Data Point N IN (DP-N-IN, pages 143 to 144) was evaluated because it exhibited hydrophytic vegetation. DP-N-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Echinochloa crus-galli* (Large Barnyard Grass, FACW, 50%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Thick Dark Surface (A12) indicator. A depleted layer was not observed below the thick dark surface; however, the bottom layer contained inclusions of depleted matrix with redox. Thick dark surface was assumed to be present. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-N-IN, this area was identified as Wetland N.

Data Point N OUT (DP-N-OUT, pages 145 to 146) was taken northeast of DP-N-IN on the roadside embankment, at a location where there was a vegetation shift from DP-N-IN. This location was dominated by *Phragmites australis* (Common Reed, FACW, 100%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the rapid and dominance tests. No indicators of hydric soil were observed. One secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Since two of the three wetland indicators were not met at DP-N-OUT, this area was determined to be upland. DP-N-OUT helped establish the boundary of Wetland N, which was determined based on a change in topography.

Wetland N is an *Echinochloa crus-galli* (Large Barnyard Grass) dominated, rectangular-shaped, depressional wetland approximately 0.020 acre (103 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, below an underdrain, east of the North Split interchange, south of eastbound I-70, west of Commerce Avenue, and north of Roosevelt Avenue (page 48). Wetland N is entirely contained within a roadside ditch.

Wetland O

The area associated with Data Point O IN (DP-O-IN, pages 147 to 148) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-O-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 15% [Bote last year's growth covered 75%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. One primary indicator of hydrology (Surface Water [A1]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-O-IN, this area was identified as Wetland O.

Data Point O OUT (DP-O-OUT, pages 149 to 150) was taken east of DP-O-IN on a roadside embankment. This location was dominated by *Poa pratensis* (Kentucky Blue Grass, FAC, 60%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 40%) in the herbaceous stratum. DP-O-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No hydrology indicators were observed. Since two of the three wetland criteria were not met, DP-O-OUT was determined to be upland. DP-O-OUT helped establish the boundary of Wetland O, which was determined based on a change in vegetation and topography.

Wetland O is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.025 acre (121 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, below an underdrain, southeast of the North Split interchange, west of southbound I-65/I-70, and south of East 10th Street (page 50). Wetland O is adjacent to Wetland P and entirely contained within a roadside ditch.

Wetland P

The area associated with Data Point P IN (DP-P-IN, pages 151 to 152) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-P-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Phalaris arundinacea* (Reed Canary Grass, FACW, 100%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. A quarter-inch dark layer was encountered at 9.7 inches and appears to be burnt vegetation or some form of similar irregularity. This layer was not considered prominent enough to be a break in the depleted column, and A11 and F3 were considered applicable. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-P-IN, this area was identified as Wetland P.

Data Point P OUT (DP-P-OUT, pages 153 to 154) was taken east of DP-P-IN at the toe-of-slope. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 80%) in the herbaceous stratum. DP-P-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No indicators of hydrology were observed. Since two of the three wetland indicators were not met at DP-P-OUT, this area was determined to be upland. DP-P-OUT helped establish the boundary of Wetland P, which was determined based on a change in vegetation and topography.

Wetland P is a *Phalaris arundinacea* (Reed Canary Grass) dominated, depressional wetland approximately 0.021 acre (117 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, southeast of the North Split interchange, west of southbound I-65/I-70, and south of East 10th Street (page 50). Wetland P is adjacent to Wetland O and is entirely contained within a roadside ditch.

Wetland Q

The area associated with Data Point Q IN (DP-Q-IN, pages 155 to 156) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-Q-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Eleocharis palustris* (Common Spike-Rush, OBL, 40%) and *Typha sp.* (Cattails, OBL, 25%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One primary indicator of hydrology (Algal Mat or Crust [B4]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-Q-IN, this area was identified as Wetland Q.

Data Point Q OUT (DP-Q-OUT, pages 157 to 158) was taken east of DP-Q-IN at the toe slope. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 90%) in the herbaceous stratum. DP-Q-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Since two of the three wetland indicators were not met at DP-Q-OUT, this area was determined to be upland. DP-Q-OUT helped establish the boundary of Wetland Q, which was determined based on a change in vegetation.

Wetland Q is an *Eleocharis palustris* (Common Spike-Rush) and *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.029 acre (227 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of southbound I-65/I-70, and south of East 10th Street (page 51). Wetland Q is adjacent to Wetland P and is entirely contained within a roadside ditch.

Wetland R

The area associated with Data Point R IN (DP-R-IN, pages 159 to 160) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-R-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 10% [note last year's growth covered 80%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. One primary indicator of hydrology (Surface Water [A1]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were

observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-R-IN, this area was identified as Wetland R.

Data Point R OUT (DP-R-OUT, pages 161 to 162) was taken west of DP-R-IN on a roadside embankment. This location was dominated by *Poa pratensis* (Kentucky Blue Grass, FAC, 60%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the dominance test. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. No indicators of hydrology were observed. Since one of the three wetland indicators were not met at DP-R-OUT, this area was determined to be upland. DP-R-OUT helped establish the boundary of Wetland R, which was determined based on a change in vegetation and topography.

Wetland R is an *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.107 acre (658 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment within the center median, south of the North Split interchange, and north of East St. Clair Street (page 51). Wetland R is entirely contained within a roadside ditch.

Wetland S

The area associated with Data Point S IN (DP-S-IN, pages 163 to 164) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-S-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 25%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators. One primary indicator of hydrology (High Water Table [A2]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-S-IN, this area was identified as Wetland S.

Data Point S OUT (DP-S-OUT, pages 165 to 166) was taken west of DP-S-IN on a roadside embankment. This location was dominated by *Securigera varia* (Crown vetch, UPL 80%) in the herbaceous stratum. No hydrophytic vegetation was present at this location. DP-S-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-S-OUT was determined to be upland. DP-S-OUT helped establish the boundary of Wetland S, which was determined based on a change in vegetation and topography.

Wetland S is an *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.018 acre (91 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, south of the North Split interchange, east of northbound I-65/I-70, and north of East St. Clair Street (page 51). Wetland S is entirely contained within the median roadside ditch.

Wetland T

The area associated with Data Point T IN (DP-T-IN, pages 167 to 168) was evaluated because it exhibited hydrophytic vegetation and geomorphic position. DP-T-IN was taken within a roadside ditch. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 20% [note last year's growth covered 40%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-T-IN, this area was identified as Wetland T.

Data Point T OUT (DP-T-OUT, pages 169 to 170) was taken east of DP-T-IN on a roadside embankment. This location was dominated by *Poa pratensis* (Kentucky Blue Grass, FAC, 40%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 30%) in the herbaceous stratum. DP-T-OUT did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. No indicators of hydrology were observed. Since two of the three wetland indicators were not met at DP-T-OUT, this area was determined to be upland. DP-T-OUT helped establish the boundary of Wetland T, which was determined based on a change in vegetation and topography.

Wetland T is an *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.165 acre (802 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment within the center median, south of the North Split interchange, and south of East St. Clair Street (page 51). Scour/erosion features were observed adjacent to and above Wetland T on the roadside embankment. The scour features are likely caused by surface water runoff from the pavement or roadway underdrain culvert outlets. These features likely provide hydrology to Wetland T. Wetland T has excessive runoff onto St. Clair Street during rain events. Wetland T is entirely contained within the median roadside ditch.

Wetland U

The area associated with Data Point U IN (DP-U-IN, pages 171 to 172) was evaluated because it exhibited hydrophytic vegetation. DP-U-IN was taken near the toe-of-slope. The herbaceous stratum was dominated by *Cyperus esculentus* (Chufa, FACW, 80%) and *Phragmites australis* (Common Reed, FACW, 20%). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. 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. One primary indicator of hydrology (Surface Water [A1]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-U-IN, this area was identified as Wetland U.

Data Point U OUT (DP-U-OUT, pages 173 to 174) was taken west of DP-U-IN. This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 75%) in the herbaceous stratum. DP-U-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-U-OUT was determined to be upland. DP-U-OUT helped establish the boundary of Wetland U, which was determined based on a change in vegetation.

Wetland U is a *Cyperus esculentus* (Chufa) and *Phragmites australis* (Common Reed) dominated, crescent-shaped, depressional wetland approximately 0.004 acre (46 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of southbound I-65/I-70, and north of East Michigan Street (page 52). Wetland U is not contained within a roadside ditch.

Wetland V

The area associated with Data Point V IN (DP-V-IN, pages 175 to 176) was evaluated because it exhibited hydrophytic vegetation. DP-V-IN was taken near the toe-of-slope. The herbaceous stratum was dominated by *Typha sp.* (Cattails, OBL, 10% [note last year's growth covered 80%]). This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators. Two primary indicators of hydrology (Surface Water [A1] and High Water Table [A2]) and two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Therefore, the hydrology criterion was met. Since all three wetland criteria were met at DP-V-IN, this area was identified as Wetland V.

Data Point V OUT (DP-V-OUT, pages 177 to 178) was taken northwest of DP-V-IN on a roadside embankment. This location was dominated by *Poa pratensis* (Kentucky Blue Grass, FAC, 70%) and *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 20%) in the herbaceous stratum. DP-V-OUT did not meet the hydrophytic vegetation criterion. No hydric soil or hydrology indicators were observed. Since none of the three wetland criteria were met, DP-V-OUT was determined to be upland. DP-V-OUT helped establish the boundary of Wetland V, which was determined based on a change in vegetation and topography.

Wetland V is a *Typha sp.* (Cattails) dominated, depressional wetland approximately 0.004 acre (34 linear feet) in size. The wetland is located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of southbound I-65/I-70, and north of East New York Street (page 53). Wetland V is not contained within a roadside ditch.

Additional Data Points:

Several determination points were taken that did not result in the identification of wetlands. These points are identified as "reference points" or "RP" and are numbered 1 through 8.

Reference Point 1 (RP-1, pages 179 to 180) was taken within an infield drainage area of the North Split interchange (page 49). This location was dominated by *Phalaris arundinacea* (Reed Canary Grass, OBL, 40%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the rapid and dominance tests. No indicators of hydric soil were observed. Two secondary indicators of hydrology (Geomorphic Position [D2] and FAC-Neutral Test [D5]) were observed. Since one of the three wetland criteria was not met, RP-1 was determined to be upland.

Reference Point 2 (RP-2, pages 181 to 182) was taken on a roadside embankment east of the North Split interchange (page 50). This location was dominated by *Schedonorus arundinaceus* (Tall False Rye Grass, FACU, 90%) in the herbaceous stratum. This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) indicators. One primary indicator of hydrology (Saturation [A3]) was observed. Since one of the three wetland criteria was not met, RP-2 was determined to be upland.

Reference Point 3 (RP-3, pages 183 to 184) was taken in a roadside ditch east of the North Split interchange (page 47). No vegetation was present at this location. *Lonicera maackii* (Amur honeysuckle, UPL) dominates the backslope and overshadows the ditch; both void of herbaceous species. The lack of vegetation is attributed to allelopathic property of honeysuckle; inhibits germination. This point did not meet the hydrophytic vegetation criterion. Problematic vegetation indicators were not evaluated since both soils and hydrology have to be met to consider them. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Sparsely Vegetated Concave Surface indicator (B8) was not considered present, as the lack of herbaceous vegetation extends into the honeysuckle, and is likely caused by allelopathic chemicals from honeysuckle leaf decomposition. Therefore, wetland hydrology was not present. Since two of the three wetland criteria were not met, RP-3 was determined to be upland.

Reference Point 4 (RP-4, pages 185 to 186) was taken within a roadside ditch northwest of I-70 (page 46). Only dead vegetation was present at this location. The area between the feature and fence appears to have been cleared or disturbed. It does not appear to be unvegetated due to ponding. The area may possibly be a site of an accident/fuel spill. This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. The area was devegetated, but indicator B8 (Sparsely Vegetated Concave Surface) does not appear to be the cause, as no indications of surface or ground water were present during two visits. The area appeared to be disturbed, and the lack of vegetation may be the result of a fuel spill or similar incident. Since all three of the wetland criteria were not met, RP-4 was determined to be upland.

Reference Point 5 (RP-5, pages 187 to 188) was taken within a roadside ditch northwest of I-70 (page 46). This location was dominated by *Schoenoplectus tabernaemontani* (Soft-Stem Club Rush, OBL, 10%) and *Elymus repens* (Creeping Wild Rye, FACU, 4%) in the herbaceous stratum. 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) and Depleted Matrix (F3) indicators. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Since two of the three wetland criteria were not met, RP-5 was determined to be upland.

Reference Point 6 (RP-6, pages 189 to 190) was taken within a roadside ditch northwest of I-70 (page 47). No vegetation was present at this location. *Lonicera maackii* (Amur honeysuckle, UPL) dominates the backslope and overshadows the ditch; both void of herbaceous species. This is attributed to allelopathic property of honeysuckle; inhibits germination. This point did not meet the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion because it exhibited the Depleted Matrix (F3) indicator. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Sparsely Vegetated Concave Surface indicator (B8) was not considered present, as the lack of herbaceous vegetation extends into the honeysuckle, and is likely caused by allelopathic chemicals from honeysuckle leaf decomposition. Since two of the three wetland criteria were not met, RP-6 was determined to be upland.

Reference Point 7 (RP-7, pages 191 to 192) was taken within a roadside ditch along the west side of I-65/I-70 and south of the North Split (page 51). This location was dominated by *Rumex crispus* (Curly Dock, UPL, 2%) and *Elymus sp.* (2%) in the herbaceous stratum. No hydrophytic vegetation was present at this location. This point did not meet the hydrophytic vegetation criterion. No hydric soil indicators were observed. One secondary indicator of hydrology (Geomorphic Position [D2]) was observed. Since all three of the wetland criteria were not met, RP-7 was determined to be upland.

Reference Point 8 (RP-8, pages 193 to 194) was taken within a steep, paved roadside ditch along the west side of I-65/I-70 and north of Ohio Street (page 53). This location was dominated by *Typha sp.* (Cattails, OBL, 95%) in the herbaceous stratum. This point met the hydrophytic vegetation criterion because it passed the rapid, dominance, and prevalence tests. No indicators of hydric soil were observed. One secondary indicator of hydrology (FAC-Neutral Test [D5]) was observed. Geomorphic Position is not applicable at this location because this indicator is not applicable in areas with functioning drainage systems. Since two of the three wetland criteria were not met, RP-8 was determined to be upland.

Underdrains:

This section of interstate was constructed with a system of underdrains to direct water away from the pavement. The underdrains typically outlet along the roadway embankments where drainage then flows downhill into the roadside ditches. Numerous underdrain outlets were observed within the study area. Outlets that exhibited a dominant amount of hydrophytic vegetation and passed the FAC-Neutral Test were further reviewed for the presence of wetlands. Those that passed are included in the Wetlands section. At some locations, hydrophytic species were identified, but were not dominant, surrounded by non-hydrophytic vegetation, and would have failed to meet the hydrophytic vegetation criterion. Therefore, when a visual assessment did not identify sufficient hydrophytic vegetation to pass the vegetation criterion and pass the FAC-Neutral Test, no further review was conducted.

Erosional Features:

Erosional features were observed along the roadway embankments at some locations within the study area. These features were in the form of rills or sheet erosion, and they are likely caused by surface water runoff along areas containing unstable, erodible soils or areas with poorly established vegetative root mass. While these areas indicate the presence of flowing water and may contribute hydrology to downhill wetlands, they did not exhibit an OHWM or contain vegetative or hydrologic indicators of wetlands and were not reviewed further.

Stormwater Features:

Field investigations resulted in the identification of two likely non-jurisdictional concrete storm water conveyance and retention structures, Stormwater Feature 1 (SWF-1) and 2 (SWF-2) to Pogues Run, totaling 204 linear feet (0.041 acre) within the study area. Both structures exhibited a nearly absent riparian corridor along their artificial banks and are surrounded by an urban transportation corridor. Their substrates are primarily concrete with some silt and gravel sediment deposits. No continuous OHWM, riffles or pools were observed. Based on these observations, SWF-1 and SWF-2 were classified as having poor quality.

Within the study area, neither SWF-1 or SWF-2 are shown as a stream on the USGS 7.5-minute series topographic map (page 19). Per the Storm Water Drainage System Map, both structures flow through a series of drainage pipes, and ultimately discharge into Pogues Run (page 37). Despite their confluence with Pogues Run and the observation of flowing water within each structure, historical data was reviewed that did not indicate that there was ever a waterway in this area that was buried or relocated (pages 38-39). Therefore, SWF-1 and SWF-2 would likely be classified as non-jurisdictional storm water conveyance and retention structures. Photos of these stormwater features are provided in the photos, pages 60 to 61.

SWF-1 to Pogues Run

SWF-1 is located within the North Split (page 45) and northwest of Wetland C. This feature is a concrete storm water structure flowing east to west within the study area for a total of 158 linear feet (0.039 acre). The feature begins at the outlet of a storm water pipe culvert under the interstate. The east portion (71 feet, 0.003 acre) of SWF-1 exists as a concrete-lined, open channel. The west portion (87 feet, 0.036 acre) of this structure exists as a concrete-lined, open basin. The west end of the basin is covered with a metal grate choked with debris and is where SWF-1 disappears into an underground storm water drainage system.

SWF-2 to Pogues Run

SWF-2 is located within the North Split (page 45) and northwest of Wetland C. This structure is a concrete-lined, open channel, roadside ditch flowing north to south within the study area for a total of 46 linear feet (0.002 acre). The structure begins at the outlet of a storm water pipe culvert under the interstate and outlets into the concrete-lined, open basin of SWF-1.

Roadside Ditches:

Roadside ditches throughout the study area were investigated for waters of the U.S. and waters of the State. Unless otherwise noted in this report, the roadside ditches failed to exhibit an OHWM or wetland characteristics. Representative photos of roadside ditches without an identified water resource observed within the study area are provided in the photos, pages 62, 69, 75, and 76.

IV: Conclusions

Based on the field review, this project has features that are likely waters of the U.S. and isolated waters of the State within the study area.

Twenty-two temporarily flooded, palustrine, emergent wetlands, totaling 0.505 acre (2,929 linear feet), were identified within the study area and are likely isolated waters of the State. Two stormwater features to Pogues Run (SWF-1 and SWF-2) totaling 204 linear feet were identified in the study area, as well. Historical data does not indicate that these features are associated with a previous waterway that was buried or relocated. Furthermore, they convey storm water and act as retention basins; and therefore, are likely isolated waters of the State. No other water resources were identified. Every effort should be taken to avoid impacts to the resources outlined in this report. If impacts will occur, waterway permits will be required and mitigation may be required. Impacts must be minimized before mitigation can be considered. INDOT's Ecology and Waterway Permitting Office (EWPO) staff should be contacted immediately if impacts will occur.

The conclusions presented in this report are the best judgment of Parsons and based on the guidelines set forth by USACE. The final determination of jurisdictional waters, however, is ultimately made by this agency.

An Approved JD form is attached to the end of this report.

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*. U.S. Department of the Interior, Fish and Wildlife Service, Washington DC.

Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 Wetland Ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X

United States Army Corps of Engineers. 2010. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)*. U.S. Army Engineer Research and Development Center, Washington DC.

United States Department of Interior, U.S. Geological Survey. 2016. *StreamStats Version 3.0: Indiana*.
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<http://maps.indy.gov/MapIndy/index.html>

Table 1: Wetland Summary Table

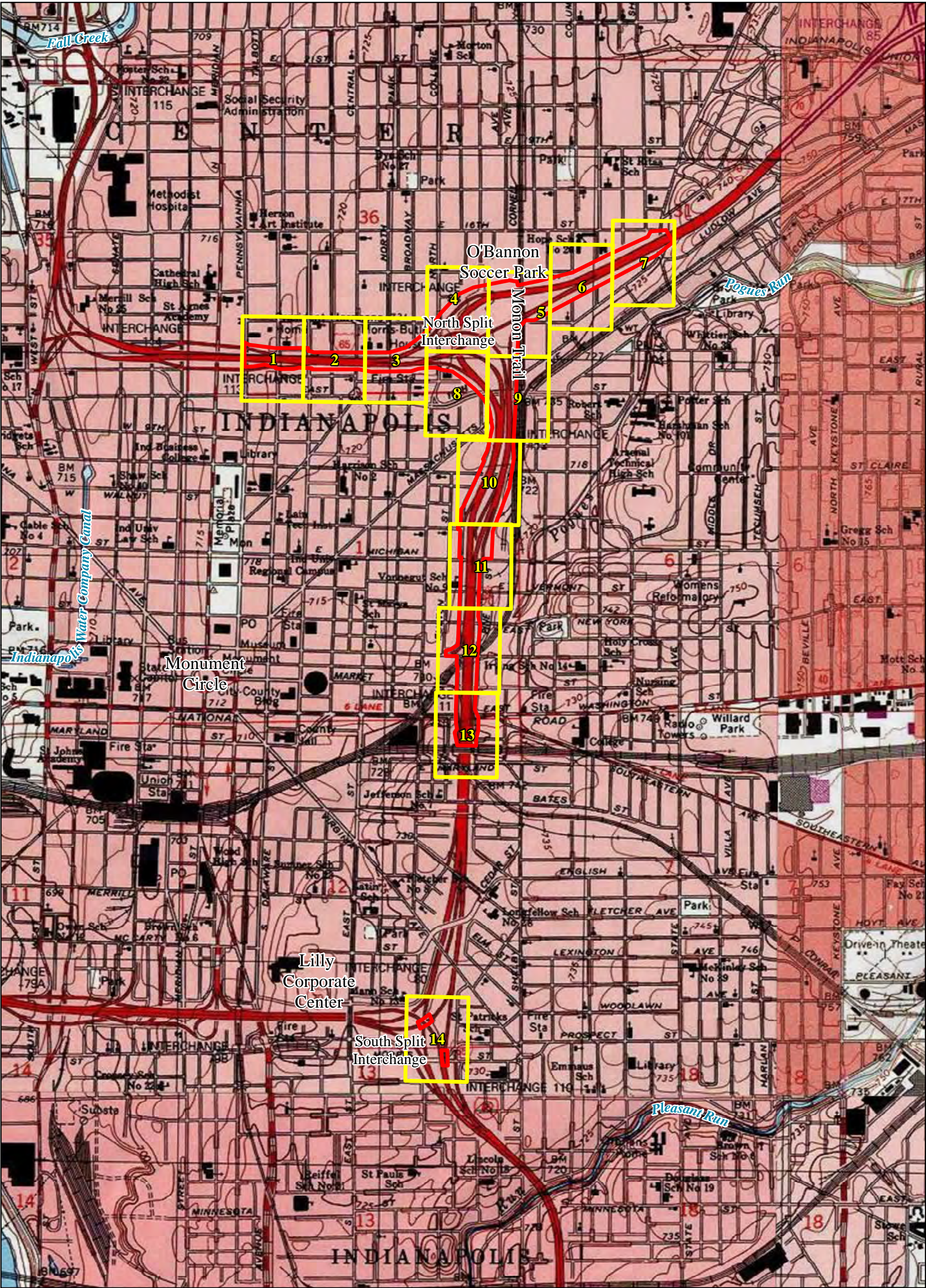
Name	Photograph Number	Latitude/ Longitude	Wetland Type	Area (acre) (linear- foot length)	Quality	Likely Water of the U.S. (Y/N)*	Isolated (Y/N) and Class I, II or III	Likely Exempt Isolated Wetland (Y/N)
Wetland A	109-111	39.782979 -86.145073	Palustrine Emergent	0.008 (67)	Poor	N	Y, Class I,	Y
Wetland B	20-21,23	39.784332 -86.144116	Palustrine Emergent	0.014 (69)	Poor	N	Y, Class I,	Y
Wetland C	35,38	39.783298 -86.143946	Palustrine Emergent	0.001 (18)	Poor	N	Y, Class I,	Y
Wetland D	73-74	39.783258 -86.140997	Palustrine Emergent	0.006 (37)	Poor	N	Y, Class I,	Y
Wetland E	63-64	39.784378 -86.140398	Palustrine Emergent	0.009 (51)	Poor	N	Y, Class I,	Y
Wetland F	65-66	39.784012 -86.14015	Palustrine Emergent	0.010 (89)	Poor	N	Y, Class I	Y
Wetland G	67-68	39.783665 -86.140184	Palustrine Emergent	0.001 (16)	Poor	N	Y, Class I	Y
Wetland H	76-77,79	39.782984 -86.140228	Palustrine Emergent	0.007 (51)	Poor	N	Y, Class I	Y
Wetland I	127-128	39.782071 -86.140245	Palustrine Emergent	0.013 (99)	Poor	N	Y, Class I	Y
Wetland J	58-59	39.784495 -86.139289	Palustrine Emergent	0.004 (35)	Poor	N	Y, Class I	Y
Wetland K	47,93	39.785632 -86.138237	Palustrine Emergent	0.003 (27)	Poor	N	Y, Class I	Y
Wetland L	87-88	39.785786 -86.137739	Palustrine Emergent	0.030 (148)	Poor	N	Y, Class I	Y
Wetland M	99-100	39.788339 -86.132036	Palustrine Emergent	0.006 (23)	Poor	N	Y, Class I	Y
Wetland N	104-106	39.787397 -86.132229	Palustrine Emergent	0.020 (103)	Poor	N	Y, Class I	Y
Wetland O	133-134,137	39.780158 -86.141568	Palustrine Emergent	0.025 (121)	Poor	N	Y, Class I	Y
Wetland P	138-139	39.779604 -86.14154	Palustrine Emergent	0.021 (117)	Poor	N	Y, Class I	Y
Wetland Q	143-145	39.778842 -86.141651	Palustrine Emergent	0.029 (227)	Poor	N	Y, Class I	Y
Wetland R	143-145	39.778821 -86.14103	Palustrine Emergent	0.107 (658)	Poor	N	Y, Class I	Y
Wetland S	148,150, 152	39.778549 -86.140374	Palustrine Emergent	0.018 (91)	Poor	N	Y, Class I	Y
Wetland T	154,156	39.776778 -86.141847	Palustrine Emergent	0.165 (802)	Poor	N	Y, Class I	Y
Wetland U	160,162-163,169	39.773995 -86.143185	Palustrine Emergent	0.004 (46)	Poor	N	Y, Class I	Y
Wetland V	174-175	39.771531 -86.14333	Palustrine Emergent	0.004 (34)	Poor	N	Y, Class I	Y
Totals				0.505 acre (2,929)			0.505 acre (2,929)	

Table 2: Bridge Summary Table

Des. No.	NBI No.	Bridge No.	Road	Feature(s) Intersects	Location	Reference Post	Year Built	Year Reconstructed
1296927	42380	I70-79-02434 DWBL	I-70 WB	LEWIS STR, MONON TRAIL	0.25 Mile East of I-65	83+24	1974	2003
1296620	36430	I65-112-05725 A	I-65 and Ramp 5W-S	WASHINGTON ST/OLD US 40	0.92 Mile North of I-70	111+22	1974	2003
1298282	42310	I70-77-05716 CEBL	I-70 EB	I-65 SB	0.15 Mile West of I-65	80+81	1973	1990
1298649	36320	I65-111-05713 ANBL	I-65 NB	MORRIS ST, PROSPECT ST	0.13 Mile South of I-70	110+17	1973	1993
1298285	42370	I70-79-05751 DWBL	I-70 WB Ramp	PROPOSED RAMP	0.32 Mile East of I-65	82+93	1974	2003
1296590	36640	I65-113-05750 B	I-65 Ramp	PROPOSED RAMP	2.26 Miles North of I-70	112+55	1974	2003
1592305	42345	I70-79-02432 CEBL	I-70 EB	LEWIS ST, MONON GREENWAY	0.61 Mile East of I-65	83+24	1974	2003
1296580	36630	I65-113-05749 A	I-65 Ramp	COLLEGE AVENUE	2.26 Miles North of I-70	112+55	1969	1989
1298284	42350	(I70)I65-113-05741 BEBL	I-70 EB	I-65 NB	0.47 Mile East of I-65	82+59	1974	2003
1298270	36560	I65-113-05742 BNBL	I-65 NB	PROPOSED RAMP	2.12 Miles North of I-70	112+41	1974	2003
1298273	36590	I65-113-05747 BNBL	I-65 NB	I-70 WB, RAMP	2.21 Miles North of I-70	112+50	1974	2003
1296648	36620	I65-113-05748 ANBL	I-65 NB	COLLEGE AVENUE	2.26 Miles North of I-70	112+55	1969	1989
1298272	36580	I65-113-05744 BSBL	I-65 SB	I-70 WB, I-65 RAMP	2.21 Miles North of I-70	112+50	1974	2003
1298271	36570	I65-113-05743 B	I-65 Ramp	I-70 WB, CD	2.12 Miles North of I-70	112+41	1974	2003
1298276	36600	I65-113-05745 A	I-65 and Ramp	COLLEGE AVENUE	2.26 Miles North of I-70	112+55	1969	1989
1298278	36650	I65-114-05666 A	I-65	CENTRAL AVENUE	2.52 Miles North of I-70	112+81	1969	1989
1298277	36610	I65-113-05746 A	I-65 Ramp	COLLEGE AVENUE	2.26 Miles North of I-70	112+55	1969	1989
1383301	42340	I70-79-05739 BWBL	I-70 WB	EAST 10TH STREET	0.52 Mile East of I-65	82+95	1974	2003
1298283	42330	(I65)I70-79-05737 ANBL	I-65 NB and I-70 EB	EAST TENTH STREET	1.92 Miles North of I-70	112+03	1974	2003
1298269	36540	I65-112-05736 ASBL	I-65 SB	ST CLAIR STREET	1.65 Miles North of I-70	111+95	1974	2003
1298268	36530	I65-112-05735 ANBL	I-65 NB	ST CLAIR STREET	1.65 Miles North of I-70	111+95	1974	2003
1298267	36520	I65-112-05734 ANBL	I-65 NB	I-65 RAMP NB	1.43 Miles North of I-70	111+73	1974	2003
1298265	36510	I65-112-05733 ASBL	I-65 SB	MICHIGAN STREET	1.39 Miles North of I-70	111+69	1974	2003
1298264	36500	I65-112-05732 BNBL	I-65 NB	MICHIGAN STREET	1.39 Miles North of I-70	111+69	1974	2003
1500165	36490	I65-112-05731 B	I-65 and CD	VERMONT STREET	1.29 Miles North of I-70	111+59	1974	2003
1298262	36480	I65-112-05730 B	I-65 and CD	NEW YORK STREET	1.19 Miles North of I-70	111+49	1974	2003
1296613	36470	I65-112-02431 A	I-65 and CD	CSX RR, OHIO STREET	1.10 Miles North of I-70	111+40	1974	2003
1298261	36460	I65-112-05728 A	I-65 and CD	MARKET STREET	1.00 Mile North of I-70	111+30	1974	2003

1296944	36550	I-65-112-05738 BSBL	I-65 SB	EAST 10TH STREET	1.92 Miles North of I-70	112+03	1974	2003
TBD	42420	I70-80-05701 DWBL	I-70 WB	ROOSEVELT AV @ COMMERCE AV	5.74 Miles West of I-465	83+30	1974	2007
TBD	42410	I70-80-05701 DEBL	I-70 EB	ROOSEVELT AV @ COMMERCE AV	5.74 Miles West of I-465	83+30	1974	2007
TBD	42440	I70-80-05702 CWBL	I-70	VALLEY AVENUE	5.34 Miles West of I-465	83+95	1974	2007

**The bridges listed in red are were added after field work was conducted for this report and are included in the current scope of work.*



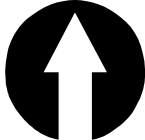
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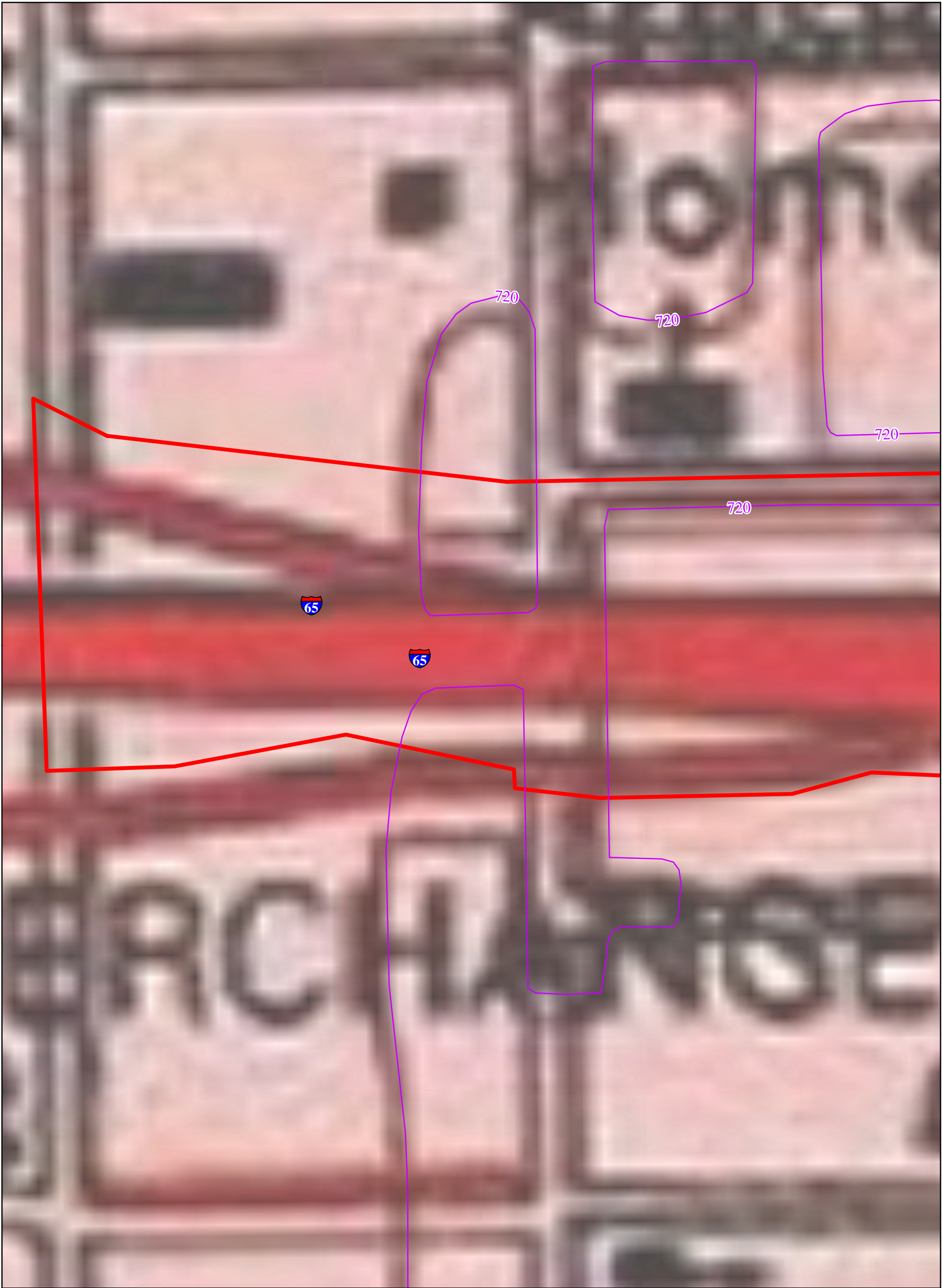
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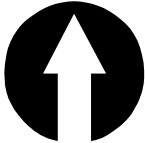
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 Study Area
 Elevation Contours





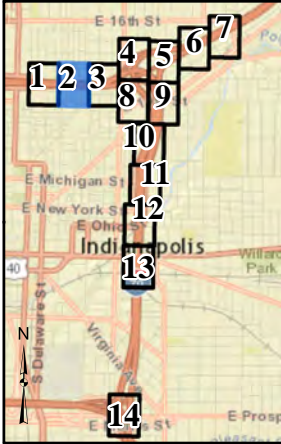
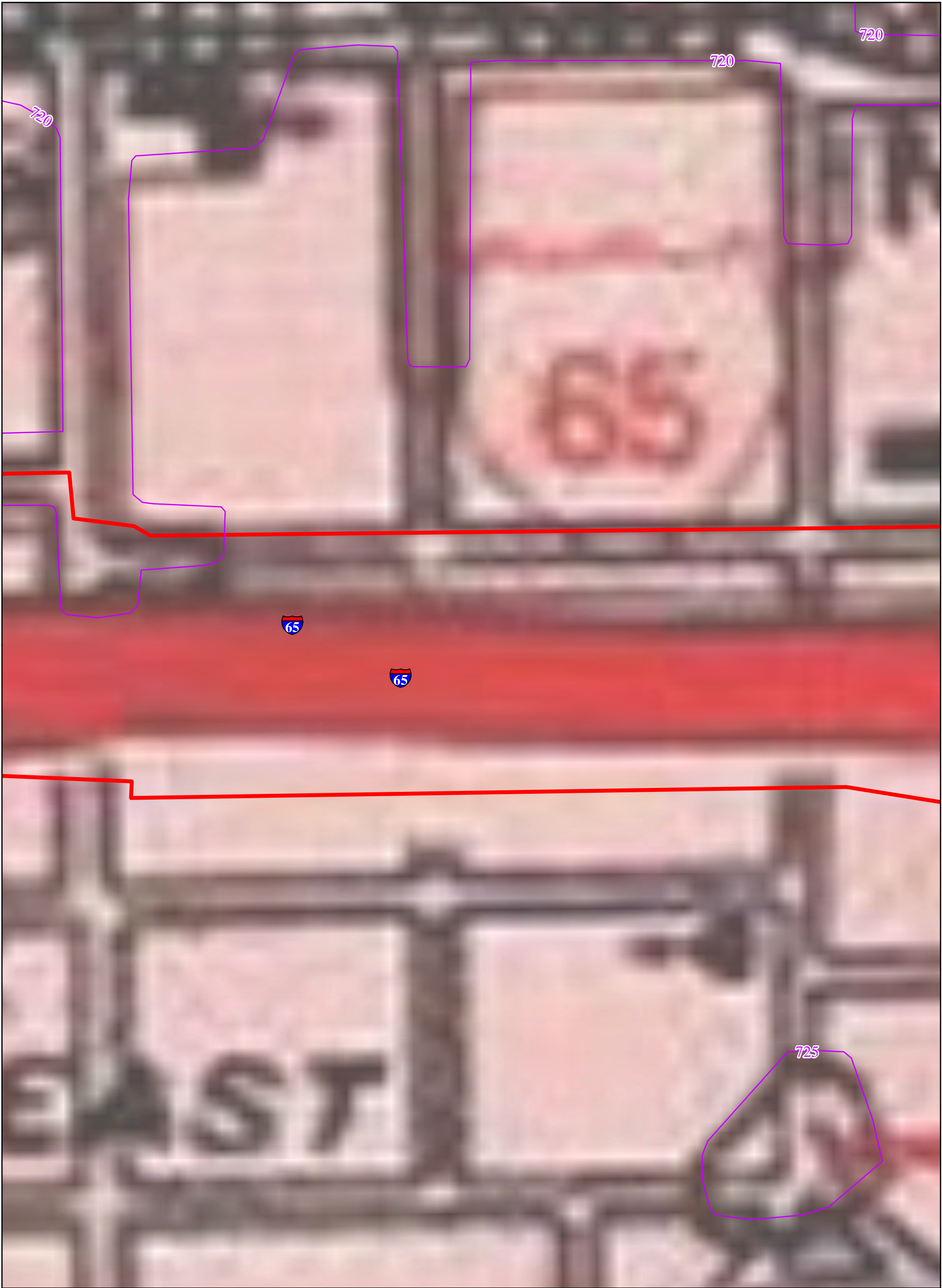
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Study Area

Elevation Contours

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Feet

1 in = 100 feet

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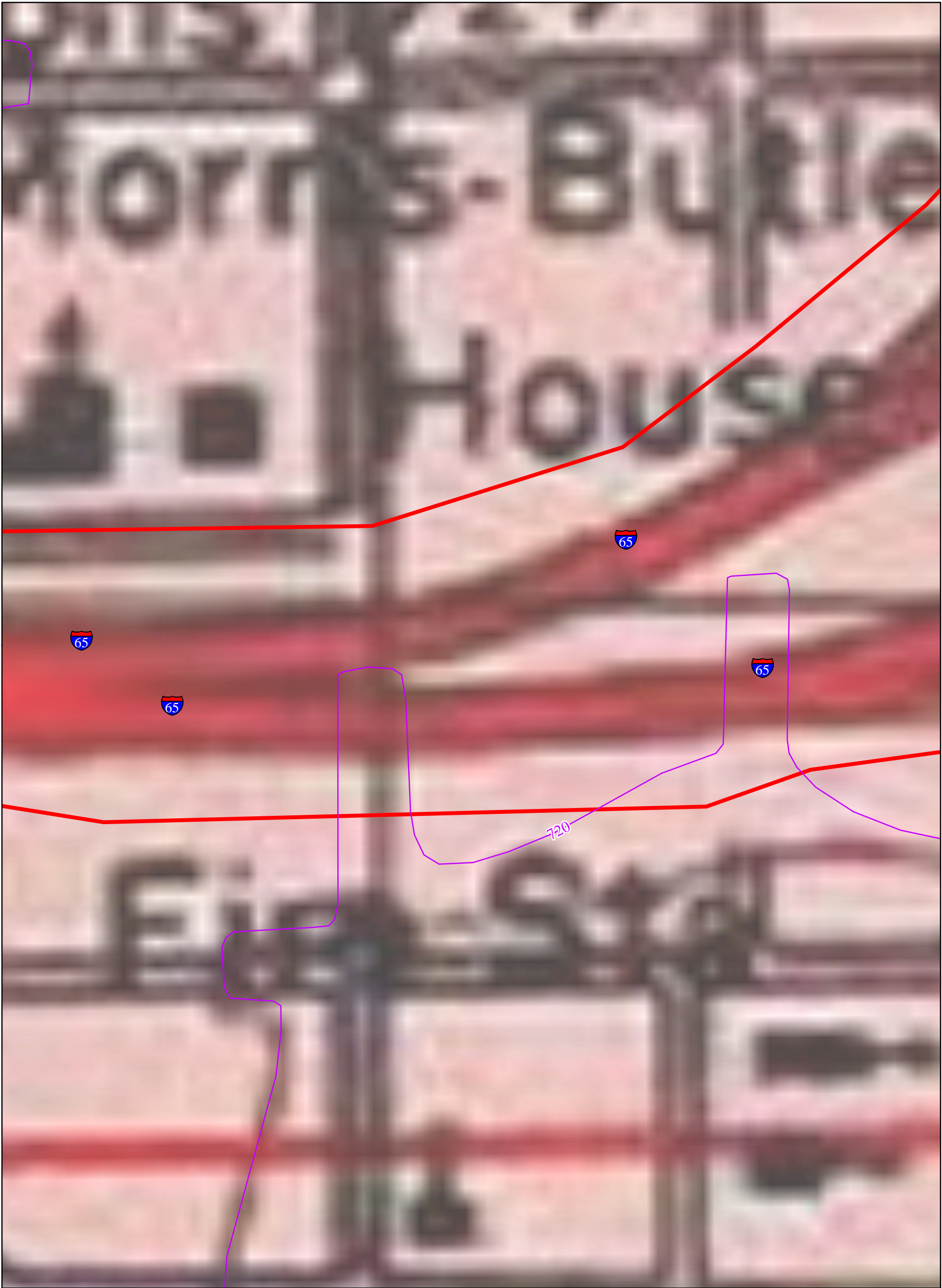
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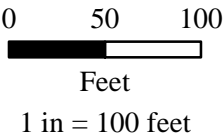
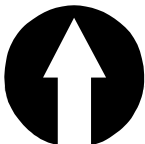
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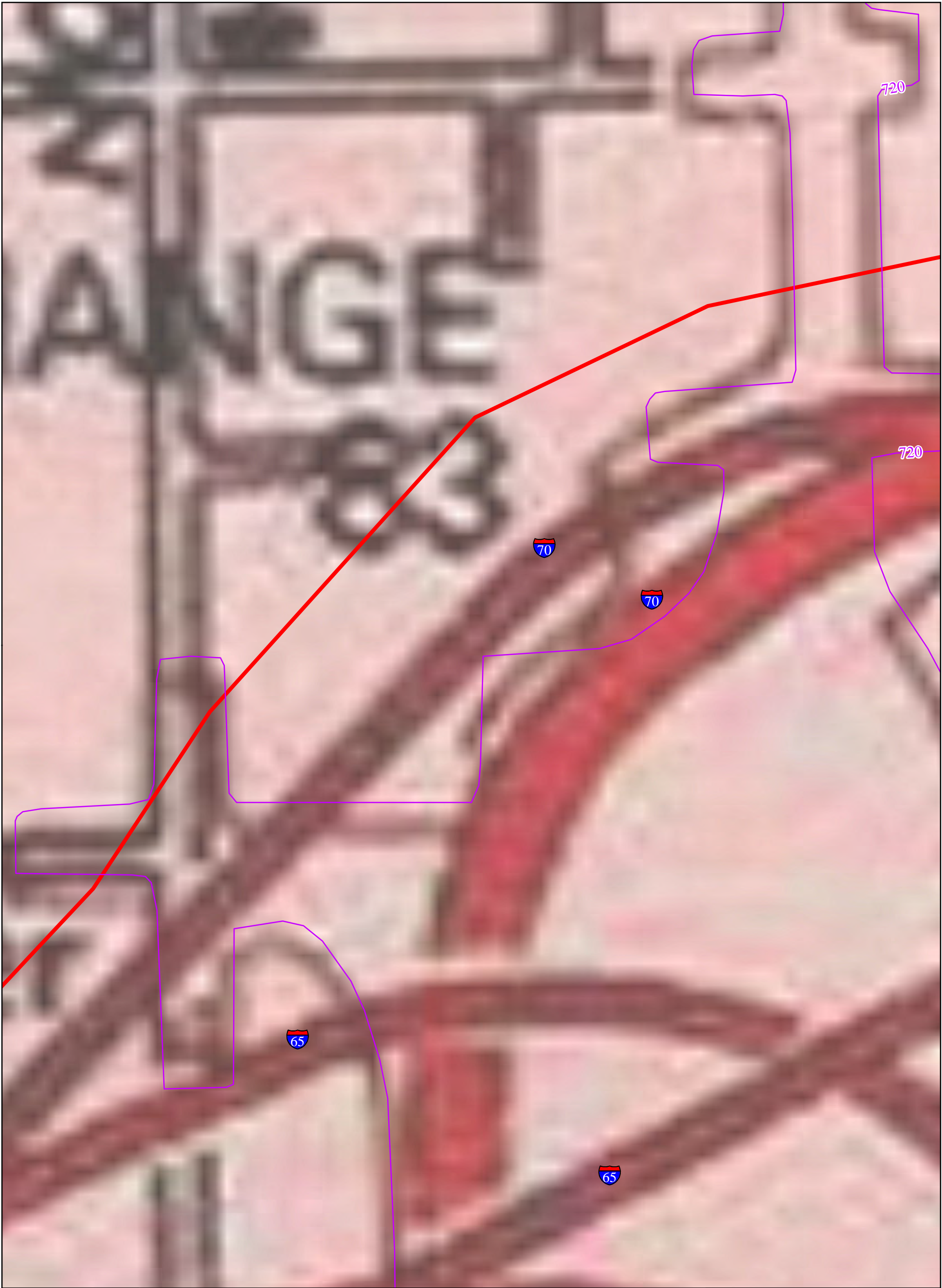




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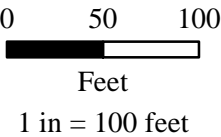
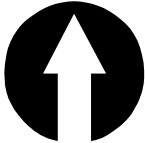
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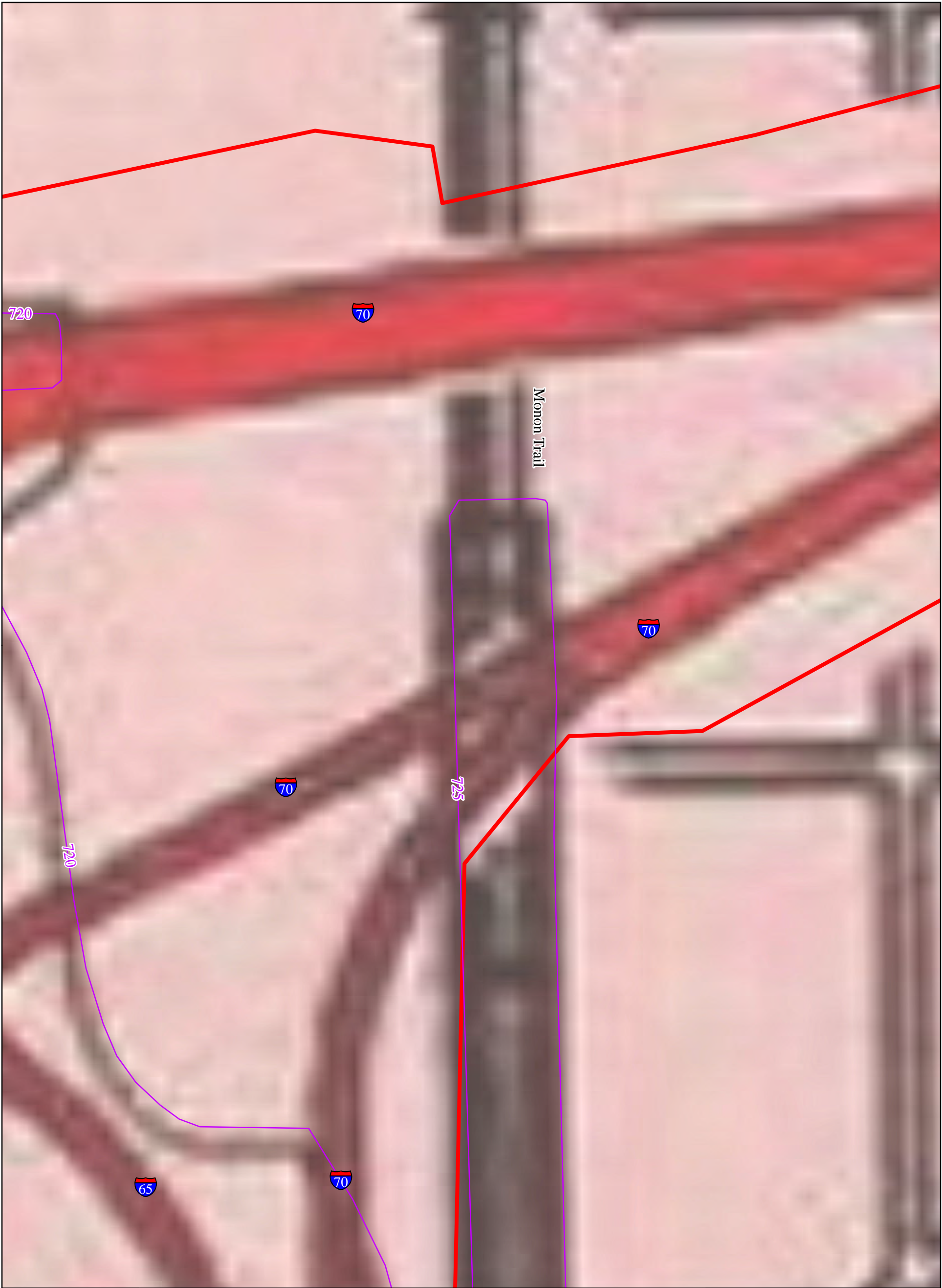




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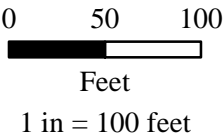
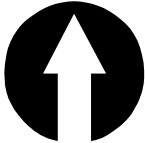
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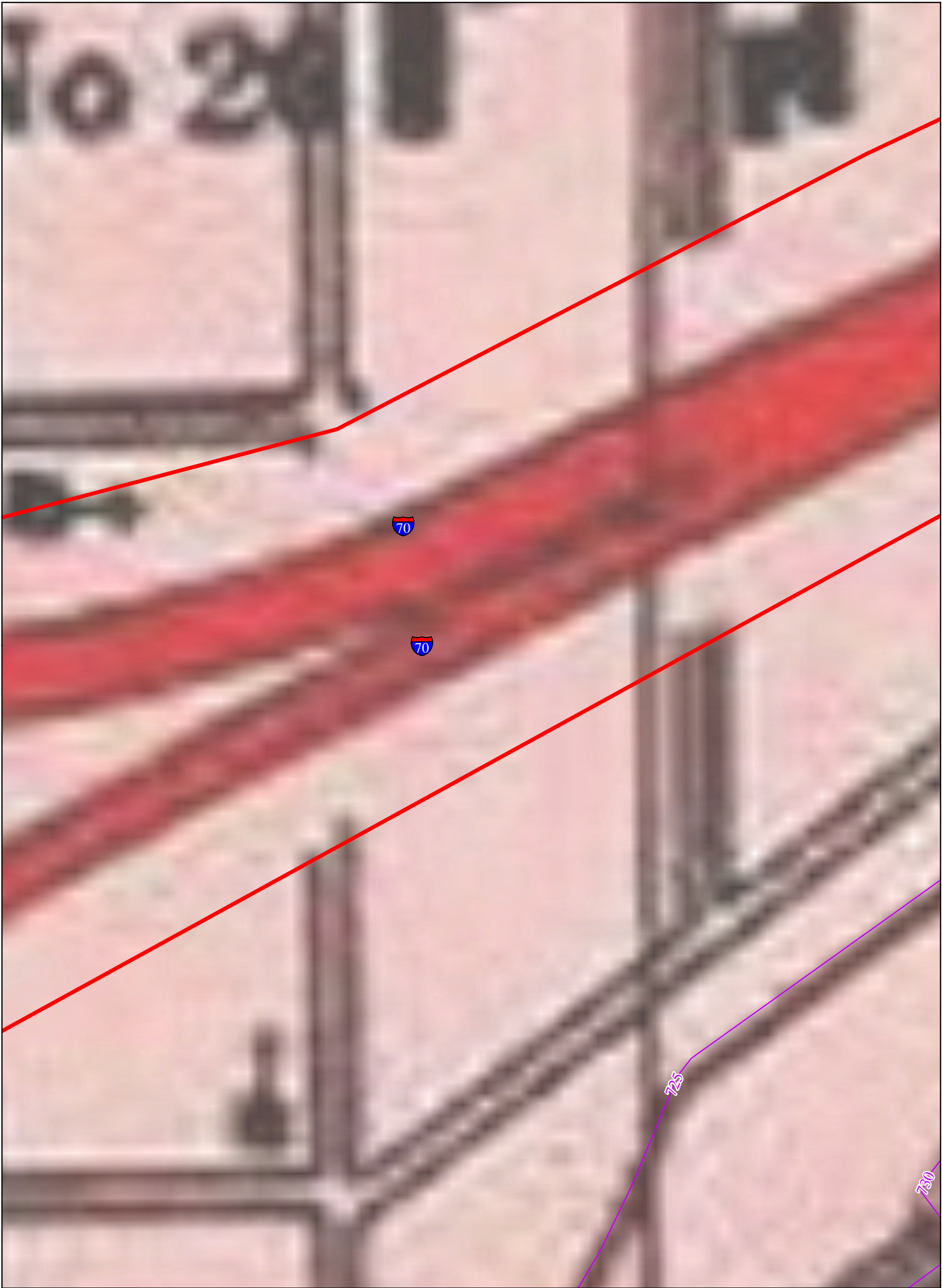




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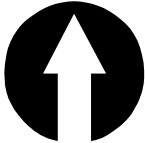
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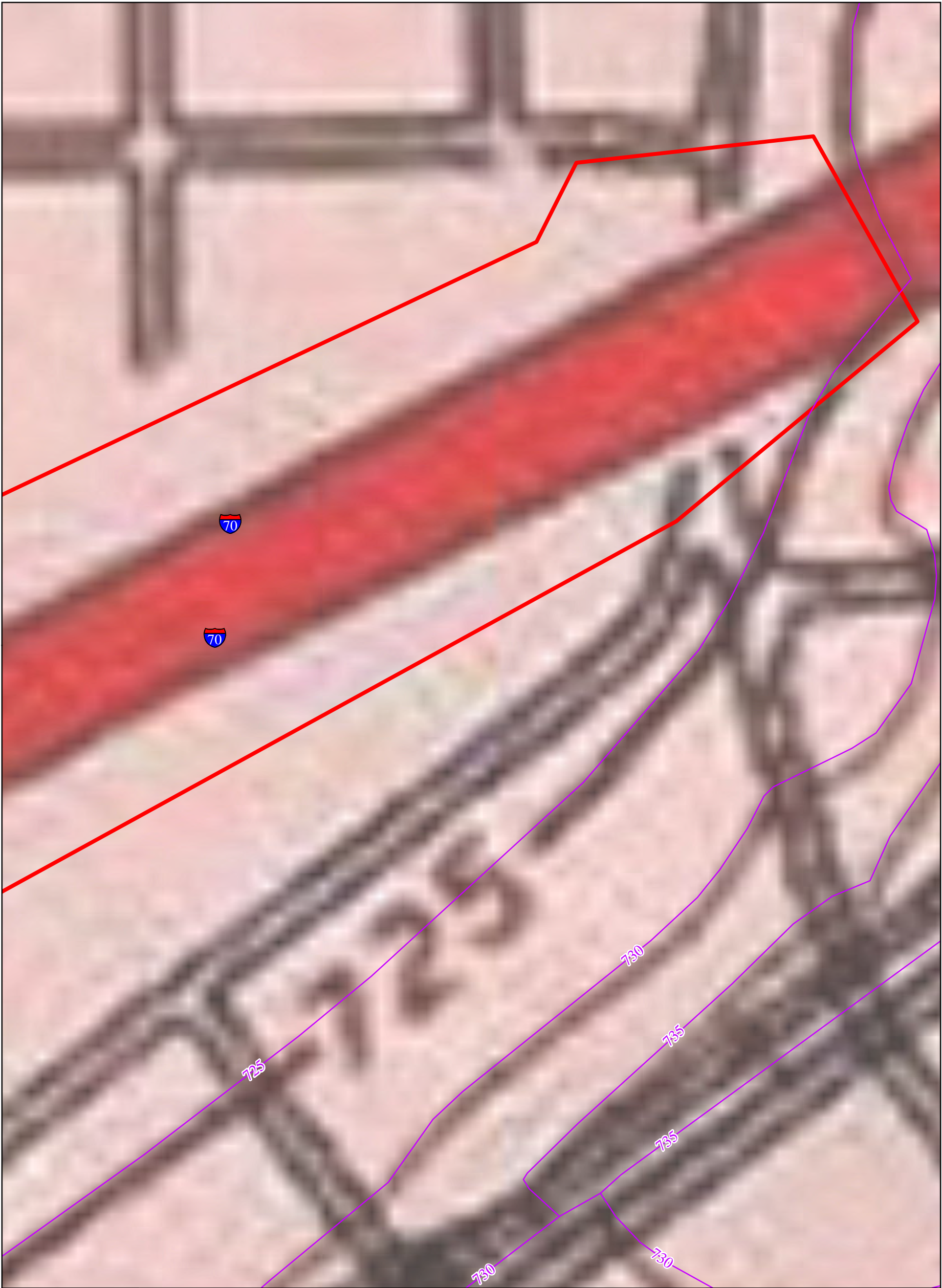
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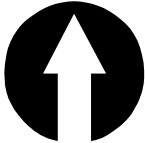


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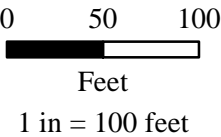
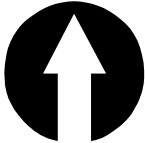
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USGS Topographic Map








Study Area



Elevation Contours



050100

Feet

1 in = 100 feet

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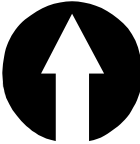


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**Study Area**

**Elevation Contours**



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Feet

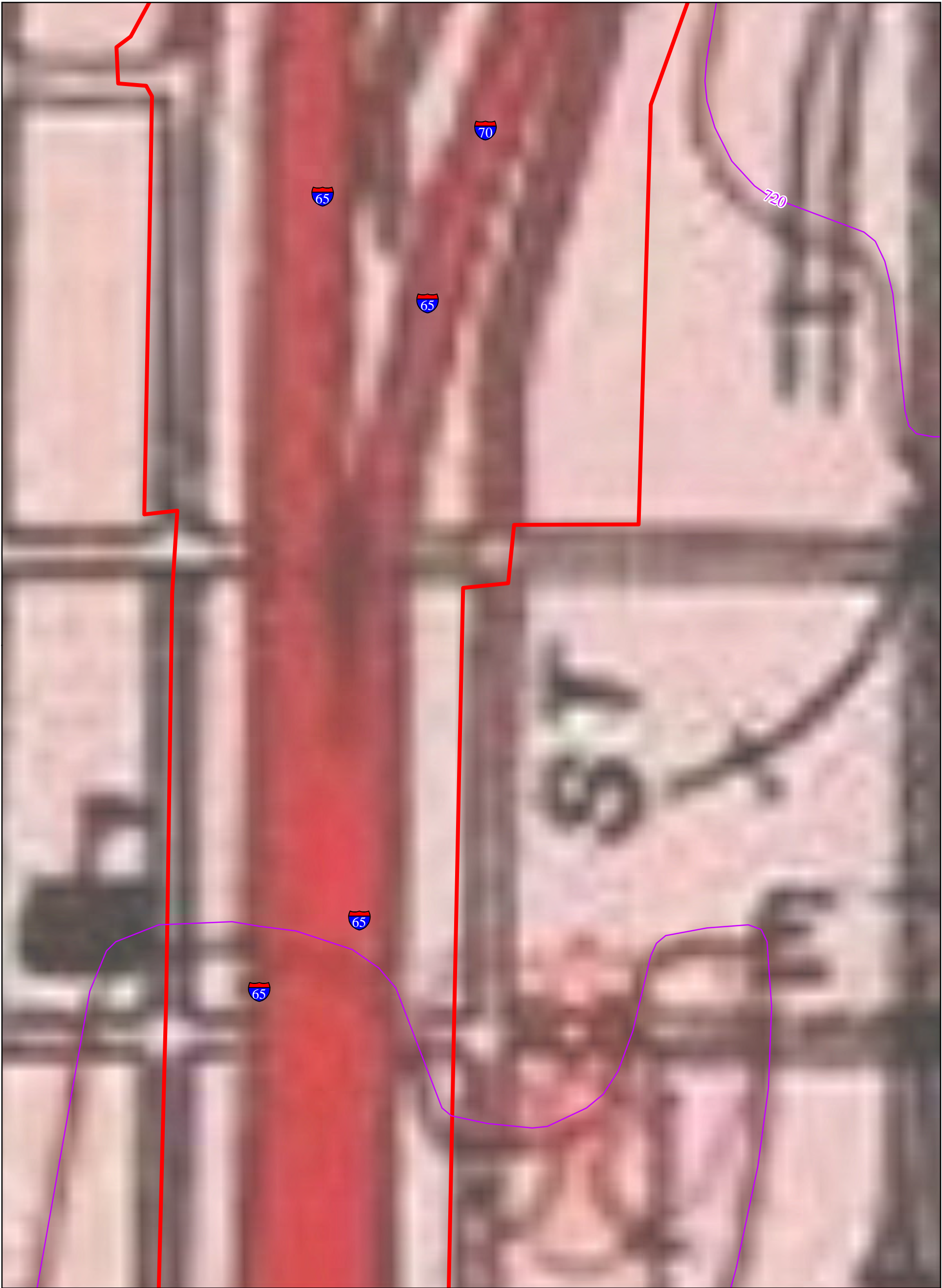
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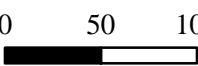
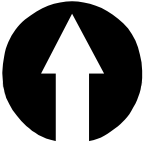
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**Study Area**

**Elevation Contours**





1 in = 100 feet



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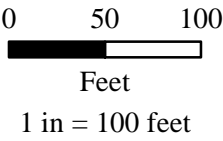
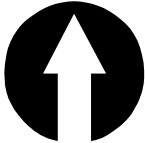
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USGS Topographic Map**







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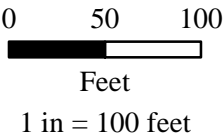
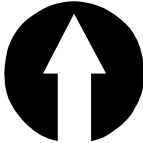
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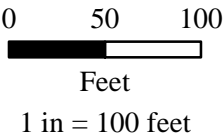
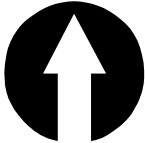
Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
USGS Topographic Map







-  Study Area
-  Elevation Contours

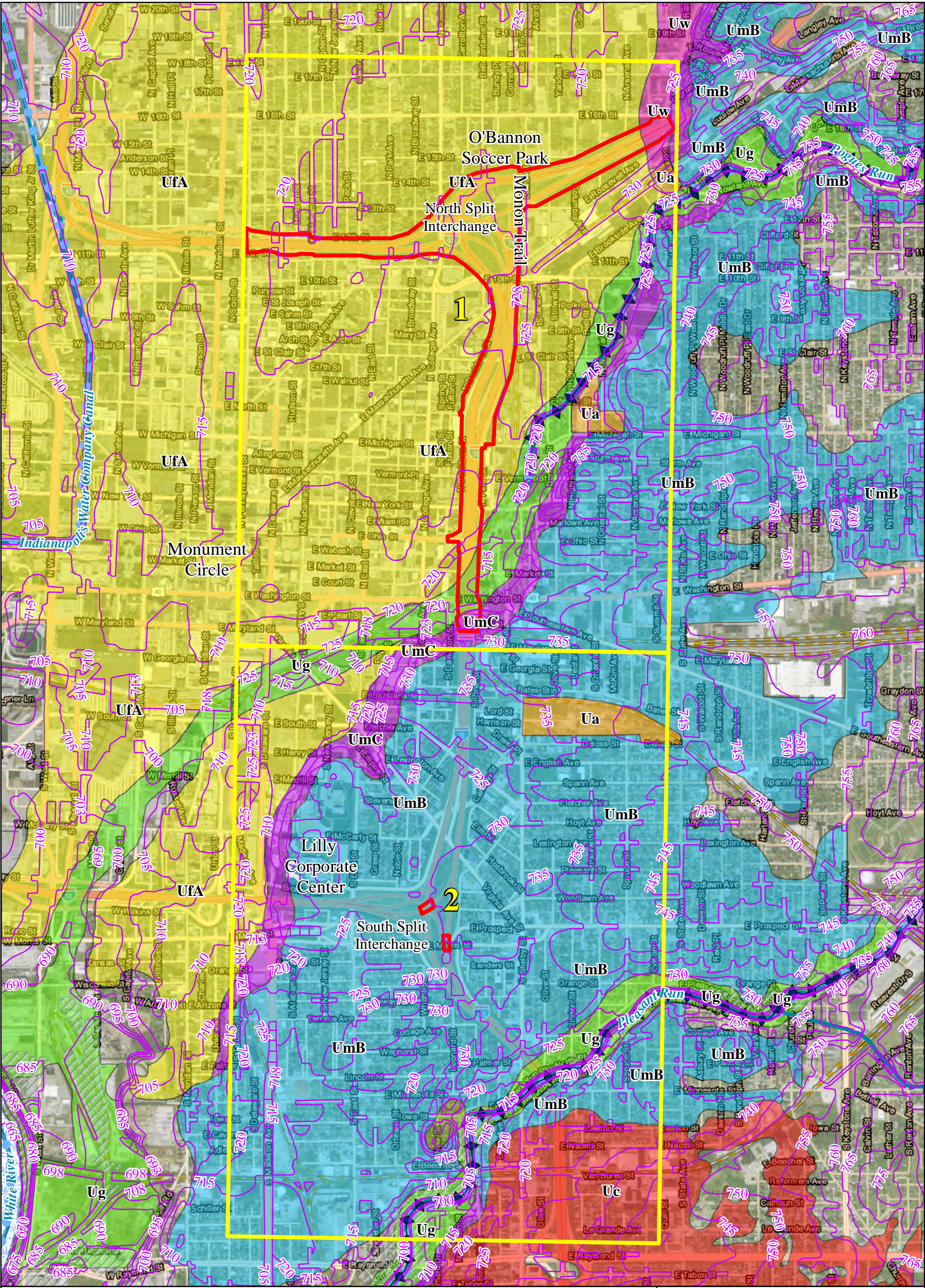


Sources:
Non Orthophotography Data -
Obtained from the State of Indiana Geographical
Information Office Library
Orthophotography -
Obtained from Indiana Map
Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
USGS Topographic Map





Study Area

Sheets

Elevation Contours

NWI- Line

Stream - Impaired

River

Lake

Wetlands

Floodplain - DFIRM

Soils

Ua

Uc

UfA

UfC

Ug

UmB

UmC

Uw

0

750

1,500

Feet

1 in = 1,500 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)

Des. 1592385 (Lead)

Contract #36910

I-65/I-70 North Split Interchange Reconstruction

Marion County, IN

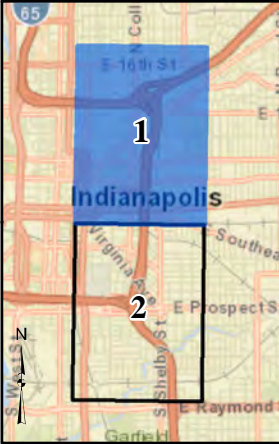
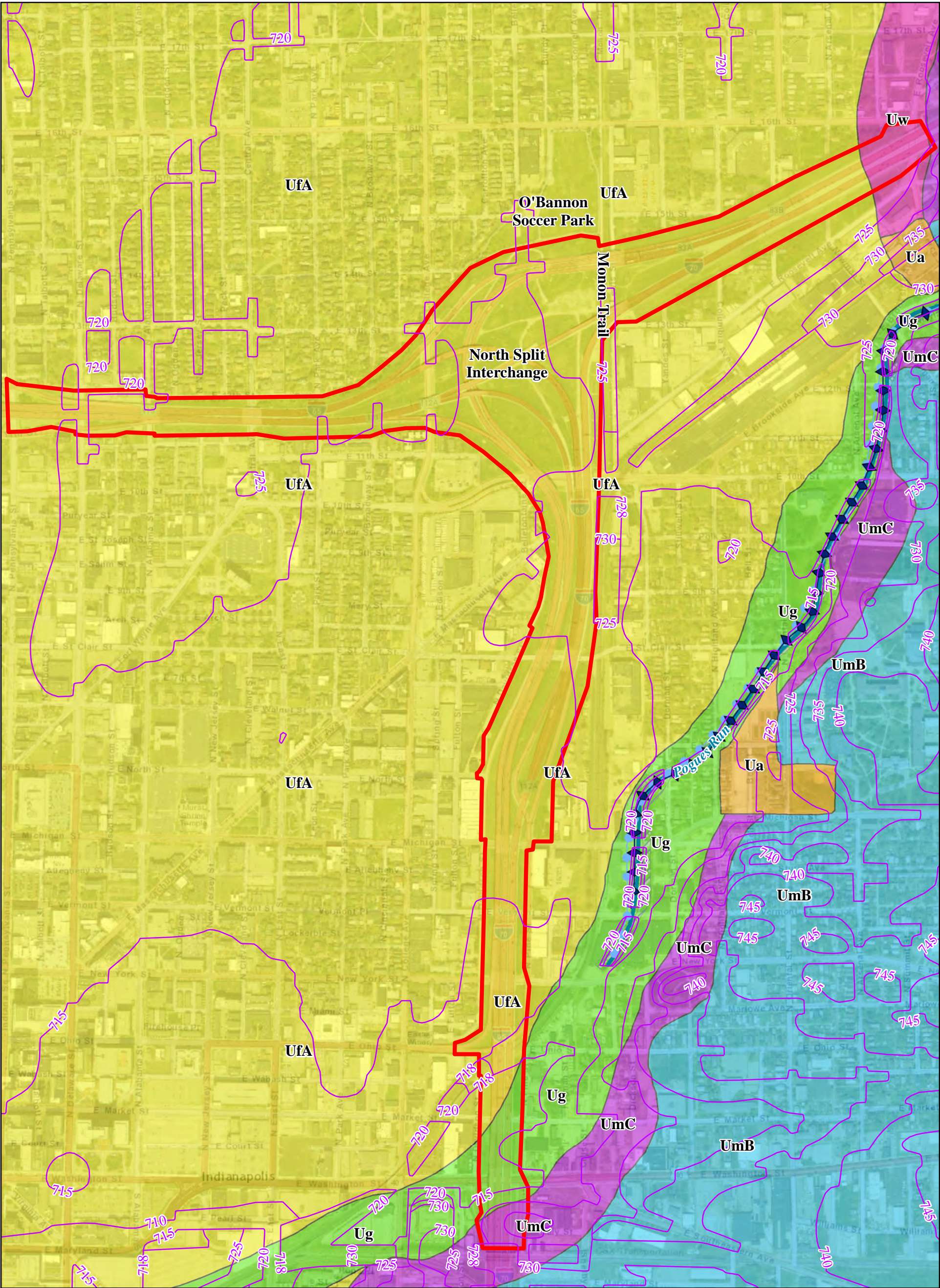
NWI, Waters, Soils and Floodplain Index Map

PARSONS

Des. 1592385 (L) Contract # 36910

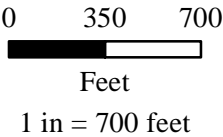
Waters of the U.S. Report

Marion Co., IN Page 34 of 201



- Study Area
- Elevation Contours
- NWI- Line
- Stream - Impaired
- River
- Lake
- Wetlands
- Floodplain - DFIRM

- Soils
- Ua
 - Uc
 - UfA
 - UfC
 - Ug
 - UmB
 - UmC
 - Uw



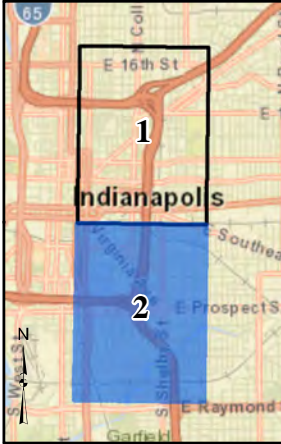
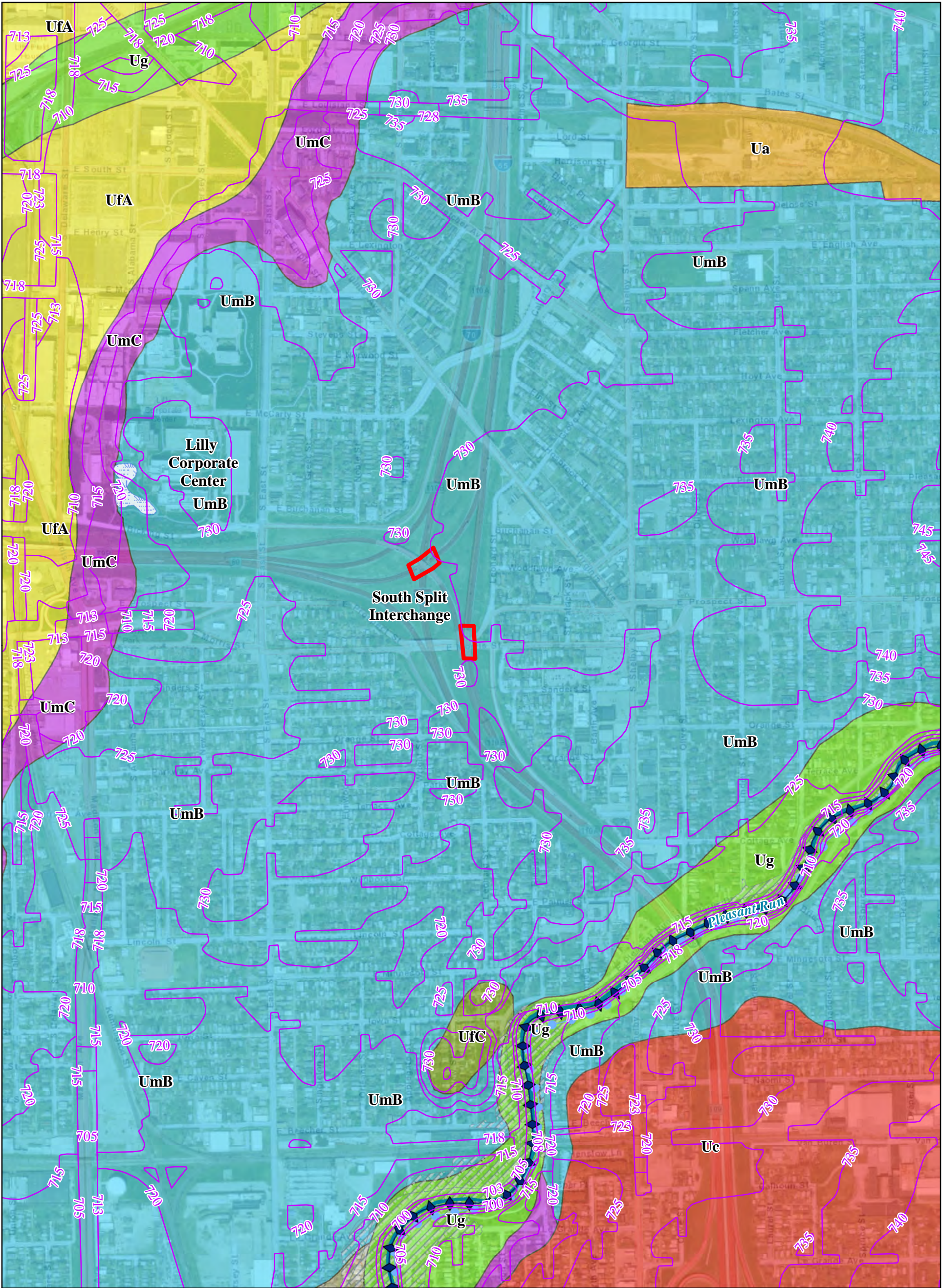
Sources:
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Obtained from the State of Indiana Geographical
Information Office Library
Orthophotography -
Obtained from Indiana Map
Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

**I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
NWI, Waters, Soils and
Floodplain Map**



PARSONS



- Study Area
- Elevation Contours
- NWI- Line
- Stream - Impaired
- River
- Lake
- Wetlands
- Floodplain - DFIRM

- Soils
- Ua
 - Uc
 - UfA
 - UfC
 - Ug
 - UmB
 - UmC
 - Uw



0 350 700
Feet
1 in = 700 feet

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

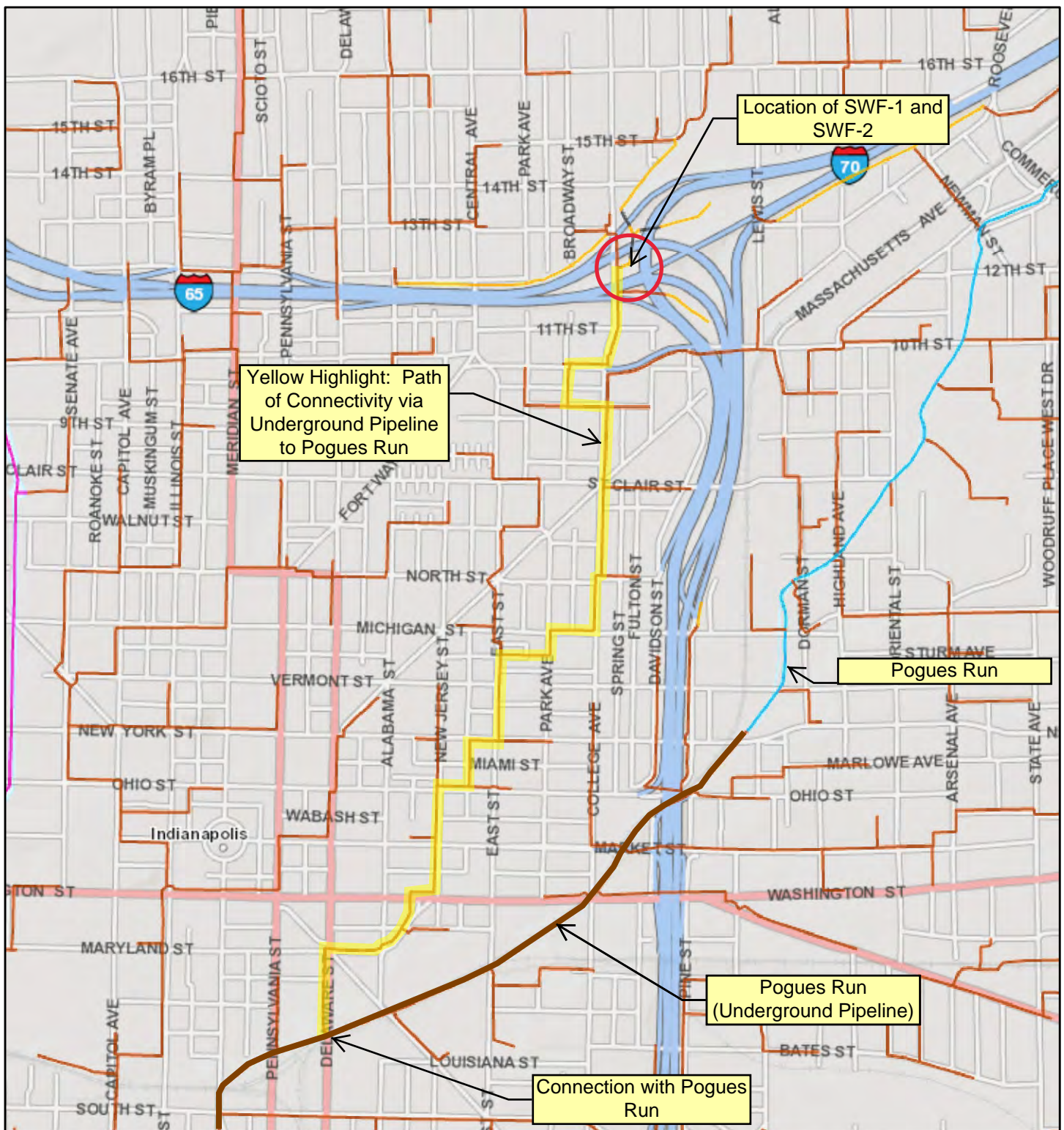


PARSONS

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Contract #36910**

**I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
NWI, Waters, Soils and
Floodplain Map**

Storm Water Drainage System Map

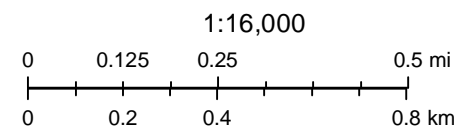


September 1, 2017

Classified Flowlines (Local-Resolution NHD)

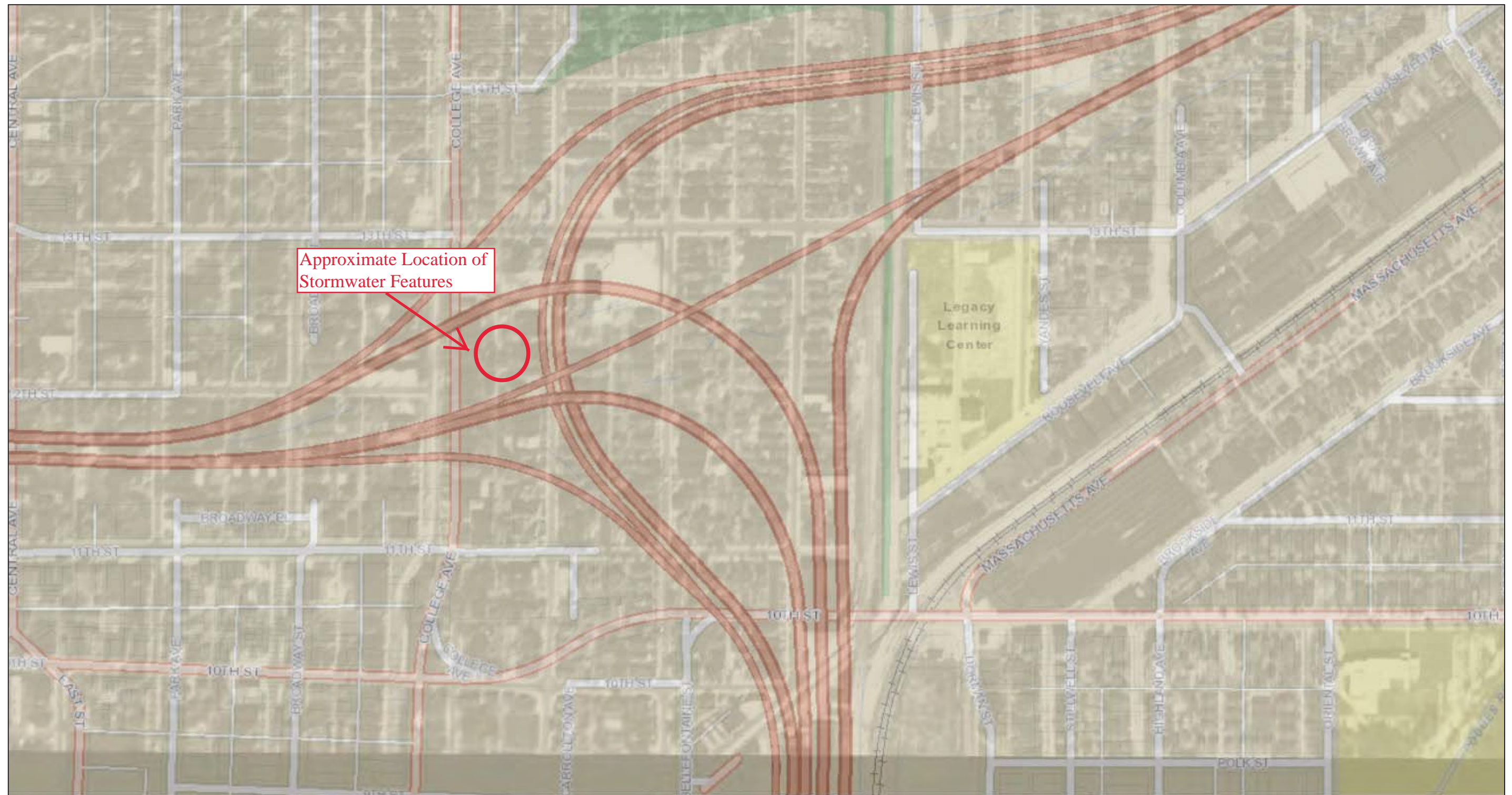
- ArtificialPath
- CanalDitch
- Connector

- Pipeline
- StreamRiver

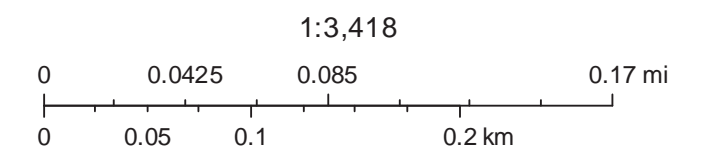


U.S. Geological Survey
 Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB),
 Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data
 Portal

1937 Historic Aerial Map (Indianapolis) (1 of 2)



October 27, 2017

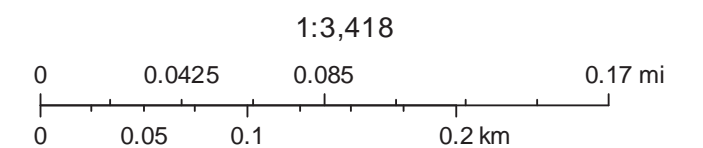


<http://maps.indy.gov/MapIndy/index.html>

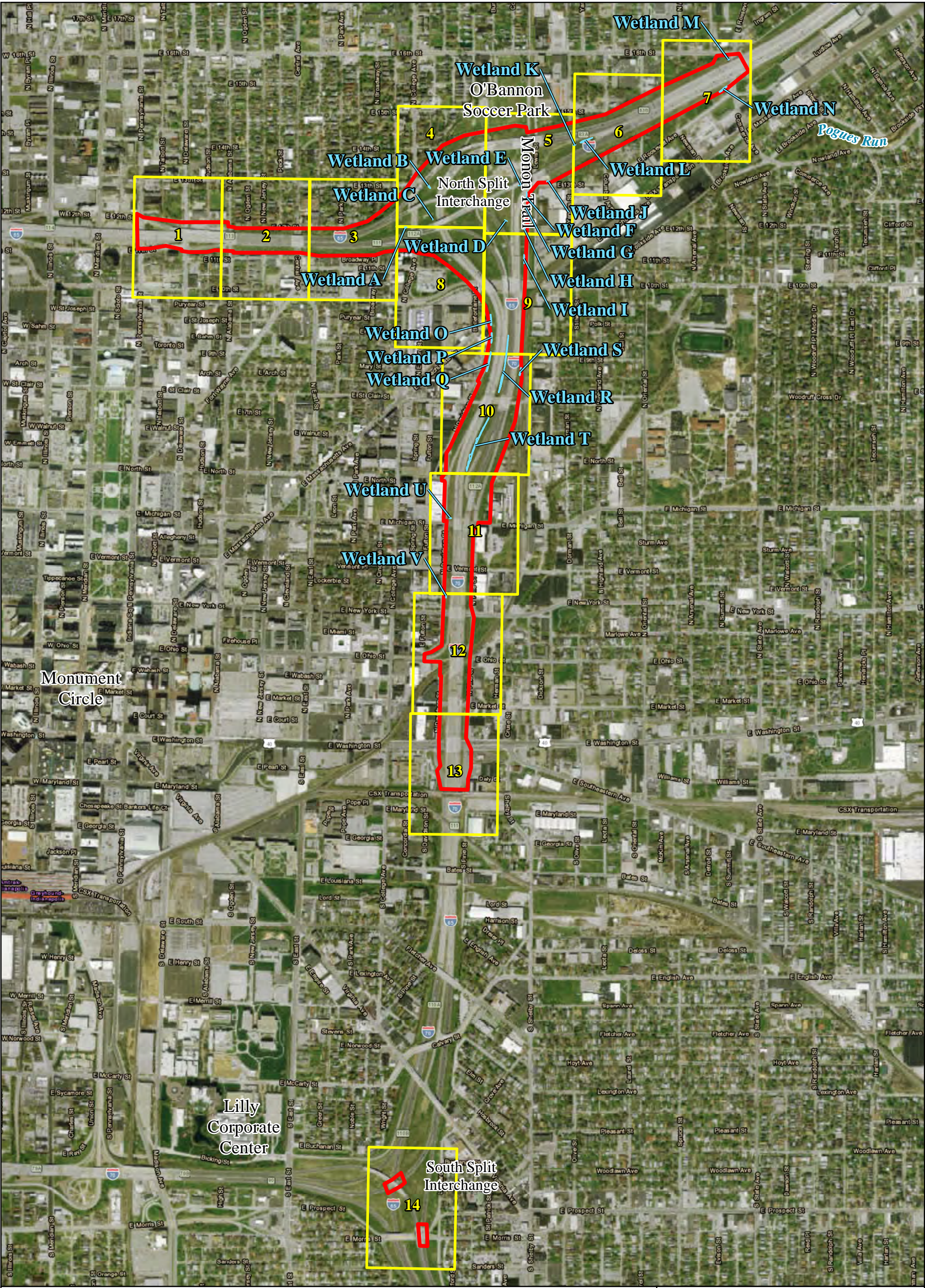
1937 Historic Aerial Map (Indianapolis) (2 of 2)






October 27, 2017



<http://maps.indy.gov/MapIndy/index.html>

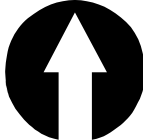


-  Study Area
-  Index Sheet
-  Delineated Wetlands

0 525 1,050

Feet

1 in = 1,050 feet



Sources:

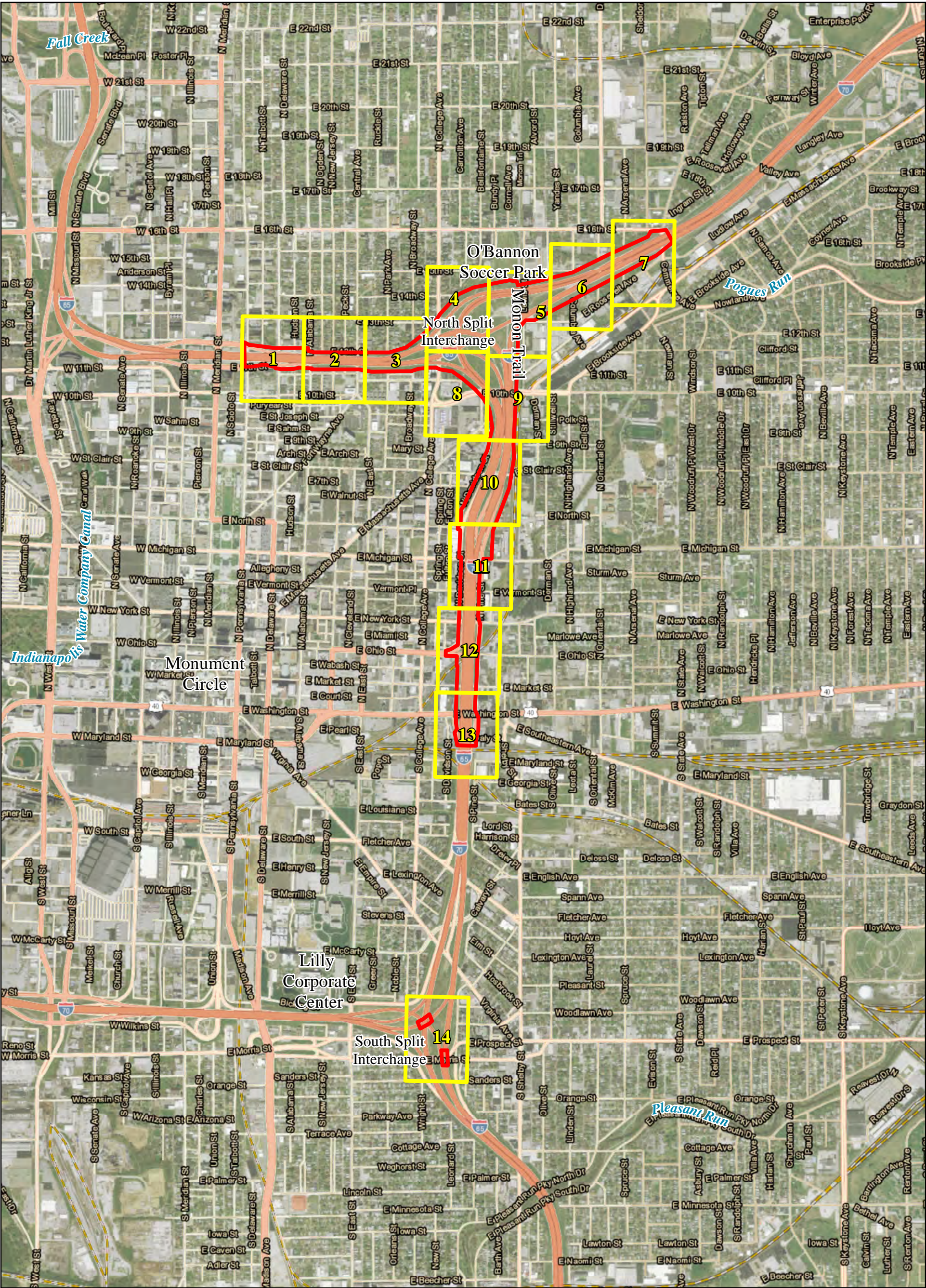
Non Orthophotography Data -
Obtained from the State of Indiana Geographical
Information Office Library
Orthophotography -
Obtained from Indiana Map
Framework Data (www.indianamap.org)



Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Wetland Overview Map



PARSONS

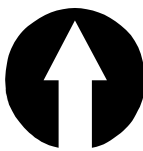


 Study Area
 Sheets

0 750 1,500

Feet

1 in = 1,500 feet



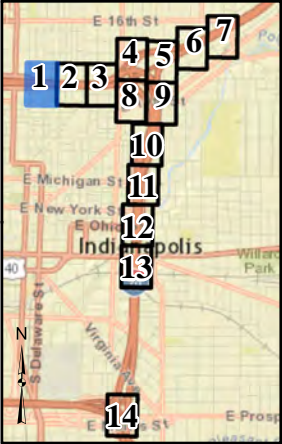
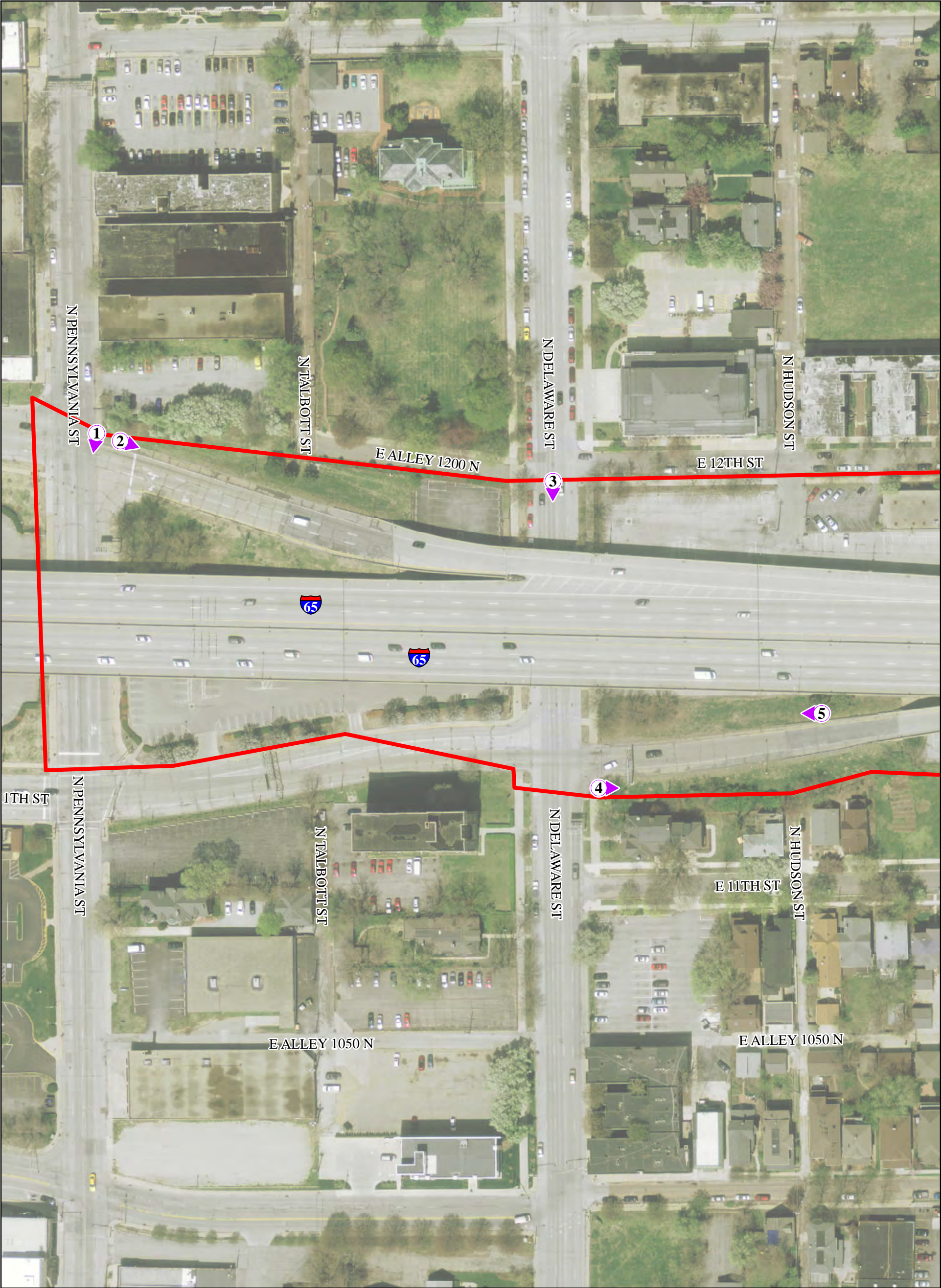
Sources:
Non Orthophotography Data -
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Information Office Library
Orthophotography -
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Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

**I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Index Map**



PARSONS



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 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)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map

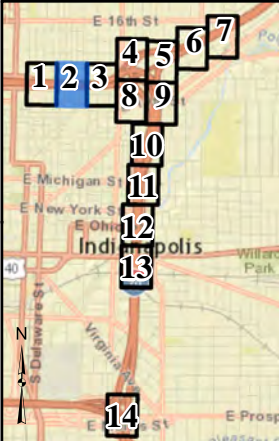
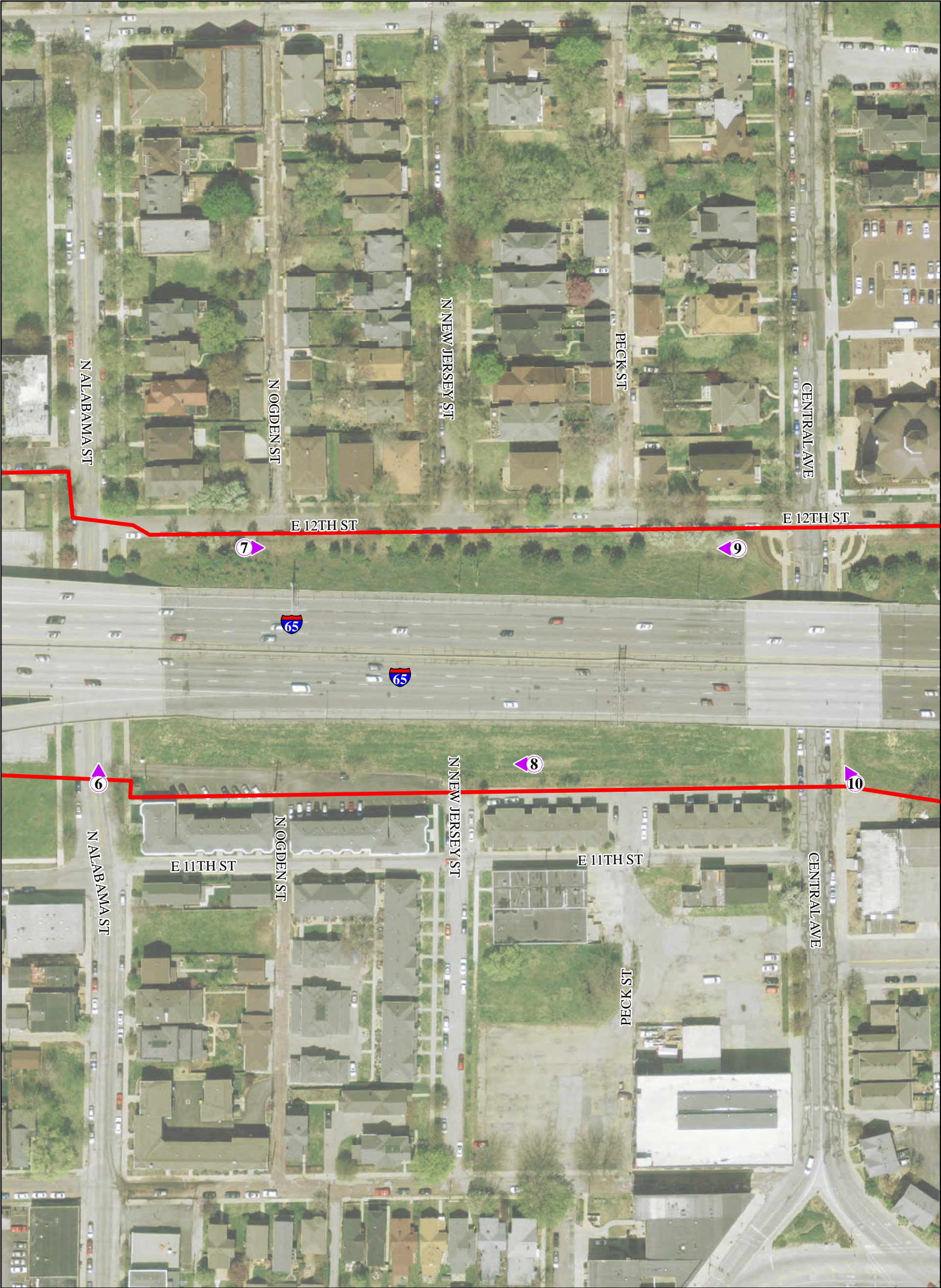


PARSONS

Des. 1592385 (L) Contract # 36910

Waters of the U.S. Report

Marion Co., IN Page 42 of 201



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

050100

Feet

1 in = 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)







Des. 1592385 (Lead)
Contract #36910

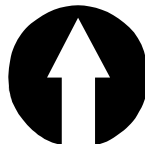
I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map








-  Study Area
-  Data Points
-  Stormwater Feature
-  Delineated Wetlands
-  Photo Orientation
-  Photo Facing Down



0 50 100

 Feet
 1 in = 100 feet







Sources:
Non Orthophotography Data -
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Orthophotography -
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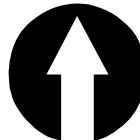
Des. 1592385 (Lead)
Contract #36910


I-65/I-70 North Split Interchange Reconstruction Marion County, IN Photo Orientation and Field-Identified Resources Map

**PARSONS**



-  Study Area
-  Data Points
-  Stormwater Feature
-  Delineated Wetlands
-  Photo Orientation
-  Photo Facing Down



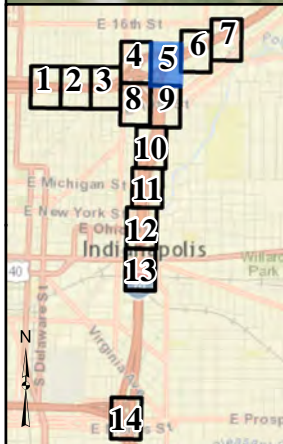
0 50 100

 Feet
 1 in = 100 feet







Sources:
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Orthophotography -
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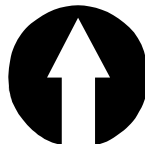
**Des. 1592385 (Lead)
Contract #36910**


**I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map**

**PARSONS**



-  Study Area
-  Data Points
-  Stormwater Feature
-  Delineated Wetlands
-  Photo Orientation
-  Photo Facing Down



0 50 100

 Feet
 1 in = 100 feet

Sources:
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 ed from the State of Indiana Geographical
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Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split Interchange Reconstruction Marion County, IN Photo Orientation and Field-Identified Resources Map

**PARSONS**



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet

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Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet


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Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map



PARSONS

Des. 1592385 (L) Contract # 36910

Waters of the U.S. Report

Marion Co., IN Page 48 of 201



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet


Sources:

Non Orthophotography Data -
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Information Office Library

Orthophotography -
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Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map



PARSONS

Des. 1592385 (L) Contract # 36910

Waters of the U.S. Report

Marion Co., IN Page 49 of 201



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 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)

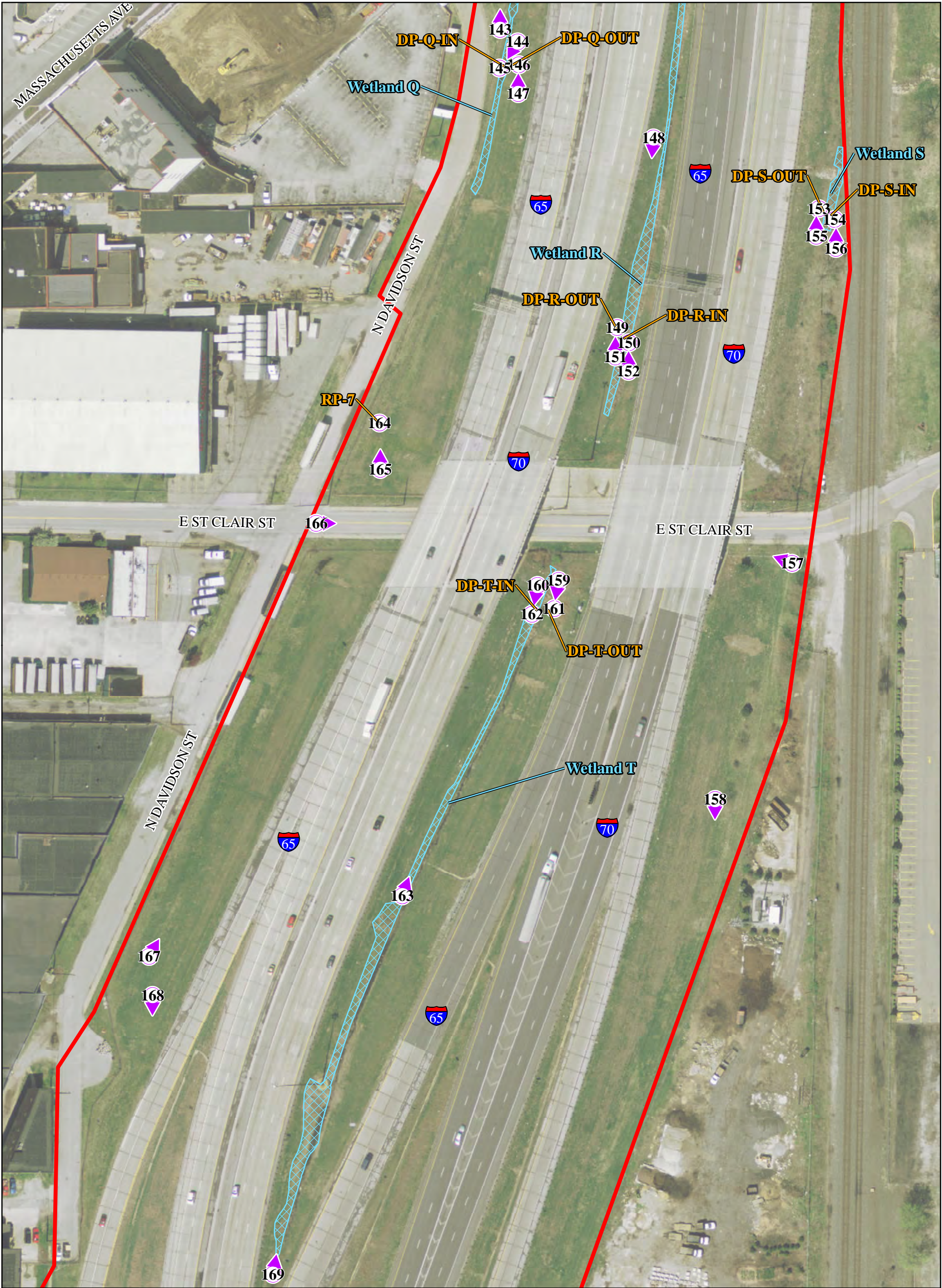
Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map

Des. 1592385 (L) Contract # 36910

Waters of the U.S. Report

Marion Co., IN Page 50 of 201



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet

Sources:

Non Orthophotography Data

-

Obtained from the State of Indiana Geographical Information Office Library

Orthophotography

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Obtained from Indiana Map Framework Data (www.indianamap.org)

Des. 1592385 (Lead)

Contract #36910

I-65/I-70 North Split

Interchange Reconstruction

Marion County, IN

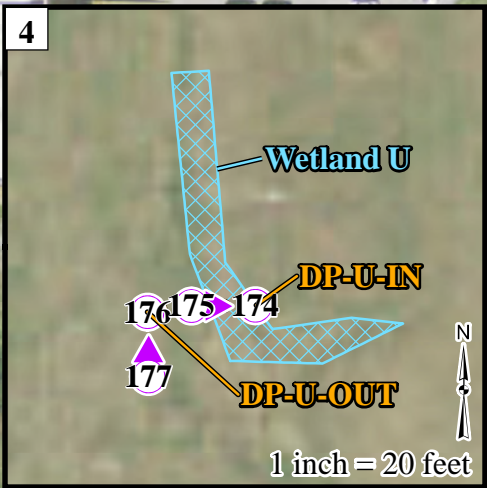
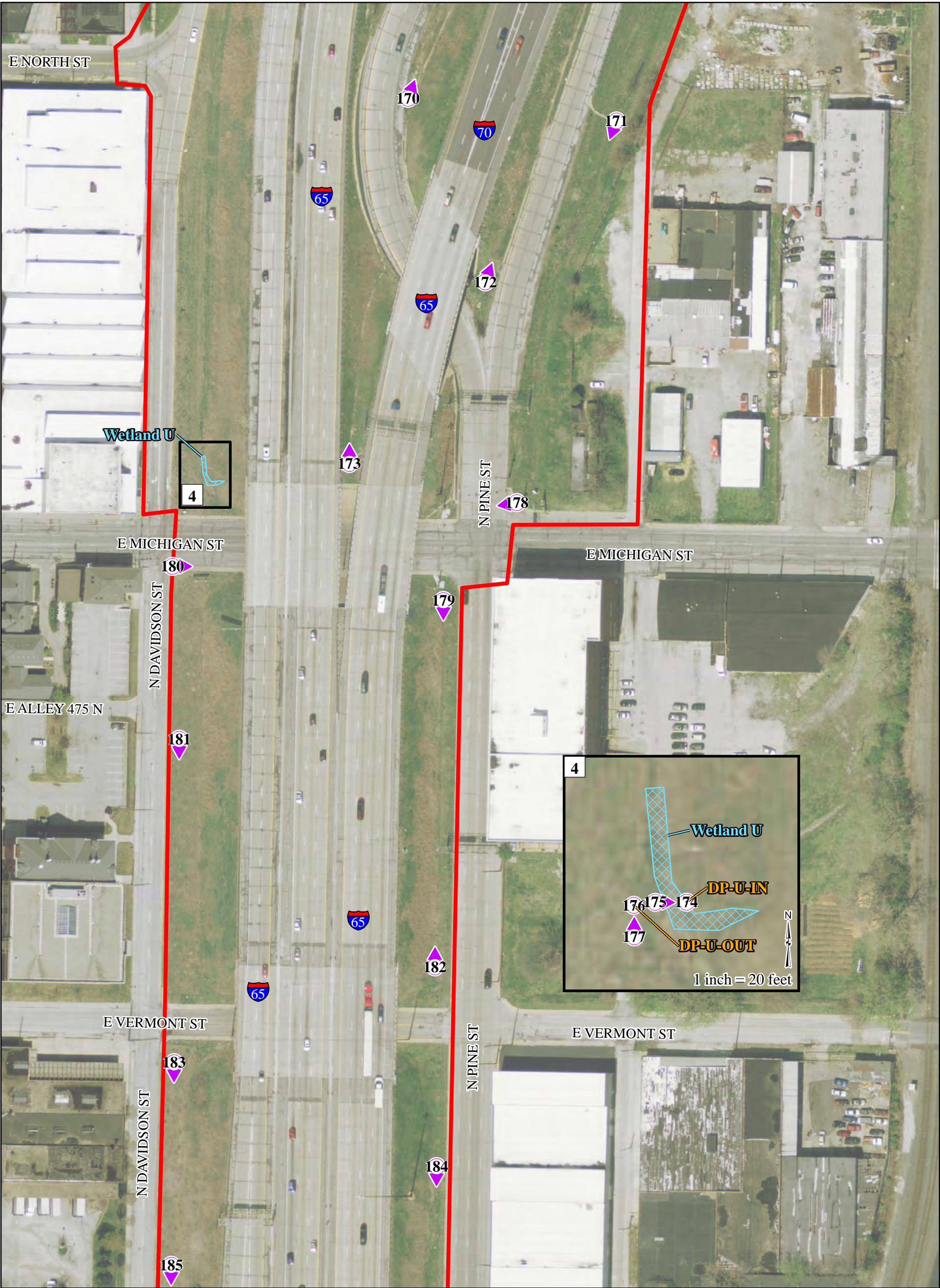
Photo Orientation and

Field-Identified Resources Map

Des. 1592385 (L) Contract # 36910

Waters of the U.S. Report

Marion Co., IN Page 51 of 201



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet

Sources:

Non Orthophotography Data

-

Obtained from the State of Indiana Geographical Information Office Library

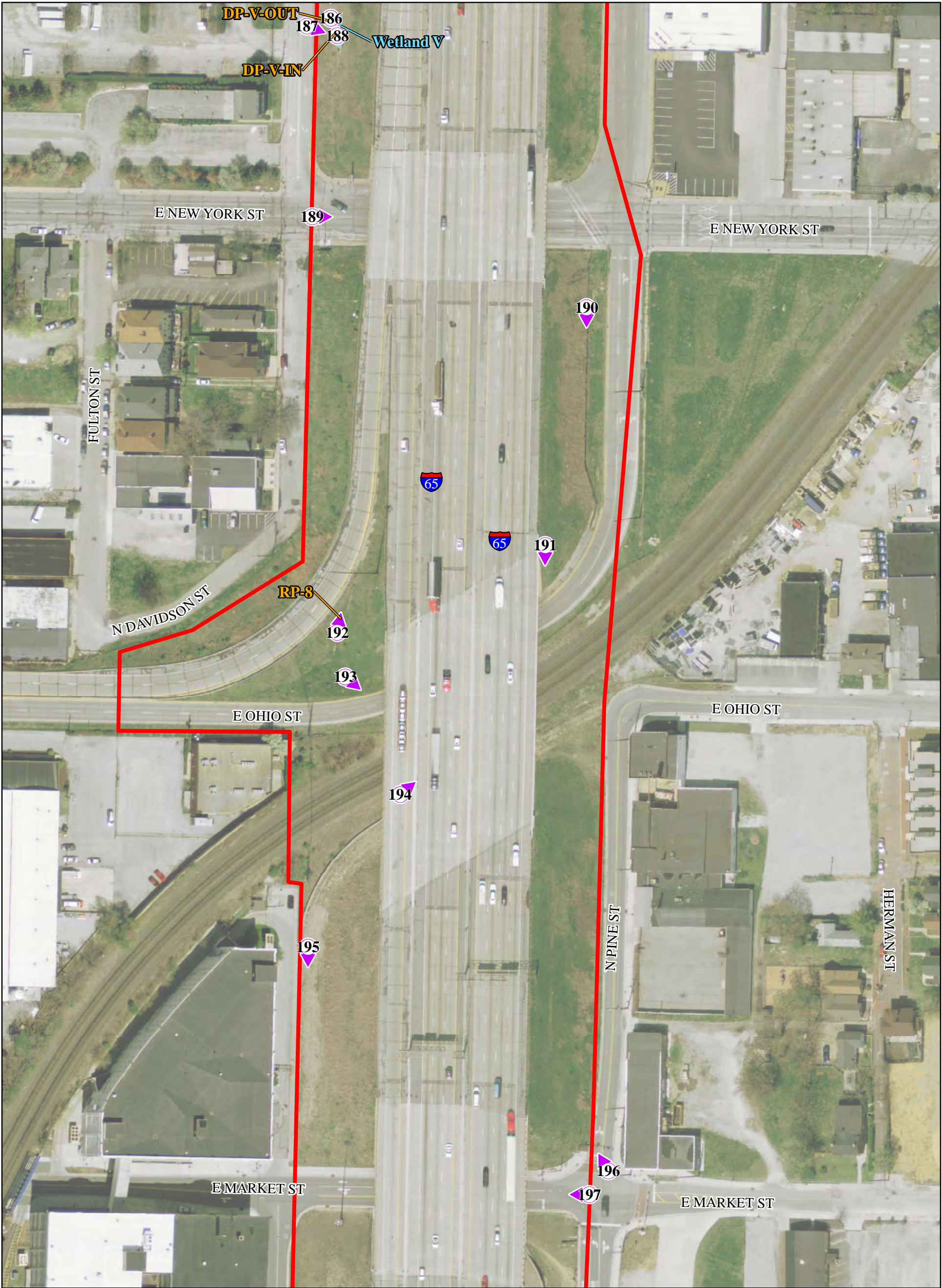
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-

Obtained from Indiana Map Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map



Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0

50

100

Feet

1 in = 100 feet

1

2

3

4

5

6

7

8

9

10

11

12

13

14

Sources:

Non Orthophotography Data

-

Obtained from the State of Indiana Geographical Information Office Library



Orthophotography

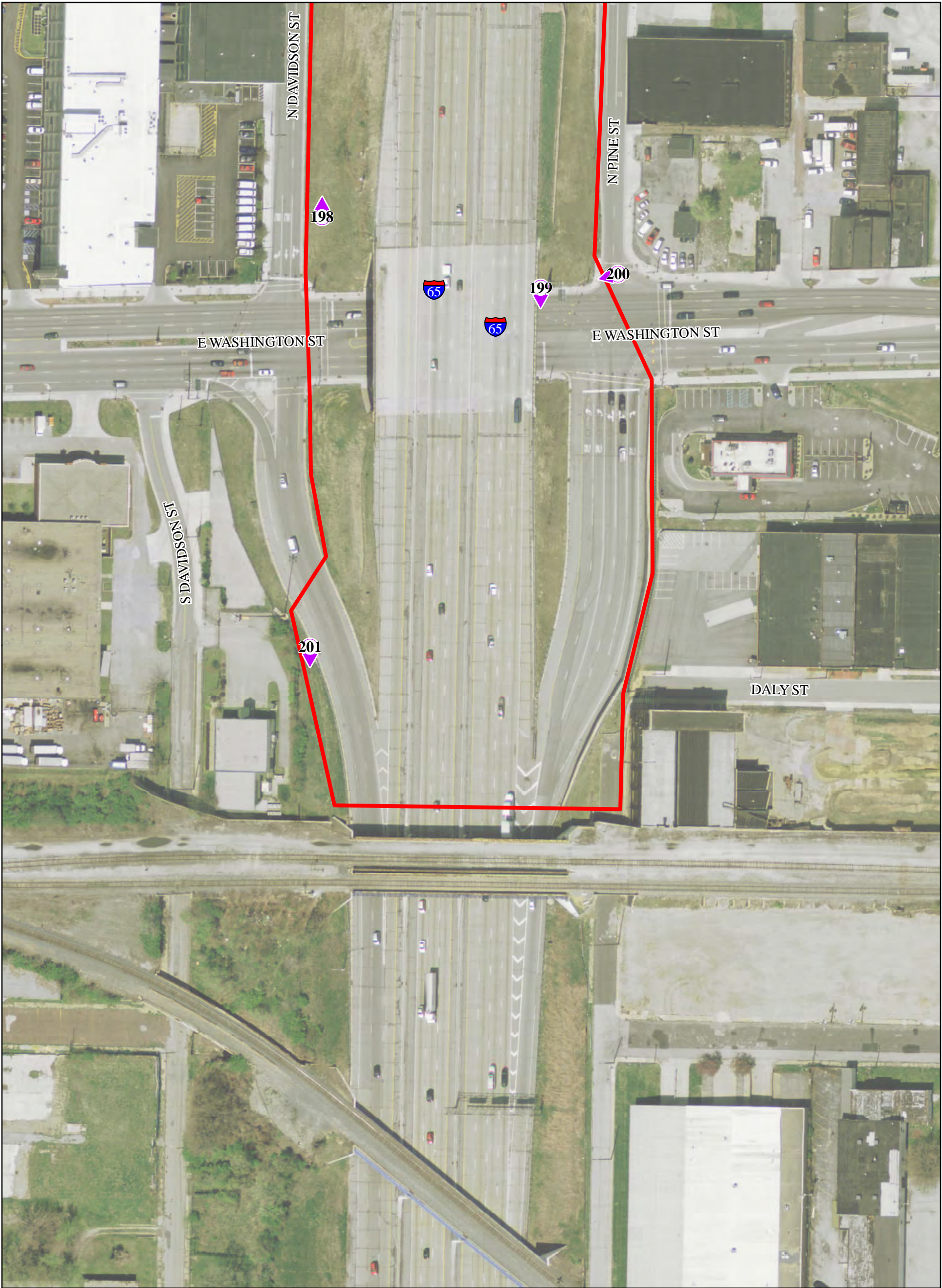
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Obtained from Indiana Map Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map





Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0 50 100
Feet
1 in = 100 feet

Sources:

Non Orthophotography Data

-

Obtained from the State of Indiana Geographical Information Office Library

Orthophotography

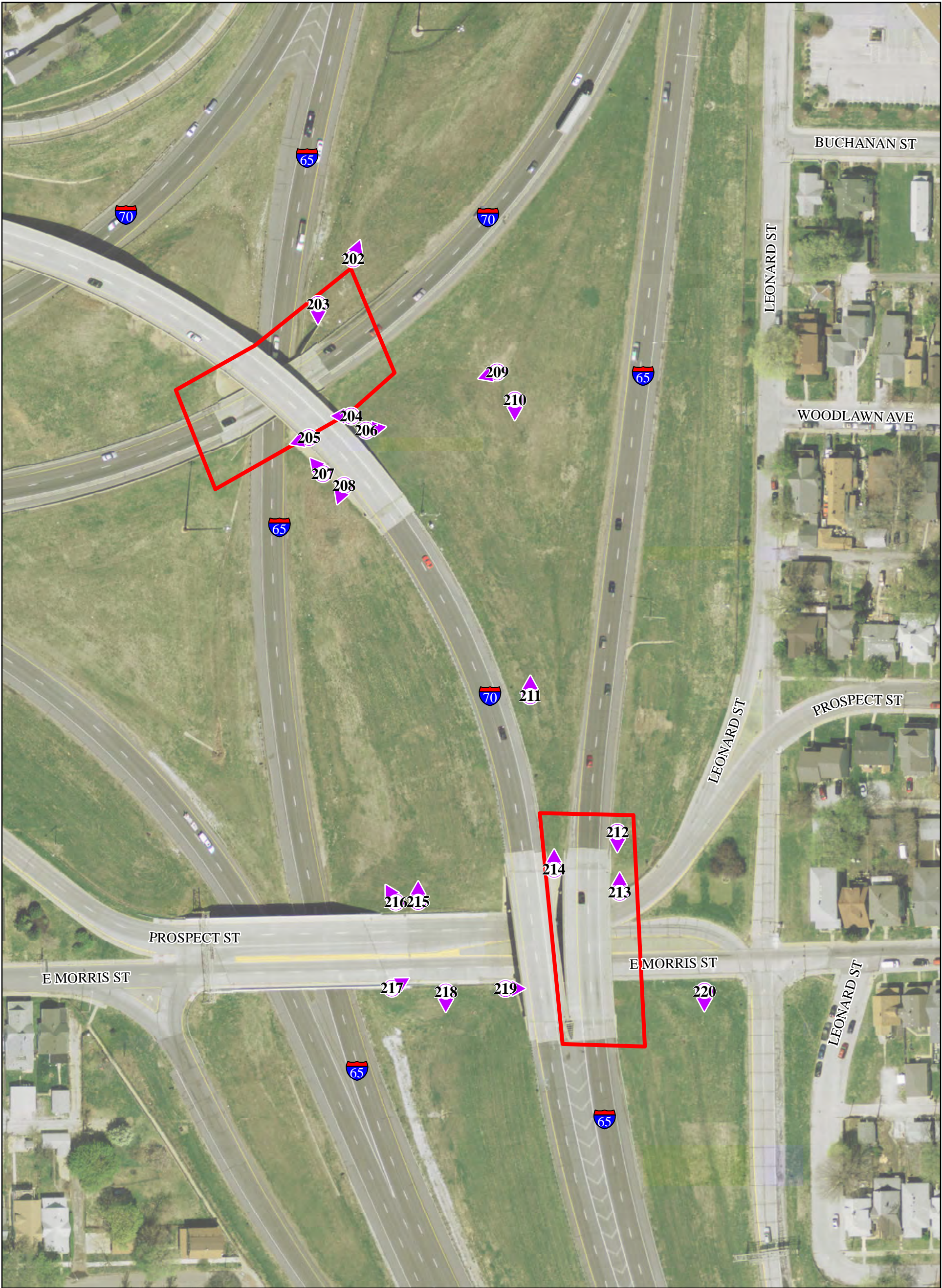
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Obtained from Indiana Map Framework Data (www.indianamap.org)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map





Study Area

Data Points

Stormwater Feature

Delineated Wetlands

Photo Orientation

Photo Facing Down

0 50 100
Feet
1 in = 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)

Des. 1592385 (Lead)
Contract #36910

I-65/I-70 North Split
Interchange Reconstruction
Marion County, IN
Photo Orientation and
Field-Identified Resources Map





Photo 1 – View of the I-65 bridge over Pennsylvania Street facing south (10/3/2016).

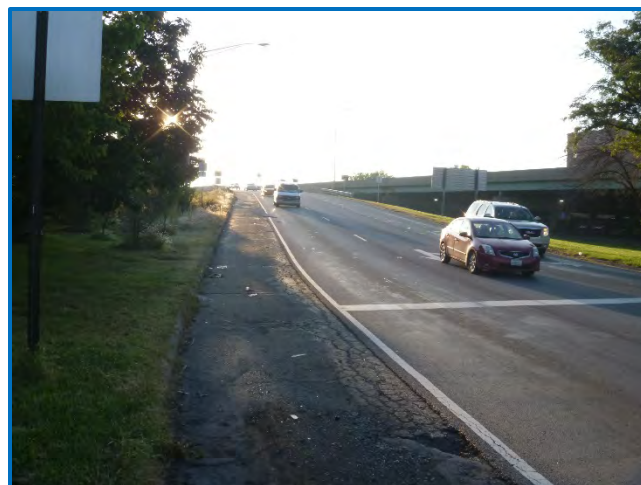


Photo 2 – View of the I-65 northbound off-ramp facing southeast (10/3/2015). No water resources were observed in this area.



Photo 3 – View of the I-65 bridge over Delaware Street facing south (10/3/2016).

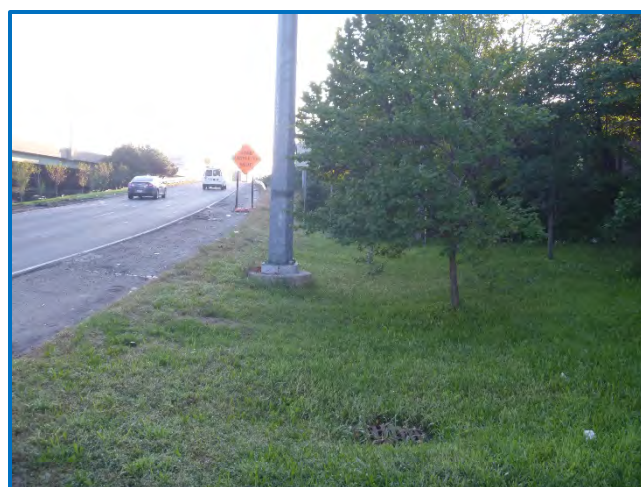


Photo 4 – View of the I-65 southbound on-ramp facing east from Delaware Street (10/3/2016). No water resources were observed in this location.



Photo 5 – View of the area between the I-65 southbound on-ramp and the I-65 bridge over Delaware Street facing west (10/3/2016). No water resources were observed in this location.

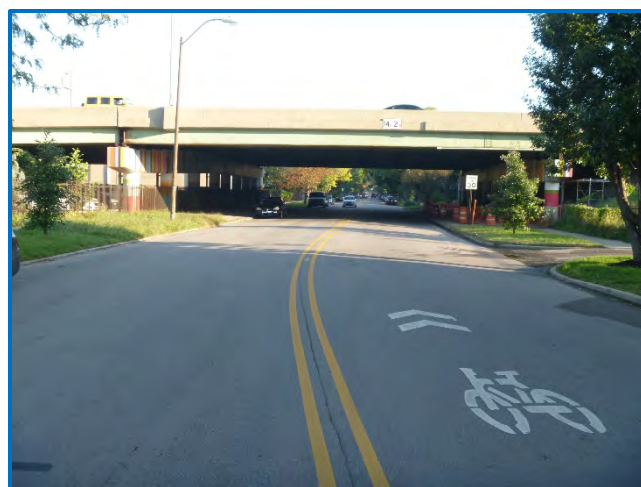


Photo 6 – View of the I-65 bridge over Alabama Street facing north (10/3/2016).



Photo 7 – View of INDOT's right-of-way along northbound I-65 facing east (10/3/2016). No roadside ditch was observed at the toe of slope. East 12th Street borders the right-of-way to the north (left).



Photo 8 – View of INDOT's right-of-way along I-65 southbound facing west (10/3/2016). No roadside ditch was observed along this stretch of the roadway, and no water resources were observed.



Photo 9 – View of the roadside slope and right-of-way along I-65 northbound facing west (10/3/2016). No water resources were observed at this location. East 12th Street is immediately adjacent to the north (right).



Photo 10 – View of the I-65 bridge over Central Avenue facing northwest (10/3/2016).

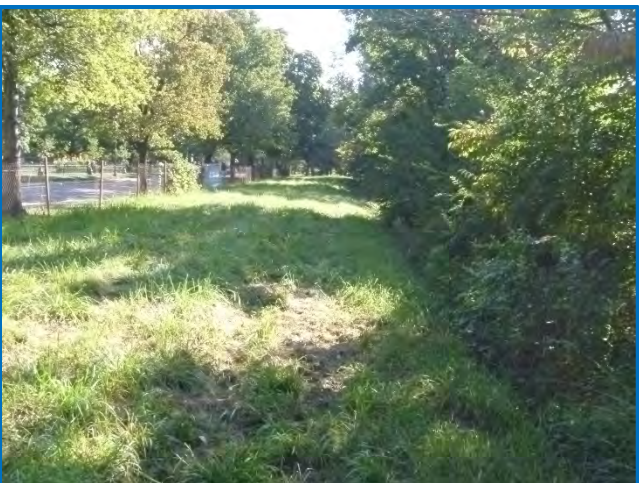


Photo 11 – View of INDOT's right-of-way along I-65 northbound facing east (10/3/2016). No roadside ditch or water resources were observed at this location. East 12th Street is located to the north (left).



Photo 12 – View of I-65 southbound facing east (10/3/2016). No water resources were observed along this stretch of the project.



Photo 13 – View of the infield between I-65 northbound and I-65 southbound facing northeast (10/3/2016). The roadside ditch did not have an OHWM or meet any of the three wetland criteria.



Photo 14 – View of INDOT's right-of-way along I-65 northbound facing southwest (10/3/2016). No roadside ditch was observed along this stretch of the project.



Photo 15 – View of the I-70 westbound on-ramp bridge to I-65 northbound facing northeast (10/3/2016). This bridge extends over College Avenue. No water resources were observed at this location.



Photo 16 – View of the I-70 westbound on-ramp bridge to I-65 northbound facing southwest (10/4/2016). College Avenue is present in the background.



Photo 17 – View of INDOT's right-of-way along the I-65 northbound on-ramp facing northeast (10/4/2016). No roadside ditch or water resources were observed along this stretch of roadway.



Photo 18 – View of INDOT's right-of-way along the I-65 northbound on-ramp facing east (10/4/2016). No water resources were observed along this stretch of the project.



Photo 19 – View of the infield along the I-70 westbound on-ramp facing southwest (10/29/2015). No OHWM was observed within the paved side ditch.



Photo 20 – View of Wetland B facing south (4/26/2016). DP-B-IN is shown in the foreground. This emergent wetland is located on the roadside slope.



Photo 21 – View of the soil profile observed at DP-B-IN (4/26/2016). This location met the Depleted Matrix (F3) indicator.



Photo 22 – View of the soil profile observed at DP-B-OUT (4/26/2016). No hydric soil indicators were observed at this location.



Photo 23 – View of Wetland B facing northwest (4/26/2016). This emergent wetland is located on the roadside slope.



Photo 24 – View of DP-B-OUT facing northwest (4/26/2016). This location met none of the three wetland criteria.



Photo 25 – View of the pipe inlet that discharges into SWF-2 to Pogues Run facing southwest (10/29/2015). No OHWM was observed at this location.



Photo 26 – View of the large North Split infield between I-70 eastbound (right) and I-70 westbound (left) facing east (4/26/2016). No water resources were observed in this area.



Photo 27 – View of roadside drainage within a North Split infield facing south (4/26/2016). No OHWM was observed. This area drains to SWF-1 to Pogues Run.

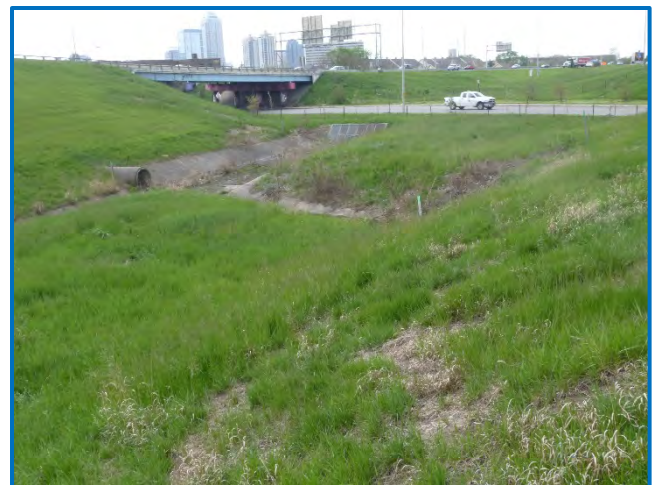


Photo 28 – View of SWF-1 and SWF-2 to Pogues Run facing southwest (4/26/2016). No OHWM was observed. College Avenue is adjacent to the west (right).



Photo 29 – View of (SWF-1 to Pogues Run) facing southwest (10/29/2015). No OHWM was observed. College Avenue is adjacent to the west (right).



Photo 30 – Facing upstream to the north along SWF-2. SWF-2 is a concrete-lined ditch and outfalls into SWF-1 at the concrete-lined basin. No OHWM was observed (4/26/2016, also see photo 34).



Photo 31 – Facing upstream to the northeast along SWF-1. This segment is a concrete-lined ditch prior to outfall into the concrete-lined basin. No OHWM as observed (4/26/2016, also see photos 28, 29, 32, and 33).



Photo 32 – View of SWF-1 facing northeast (10/29/2015). No OHWM was observed. The concrete-lined basin was 18 feet wide.



Photo 33 – View of SWF-1 to Pogues Run facing northwest (10/29/2015).



Photo 34 – View of SWF-1 to Pogues Run (solid line) facing north (10/29/2015). SWF-2 to Pogues Run (dashed line) is present to the north. No OHWMs were observed.



Photo 35 – View of Wetland C facing southwest (4/26/2016). DP-C-IN is also shown (shovel). This location met all three wetland criteria.



Photo 36 – View of soil profile observed at DP-C-OUT (4/26/2016). This met the Redox Dark Surface (F6) indicator.



Photo 37 – View of DP-C-OUT facing west (4/26/2016). This location failed to meet the hydrophytic vegetation and hydrology indicators.



Photo 38 – View of soil profile observed at DP-C-IN (10/3/2016). Depleted Matrix (F3) indicator was observed.



Photo 39 – View of the west end headwall of SWF-1 and I-65 ramp over College Avenue facing northwest (10/29/2015).



Photo 40 – View of the North Split infield between the I-65 northbound on-ramp and I-65 southbound on-ramp facing south (10/29/2015). No water resources were observed within this infield.



Photo 41 – View of the access road under the I-70 eastbound on-ramp (top bridge) and the I-65 northbound on-ramp (lower bridge) facing north (10/29/2015). No water resources were observed in this location.



Photo 42 – View of INDOT's right-of-way along I-70 westbound facing west (10/29/2015). No roadside ditch or water resources were observed along this stretch of the project.



Photo 43 – View of the I-70 westbound bridge over Lewis Street and the Monon Trail facing south (10/29/2015). No water resources were observed at this location.



Photo 44 – View of RP-4 facing east (4/25/2016). None of the three wetland criteria were met at this location.



Photo 45 – View of the soil profile observed at RP-4 (4/25/2016). No hydric soil indicators were observed.



Photo 46 – View of the soil profile observed at RP-5 (4/25/2016). This location met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 47 – View of Wetland K facing southwest (4/25/2016). This wetland is contained entirely within the infield roadside ditch. Photo was taken near DP-K-IN.



Photo 48 – View of the infield between I-70 westbound (background) and I-70 eastbound facing north (4/25/2016). No roadside ditch or water resources were observed.



Photo 49 – View of the infield between I-70 eastbound (background) and I-70 westbound facing south (4/25/2016). No roadside ditch or water resources were observed.



Photo 50 – View of the vegetated area between the Monon Trail (left) and Lewis Street (right) facing north (4/25/2016). The I-70 westbound bridge is in the background. No water resources were observed.



Photo 51 – View of the large infield within the North Split between I-70 westbound and I-70 eastbound facing southwest (10/29/2015). No water resources were observed in this area.



Photo 52 – View of the I-70 westbound bridge over the Monon Trail and Lewis Street facing northeast (4/26/2016). No water resources were observed at this location.



Photo 53 – View of the access road under the I-65 southbound on-ramp bridge facing north (10/29/2015). No water resources were observed in this location.



Photo 54 – View of the large infield within the North Split between I-70 westbound and I-70 eastbound facing southwest (4/26/2016). No water resources were observed in this area.

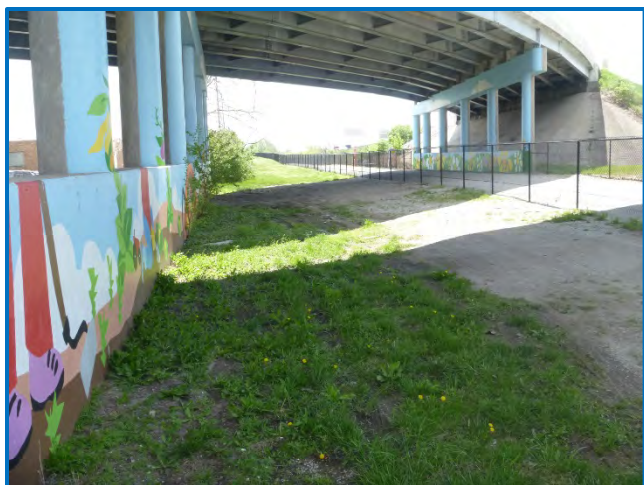


Photo 55 – View of the I-70 eastbound bridges over Lewis Street and the Monon Trail facing south (4/25/2016). No water resources were observed in this area.



Photo 56 – View of the soil profile at DP-J-OUT (5/24/2016). This met the Redox Dark Surface (F6) indicator.



Photo 57 – View of DP-J-OUT facing east (5/24/2016). This location failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 58 – View of soil profile observed in DP-J-IN (5/24/2016). This met the Depleted Matrix (F3) indicator.



Photo 59 – View of Wetland J facing northeast (5/24/2016). DP-J-IN is shown (shovel). All three wetland criteria were met at this location.



Photo 60 – View of DP-EF-OUT facing west (4/25/2016). This data point met none of the three wetland criteria.



Photo 61 – View of the shallow soil test pit for DP-EF-OUT. Rocks were encountered throughout this area at a depth of 3 inches (4/25/2016, also see photos 60 and 62).



Photo 62 – View of the soil profile observed at DP-EF-OUT (4/25/2016). No hydric soil indicators were observed.



Photo 63 – View of the soil profile observed at DP-E-IN (4/25/2016). The Depleted Matrix (F3) indicator was observed.



Photo 64 – View of Wetland E facing northeast (4/25/2016). DP-E-IN is present in the foreground (shovel). This location met all three wetland indicators.



Photo 65 – View of Wetland F facing south (4/25/2016). DP-F-IN is shown in the foreground (shovel). Wetland F occupies a depression between the bridge slope (right) and the Monon Trail (left).



Photo 66 – View of the soil profile observed at DP-F-IN (4/25/2016). This met the Depleted Matrix (F3) indicator.



Photo 67 – View of soil profile observed at DP-G-IN (4/26/2016). This location met the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) indicators.



Photo 68 – View of Wetland G facing north (4/26/2016). DP-G-IN is also shown (shovel).



Photo 69 – View of the soil profile observed at DP-G-OUT (4/26/2016). No hydric soil indicators were observed.



Photo 70 – View of DP-G-OUT facing north (4/26/2016). This location did not meet any of the three wetland criteria.



Photo 71 – View of the soil profile observed at DP-D-OUT (4/26/2016). No hydric soil indicators were observed.



Photo 72 – View of DP-D-OUT facing north (4/26/2016). This data point failed to meet the hydric soil and hydrology criteria.



Photo 73 – View of Wetland D facing east (4/26/2016). DP-D-IN is shown (shovel). This data point met all three wetland criteria.



Photo 74 – View of the soil profile observed at DP-D-IN (4/26/2016). It met the Depleted Matrix (F3) soil indicator.



Photo 75 – View of DP-H-OUT facing south (10/4/2016). This location failed to pass the hydric soil and hydrology criteria.



Photo 76 – View of Wetland H facing east (10/4/2016). DP-H-IN is shown in the foreground (shovel). This data point met all three wetland criteria.



Photo 77 – View of the soil profile observed at DP-H-IN (10/4/2016). This met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 78 – View of the soil profile observed at DP-H-OUT (10/4/2016). No hydric soil indicator was observed.



Photo 79 – View of Wetland H facing north (10/4/2016).



Photo 80 – View of a concrete equalizer pipe located in the middle infield on the south side of the North Split facing southeast. No water resources were observed (4/26/2016).



Photo 81 – View of RP-5 facing west (4/25/2016). This location failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 82 – View of the soil profile observed at RP-6 (10/4/2016). This location met the Depleted Matrix (F3) indicator.



Photo 83 – View of RP-6 facing west (10/4/2016). This location failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 84 – View along the ditch line north of I-70, east of the North Split facing southwest. The grated culvert inlet (photo 85) is located immediately left. No water resources were observed (10/4/2016).



Photo 85 – View of a grated culvert inlet located on the north side of I-70, east of the North Split facing southeast. No water resources were observed (10/4/2016).



Photo 86 – View of INDOT's right-of-way along the south side of eastbound I-70 facing northeast (10/3/2016). No roadside ditch or water resources were observed in this area.



Photo 87 – View of Wetland L facing southwest (4/25/2016). DP-L-IN is shown in the foreground (shovel). The wetland is entirely contained within infield roadside ditch.



Photo 88 – View of the soil profile observed at DP-L-IN (4/25/2016). This location met the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators.



Photo 89 – View of the soil profile observed at DP-L-OUT (4/25/2016). This location met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 90 – View of DP-L-OUT facing east (4/25/2016). Wetland L is shown to the right. This location failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 91 – View of DP-K-OUT facing southwest (4/25/2016). This location met none of the three wetland criteria.



Photo 92 – View of the soil profile observed at DP-K-OUT. (4/25/2016). No hydric soil indicators were observed.



Photo 93 – View of the soil profile observed at DP-K-IN (4/25/2016). This met the Redox Dark Surface (F6) indicator.



Photo 94 – View of RP-3 facing southwest (10/3/2016). This location failed to pass the hydrophytic vegetation and hydrology criteria.



Photo 95 – View of the soil profile observed at RP-3 (10/3/2016). This location met the Depleted Matrix (F3) indicator.



Photo 96 – View of INDOT's right-of-way along the north side of westbound I-70 facing southwest (10/3/2016). No roadside ditch or water resources were observed in this area.



Photo 97 – View of DP-M-OUT facing south (10/4/2016). This location failed to meet the hydrology criterion.



Photo 98 – View of the soil profile observed at DP-M-OUT (10/4/2016). This location met the Thick Dark Surface (A12) indicator.



Photo 99 – View of Wetland M facing south (10/4/2016). DP-M-IN is also shown (shovel).



Photo 100 – View of the soil profile observed at DP-M-IN (10/4/2016). This location met the Depleted Matrix (F3) indicator.



Photo 101 – View of the I-70 bridge over Roosevelt Avenue facing north (10/3/2016). Photo was taken near the intersection of Roosevelt Avenue and Commerce Avenue.



Photo 102 – View of DP-N-OUT facing south (10/3/2016). This data point failed to meet the hydric soil and hydrology criteria.



Photo 103 – View of the soil profile observed at DP-N-OUT (10/3/2016). No hydric soil indicators were observed.



Photo 104 – View of Wetland N facing southwest (10/3/2016).



Photo 105 – View of the soil profile observed at DP-N-IN (10/3/2016). This location met the Thick Dark Surface (A12) indicator.



Photo 106 – View of Wetland N facing northeast (10/3/2016). DP-N-IN is located in the foreground (shovel). This wetland is entirely contained within the roadside ditch along eastbound.



Photo 107 – View of INDOT's right-of-way along the south side of eastbound I-70 facing northeast (10/3/2016). No roadside ditch or water resources were observed in this area.



Photo 108 – View of a grated culvert inlet located on the south side I-70, east of the North Split facing south. No water resources were observed (10/3/2016).



Photo 109 – View Wetland A facing north (10/3/2016). This wetland extends down the roadside slope, and then along the toe of slope. The approximate wetland boundary is shown with dashed lines.



Photo 110 – View of soil profile observed at DP-A-IN (10/3/2016). Both the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators were observed.



Photo 111 – View of Wetland A facing northwest (10/3/2016). DP-A-IN (shovel) met all three wetland criteria. I-65 northbound is present in the background.



Photo 112 – View of soil profile observed at DP-A-OUT (10/3/2016). No hydric soil indicators were observed.



Photo 113 – View of Wetland A facing northeast (10/3/2016). DP-A-OUT, which met none of the three wetland criteria, is present in the foreground. College Avenue is present in the background.

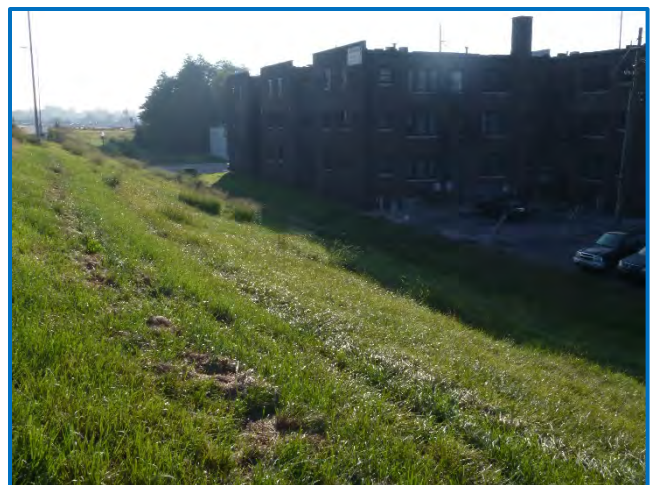


Photo 114 – View of INDOT's right-of-way along I-65 southbound facing southeast (10/3/2016). No water resources were observed at this location. College Avenue is present in the background.



Photo 115 – View the I-65 southbound bridge over College Avenue facing northwest (10/3/2016). No water resources were observed at this location.



Photo 116 – View of an infield within the North Split facing east (10/29/2015). I-65 southbound on-ramps are located to the north (left) and east (background). No water resources were observed within this infield. Bush honeysuckle pictured.



Photo 117 – View of a pipe inlet within the infield referenced in Photo 116 facing north (10/29/2015). No OHWM or hydrophytic vegetation was observed at this location.



Photo 118 – Facing east toward the southwest infield of the North Split from the top of a concrete equalizer pipe (photo 119). No water resources were observed (4/26/2016).



Photo 119 – View of a concrete equalizer pipe located on the north side of the southwest infield of the North Split facing northwest. No water resources were observed (4/26/2016).



Photo 120 – View of the soil profile observed at RP-1 (4/26/2016). No hydric soil indicators were observed.



Photo 121 – View of RP-1 facing northwest (4/26/2016). This location met the hydrophytic vegetation and hydrology indicators, but failed to meet the hydric soil criterion.



Photo 122 – View of a concrete equalizer pipe located on the east side of the southwest infield of the North Split facing east. No water resources were observed (4/26/2016).



Photo 123 – View of the I-65 bridges over East 10th Street facing east (10/26/2015).



Photo 124 – View of the soil profile observed at RP-2 (10/4/2016). This met the Loamy Gleyed Matrix (F2) and Depleted Matrix (F3) indicators.



Photo 125 – View of RP-2 facing north (10/4/2016). This location failed to meet the hydrophytic vegetation criterion.



Photo 126 – View of the soil profile at DP-I-OUT (10/4/2016). It met the Depleted Matrix (F3) indicator.



Photo 127 – View of Wetland I facing east (10/4/2016). DP-I-IN is shown in the foreground (shovel). This location met all three wetland indicators.



Photo 128 – View of the soil profile at DP-I-IN (10/4/2016). This met the problematic hydric soil indicator since the adjacent out-point met the hydric soil criterion.



Photo 129 – View of DP-I-OUT facing north (10/4/2016). This location passed the hydric soil and hydrology criteria, but failed to pass the hydrophytic vegetation criterion.



Photo 130 – View of an infield between the I-65 northbound on-ramp (right) and the I-65 southbound on-ramp (left) facing northwest (10/29/2015). No water resources were observed within this infield.



Photo 131 – View of a concrete equalizer pipe located on the south side of the southwest infield of the North Split facing northeast. No water resources were observed (4/26/2016).



Photo 132 - View of an infield within the North Split facing northwest along the I-65 southbound on-ramp (10/29/2015). No water resources were observed at this location.

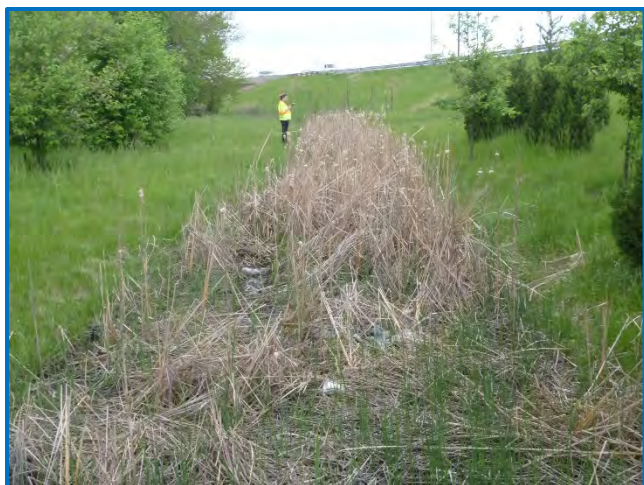


Photo 133 – View of Wetland O facing north (4/26/2016). This wetland is entirely contained within the roadside ditch along southbound I-65.



Photo 134 – View of the soil profile observed at DP-O-IN (4/26/2016). This location met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 135 – View of the soil profile observed at DP-O-OUT (4/26/2016). No hydric soil indicators were observed.



Photo 136 – View of DP-O-OUT facing west (4/26/2016). This data point failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 137 – View of DP-O-IN facing north (4/26/2016). This data point met all three wetland criteria.



Photo 138 – View of Wetland P facing south (10/5/2016). DP-P-IN is shown in the foreground (shovel).



Photo 139 – View of the soil profile observed at DP-P-IN (10/5/2016). This data point met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 140 – View of the soil profile observed at DP-P-OUT (10/5/2016). This location met the Depleted Matrix (F3) indicator.



Photo 141 – View of DP-P-OUT facing north (10/5/2016). This location failed to meet the hydrophytic vegetation and hydrology indicators.



Photo 142 – View of INDOT's right-of-way along I-70 eastbound facing north (10/5/2016). No water resources were observed along this portion of the project.



Photo 143 – View of Wetland Q facing north (10/5/2016). This wetland is entirely contained within the roadside ditch along southbound I-65.



Photo 144 – View of Wetland Q facing southwest (10/5/2016). DP-Q-IN is shown in the foreground (shovel).



Photo 145 – View of the soil profile for DP-Q-IN (10/5/2016). This location met the Depleted Matrix (F3) indicator.



Photo 146 – View of the soil profile for DP-Q-OUT (10/5/2016). This location met the Depleted Matrix (F3) indicator.



Photo 147 – View of DP-Q-OUT facing north (10/5/2016). This location failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 148 – View of Wetland R facing south (4/27/2016). This wetland is entirely contained within the median roadside ditch.



Photo 149 – View of the soil profile observed for DP-R-OUT (4/27/2016). This met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 150 – View of the soil profile observed for DP-R-IN (4/27/2016). This met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 151 – View of DP-R-OUT facing north (4/27/2016). This data point failed to meet the hydrology criterion.



Photo 152 – View of Wetland R facing north (4/27/2016). DP-R-IN is in the foreground (shovel).



Photo 153 – View of the soil profile observed at DP-S-OUT (10/5/2016). No hydric soil indicators were observed.



Photo 154 – View of soil profile observed at DP-S-IN (10/5/2016). This location met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) indicators.



Photo 155 – View of DP-S-OUT facing north (10/5/2016). This data point met none of the three wetland criteria.



Photo 156 – View of Wetland S facing north (10/5/2016). DP-S-IN is in the foreground (shovel). Wetland S is located entirely within the roadside ditch along I-70 eastbound.

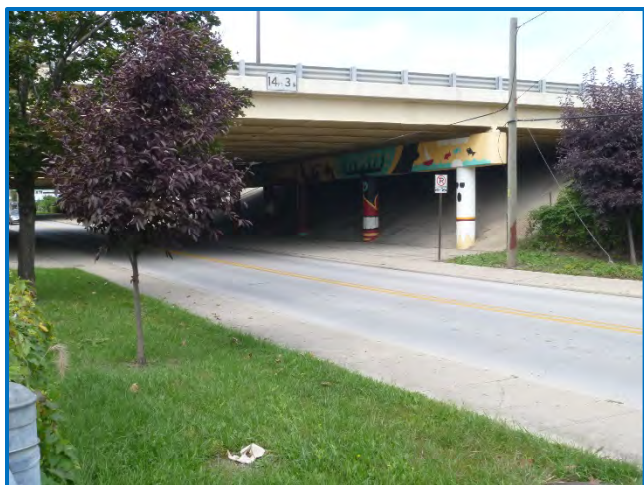


Photo 157 – View of the I-65/I-70 bridges over St. Clair Street facing northwest (10/5/2016). No water resources were observed at this location.



Photo 158 – View of INDOT's right-of-way facing south along I-70 eastbound (10/5/2016). No roadside ditch or water resources were observed in this area.



Photo 159 – View of DP-T-OUT facing south (4/27/2016). This data point failed to meet the hydrophytic vegetation and hydrology criteria.



Photo 160 – View of Wetland T facing south (4/27/2016). DP-T-IN is in the foreground (shovel). Wetland T is located entirely within the median roadside ditch.



Photo 161 – View of the soil profile observed at DP-T-OUT (4/27/2016). This met the Depleted Matrix (F3) indicator.



Photo 162 – View of the soil profile observed at DP-T-IN (4/27/2016). This met the Depleted Matrix (F3) indicator.



Photo 163 – View of Wetland T facing northeast (4/27/2016). Portions of this wetland were not vegetated.



Photo 164 – View of the soil profile observed at RP-7 (4/26/2016). No hydric soil indicators were observed.



Photo 165 – View of RP-7 facing north (4/26/2016). None of the three wetland criteria were observed.



Photo 166 – View of the I-65 bridges over St. Clair Street facing east (10/30/2015).



Photo 167 – View of INDOT's right-of-way facing northeast along the I-65 southbound off-ramp to North Street (10/5/2016). No roadside ditch or water resources were observed in this area.



Photo 168 – View INDOT's right-of-way facing south along I-65 southbound (10/5/2016). No roadside ditch or water resources were observed in this area.



Photo 169 – View of Wetland T facing north (10/30/2015). Wetland T is entirely located within the median roadside ditch.



Photo 170 – View of the paved roadside ditch in-between the I-65 northbound on-ramp and northbound I-65 facing northeast (10/30/2015). No OHWM was observed within this feature.



Photo 171 – View of INDOT's right-of-way along the I-70 eastbound on-ramp facing southwest (10/5/2016). No roadside ditch or water resources were observed in this area.



Photo 172 – View of the paved roadside ditch along the I-70 eastbound on-ramp facing northeast (10/30/2015). No OHWM was observed within this feature.



Photo 173 – View of the median between I-65 southbound and I-65 northbound facing north (10/30/2015). No water resources were observed in this location.



Photo 174 – View of the soil profile observed at DP-U-IN (10/5/2016). This location met the Depleted Below Dark Surface (A11), Depleted Matrix (F3), and Redox Dark Surface (F6) indicators.



Photo 175 – View of Wetland U facing east (10/5/2016). DP-U-IN is also shown (shovel). This wetland extends up the roadside embankment.



Photo 176 – View of the soil profile observed at DP-U-OUT (10/5/2016). No hydric soil indicators were observed.



Photo 177 – View of DP-U-OUT facing north (10/5/2016). This data point met none of the three wetland criteria.

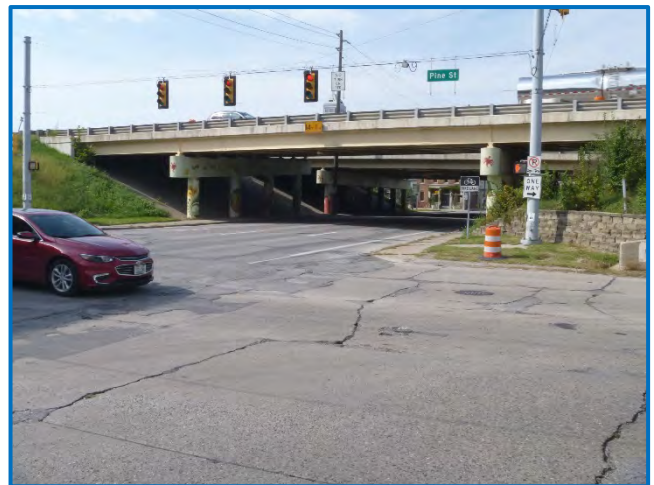


Photo 178 – View of the I-65 bridges over Michigan Street facing west (10/5/2016).

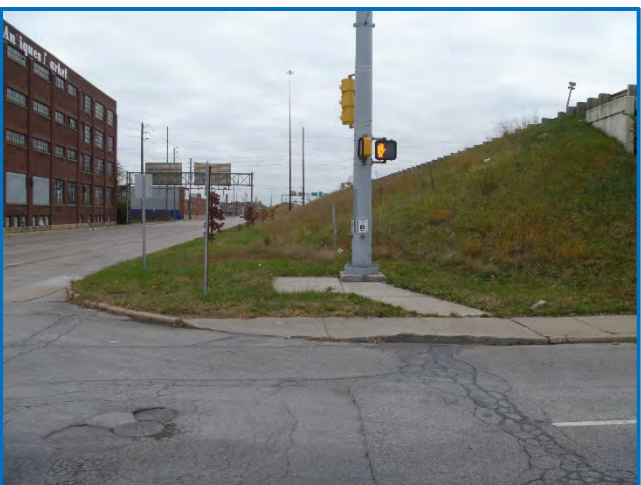


Photo 179 – View of INDOT's right-of-way along northbound I-65 facing south (10/30/2015). No roadside ditch or water resources were observed in this location.

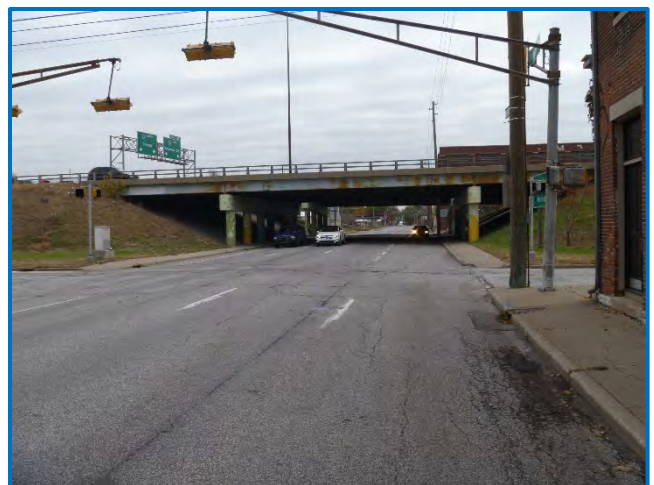


Photo 180 – View of the I-65 bridges over Michigan Street facing east (10/30/2015).



Photo 181 – View of INDOT's right-of-way along southbound I-65 facing south (4/27/2016). No roadside ditch or water resources were observed in this location.



Photo 182 – View of INDOT's right-of-way along northbound I-65 facing north (4/27/2016). No roadside ditch or water resources were observed in this location.



Photo 183 – View of INDOT's right-of-way along southbound I-65 facing south (4/27/2016). No roadside ditch or water resources were observed in this location.



Photo 184 – View of INDOT's right-of-way along northbound I-65 facing south (4/27/2016). No roadside ditch or water resources were observed in this area.



Photo 185 – View of DP-V-OUT facing south (4/27/2016). None of the three wetland criteria were met at this location.



Photo 186 – View of the soil profile observed at DP-V-OUT (4/27/2016). No hydric soil indicators were observed.



Photo 187 – View of Wetland V facing southeast (4/27/2016). DP-V-IN is located in the foreground (shovel).



Photo 188 – View of the soil profile observed at DP-V-IN (4/27/2016). This met the Depleted Matrix (F3) and Redox Dark Surface (F6) indicators.



Photo 189 – View of the I-65 bridge over New York Street facing east (10/30/2015). No water resources were observed at this location.



Photo 190 – View of INDOT's right-of-way along northbound I-65 facing south (10/30/2015). No roadside ditch or water resources were observed in this area.



Photo 191 – View of the I-65 bridge over East Ohio Street facing south (10/30/2015). No water resources were observed in this area.



Photo 192 – View of a cattail patch within the paved side ditch along the I-65 southbound off-ramp to Ohio Street facing northeast (4/27/2016). RP-8 was taken within this feature, which failed to meet the hydric soils and hydrology criteria.



Photo 193 – View of I-65 bridge over East Ohio Street facing southeast (4/27/2016). No roadside ditches or water resources were observed in this location.



Photo 194 – View under the I-65 bridge over East Ohio Street facing northeast (10/5/2016). No roadside ditches or water resources were observed in this location.



Photo 195 – View of INDOT's right-of-way along southbound I-65 facing south (10/5/2016). No roadside ditch or water resources were observed in this location.

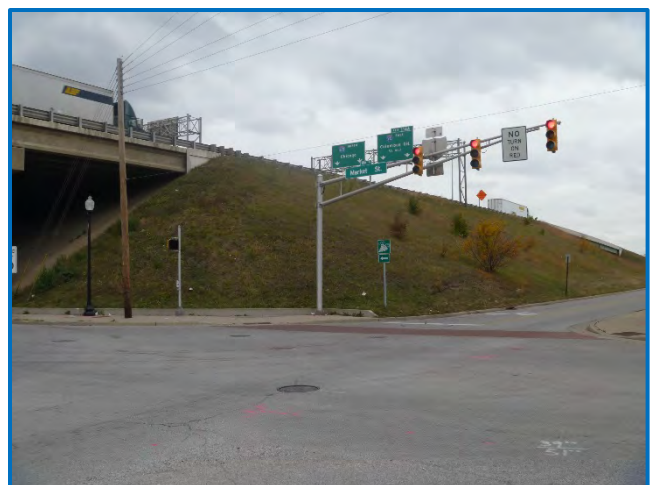


Photo 196 – View of INDOT's right-of-way near the I-65 bridge over Market Street facing northwest (10/30/2015). No roadside ditch or water resources were observed.

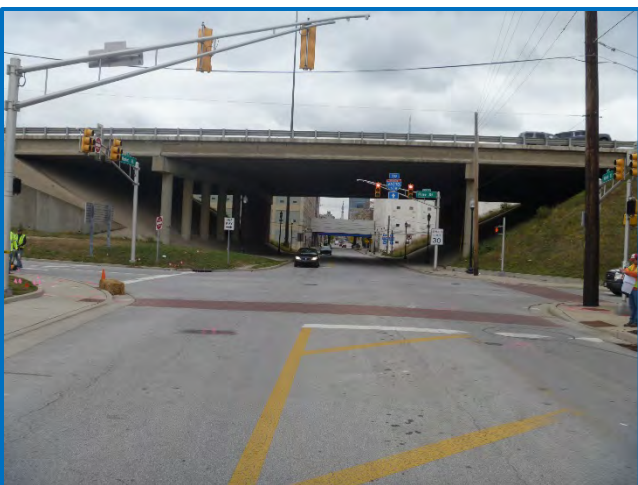


Photo 197 – View of the I-65 bridge over Market Street facing west (10/30/2015).

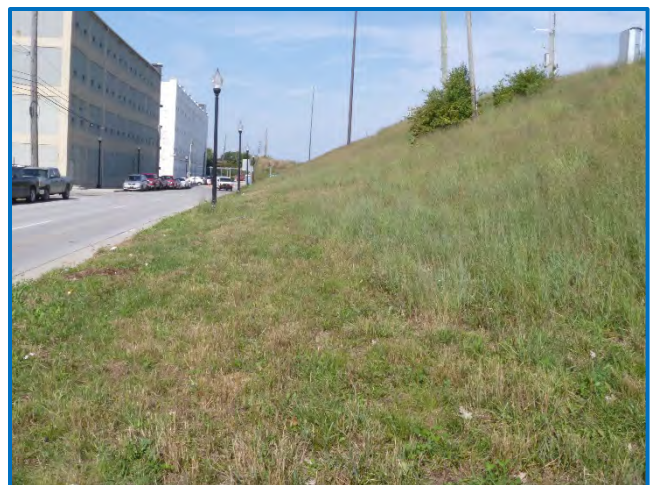


Photo 198 – View of INDOT's right-of-way along southbound I-65 facing north (10/5/2016). No roadside ditch or water resources were observed in this location.



Photo 199 – View of INDOT's right-of-way along northbound I-65 facing south (10/30/2015). No roadside ditch or water resources were observed in this location.



Photo 200 – View of the I-65 bridge over East Washington Street facing southwest (10/30/2015).



Photo 201 – View of INDOT's right-of-way along southbound I-70 facing south (10/5/2016). No water resources were observed.



Photo 202 – View of INDOT's right-of-way along southbound I-65 (left) facing northeast (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 203 – View of I-70 eastbound on-ramp bridge facing south (10/30/2015). The I-70 westbound on-ramp bridge is located above this bridge, with I-65 southbound lanes below. No water resources were observed adjacent to this bridge.



Photo 204 – View of the I-70 eastbound on-ramp bridge facing west (10/30/2015). No water resources were observed in the study area around this bridge.



Photo 205 – View of INDOT's right-of-way along southbound I-65 (foreground) facing southwest (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 206 – View of INDOT's right-of-way in South Split, northeast of I-70 westbound on-ramp, west of northbound I-65 facing northeast (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 207 – View of the I-70 eastbound on-ramp bridge facing northwest (4/27/2016). I-70 westbound on-ramp bridge above. Southbound I-65 in foreground. No water resources observed adjacent to this bridge.



Photo 208 – View of INDOT's right-of-way along southbound I-65 (foreground) facing southwest (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 209 – View of INDOT's right-of-way in South Split, north east of I-70 westbound on-ramp, west of northbound I-65 facing southwest (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 210 – View of INDOT's right-of-way in South Split, north east of I-70 westbound on-ramp, west of northbound I-65 facing south (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 211 – View of INDOT's right-of-way in South Split, [north east] of I-70 westbound on-ramp, west of northbound I-65 facing north (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 212 – View of INDOT's right-of-way along northbound I-65 facing south (10/30/2015). No water resources or roadside ditches were observed within the study area on this side of the bridge.



Photo 213 – View of INDOT's right-of-way along northbound I-65 facing north (10/30/2015). No water resources were observed in this area.



Photo 214 – View of INDOT's right-of-way north of Morris Street between northbound I-65 (right) and I-70 westbound on-ramp (left) facing north (10/5/2016). No water resources were observed in the study area around this bridge.



Photo 215 – View of INDOT's right-of-way along southbound I-65 (left) facing north (4/27/2016). No water resources were observed in the study area around this bridge.



Photo 216 – View of INDOT's right-of-way along southbound I-65 (foreground) facing northwest (4/27/2016). No water resources were observed in the study area around this bridge.



Photo 217 – View of northbound I-65/I-70 bridge over Prospect Street and Morris Street facing northeast (4/27/2016). No water resources found adjacent to this bridge.



Photo 219 – View of the I-65/I-70 bridges over Morris Street facing east (4/27/2016).



Photo 218 – View of INDOT's right-of-way east of southbound I-65, south of Prospect Street and Morris Street facing south (4/27/2016). No water resources found adjacent to this bridge.



Photo 220 – View of INDOT's right-of-way east of northbound I-65, south of Prospect Street and Morris Street facing south (10/25/2016). No water resources found adjacent to this bridge.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-A-IN
 Investigator(s): Brock Ervin and Hannah Marriott (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 30 Lat: 39.782935 Long: -86.145114 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status															
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%;"> <tr> <th>Total % Cover of:</th> <th>Multiply by:</th> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>260</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.60</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>260</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>70</u>	x 2 = <u>140</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>260</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Phragmites australis (Common Reed)</u>	<u>70</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) <small>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>														
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-A-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/2	100					Clay loam	
5-20	10YR 5/1	69	7.5YR 5/6	5	C	M	Clay	Scattered sands, Redox is sandy
	10YR 5/2	20	10YR 4/4	3	C	M	Clay	
			7.5YR 4/3	3	C	M	Sand loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☒ No ☐ Depth (inches): 8
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Located below an underdrain.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-A-OUT
 Investigator(s): Brock Ervin and Hannah Marriott (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 15 Lat: 39.782882 Long: -86.145152 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>100</u>	x 4 = <u>400</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>400</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Securigera varia (Crownvetch)</u>	<u>20</u>	<u>N</u>	<u>NI</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: DP-A-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/1	100					Loam	
5-17	7.5YR 3/3	65	7.5YR 4/6	8	C	M	Clay loam	Redox has sandy inclusions
	7.5YR 4/2	27					Clay loam	
17-20	10YR 3/2	45					Silty loam	
	10YR 3/1	40					Silty loam	
	7.5YR 5/6	15					Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-B-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 60 Lat: 39.784347 Long: -86.144126 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>30</u> (A)</td> <td><u>30</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>30</u> (A)	<u>30</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>30</u>	x 1 = <u>30</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>30</u> (A)	<u>30</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Schoenoplectus tabernaemontani (Soft-Stem Club Rus)</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: DP-B-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 4/1	67	7.5YR 4/6	3	C	M	Sandy Loam	Rocky
	10YR 3/4	30					Sandy	
4-20	10YR 4/2	45	7.5YR 3/3	50	C	M	Clay	
			10YR 5/4	5	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☐ No ☒ Depth (inches): >20
 Saturation Present? Yes ☐ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation indicator was not checked, because no water table observed. Saturation was observed within the top ten inches of the soil layer. This was assumed to be caused by surface water run-off and not by the water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-B-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 60 Lat: 39.784365 Long: -86.144082 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>50</u></td> <td>x 3 = <u>150</u></td> </tr> <tr> <td>FACU species <u>50</u></td> <td>x 4 = <u>200</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>350</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.50</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>50</u>	x 3 = <u>150</u>	FACU species <u>50</u>	x 4 = <u>200</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>350</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>50</u>	x 3 = <u>150</u>																	
FACU species <u>50</u>	x 4 = <u>200</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>350</u> (B)																	
= Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
= Total Cover																		
Herb Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u>Poa pratensis (Kentucky Blue Grass)</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
= Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
= Total Cover																		
Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-B-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	60					Loam	Rocky
	10YR 4/2	40						
4-20	10YR 3/2	97	7.5YR 3/4	2	C	M	Clay Loam	
			7.5YR 5/8	1	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 0%. Dry pit.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-C-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 50 Lat: 39.783289 Long: -86.143944 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>10</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>10</u> (A)	<u>10</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
The species of cattail could not be determined, because of the lack of inflorescence. A patch of reed canary grass was located at the toe of slope; however, a test pit determined that hydric soils were not present in that area.																				

SOIL

Sampling Point: DP-C-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Loam	
3-15	10YR 4/2	60	10YR 5/6	3	C	M	Loamy Clay	
	7.5YR 4/4	36	2.5Y 5/4	1	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 15

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <0.5
 Water Table Present? Yes ☐ No ☒ Depth (inches): >15
 Saturation Present? Yes ☐ No ☒ Depth (inches): >15
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation indicator not checked, because no water table observed. Saturation was observed within the top three inches of the soil. This was assumed to be caused by surface run-off and not by the water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-C-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 50 Lat: 39.783294 Long: -86.143914 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>30</u></td> <td>x 4 = <u>120</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>50</u> (A)</td> <td><u>180</u> (B)</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>30</u>	x 4 = <u>120</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>50</u> (A)	<u>180</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>20</u>	x 3 = <u>60</u>																	
FACU species <u>30</u>	x 4 = <u>120</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>50</u> (A)	<u>180</u> (B)																	
<u> </u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Poa pratensis (Kentucky Blue Grass)</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u>50</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-C-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-20	7.5YR 3/2	65	10YR 4/6	5	C	M	Loam	
	10YR 3/2	30						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☒ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): >20
Saturation Present? Yes ☐ No ☒ Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 0%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-D-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 50 Lat: 39.783268 Long: -86.141010 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>10</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>10</u> (A)	<u>10</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Dead cattail cover 60%. The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-D-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 3/1	100					Sandy Loam	Root mass
2-9	10YR 4/2	55	7.5YR 4/6	5	C	M	Org. Loam	Sandy, root mass
	Gley1 2.5/N	40						
9-18	10YR 5/1	50	7.5YR 4/6	2	C	PL	Clay	
	10YR 4/2	48						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 18

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Pebbly/rocky throughout.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): < 0.5
 Water Table Present? Yes ☐ No ☒ Depth (inches): >18
 Saturation Present? Yes ☐ No ☒ Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation indicator not checked, because no water table was observed. Saturation was observed within the top 9 inches of the soil. This was assumed to be caused by surface run-off and not by the water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-D-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 50 Lat: 39.783324 Long: -86.141014 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>5</u></td> <td>x 3 = <u>15</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>5</u> (A)</td> <td><u>15</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>3.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>5</u>	x 3 = <u>15</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>5</u> (A)	<u>15</u> (B)	Prevalence Index = B/A = <u>3.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>5</u>	x 3 = <u>15</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>5</u> (A)	<u>15</u> (B)																			
Prevalence Index = B/A = <u>3.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Setaria pumila (Yellow Bristle Grass)</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Last year's dead growth covers much of the ground (likely Panicum virgatum [switchgrass/wand panic grass, FAC] . Also present is last year's Dipsacus fullonum (Fuller's teasel, FACU).																				

SOIL

Sampling Point: DP-D-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/1	90					Loam	
	10YR 3/2	10						
5-15	10YR 4/4	50	7.5YR 4/6	2	C	M	Silty Loam	Sandy
	10YR 4/2	48						
15-20	10YR 3/3	70	7.5YR 4/6	4	C	M	Sandy Loam	Rocky
	10YR 4/3	26						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Rocky Throughout.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-E-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Drainage Outfall Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 39.784379 Long: -86.140395 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: See DP-EF-OUT for out point.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																		
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>35</u></td> <td>x 1 = <u>35</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>35</u> (A)</td> <td><u>35</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>35</u>	x 1 = <u>35</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>35</u> (A)	<u>35</u> (B)	Prevalence Index = B/A = <u>1.00</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>35</u>	x 1 = <u>35</u>																					
FACW species <u>0</u>	x 2 = <u>0</u>																					
FAC species <u>0</u>	x 3 = <u>0</u>																					
FACU species <u>0</u>	x 4 = <u>0</u>																					
UPL species <u>0</u>	x 5 = <u>0</u>																					
Column Totals: <u>35</u> (A)	<u>35</u> (B)																					
Prevalence Index = B/A = <u>1.00</u>																						
_____ = Total Cover																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
_____ = Total Cover																						
Herb Stratum (Plot size: <u>5 ft. radius</u>)																						
1. <u>Eleocharis obtusa (Blunt Spike-Rush)</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>																			
2. <u>Schoenoplectus tabernaemontani (Soft-Stem Club-Rus)</u>	<u>5</u>	<u>N</u>	<u>OBL</u>																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
_____ = Total Cover																						
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
_____ = Total Cover																						
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																						
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: DP-E-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/1	100					Loam	
3-8	10YR 5/3	70					Sandy Loam	Rocky
	10YR 3/2	30						
8-18	10YR 4/1	95	10YR 3/4	5	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No _____ Depth (inches): 6
 Water Table Present? Yes ☒ No _____ Depth (inches): 16
 Saturation Present? Yes ☒ No _____ Depth (inches): 9
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100% (1 of 1).

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-EF-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Interchange Infield Local relief (concave, convex, none): Flat
 Slope (%): 0 Lat: 39.784390 Long: -86.140219 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					
Due to locations of wetlands and configuration of infrastructure, this point was used as the out point for points DP-E-IN and DP-F-IN.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>70</u></td> <td>x 4 = <u>280</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>280</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>70</u>	x 4 = <u>280</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>280</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>70</u>	x 4 = <u>280</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>280</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-EF-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/2	100					Sandy Loam	
1-3	10YR 5/2	100					Sandy Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
Depth (inches): 3

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed, so it is assumed that soils are not hydric.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): >3
Saturation Present? Yes ☐ No ☒ Depth (inches): >3
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-F-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Strip/Toe of Slope Local relief (concave, convex, none): None
 Slope (%): 0 Lat: 39.784035 Long: -86.140144 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks: Due to riprap and concrete, there was no other appropriate area for an out point, so the same out point was used for Wetlands E and F. See DP-EF-OUT for out point.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>5</u> x 1 = <u>5</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>2</u> x 3 = <u>6</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>7</u> (A) <u>11</u> (B) Prevalence Index = B/A = <u>1.57</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Typha sp. (Cattail)</u>	<u>5</u>	<u>Y</u>	<u>OBL</u>	
2. <u>Rumex crispus (Curly Dock)</u>	<u>2</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	<u>NI</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.) Last year's cattail stand was thick at about 100% coverage. An unidentified Poaceae totalling one percent of the herbaceous stratum cover was also observed, but not included in the table above because the species could not be determined. The species of cattail could not be determined, because it lacked inflorescence. Rapid test was not checked, because this years growth only accounted for 5 percent cover with other species present.				

SOIL

Sampling Point: DP-F-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loam	
3-6	10YR 4/2	100					Sandy Loam	Rocky
6-8	10YR 3/1	100					Rocky Loam	
8-20	10YR 4/1	89	5YR 3/4	10	C	M	Clay Loam	Some sand
			10YR 2/1	1	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): _____ >20
 Saturation Present? Yes ☒ No _____ Depth (inches): _____ >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation indicator not checked, because no water table was observed. Saturation was observed within the top eight inches of the soil. This was assumed to be caused by surface run-off and not by the water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-G-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Embankment, Toe-of-Slope Local relief (concave, convex, none): Slope
 Slope (%): 65 Lat: 39.783650 Long: -86.140185 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>10</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>10</u> (A)	<u>10</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Last years cat-tail growth cover about 60%. This year's growth was recorded as only ten percent cover at time of observation. The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-G-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/2	98	7.5YR 4/6	2	C	M	Sandy Loam	Rocky
5-10	Gley1 4/N	60	5YR 4/6	7	C	M	Clay Loam	Rocky
	10YR 4/2	33						
10-20	10YR 4/1	85	10YR 4/6	4	C	M	Clay Loam	Rockier toward bottom
	Gley1 4/N	10	5YR 3/4	1	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☒ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): >20
 Saturation Present? Yes _____ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation indicator not check, because no water table was observed. Saturation was observed within the top ten inches of the soil. This was assumed to be caused by surface water run-off and not by the water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-G-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Embankment, Toe-of-Slope Local relief (concave, convex, none): Slope
 Slope (%): 75 Lat: 39.783625 Long: -86.140194 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>5</u></td> <td>x 2 = <u>10</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>55</u></td> <td>x 4 = <u>220</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>75</u> (A)</td> <td><u>305</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.07</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>5</u>	x 2 = <u>10</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>55</u>	x 4 = <u>220</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>75</u> (A)	<u>305</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>5</u>	x 2 = <u>10</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>55</u>	x 4 = <u>220</u>																	
UPL species <u>15</u>	x 5 = <u>75</u>																	
Column Totals: <u>75</u> (A)	<u>305</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Elymus repens (Creeping Wild Rye)</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Securigera varia (Crownvetch)</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>															
3. <u>Galium aparine (Sticky-Willy)</u>	<u>10</u>	<u>N</u>	<u>FACU</u>															
4. <u>Thlaspi arvense (Field Pennycress)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
5. <u>Conium maculatum (Poison-Hemlock)</u>	<u>5</u>	<u>N</u>	<u>FACW</u>															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-G-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/2	100					Loam	
5-20	10YR 4/2	50	7.5YR 3/3	2	C	M	Clay Loam	Sandy
	10YR 3/3	48						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/4/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-H-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.783021 Long: -86.140224 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>60</u> (A)</td> <td><u>60</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>60</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>60</u>	x 1 = <u>60</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>60</u> (A)	<u>60</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
<u> </u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>60</u>	<u>Y</u>	<u>OBL</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u>60</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-H-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	80					Sand Loam	
	10YR 4/2	20						
3-12	10YR 4/2	73	10YR 5/6	8	C	M	Sand Loam	
	10YR 3/1	15	7.5YR 3/4	4	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Unknown obstruction
 Depth (inches): 12

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☒ No ☐ Depth (inches): 7
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/4/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-H-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 30 Lat: 39.783012 Long: -86.140265 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
			<u> </u> = Total Cover	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>2</u></td> <td>x 4 = <u>8</u></td> </tr> <tr> <td>UPL species <u>100</u></td> <td>x 5 = <u>500</u></td> </tr> <tr> <td>Column Totals: <u>113</u> (A)</td> <td><u>540</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.78</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>2</u>	x 4 = <u>8</u>	UPL species <u>100</u>	x 5 = <u>500</u>	Column Totals: <u>113</u> (A)	<u>540</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>1</u>	x 2 = <u>2</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>2</u>	x 4 = <u>8</u>																	
UPL species <u>100</u>	x 5 = <u>500</u>																	
Column Totals: <u>113</u> (A)	<u>540</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
			<u> </u> = Total Cover															
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Securigera varia (Crownvetch)</u>	<u>98</u>	<u>Y</u>	<u>UPL</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Eupatorium serotinum (Late-Flowering Thoroughwort)</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
3. <u>Melilotus alba (White Sweet-Clover)</u>	<u>2</u>	<u>N</u>	<u>UPL</u>															
4. <u>Solidago altissima (Tall Goldenrod)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
5. <u>Cirsium discolor (Field Thistle)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
6. <u>Conium maculatum (Poison-Hemlock)</u>	<u>1</u>	<u>N</u>	<u>FACW</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
			<u>113</u> = Total Cover															
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
			<u> </u> = Total Cover															
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-H-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 4/3	100					Sand loam	Cobbles
5-22	10YR 4/4	60					Sand loam	Cobbles
	10YR 4/2	40						Cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >22
 Saturation Present? Yes _____ No X Depth (inches): >22
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-I-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Ditch/Toe-of-Slope Local relief (concave, convex, none): Concave
 Slope (%): <3 Lat: 39.782090 Long: -86.140249 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil X, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present?	Yes <u>X</u> No _____	
Wetland Hydrology Present?	Yes <u>X</u> No _____	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>70</u></td> <td>x 1 = <u>70</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>70</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>70</u>	x 1 = <u>70</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>70</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>70</u>	x 1 = <u>70</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>70</u> (A)	<u>70</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <u>X</u> No _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-I-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/2	100					Silty sand	Organics
3-14	10YR 5/2	100					Sand	Wet and coarse
14-16	10YR 5/2	60					Sand	With clay inclusions
	10YR 4/1	35	7.5YR 4/6	5	C	M		Clay inclusions

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☒ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Unknown
 Depth (inches): 16

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Chroma of 3-14 inch layer was very close to meeting Depleted Matrix indicator (F3). The adjacent out point met hydric soils, and hydrology was present at this location. Therefore, soils were considered hydric, but problematic.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <1
 Water Table Present? Yes ☒ No ☐ Depth (inches): 3
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Surface water was approximately 10 feet from the point of the test pit.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/4/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-I-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Near Toe-of-Slope Local relief (concave, convex, none): Slope
 Slope (%): 5-10 Lat: 39.782111 Long: -86.140268 Datum: NAD1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>		
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>3</u></td> <td>x 3 = <u>9</u></td> </tr> <tr> <td>FACU species <u>93</u></td> <td>x 4 = <u>372</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>96</u> (A)</td> <td><u>381</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.97</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>3</u>	x 3 = <u>9</u>	FACU species <u>93</u>	x 4 = <u>372</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>96</u> (A)	<u>381</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>3</u>	x 3 = <u>9</u>																	
FACU species <u>93</u>	x 4 = <u>372</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>96</u> (A)	<u>381</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>) 1. <u> </u> 2. <u> </u> 3. <u> </u> 4. <u> </u> 5. <u> </u> <u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>) 1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u> <u>90</u> <u>Y</u> <u>FACU</u> 2. <u>Cirsium discolor (Field Thistle)</u> <u>3</u> <u>N</u> <u>FACU</u> 3. <u>Symphotrichum ontarionis (Ontario American-Aster)</u> <u>2</u> <u>N</u> <u>FAC</u> 4. <u>Eupatorium serotinum (Late-Flowering Thoroughwort)</u> <u>1</u> <u>N</u> <u>FAC</u> 5. <u> </u> 6. <u> </u> 7. <u> </u> 8. <u> </u> 9. <u> </u> 10. <u> </u> <u>96</u> = Total Cover				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>) 1. <u> </u> 2. <u> </u> <u> </u> = Total Cover																		
1. <u> </u> 2. <u> </u> <u> </u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-I-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/2	100					Sand loam	Cobbles
4-20	10YR 4/2	60	7.5YR 4/6	4	C	M	Sand loam	Cobbles
	10YR 2/1	32	5YR 3/4	4	C	M		Cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): 14
 Saturation Present? Yes ☐ No ☒ Depth (inches): 4
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation was observed within the top four inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 14 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 5/24/16
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-J-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 20 Lat: 39.784494 Long: -86.139318 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>30</u></td> <td>x 1 = <u>30</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>70</u> (A)</td> <td><u>190</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.71</u>	Total % Cover of:	Multiply by:	OBL species <u>30</u>	x 1 = <u>30</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>70</u> (A)	<u>190</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>30</u>	x 1 = <u>30</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>70</u> (A)	<u>190</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Typha sp. (Cattail)</u>	<u>30</u>	<u>Y</u>	<u>OBL</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
The species of cattail could not be determined, because of the lack of inflorescence.																		

SOIL

Sampling Point: DP-J-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 4/1	95	7.5YR 3/4	5	C	M	Loam	
8-15	10YR 4/1	98	10YR 4/6	2	C	M	Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
Depth (inches): 15

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):
Water Table Present? Yes ☐ No ☒ Depth (inches): 14
Saturation Present? Yes ☒ No ☐ Depth (inches): 14
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 50%

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 5/24/16
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-J-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Slope
 Slope (%): 20 Lat: 39.784510 Long: -86.139314 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks: The location of DP-J-OUT was chosen due to restrictions caused by the fence and riprap at the base of the slope.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
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1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>																	
2. <u>Melilotus officinalis (Yellow Sweet-Clover)</u>	<u>15</u>	<u>N</u>	<u>FACU</u>																	
3. <u>Symphyotrichum pilosum (Wt. Oldfield American-Aster)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
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1. _____	_____	_____	_____																	
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Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: DP-J-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	60					Silty Loam	
	10YR 4/1	40					Silty Loam	
4-7	10YR 3/1	67	7.5YR 4/6	3	C	M	Silty Loam	
	10YR 2/1	30					Silty Loam	
7-16	10YR 2/1	85	10YR 5/3	10	C	M	Clay Loam	
			10YR 4/6	5	C	M	Clay Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
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☐ Sandy Mucky Mineral (S1)
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- ☐ Sandy Gleyed Matrix (S4)
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☒ Redox Dark Surface (F6)
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☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 16

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
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Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
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☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >16
 Saturation Present? Yes ☐ No ☒ Depth (inches): >16
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 50%

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-K-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave/Sloped
 Slope (%): 5 Lat: 39.785637 Long: -86.138217 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																																																																																																																											
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(Cattail)</u></td><td><u>40</u></td><td><u>Y</u></td><td><u>OBL</u></td></tr> <tr><td>2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u></td><td><u>20</u></td><td><u>Y</u></td><td><u>FACU</u></td></tr> <tr><td>3. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>4. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>5. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>6. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>7. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>8. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>9. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>10. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td>_____ = Total Cover</td> <td><u>60</u></td> <td></td> <td></td> </tr> <tr> <td>Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)</td> <td></td> <td></td> <td></td> <td rowspan="3"> Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </td> </tr> <tr><td>1. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>2. _____</td><td>_____</td><td>_____</td><td>_____</td></tr> <tr> <td>_____ = Total Cover</td> <td></td> <td></td> <td></td> </tr> <tr> <td colspan="4">Remarks: (Include photo numbers here or on a separate sheet.)</td> <td></td> </tr> <tr> <td colspan="4">The species of cattail could not be determined, because of the lack of inflorescence.</td> <td></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>20</u>	x 4 = <u>80</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>60</u> (A)	<u>120</u> (B)	_____ = Total Cover				Prevalence Index = B/A = <u>2.00</u>	Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	1. _____	_____	_____	_____	2. _____	_____	_____	_____	3. _____	_____	_____	_____	4. _____	_____	_____	_____	5. _____	_____	_____	_____	_____ = Total Cover				Herb Stratum (Plot size: <u>5 ft. radius</u>)				1. <u>Typha sp. 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7. _____	_____	_____	_____																																																																																																																												
8. _____	_____	_____	_____																																																																																																																												
9. _____	_____	_____	_____																																																																																																																												
10. _____	_____	_____	_____																																																																																																																												
_____ = Total Cover	<u>60</u>																																																																																																																														
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																																																																																											
1. _____	_____	_____	_____																																																																																																																												
2. _____	_____	_____	_____																																																																																																																												
_____ = Total Cover																																																																																																																															
Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																															
The species of cattail could not be determined, because of the lack of inflorescence.																																																																																																																															

SOIL

Sampling Point: DP-K-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	95	7.5YR 3/4	5	C	M	Loam	Muddy, Nearly Saturated
7-11	10YR 2/1	60	7.5YR 4/6	4	C	M	Loam	
	10YR 5/2	35	7.5YR 2.5/3	1	C	M		
11-14	10YR 6/1	50	10YR 5/6	50	C	M	RockyLoam	Not saturated

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 14

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☒ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 1
 Water Table Present? Yes ☒ No ☐ Depth (inches): 10
 Saturation Present? Yes ☐ No ☒ Depth (inches): 2
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Fac-Neutral Test = 50%. Saturation was observed within the top two inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 10 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-K-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 20 Lat: 39.785653 Long: -86.138236 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>100</u></td> <td>x 4 = <u>400</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>400</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>100</u>	x 4 = <u>400</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>400</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>100</u>	x 4 = <u>400</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>400</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-K-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	10YR 2/1	100					Loam	
9-15	10YR 4/2	99	10YR 5/8	1	C	M	Loam	
15-20	10YR 4/2	85	10YR 5/6	5	C	M	Rocky Loam	
	10YR 2/1	10					Rocky Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 0% (0 of 1). Saturation was observed within the top 16 inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-L-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave/Sloped
 Slope (%): 5 Lat: 39.785714 Long: -86.137929 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>50</u></td> <td>x 1 = <u>50</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>5</u></td> <td>x 4 = <u>20</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>70</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.27</u>	Total % Cover of:	Multiply by:	OBL species <u>50</u>	x 1 = <u>50</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>5</u>	x 4 = <u>20</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>70</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>50</u>	x 1 = <u>50</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>5</u>	x 4 = <u>20</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>55</u> (A)	<u>70</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Typha sp. (Cattail)</u>	<u>50</u>	<u>Y</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>5</u>	<u>N</u>	<u>FACU</u>															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
The species of cattail could not be determined, because of the lack of inflorescence.																		

SOIL

Sampling Point: DP-L-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Silty Loam	
3-7	10YR 4/1	70	7.5YR 4/6	10	C	M	Silty Loam	
	10YR 2/1	20					Silty Loam	
7-14	10YR 2/1	95	7.5YR 4/6	5	C	M, PL	Silty Loam	
14-20	10YR 3/1	55	7.5YR 3/4	5	C	M	Sandy Loam	Rocky
	10YR 4/2	40						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☒ Surface Water (A1)
☒ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☒ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☒ No ☐ Depth (inches): 12
 Saturation Present? Yes ☐ No ☒ Depth (inches): 2
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. High water table observed within 12 inches of the surface. Saturation was observed within the top two inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 12 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-L-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Sloped
 Slope (%): 15 Lat: 39.785737 Long: -86.137998 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																		
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>80</u> (A)</td> <td><u>320</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>80</u> (A)	<u>320</u> (B)	Prevalence Index = B/A = <u>4.00</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>0</u>	x 1 = <u>0</u>																					
FACW species <u>0</u>	x 2 = <u>0</u>																					
FAC species <u>0</u>	x 3 = <u>0</u>																					
FACU species <u>80</u>	x 4 = <u>320</u>																					
UPL species <u>0</u>	x 5 = <u>0</u>																					
Column Totals: <u>80</u> (A)	<u>320</u> (B)																					
Prevalence Index = B/A = <u>4.00</u>																						
_____ = Total Cover																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
_____ = Total Cover																						
Herb Stratum (Plot size: <u>5 ft. radius</u>)																						
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
_____ = Total Cover																						
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
_____ = Total Cover																						
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																						
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: DP-L-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-4	10YR 2/1	100					Loam	
4-10	10YR 4/2	98	7.5YR 4/6	2	C	M	Loam	
10-15	10YR 4/4	100					Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks
 Depth (inches): 15

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >15
 Saturation Present? Yes ☐ No ☒ Depth (inches): >15
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/4/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-M-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Sloped
 Slope (%): 5 Lat: 39.788353 Long: -86.132051 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Westland complex (Uw) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>80</u></td> <td>x 1 = <u>80</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>15</u></td> <td>x 4 = <u>60</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>140</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>1.47</u>	Total % Cover of:	Multiply by:	OBL species <u>80</u>	x 1 = <u>80</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>15</u>	x 4 = <u>60</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>140</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>80</u>	x 1 = <u>80</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>15</u>	x 4 = <u>60</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>95</u> (A)	<u>140</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	NI															
2. _____	_____	_____	NI															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5ft radius</u>)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u>Typha sp. (Cattail)</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Eleocharis mamillata (Soft-stem Spike-Rush)</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>															
3. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>15</u>	<u>N</u>	<u>FACU</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
<u>95</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>15ft radius</u>)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
The species of cattail could not be determined, because of the lack of inflorescence.																		

SOIL

Sampling Point: DP-M-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	5Y 4/1	90	7.5YR 4/4	10	C	PL/M	Loam	Debris: brown glass, trash

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☒ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Large rocks and glass
Depth (inches): 5

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Digging was difficult due to rocks, but was abandoned as unsafe due to glass. Further excavation was unnecessary due to observed soil and hydrology indicators.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☒ High Water Table (A2)
- ☒ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☒ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☒ Geomorphic Position (D2)
- ☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches):
Water Table Present? Yes ☒ No ☐ Depth (inches): 4
Saturation Present? Yes ☒ No ☐ Depth (inches): 0
(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation was observed within the top four inches of the soil. This was assumed to be caused by the water table. The water table was observed at a depth of 4 inches.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-M-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Grassy Right-of-Way/Shoulder Local relief (concave, convex, none): Flat
 Slope (%): <3 Lat: 39.788419 Long: -86.132179 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Westland complex (Uw) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks: The location of DP-M-OUT was chosen due to the dominance of reed canary grass, which marked a change from the cat-tail and soft-stem spike-rush at DP-M-IN. Upon review, this area was determined not to be an extension of Wetland M, and the point was used as the out point.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>100</u> x 2 = <u>200</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>3</u> x 4 = <u>12</u> UPL species <u>10</u> x 5 = <u>50</u> Column Totals: <u>113</u> (A) <u>262</u> (B) Prevalence Index = B/A = <u>2.32</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				
1. <u>Lonicera maackii (Amur Honeysuckle)</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Catalpa speciosa (Northern Catalpa)</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
3. <u>Betula sp. (birch sp.)</u>	<u>(2)</u>	<u>N</u>	<u>NI</u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>12</u> = Total Cover				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5 ft. radius</u>)				
1. <u>Phalaris arundinacea (Reed Canary Grass)</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Cirsium discolor (Field Thistle)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u>101</u> = Total Cover				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: DP-M-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-13	10YR 3/1	100					Loam	Bricky debris
13-18	10YR 3/1	95	5YR 3/2	5	C	M	Loam	
18-22	10YR 4/1	96	2.5Y 3/3	4	C	M	Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☒ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >22
 Saturation Present? Yes ☐ No ☒ Depth (inches): >22
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-N-IN
 Investigator(s): Brock Ervin and Hannah Marriott (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.787414 Long: -86.132214 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Westland complex (Uw) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																		
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>50</u></td> <td>x 2 = <u>100</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>50</u> (A)</td> <td><u>100</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>50</u>	x 2 = <u>100</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>50</u> (A)	<u>100</u> (B)	Prevalence Index = B/A = <u>2.00</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>0</u>	x 1 = <u>0</u>																					
FACW species <u>50</u>	x 2 = <u>100</u>																					
FAC species <u>0</u>	x 3 = <u>0</u>																					
FACU species <u>0</u>	x 4 = <u>0</u>																					
UPL species <u>0</u>	x 5 = <u>0</u>																					
Column Totals: <u>50</u> (A)	<u>100</u> (B)																					
Prevalence Index = B/A = <u>2.00</u>																						
_____ = Total Cover																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
_____ = Total Cover																						
Herb Stratum (Plot size: <u>5 ft. radius</u>)																						
1. <u>Echinochloa crus-galli (Large Barnyard Grass)</u>	<u>50</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
_____ = Total Cover																						
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
_____ = Total Cover																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: DP-N-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Sand	Sand grain colors highly variable
4-8	GLE Y1 2.5/N	100					Org. loam	
8-20	GLE Y1 3/N	66					Sand loam	
	5Y 4/1	30	10YR 4/4	4	C	M	Sand loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☒ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

A depleted layer was not observed below the thick dark surface; however, the bottom layer contained inclusions of depleted matrix with redox. Thick dark surface was assumed to be present.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >20
 Saturation Present? Yes ☐ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Located in ditch bottom below an underdrain outlet. FAC-Neutral Test = 100% (50% E. crus-galli, 50% bare). Saturation was observed within the top 16 inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-N-OUT
 Investigator(s): Brock Ervin and Hannah Marriott (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 75 Lat: 39.787546 Long: -86.132118 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Westland complex (Uw) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: The location of DP-N-OUT was chosen due to the dominance of common reed, which marked a change from the barnyard grass at DP-N-IN. Upon review, this area was determined not to be an extension of Wetland N, and the point was used as the out point.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																		
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>2.00</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>0</u>	x 1 = <u>0</u>																					
FACW species <u>100</u>	x 2 = <u>200</u>																					
FAC species <u>0</u>	x 3 = <u>0</u>																					
FACU species <u>0</u>	x 4 = <u>0</u>																					
UPL species <u>0</u>	x 5 = <u>0</u>																					
Column Totals: <u>100</u> (A)	<u>200</u> (B)																					
Prevalence Index = B/A = <u>2.00</u>																						
_____ = Total Cover																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
_____ = Total Cover																						
Herb Stratum (Plot size: <u>5 ft. radius</u>)																						
1. <u>Phragmites australis (Common Reed)</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
_____ = Total Cover																						
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
_____ = Total Cover																						
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																						
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: DP-N-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 3/2	70					Sandy lom	Rocky
	10YR 4/2	27						
	10YR 5/6	3						Not redox
8-12	10YR 3/1	50	5YR 3/2	5	C	M	Clay loam	Rocky
	10YR 4/2	40	7.5YR 3/3	5	C	M		
12-20	10YR 5/2	100					Sandy lom	Very rocky

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X**Remarks:**

While no indicators apply, the 8-12 inch layer appears to be affected by hydrology; however, it is underlain by a well drained, rocky layer.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top 17 inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-O-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): 2 Lat: 39.780025 Long: -86.141543 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u> </u>	Is the Sampled Area within a Wetland?	Yes <u>X</u>	No <u> </u>
Hydric Soil Present?	Yes <u>X</u>	No <u> </u>			
Wetland Hydrology Present?	Yes <u>X</u>	No <u> </u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>15</u></td> <td>x 1 = <u>15</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>15</u> (A)</td> <td><u>15</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>15</u>	x 1 = <u>15</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>15</u> (A)	<u>15</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>15</u>	x 1 = <u>15</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>15</u> (A)	<u>15</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
<u> </u> = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				Hydrophytic Vegetation Indicators: <u>X</u> 1 - Rapid Test for Hydrophytic Vegetation <u>X</u> 2 - Dominance Test is >50% <u>X</u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>15</u>	<u>Y</u>	<u>OBL</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u>15</u> = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No <u> </u>																
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
<u> </u> = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Previous years cover of cattail 75%. The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-O-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-9	GLE Y1 2.5/N	100					Org. Loam	Roots
9-16	10YR 4/1	98	7.5YR 3/4	2	C	M	Clay Loam	Sandy, decomposing root matter
16-18	10YR 4/1	100					Sandy	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☒ No ☐ Depth (inches): 14
 Saturation Present? Yes ☐ No ☒ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top nine inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 14 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-O-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 10 Lat: 39.780040 Long: -86.141503 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>60</u></td> <td>x 3 = <u>180</u></td> </tr> <tr> <td>FACU species <u>40</u></td> <td>x 4 = <u>160</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>340</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.40</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>60</u>	x 3 = <u>180</u>	FACU species <u>40</u>	x 4 = <u>160</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>340</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>60</u>	x 3 = <u>180</u>																	
FACU species <u>40</u>	x 4 = <u>160</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>340</u> (B)																	
<u> </u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Poa pratensis (Kentucky Blue Grass)</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>															
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-O-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 3/2	100					Sandy Loam	
5-14	10YR 4/1	90	7.5YR 4/6	1	C	M	Clay Loam	
	10YR 4/3	9						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
Depth (inches): 14

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
Water Table Present? Yes ☐ No ☒ Depth (inches): >14
Saturation Present? Yes ☐ No ☒ Depth (inches): >14
(includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 0%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-P-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.779675 Long: -86.141540 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>100</u></td> <td>x 2 = <u>200</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>200</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>100</u>	x 2 = <u>200</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>200</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>100</u>	x 2 = <u>200</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>100</u> (A)	<u>200</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Phalaris arundinacea (Reed Canary Grass)</u>	<u>100</u>	<u>Y</u>	<u>FACW</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: DP-P-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	100					Org. loam	Cobbles and trash/greasy
5-7	10YR 5/2	95	7.5YR 5/6	5	C	M	Sand loam	Cobbles and trash
7-9.7	10YR 5/1	85	7.5YR 5/6	15	C	M	Silty loam	Cobbles and trash
9.7-10	10YR 2/1	100					Sand loam	Possible burn layer
10-20	10YR 4/1	60	7.5YR 4/4	15	C	M	Sandy lom	Cobbles and trash
	10YR 4/2	25						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

A quarter-inch dark layer was encountered at 9.7 inches and appears to be burnt vegetation or some form of similar irregularity. This layer was not considered prominent enough to be a break in the depleted column, and F3 and A11 were considered applicable.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >20
 Saturation Present? Yes ☐ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-P-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment/Toe-of-Slope Local relief (concave, convex, none): Flat
 Slope (%): <5 Lat: 39.779675 Long: -86.141472 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>90</u> x 4 = <u>360</u> UPL species <u>3</u> x 5 = <u>15</u> Column Totals: <u>93</u> (A) <u>375</u> (B) Prevalence Index = B/A = <u>4.03</u>
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>) 1. <u> </u> 2. <u> </u> 3. <u> </u> 4. <u> </u> 5. <u> </u> <u> </u> = Total Cover				
Herb Stratum (Plot size: <u>5 ft. radius</u>) 1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u> 80 Y FACU 2. <u>Plantago lanceolata (English Plantain)</u> 10 N FACU 3. <u>Linaria vulgaris (Butter and Eggs)</u> 3 N UPL 4. <u>Poa sp.</u> (20) N NI 5. <u> </u> 6. <u> </u> 7. <u> </u> 8. <u> </u> 9. <u> </u> 10. <u> </u> <u>93</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>) 1. <u> </u> 2. <u> </u> <u> </u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				
While the unidentified Poaceae would be dominant, it would not alter the Dominance Test or Prevalence Index results.				

SOIL

Sampling Point: DP-P-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	50					Loam	Cobbles, bricks, and trash
	10YR 3/3	50						Cobbles, bricks, and trash
4-11	10YR 4/2	65	7.5YR 3/4	4	C	M	Gravel lom	Cobbles, bricks, and trash
	10YR 4/3	31						Cobbles, bricks, and trash
11-14	10YR 4/2	60					Sandy grav	Cobbles, bricks, and trash
	10YR 2/1	40						Cobbles, bricks, and trash

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks and Debris
 Depth (inches): 14

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >14
 Saturation Present? Yes ☐ No ☒ Depth (inches): >14
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

While deeper excavation was not possible, lack of surface hydrology indicators or saturation in the pit confirms that indicators of High Water Table (A2) and Saturation (A3) would not be met.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-Q-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.778919 Long: -86.141610 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>65</u></td> <td>x 1 = <u>65</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>65</u> (A)</td> <td><u>65</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>65</u>	x 1 = <u>65</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>65</u> (A)	<u>65</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>65</u>	x 1 = <u>65</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>65</u> (A)	<u>65</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Eleocharis palustris (Common Spike-Rush)</u>	<u>40</u>	<u>Y</u>	<u>OBL</u>																	
2. <u>Typha sp. (Cattail)</u>	<u>25</u>	<u>Y</u>	<u>OBL</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
The remaining area is bare soil. South end of wetland becomes de-vegetated. The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-Q-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	60					Org. loam	Cobbles
	10YR 4/1	40						Cobbles
4-20	10YR 4/1	50	7.5YR 4/6	10	C	M	Loam	Cobbles
	10YR 5/2	40						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☒ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): >20
 Saturation Present? Yes _____ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-Q-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment/Toe-of-Slope Local relief (concave, convex, none): None
 Slope (%): 5-10 Lat: 39.778926 Long: -86.141584 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>10</u></td> <td>x 3 = <u>30</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>1</u></td> <td>x 5 = <u>5</u></td> </tr> <tr> <td>Column Totals: <u>101</u> (A)</td> <td><u>395</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.91</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>10</u>	x 3 = <u>30</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>1</u>	x 5 = <u>5</u>	Column Totals: <u>101</u> (A)	<u>395</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>10</u>	x 3 = <u>30</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>1</u>	x 5 = <u>5</u>																	
Column Totals: <u>101</u> (A)	<u>395</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	<u>1</u>	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Setaria pumila (Yellow Bristle Grass)</u>	<u>10</u>	<u>N</u>	<u>FAC</u>															
3. <u>Daucus carota (Queen Anne's-Lace)</u>	<u>1</u>	<u>N</u>	<u>UPL</u>															
4. <u>Setaria viridis (Green Bristlegrass)</u>	<u>(10)</u>	<u>N</u>	<u>NI</u>															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-Q-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 3/1	100					Loam	Cobbles
4-20	10YR 4/2	75	7.5YR 5/6	5	C	M	Loam	Cobbles
	10YR 4/1	20						Cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): >20
 Saturation Present? Yes _____ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-R-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <2 Lat: 39.778123 Long: -86.14117 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>10</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>10</u> (A)	<u>10</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>30 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Last year's cattail cover is approximately 80%. Wetland consists of two cattail stands connected by a muddy, linear devegetated segment. The species of cattail could not be determined, because of the lack of inflorescence. Also contained reed canary grass.																				

SOIL

Sampling Point: DP-R-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	100					Org. Loam	Mucky consistency
4-12	10YR 5/2	85	10YR 4/6	15	C	M	Silty Clay	
12-17	10YR 5/2	85	10YR 4/6	15	C	M	Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: water in pit
 Depth (inches): 17

Hydric Soil Present? Yes ☒ No ☐

Remarks:

Water in hole obstructed digging deeper than 17 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): <1
 Water Table Present? Yes ☐ No ☒ Depth (inches): >17
 Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top 12 inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-R-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 10 Lat: 39.778145 Long: -86.141195 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																																																																																																																						
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SOIL

Sampling Point: DP-R-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loam	
3-7	10YR 4/2	88	10YR 4/4	2	C	M	Loam	
	10YR 2/1	10						
7-20	10YR 4/2	98	10YR 3/6	2	C	M	Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No ☒ Depth (inches): _____
 Water Table Present? Yes _____ No ☒ Depth (inches): >20
 Saturation Present? Yes _____ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-S-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.778478 Long: -86.140381 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																																																																																																																								
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3. _____	_____	_____	_____																																																																																																																									
4. _____	_____	_____	_____																																																																																																																									
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_____ = Total Cover																																																																																																																												
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																																																																																																																												
1. _____	_____	_____	_____																																																																																																																									
2. _____	_____	_____	_____																																																																																																																									
_____ = Total Cover																																																																																																																												
Remarks: (Include photo numbers here or on a separate sheet.)																																																																																																																												
The species of cattail could not be determined, because of the lack of inflorescence.																																																																																																																												

SOIL

Sampling Point: DP-S-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loam	
3-20	10YR 4/1	90	7.5YR 4/3	10	C	M	Loam sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☒ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☒ No ☐ Depth (inches): 10
 Saturation Present? Yes ☐ No ☒ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation was observed within the top four inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 10 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-S-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 30 Lat: 39.778489 Long: -86.140413 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																		
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>1</u></td> <td>x 4 = <u>4</u></td> </tr> <tr> <td>UPL species <u>90</u></td> <td>x 5 = <u>450</u></td> </tr> <tr> <td>Column Totals: <u>91</u> (A)</td> <td><u>454</u> (B)</td> </tr> <tr> <td colspan="4">Prevalence Index = B/A = <u>4.99</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>1</u>	x 4 = <u>4</u>	UPL species <u>90</u>	x 5 = <u>450</u>	Column Totals: <u>91</u> (A)	<u>454</u> (B)	Prevalence Index = B/A = <u>4.99</u>			
Total % Cover of:	Multiply by:																					
OBL species <u>0</u>	x 1 = <u>0</u>																					
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FAC species <u>0</u>	x 3 = <u>0</u>																					
FACU species <u>1</u>	x 4 = <u>4</u>																					
UPL species <u>90</u>	x 5 = <u>450</u>																					
Column Totals: <u>91</u> (A)	<u>454</u> (B)																					
Prevalence Index = B/A = <u>4.99</u>																						
_____ = Total Cover																						
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
3. _____	_____	_____	_____																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
_____ = Total Cover																						
Herb Stratum (Plot size: <u>5 ft. radius</u>)																						
1. <u>Securigera varia (Crownvetch)</u>	<u>80</u>	<u>Y</u>	<u>UPL</u>																			
2. <u>Sporobolus compositus (Composite Dropseed)</u>	<u>10</u>	<u>N</u>	<u>UPL</u>																			
3. <u>Asclepias syriaca (Common Milkweed)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>																			
4. _____	_____	_____	_____																			
5. _____	_____	_____	_____																			
6. _____	_____	_____	_____																			
7. _____	_____	_____	_____																			
8. _____	_____	_____	_____																			
9. _____	_____	_____	_____																			
10. _____	_____	_____	_____																			
_____ = Total Cover																						
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																						
1. _____	_____	_____	_____																			
2. _____	_____	_____	_____																			
_____ = Total Cover																						
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																						
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																						
Remarks: (Include photo numbers here or on a separate sheet.)																						

SOIL

Sampling Point: DP-S-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					Silty loam	Gravel
3-20	10YR 4/3	100					Silty loam	Gravel

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-T-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): 1 Lat: 39.777329 Long: -86.141513 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>20</u> (A)</td> <td><u>20</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>20</u> (A)	<u>20</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>20</u> (A)	<u>20</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Last year's cattail cover is approximately 40%. Wetland consists of two cattail stands connected by a muddy, linear devegetated segment. Also present were, soft-stem bullrush, red rooted spike sedge, and common reed.																				

SOIL

Sampling Point: DP-T-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 2/1	100					Org. Loam	
7-7.5	10YR 4/1	70					Sandy Clay	
	10YR 4/2	30						
7.5-17	10YR 5/1	70	10YR 5/4	7	C	M	Rocky Clay	
	10YR 5/2	23						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks and hard-packed clay
 Depth (inches): 17

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >17
 Saturation Present? Yes ☐ No ☒ Depth (inches): >17
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top seven inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-T-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 10 Lat: 39.777329 Long: -86.141469 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks:			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)																																																																																																																						
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SOIL

Sampling Point: DP-T-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loam	Root mass
3-6	10YR 4/1	63	10YR 4/4	2	C	M	Clay Loam	Roots mass
	10YR 2/1	35					Loam	
6-9	10YR 2/1	100					Sandy Loam	Sand grains varied in color
9-17	10YR 4/2	74	7.5YR 5/8	1	C	M	Loamy Clay	Very compacts
	10YR 5/1	25					Loamy Clay	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):Type: Rocks/compact clayDepth (inches): 17Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >17
 Saturation Present? Yes ☐ No ☒ Depth (inches): >17
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-U-IN
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Toe-of-Slope Local relief (concave, convex, none): Slope then flat
 Slope (%): <3 Lat: 39.773975 Long: -86.143201 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
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5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Cyperus esculentus (Chufa)</u>	<u>80</u>	<u>Y</u>	<u>FACW</u>																	
2. <u>Phragmites australis (Common Reed)</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
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Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
P. australis located along slope and merges into C. esculentus along the ditch. Source water is, at least in part, from an underdrain.																				

SOIL

Sampling Point: DP-U-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	98	7.5YR 4/6	2	C	M	Org. loam	
6-20	10YR 5/1	85	7.5YR 4/6	15	C	M	Clay loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☒ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
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☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☐ No ☒ Depth (inches): >20
 Saturation Present? Yes ☐ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top six inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was not observed. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-U-OUT
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Maintained Roadside Right-of-Way Local relief (concave, convex, none): Flat
 Slope (%): <1 Lat: 39.773974 Long: -86.143225 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u>	No <u>X</u>	Is the Sampled Area within a Wetland?	Yes <u> </u>	No <u>X</u>
Hydric Soil Present?	Yes <u> </u>	No <u>X</u>			
Wetland Hydrology Present?	Yes <u> </u>	No <u>X</u>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>90</u> (A)</td> <td><u>360</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.00</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>90</u> (A)	<u>360</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>90</u> (A)	<u>360</u> (B)																	
<u> </u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>) 1. <u> </u> 2. <u> </u> 3. <u> </u> 4. <u> </u> 5. <u> </u>																		
<u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>) 1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u> 75 Y FACU 2. <u>Plantago lanceolata (English Plantain)</u> 10 N FACU 3. <u>Trifolium pratense (Red Clover)</u> 5 N FACU 4. <u> </u> 5. <u> </u> 6. <u> </u> 7. <u> </u> 8. <u> </u> 9. <u> </u> 10. <u> </u>																		
<u>90</u> = Total Cover				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
Woody Vine Stratum (Plot size: <u>15 ft. radius</u>) 1. <u> </u> 2. <u> </u>																		
<u> </u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>														

SOIL

Sampling Point: DP-U-OUT

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Loam	Big cobbles
3-14	10YR 4/2	100					Sand loam	Big cobbles
14-20	10YR 4/4	100					Sand loam	Big cobbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron-Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
Water Table Present? Yes _____ No X Depth (inches): >20
Saturation Present? Yes _____ No X Depth (inches): >20
(includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-V-IN
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Toe of Slope Local relief (concave, convex, none): Concave
 Slope (%): <3 Lat: 39.771530 Long: -86.143346 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>10</u> (A)</td> <td><u>10</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>10</u> (A)	<u>10</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>10</u> (A)	<u>10</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Last year's cattail cover 80%. The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: DP-V-IN

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-5	10YR 2/1	95	10YR 3/3	4	C	M	Org. Loam	Mucky with sand
			7.5YR 2.5/3	1	C	M		
5-14	10YR 5/1	75	7.5YR 4/4	25	C	M	Sandy Clay	
14-16	7.5YR 2.5/2	60	7.5YR 4/6	1	C	M	Rocky Loam	pebbly, sandy
	10YR 2/2	35						
	10YR 6/6	4						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks
 Depth (inches): 16

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

Rocky throughout.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☒ Surface Water (A1)
☒ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☒ No ☐ Depth (inches): 0.5
 Water Table Present? Yes ☒ No ☐ Depth (inches): 12
 Saturation Present? Yes ☐ No ☒ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%. Saturation was observed within the top four inches of the soil. This was assumed to be caused by surface run-off and not by the water table. The water table was observed at a depth of 12 inches. Per the Corps Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/27/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: DP-V-OUT
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): None
 Slope (%): 5 Lat: 39.771566 Long: -86.143376 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>70</u></td> <td>x 3 = <u>210</u></td> </tr> <tr> <td>FACU species <u>24</u></td> <td>x 4 = <u>96</u></td> </tr> <tr> <td>UPL species <u>1</u></td> <td>x 5 = <u>5</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>311</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.27</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>70</u>	x 3 = <u>210</u>	FACU species <u>24</u>	x 4 = <u>96</u>	UPL species <u>1</u>	x 5 = <u>5</u>	Column Totals: <u>95</u> (A)	<u>311</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>70</u>	x 3 = <u>210</u>																	
FACU species <u>24</u>	x 4 = <u>96</u>																	
UPL species <u>1</u>	x 5 = <u>5</u>																	
Column Totals: <u>95</u> (A)	<u>311</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Poa pratensis (Kentucky Blue Grass)</u>	<u>70</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Cirsium discolor (Field Thistle)</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
4. <u>Taraxacum officinale (Common Dandelion)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
5. <u>Lamium purpureum (Purple Deadnettle)</u>	<u>1</u>	<u>N</u>	<u>UPL</u>															
6. <u>Plantago lanceolata (English Plantain)</u>	<u>1</u>	<u>N</u>	<u>FACU</u>															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: DP-V-OUT**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-7	10YR 3/2	100					Rocky Loam	Sandy
7-18	7.5YR 4/4	99	10YR 2/1	1	C	M	Clay Loam	Silty/sandy w/ pebbles

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rock
 Depth (inches): 18

Hydric Soil Present? Yes ☐ No ☒

Remarks:

Rocky throughout. Notably reddish subsoil.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >18
 Saturation Present? Yes ☐ No ☒ Depth (inches): >18
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-1
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Interchange Infield Drainage Area Local relief (concave, convex, none): Concave
 Slope (%): <2 Lat: 39.782546 Long: -86.142732 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>40</u> (A)</td> <td><u>80</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>40</u> (A)	<u>80</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>40</u> (A)	<u>80</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Phalaris arundinacea (Reed Canary Grass)</u>	<u>40</u>	<u>Y</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				

SOIL

Sampling Point: RP-1**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/1	100					Loam	
6-13	10YR 3/3	45	7.5YR 3/3	1	C	M	Clay loam	
	10YR 4/2	35						
	10YR 3/1	19						
13-20	10YR 3/4	50					Clay loam	
	10YR 2/1	25						
	7.5YR 2.5/1	25						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

FAC-Neutral Test = 100%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/5/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-2
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 36, T16N, R3E
 Landform (hillslope, terrace, etc.): Roadside Embankment Local relief (concave, convex, none): Slope
 Slope (%): 20 Lat: 39.782577 Long: -86.140341 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u>X</u> No <u> </u>	
Remarks: Area reviewed because soils felt saturated when walking over this area.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>10</u></td> <td>x 2 = <u>20</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>90</u></td> <td>x 4 = <u>360</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>100</u> (A)</td> <td><u>380</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.80</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>10</u>	x 2 = <u>20</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>90</u>	x 4 = <u>360</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>100</u> (A)	<u>380</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>10</u>	x 2 = <u>20</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>90</u>	x 4 = <u>360</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>100</u> (A)	<u>380</u> (B)																	
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>															
2. <u>Echinochloa crus-galli (Large Barnyard Grass)</u>	<u>10</u>	<u>N</u>	<u>FACW</u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u>100</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Remarks: (Include photo numbers here or on a separate sheet.)																		

SOIL

Sampling Point: RP-2**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 4/1	100					Sand loam	Cobbles
3-9	5YR 4/1	85	7.5YR 4/6	15	C	M	Clay loam	Cobbles
9-20	GLE Y1 4/10Y	65	7.5YR 4/4	10	C	M	Clay loam	Cobbles
	GLE Y1 2.5/N	15	10YR 5/4	10	C	M	Clay loam	Cobbles/decomposing organics(?)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☒ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☒ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☒ No ☐ Depth (inches): 16
 Saturation Present? Yes ☒ No ☐ Depth (inches): 0
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Saturation indicator checked, because a water table was observed. Soil saturated down to water table.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/3/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-3
 Investigator(s): Brock Ervin and Hannah Marriott (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <5 Lat: 39.785073 Long: -86.137961 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation X, Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks: Area reviewed due to devegetated roadside ditch. Did not have downstream connectivity. Overshadowed by Lonicera macckii. Not considered to have sparsely vegetated concave surface (B8) due to allelopathic property of honeysuckle.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. <u> </u>	<u> </u>	<u> </u>	<u>NI</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u>NI</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
= Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
= Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u>NI</u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u>NI</u>																	
3. <u> </u>	<u> </u>	<u> </u>	<u>NI</u>																	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
= Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>																	
= Total Cover																				
Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																				
Remarks: (Include photo numbers here or on a separate sheet.) Lonicera maackii (amur honeysuckle, NI) dominates backslope, overshadows ditch; both void of herbaceous species. Attributed to allelopathic property of honeysuckle; inhibits germination. Backslope also contained Catalpa speciosa (northern catalpa, FACU), Rhus glabra (smooth sumac, NI). Frontslope contained Alliaria petiolata (garlic-mustard, FAC), Ambrosia artemisiifolia (annual ragweed, FACU), Cirsium discolor (field thistle, FACU).																				

SOIL

Sampling Point: RP-3**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	10YR 3/1	100					Loam	
1-4	10YR 3/2	50					Loam	
	10YR 4/2	50					Sand loam	
4-6	10YR 4/1	92	7.5YR 4/6	8	C	M	Silty loam	
6-7	10YR 4/2	100					Sand	
7-22	10YR 3/1	70	5YR 2.5/2	3	C	M	Loam	
	10YR 4/2	24	7.5YR 4/4	3	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >22
 Saturation Present? Yes ☐ No ☒ Depth (inches): >22
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sparsely Vegetated Concave Surface indicator (B8) not considered present, as the lack of herbaceous vegetation extends into the honeysuckle, and is likely caused by allelopathic chemicals from honeysuckle leaf decomposition, and no other hydrology indicators were present except geomorphic position. Plants adjacent to the devegetated ditch were predominantly upland species (northern catalpa, FACU, also in channel at other locations). Ditch becomes vegetated with Tall False Rye Grass (FACU) in absence of honeysuckle. Therefore, wetland hydrology was not present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-4
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): ~1 Lat: 39.786273 Long: -86.138491 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☒, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: Reviewed due to lack of vegetation in the roadside ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>0</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)	Prevalence Index = B/A = <u>0</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>0</u> (A)	<u>0</u> (B)																			
Prevalence Index = B/A = <u>0</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.)																				
Only contained dead vegetation. No living veg present during Oct. 2015 visit or current visit. Area between feature and fence appears to be have been cleared or disturbed. Does not appear to be unvegetated due to ponding. Possible accident/fuel spill, but no odor noted.																				

SOIL

Sampling Point: RP-4**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-6	10YR 2/2	100					Loam	
6-12	10YR 3/1	50	7.5YR 4/4	1	C	M	RockyLoam	
	10YR 5/2	49						
12-20	10YR 4/2	58	10YR 5/6	1	C	M	RockyLoam	
	10YR 2/1	40	10YR 3/6	1	C	M		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X**Remarks:**

Very low redox percentage and variable matrix coloring.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Area was devegetated, but indicator B8 (Sparsely Vegetated Concave Surface) does not appear to be the cause, as no indications of surface or ground water were present during two visits (October 2015 and April 2016). Area appeared to be disturbed and lack of vegetation may be result of gas spill or similar incident.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/25/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-5
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): ~1 Lat: 39.786285 Long: -86.138324 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks:		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.00</u> (A/B)														
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>6</u></td> <td>x 4 = <u>24</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>16</u> (A)</td> <td><u>34</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.13</u>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>6</u>	x 4 = <u>24</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>16</u> (A)	<u>34</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>10</u>	x 1 = <u>10</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>6</u>	x 4 = <u>24</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>16</u> (A)	<u>34</u> (B)																	
<u> </u> = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Schoenoplectus tabernaemontani (Soft-Stem Club Rus)</u>	<u>10</u>	<u>Y</u>	<u>OBL</u>															
2. <u>Elymus repens (Creeping Wild Rye)</u>	<u>4</u>	<u>Y</u>	<u>FACU</u>															
3. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	<u>2</u>	<u>N</u>	<u>FACU</u>															
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u>16</u> = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>															
<u> </u> = Total Cover																		
Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
Prevalence Index not applicable as the hydrology criterion was not present.																		

SOIL

Sampling Point: RP-5**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
1-8	10YR 2/1	100					MuckyLoam	
8-14	10YR 5/1	60	10YR 5/6	4	C	M	RockyLoam	
	10YR 2/1	35	5YR 3/4	1	C	M		
14-17	10YR 4/1	80	10YR 4/6	10	C	M	SandyLoam	Also rocky
	10YR 2/1	10						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☒ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Rocks
 Depth (inches): 17

Hydric Soil Present? Yes ☒ No ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >17
 Saturation Present? Yes ☐ No ☒ Depth (inches): >17
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Fac-Neutral Test = 50%.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 10/4/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-6
 Investigator(s): Brock Ervin and Juliet Port (Parsons) Section, Township, Range: Section 31, T16N, R4E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): <3 Lat: 39.786608 Long: -86.136903 Datum: NAD 1983
 Soil Map Unit Name: Urban land-Fox complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
 Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No
 Are Vegetation X, Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <u> </u> No <u>X</u>	Is the Sampled Area within a Wetland? Yes <u> </u> No <u>X</u>
Hydric Soil Present?	Yes <u>X</u> No <u> </u>	
Wetland Hydrology Present?	Yes <u> </u> No <u>X</u>	
Remarks: Area reviewed due to devegetated roadside ditch. Did not have downstream connectivity. Overshadowed by Lonicera macckii. Not considered to have Sparsely Vegetated Concave Surface (B8) due to allelopathic property of honeysuckle.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	Prevalence Index worksheet: Total % Cover of: <u>0</u> Multiply by: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>0</u> x 3 = <u>0</u> FACU species <u>0</u> x 4 = <u>0</u> UPL species <u>0</u> x 5 = <u>0</u> Column Totals: <u>0</u> (A) <u>0</u> (B) Prevalence Index = B/A = <u>0</u>
<u> </u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation <u> </u> 2 - Dominance Test is >50% <u> </u> 3 - Prevalence Index is ≤3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <u> </u> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5 ft. radius</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
3. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
4. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
5. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
6. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
7. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
8. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
9. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
10. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				Hydrophytic Vegetation Present? Yes <u> </u> No <u>X</u>
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)				
1. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
2. <u> </u>	<u> </u>	<u> </u>	<u> </u>	
<u> </u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)
 Lonicera macckii (amur honeysuckle, NI) dominates backslope, overshadows ditch; both void of herbaceous species. Attributed to allelopathic property of honeysuckle; inhibits germination. Backslope also contained Acer saccharinum (silver maple, FACW), Populus deltoides (eastern cottonwood, FAC) Catalpa speciosa (northern catalpa, FACU), Lonicera maackii (amur honeysuckle, NI), Schedonorus arundinaceus (tall false rye grass, FACU), etc.

SOIL

Sampling Point: RP-6**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 2/1	100					Org. loam	
3-5	10YR 4/2	75	5YR 3/4	1	C	M	Loam	
	10YR 4/1	17	10YR 5/6	2	C	M	Loam	
	10YR 6/4	5					Sand loam	
5-9	10YR 4/1	100					Sand loam	
9-20	10YR 4/2	60	10YR 5/6	4	C	M	Sand loam	
	10YR 4/1	36					Sand loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☒ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☒ No ☐**Remarks:**

Trash, bricks, and rocks throughout and volume increases with depth.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)

- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): >20
 Saturation Present? Yes ☐ No ☒ Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sparsely Vegetated Concave Surface indicator (B8) not considered present, as the lack of herbaceous vegetation extends into the honeysuckle, and is likely caused by allelopathic chemicals from honeysuckle leaf decomposition, and no other hydrology indicators were present except geomorphic position. Plants adjacent to the devegetated ditch were predominantly upland species. Ditch becomes vegetated with Tall False Rye Grass (FACU) in absence of honeysuckle. Therefore, wetland hydrology was not considered to be present.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-7
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Roadside Ditch Local relief (concave, convex, none): Concave
 Slope (%): 0 Lat: 39.777881 Long: -86.142104 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (UfA) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>			
Remarks:					
Poorly defined roadside ditch. Point reviewed due to low amount of vegetation.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)														
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover				Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>0</u> (A)</td> <td><u>0</u> (B)</td> </tr> </table> Prevalence Index = B/A = _____	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>0</u> (A)	<u>0</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>0</u>	x 4 = <u>0</u>																	
UPL species <u>0</u>	x 5 = <u>0</u>																	
Column Totals: <u>0</u> (A)	<u>0</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
3. _____	_____	_____	_____															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
_____ = Total Cover																		
Herb Stratum (Plot size: <u>5 ft. radius</u>)																		
1. <u>Rumex crispus (Curly Dock)</u>	<u>2</u>	<u>N</u>	<u>FAC</u>															
2. <u>Elymus sp.</u>	<u>2</u>	<u>N</u>	<u>NI</u>															
3. <u>Unidentified Small sprouts</u>	<u>2</u>	<u>N</u>	<u>NI</u>															
4. _____	_____	_____	_____															
5. _____	_____	_____	_____															
6. _____	_____	_____	_____															
7. _____	_____	_____	_____															
8. _____	_____	_____	_____															
9. _____	_____	_____	_____															
10. _____	_____	_____	_____															
_____ = Total Cover																		
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																		
1. _____	_____	_____	_____															
2. _____	_____	_____	_____															
_____ = Total Cover																		
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																		
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>																		
Remarks: (Include photo numbers here or on a separate sheet.)																		
Lacked enough identifiable live veg. to be considered a stratum. Currently holds mostly dead vegetation and may grow an unidentified grass later in the year (based on stems present). Currently has about 6% total cover, including curly dock, Elymus sp. (possibly quackgrass, FACU), and unknown sprouts. Area appears in same condition as preliminary field visit in October 2015, and lack of vegetation does not appear to be due to inundation.																		

SOIL

Sampling Point: RP-7**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/1	100					Org. Loam	
4-7	10YR 2/1	70	10YR 3/6	3	C	M	Clay Loam	
	10YR 4/2	27						
7-12	10YR 4/2	85	10YR 3/6	15	C	M	Clay Loam	Rocky
12-18	10YR 3/3	50					Sandy Loam	Large Rocks
	10YR 3/6	50						

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X**Remarks:**

The 4-7 inch dark layer is not thick enough to yield positive indicator for F-6. The 7-12 inch layer is not thick enough to yield a positive indicator for F3 or A11, and presence of 10YR 4/2 in the 4-7 inch layer excludes the use of A11.

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☒ Geomorphic Position (D2)
☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >20
 Saturation Present? Yes _____ No X Depth (inches): >20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sparsely Vegetated Concave Surface (B8) not considered present due to old growth vegetation from previous years sprouts, which indicate that vegetation will exceed 5%. Lack of vegetation doesn't appear to be result of standing water; may be devegetated due to fuel spill.

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: I65/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapolis, Marion County Sampling Date: 4/26/2016
 Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-8
 Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, Range: Section 1, T15N, R3E
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Slope
 Slope (%): 50 Lat: 39.769817 Long: -86.143349 Datum: NAD 1983
 Soil Map Unit Name: Urban Land - Fox Complex (Ufa) NWI classification: Not Wetland

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
Remarks: This data point was taken within a steep, paved roadside ditch.			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30 ft. radius</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.00</u> (A/B)																
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____	Prevalence Index worksheet: <table border="0"> <tr> <td>Total % Cover of:</td> <td>Multiply by:</td> </tr> <tr> <td>OBL species <u>95</u></td> <td>x 1 = <u>95</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>95</u> (A)</td> <td><u>95</u> (B)</td> </tr> <tr> <td colspan="2">Prevalence Index = B/A = <u>1.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>95</u>	x 1 = <u>95</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>95</u> (A)	<u>95</u> (B)	Prevalence Index = B/A = <u>1.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>95</u>	x 1 = <u>95</u>																			
FACW species <u>0</u>	x 2 = <u>0</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>95</u> (A)	<u>95</u> (B)																			
Prevalence Index = B/A = <u>1.00</u>																				
_____ = Total Cover																				
Sapling/Shrub Stratum (Plot size: <u>15 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: <u>5 ft. radius</u>)																				
1. <u>Typha sp. (Cattail)</u>	<u>95</u>	<u>Y</u>	<u>OBL</u>																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
9. _____	_____	_____	_____																	
10. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: <u>30 ft. radius</u>)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																				
Remarks: (Include photo numbers here or on a separate sheet.) The species of cattail could not be determined, because of the lack of inflorescence.																				

SOIL

Sampling Point: RP-8**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	10YR 4/2	100					Loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.**Hydric Soil Indicators:**

- ☐ Histosol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ 2 cm Muck (A10)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ 5 cm Mucky Peat or Peat (S3)

- ☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Loamy Mucky Mineral (F1)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☐ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils³:

- ☐ Coast Prairie Redox (A16)
☐ Dark Surface (S7)
☐ Iron-Manganese Masses (F12)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Concrete
 Depth (inches): 2

Hydric Soil Present? Yes _____ No X

Remarks:

Deeper examination of the soil profile was not possible due to the underlying paved side ditch. Problematic hydric soil indicators were not evaluated because the hydrology criterion was not met (both vegetation and hydrology must pass before evaluating problematic soil indicators).

HYDROLOGY

Wetland Hydrology Indicators:Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
☐ High Water Table (A2)
☐ Saturation (A3)
☐ Water Marks (B1)
☐ Sediment Deposits (B2)
☐ Drift Deposits (B3)
☐ Algal Mat or Crust (B4)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7)
☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13)
☐ True Aquatic Plants (B14)
☐ Hydrogen Sulfide Odor (C1)
☐ Oxidized Rhizospheres on Living Roots (C3)
☐ Presence of Reduced Iron (C4)
☐ Recent Iron Reduction in Tilled Soils (C6)
☐ Thin Muck Surface (C7)
☐ Gauge or Well Data (D9)
☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
☐ Drainage Patterns (B10)
☐ Dry-Season Water Table (C2)
☐ Crayfish Burrows (C8)
☐ Saturation Visible on Aerial Imagery (C9)
☐ Stunted or Stressed Plants (D1)
☐ Geomorphic Position (D2)
☒ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____
 Water Table Present? Yes _____ No X Depth (inches): >2
 Saturation Present? Yes _____ No X Depth (inches): >2
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

The D2 indicator (geomorphic position) was not marked since area in question is located within a steep paved side ditch, which likely prevents retention of water within the roadside ditch.

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD):

B. DISTRICT OFFICE, FILE NAME, AND NUMBER:

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State: Indiana County/parish/borough: Marion City: Indianapolis
Center coordinates of site (lat/long in degree decimal format): Lat. 39.770894° N, Long. 86.142878° W.
Universal Transverse Mercator: Zone 16

Name of nearest waterbody: Pogues Run

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows:

Name of watershed or Hydrologic Unit Code (HUC): 05120201 (HUC 8)

☒ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There **Are no** "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required]

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: .

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There **Are no** "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- ☐ TNWs, including territorial seas
- ☐ Wetlands adjacent to TNWs
- ☐ Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
- ☐ Non-RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
- ☐ Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
- ☐ Impoundments of jurisdictional waters
- ☐ Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: linear feet: width (ft) and/or acres.

Wetlands: acres.

c. Limits (boundaries) of jurisdiction based on: **Pick List**

Elevation of established OHWM (if known): .

2. Non-regulated waters/wetlands (check if applicable):³

- ☒ Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: **Twenty-two palustrine, emergent wetlands totaling 0.505 acre were delineated. These are discussed in the attached Waters of the U.S. Report. All lacked connectivity to a water of the U.S..**

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. **TNW**

Identify TNW: _____.

Summarize rationale supporting determination: _____.

2. **Wetland adjacent to TNW**

Summarize rationale supporting conclusion that wetland is “adjacent”: _____.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. **Characteristics of non-TNWs that flow directly or indirectly into TNW**

(i) **General Area Conditions:**

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: _____ inches

Average annual snowfall: _____ inches

(ii) **Physical Characteristics:**

(a) **Relationship with TNW:**

☐ Tributary flows directly into TNW.

☐ Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: _____.

Identify flow route to TNW⁵: _____.

Tributary stream order, if known: _____.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

Tributary is: ☐ Natural
☐ Artificial (man-made). Explain: .
☐ Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

☐ Silts ☐ Sands ☐ Concrete
☐ Cobbles ☐ Gravel ☐ Muck
☐ Bedrock ☐ Vegetation. Type/% cover:
☐ Other. Explain: .

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

Tributary has (check all that apply):

☐ Bed and banks
☐ OHWM⁶ (check all indicators that apply):
☐ clear, natural line impressed on the bank ☐ the presence of litter and debris
☐ changes in the character of soil ☐ destruction of terrestrial vegetation
☐ shelving ☐ the presence of wrack line
☐ vegetation matted down, bent, or absent ☐ sediment sorting
☐ leaf litter disturbed or washed away ☐ scour
☐ sediment deposition ☐ multiple observed or predicted flow events
☐ water staining ☐ abrupt change in plant community
☐ other (list):
☐ Discontinuous OHWM.⁷ Explain: .

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

☒ High Tide Line indicated by: ☐ Mean High Water Mark indicated by:
☐ oil or scum line along shore objects ☐ survey to available datum;
☐ fine shell or debris deposits (foreshore) ☐ physical markings;
☐ physical markings/characteristics ☐ vegetation lines/changes in vegetation types.
☐ tidal gauges
☐ other (list):

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- ☐ Riparian corridor. Characteristics (type, average width): .
- ☐ Wetland fringe. Characteristics: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: . acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

☐ Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

☐ Directly abutting

☐ Not directly abutting

☐ Discrete wetland hydrologic connection. Explain: .

☐ Ecological connection. Explain: .

☐ Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- ☐ Riparian buffer. Characteristics (type, average width): .
- ☐ Vegetation type/percent cover. Explain: .
- ☐ Habitat for:
 - ☐ Federally Listed species. Explain findings: .
 - ☐ Fish/spawn areas. Explain findings: .
 - ☐ Other environmentally-sensitive species. Explain findings: .
 - ☐ Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N)

Size (in acres)

Directly abuts? (Y/N)

Size (in acres)

Summarize overall biological, chemical and physical functions being performed: .

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: .
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: .

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- ☐ TNWs: linear feet width (ft), Or, acres.
- ☐ Wetlands adjacent to TNWs: acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- ☐ Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: .
- ☐ Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- ☐ Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
☐ Other non-wetland waters: acres.
Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .
☐ Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- ☐ Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- ☐ Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- ☐ Demonstrate that impoundment was created from "waters of the U.S.," or
☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
☐ Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- ☐ which are or could be used by interstate or foreign travelers for recreational or other purposes.
☐ from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
☐ which are or could be used for industrial purposes by industries in interstate commerce.
☐ Interstate isolated waters. Explain: .
☐ Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

⁸See Footnote # 3.

⁹To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

Provide estimates for jurisdictional waters in the review area (check all that apply):

- ☐ Tributary waters: linear feet width (ft).
- ☐ Other non-wetland waters: acres.
- Identify type(s) of waters: .
- ☐ Wetlands: acres.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- ☐ If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- ☐ Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - ☐ Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- ☒ Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: **No streams or floodplains near any of the 22 delineated isolated wetlands. The only stream within the study area (Pogues Run) is encapsulated under the interstate. No floodplains are mapped within the study area.**
- ☐ Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☐ Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- ☐ Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- ☐ Lakes/ponds: acres.
- ☐ Other non-wetland waters: acres. List type of aquatic resource: .
- ☒ Wetlands: 0.505 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- ☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: .
- ☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - ☐ Office concurs with data sheets/delineation report.
 - ☐ Office does not concur with data sheets/delineation report.
- ☐ 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 minute series, Indianapolis West Quadrangle.
- ☒ USDA Natural Resources Conservation Service Soil Survey. Citation: Soil Survey Geographic (SSURGO) Database, Marion County.
- ☒ National wetlands inventory map(s). Cite name: USFWS NWI GIS Database.
- ☐ State/Local wetland inventory map(s): .
- ☒ FEMA/FIRM maps: Digital Flood Insurance Rate Map (DFIRM).
- ☐ 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- ☒ Photographs: ☒ Aerial (Name & Date): Ortho 2011.
 - or ☒ Other (Name & Date): Ground-level : October 29-30, 2015 and April 25-27, May 24, and October 3-5, 2016.
- ☐ Previous determination(s). File no. and date of response letter: .
- ☐ Applicable/supporting case law: .
- ☐ Applicable/supporting scientific literature: .
- ☐ Other information (please specify): .

B. ADDITIONAL COMMENTS TO SUPPORT JD: .