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

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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

<u>I: Project Information</u> 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:

Brock Ervin, Senior Environmental Planner Juliet Port, Senior Environmental Planner Hannah Marriott, Associate Environmental Planner Wade Kimmon, Associate GIS Specialist

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 (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 kast 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 it 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 0

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 F

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 be 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 macckii* (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. https://streamstatsags.cr.usgs.gov/v3 https://streamstatsags.gov/v3 <a href="https://streamstatsags.go

MapIndy.gov Historical Aerial Maps 2017 http://maps.indy.gov/MapIndy/index.html



Table 1: Wetland Summary Table

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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,	Υ
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	Υ
Wetland I	127-128	39.782071 -86.140245	Palustrine Emergent	0.013 (99)	Poor	N	Y, Class I	Υ
Wetland J	58-59	39.784495 -86.139289	Palustrine Emergent	0.004 (35)	Poor	N	Y, Class I	Υ
Wetland K	47,93	39.785632 -86.138237	Palustrine Emergent	0.003 (27)	Poor	N	Y, Class I	Υ
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	Υ
Wetland N	104-106	39.787397 -86.132229	97 Palustrine 0.020 Poor N		N	Y, Class I	Υ	
Wetland O	133- 134,137	39.780158 -86.141568	Palustrine Emergent	0.025 (121)	Poor	N	Y, Class I	Υ
Wetland P	138-139	39.779604 -86.14154	Palustrine Emergent	0.021 (117)	Poor	N	Y, Class I	Υ
Wetland Q	143-145	39.778842 -86.141651	Palustrine Emergent	0.029 (227)	Poor	N	Y, Class I	Υ
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	Υ
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

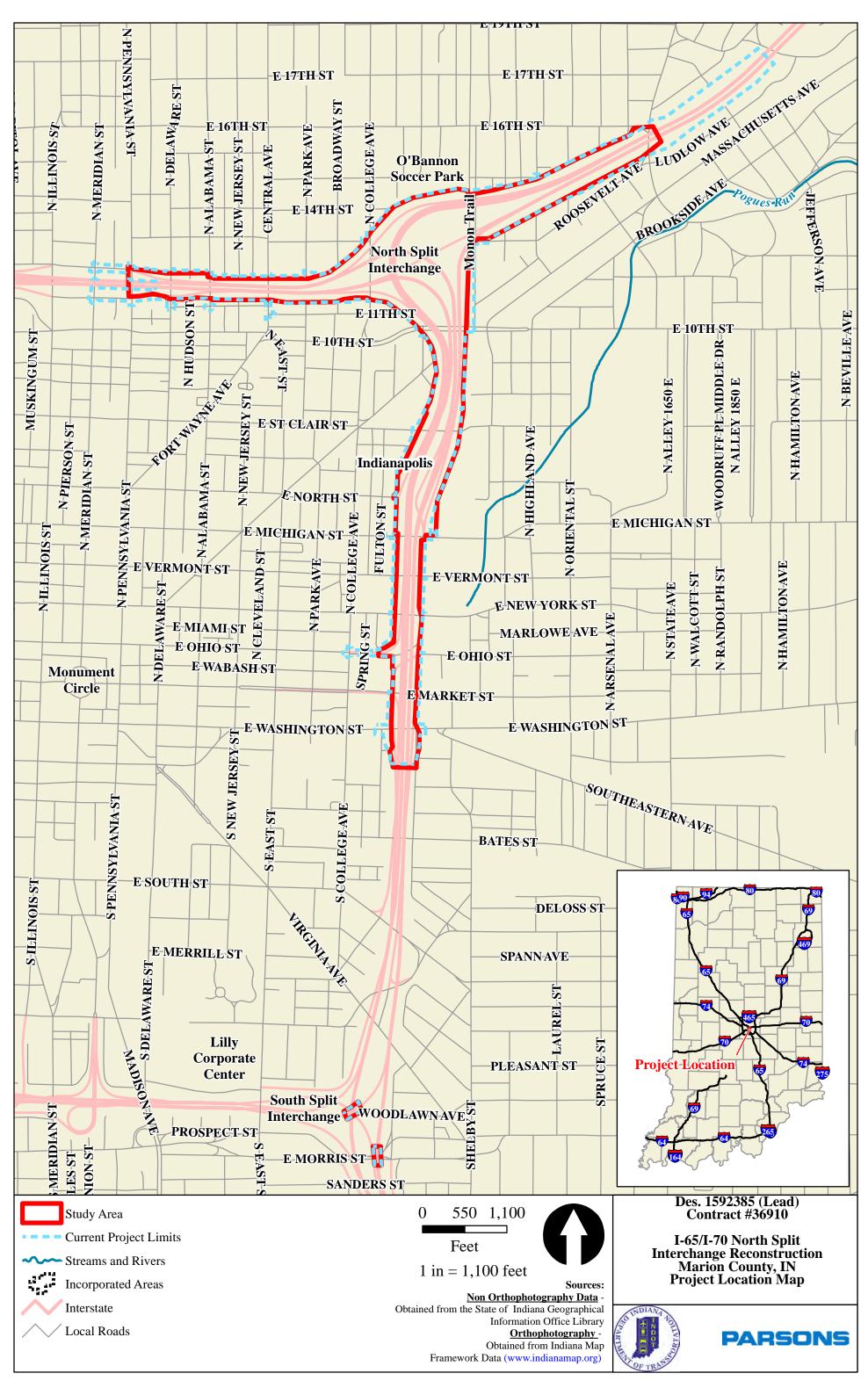
Des. No.	NBI No.	Bridge No.	Road	Feature(s) Intersects	Location	Reference Post	Year Built	Year Reconstructed
1296927	42380	170-79-02434 DWBL	I-70 WB	LEWIS STR, MONON TRAIL	0.25 Mile East of I-65	83+24	1974	2003
1296620	36430	I65-112-05725 A	I-65 and Ramp 5W- S	WASHINGTON ST/OLD US 40	0.92 Mile North of I-70	111+22	1974	2003
1298282	42310	170-77-05716 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	170-79-05751 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	170-79-02432 CEBL	I-70 EB	LEWIS ST, MONON GREENWAY	0.61 Mile East of I-65	83+24	1974	2003
1296580	36630	165-113-05749 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	165-113-05745 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	170-79-05739 BWBL	I-70 WB	EAST 10TH STREET	0.52 Mile East of I-65	82+95	1974	2003
1298283	42330	(165)170-79- 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

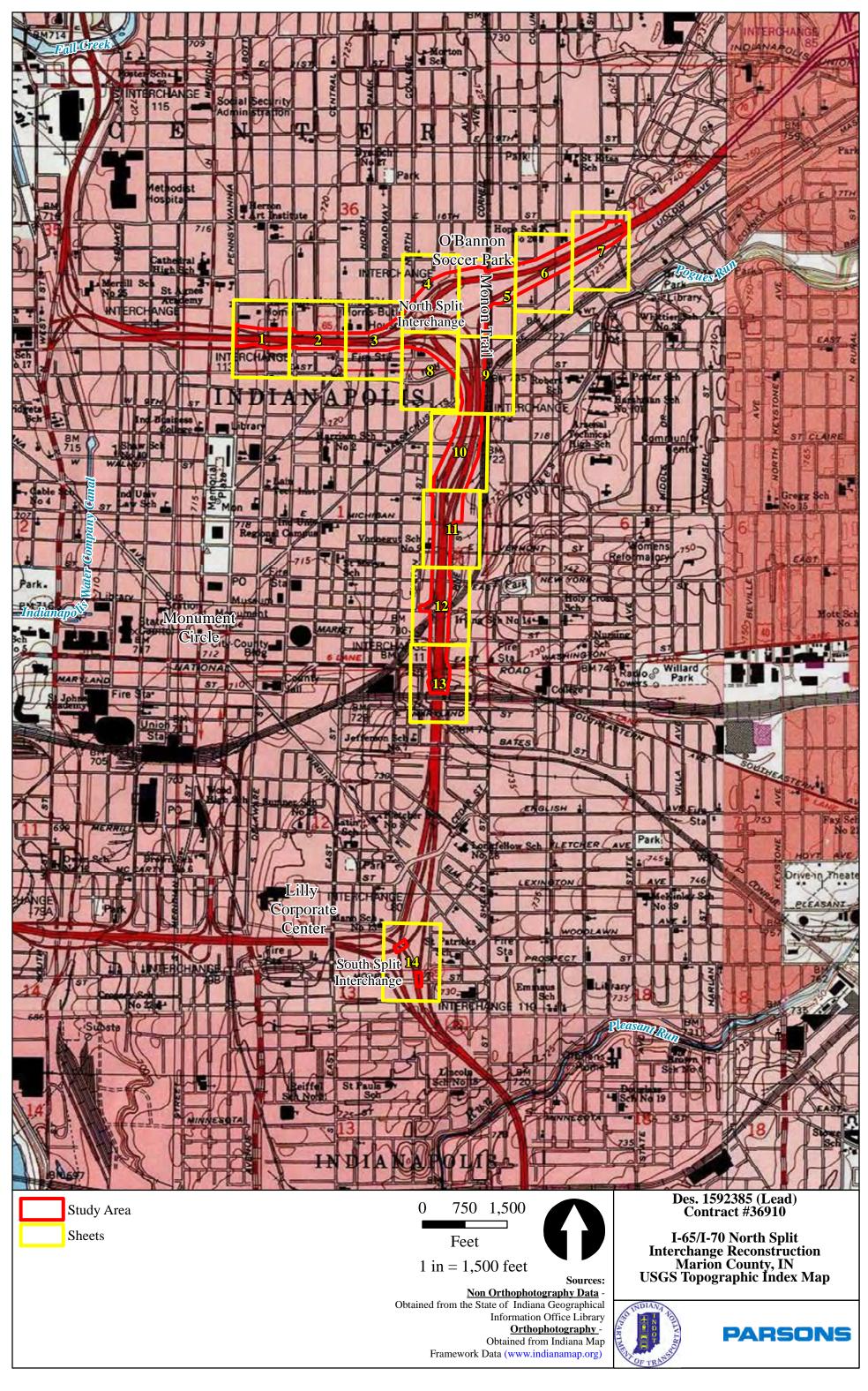


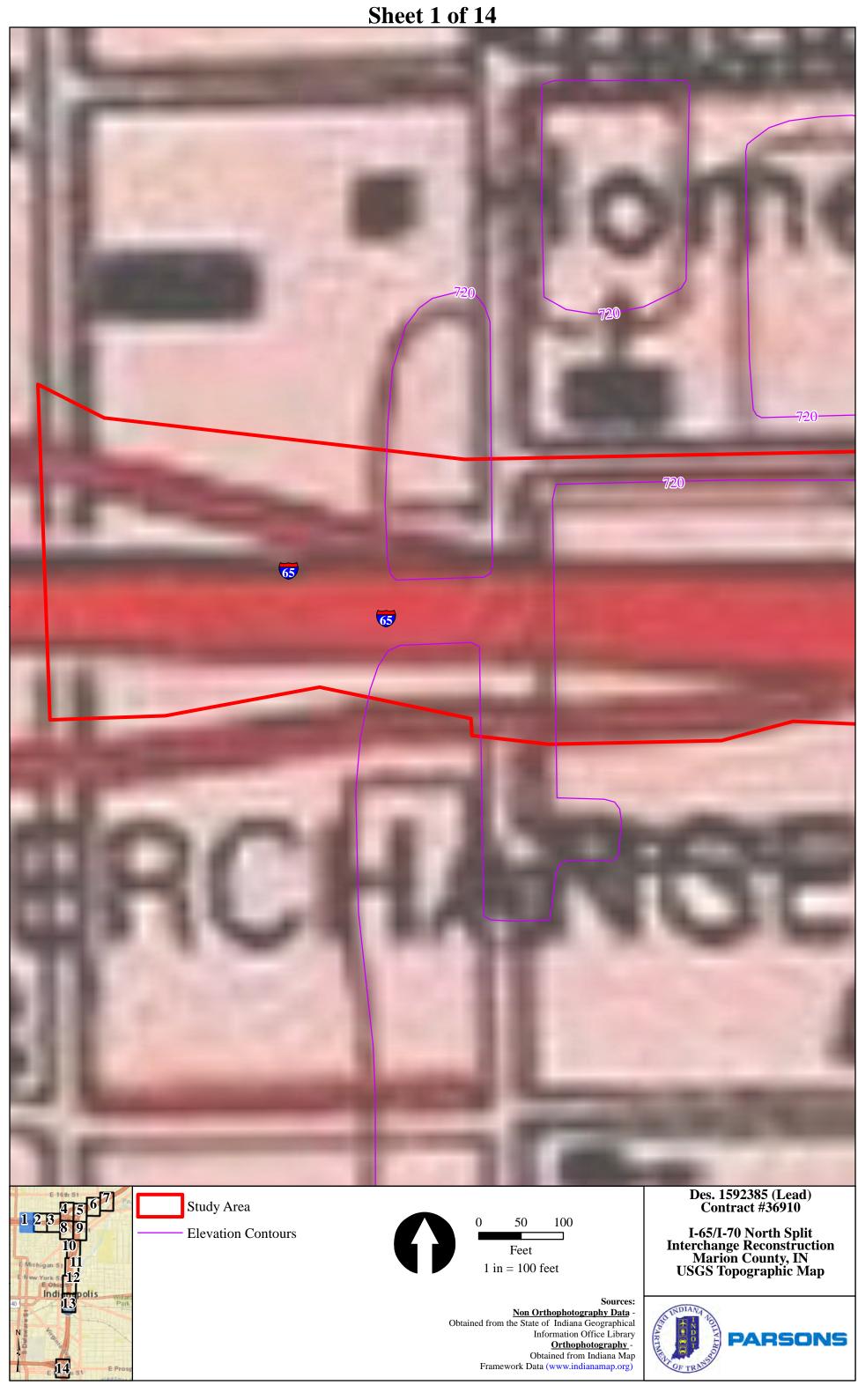


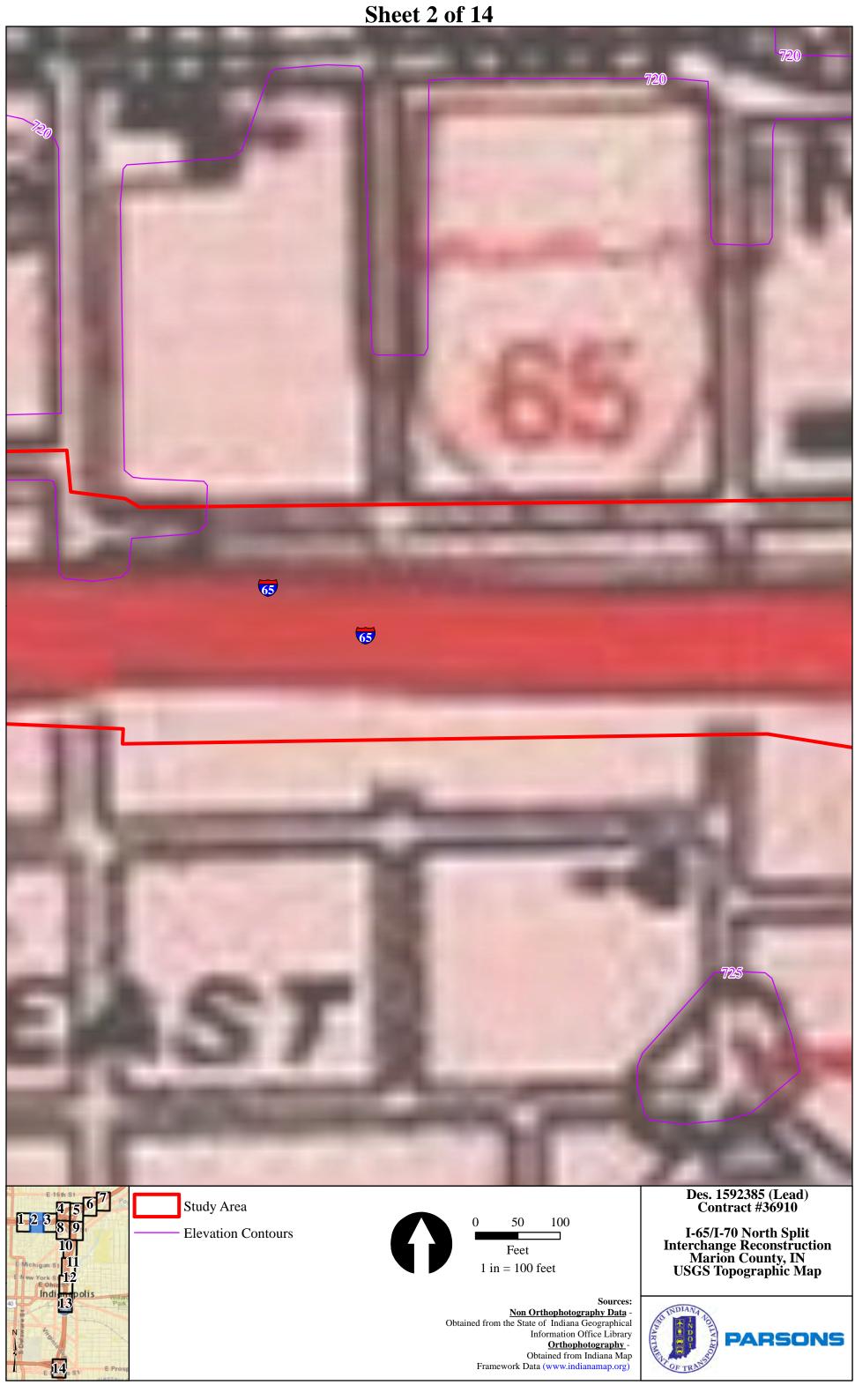
1296944	36550	I-65-112- 05738 BSBL	I-65 SB	EAST 10TH STREET	1.92 Miles North of I-70	112+03	1974	2003
TBD	42420	170-80-05701 DWBL	I-70 WB	ROOSEVELT AV @ COMMERCE AV	5.74 Miles West of I-465	83+30	1974	2007
TBD	42410	170-80-05701 DEBL	I-70 EB	ROOSEVELT AV @ COMMERCE AV	5.74 Miles West of I-465	83+30	1974	2007
TBD	42440	170-80-05702 CWBL	I-70	VALLEY AVENUE	5.34 Miles West of I-465	83+95	1974	2007

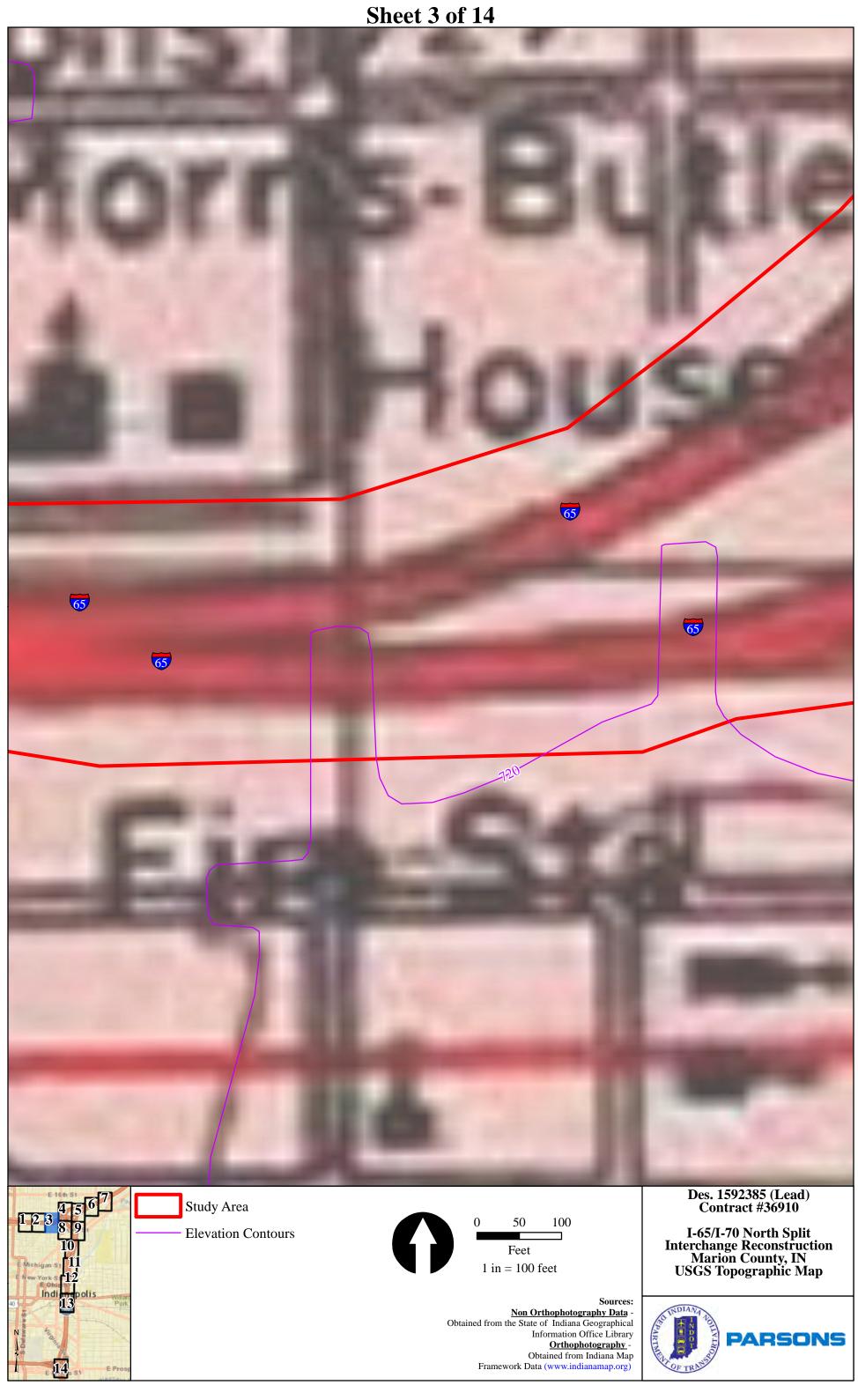
^{*}The bridges listed in red are were added after field work was conducted for this report and are included in the current scope of work.

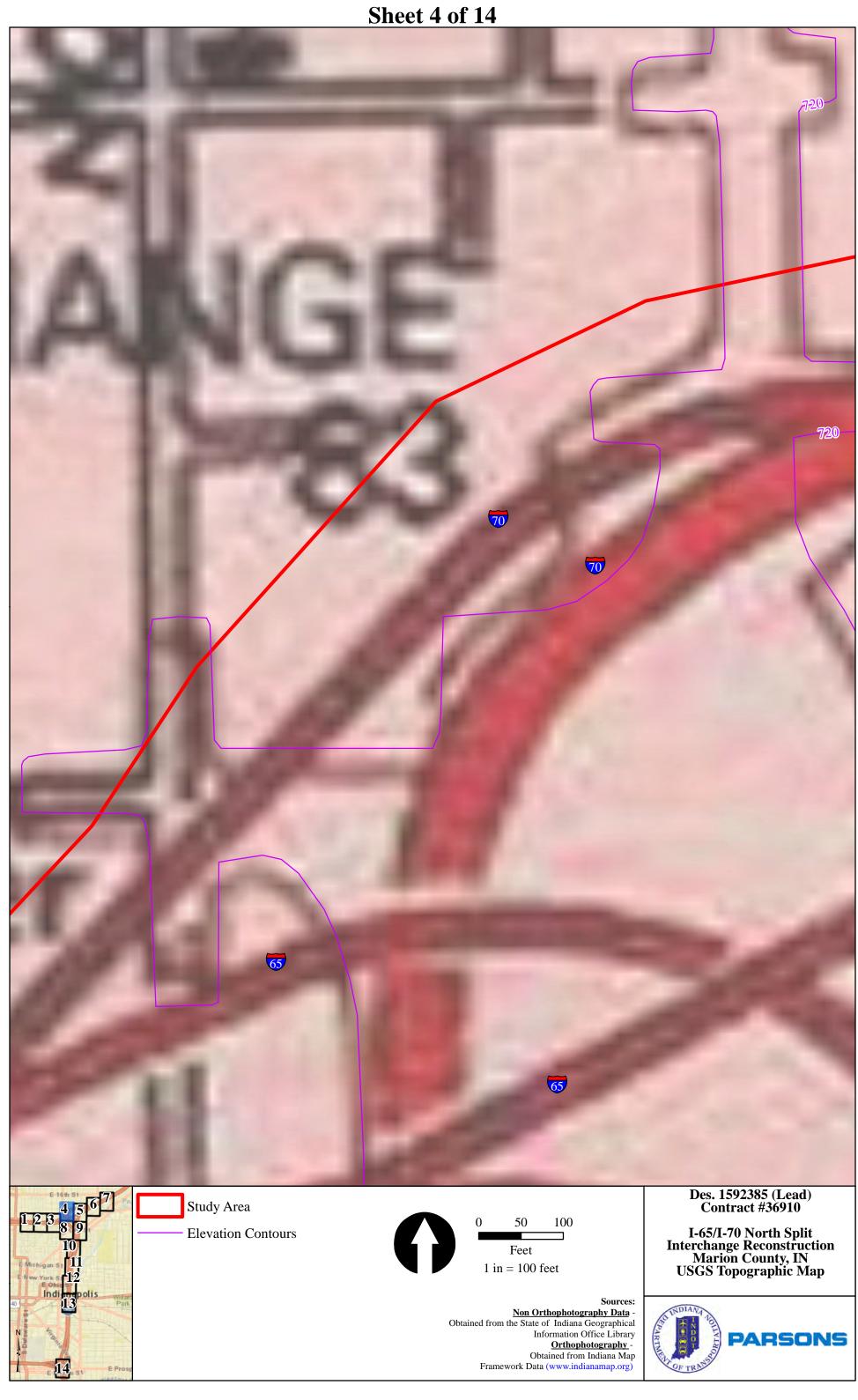


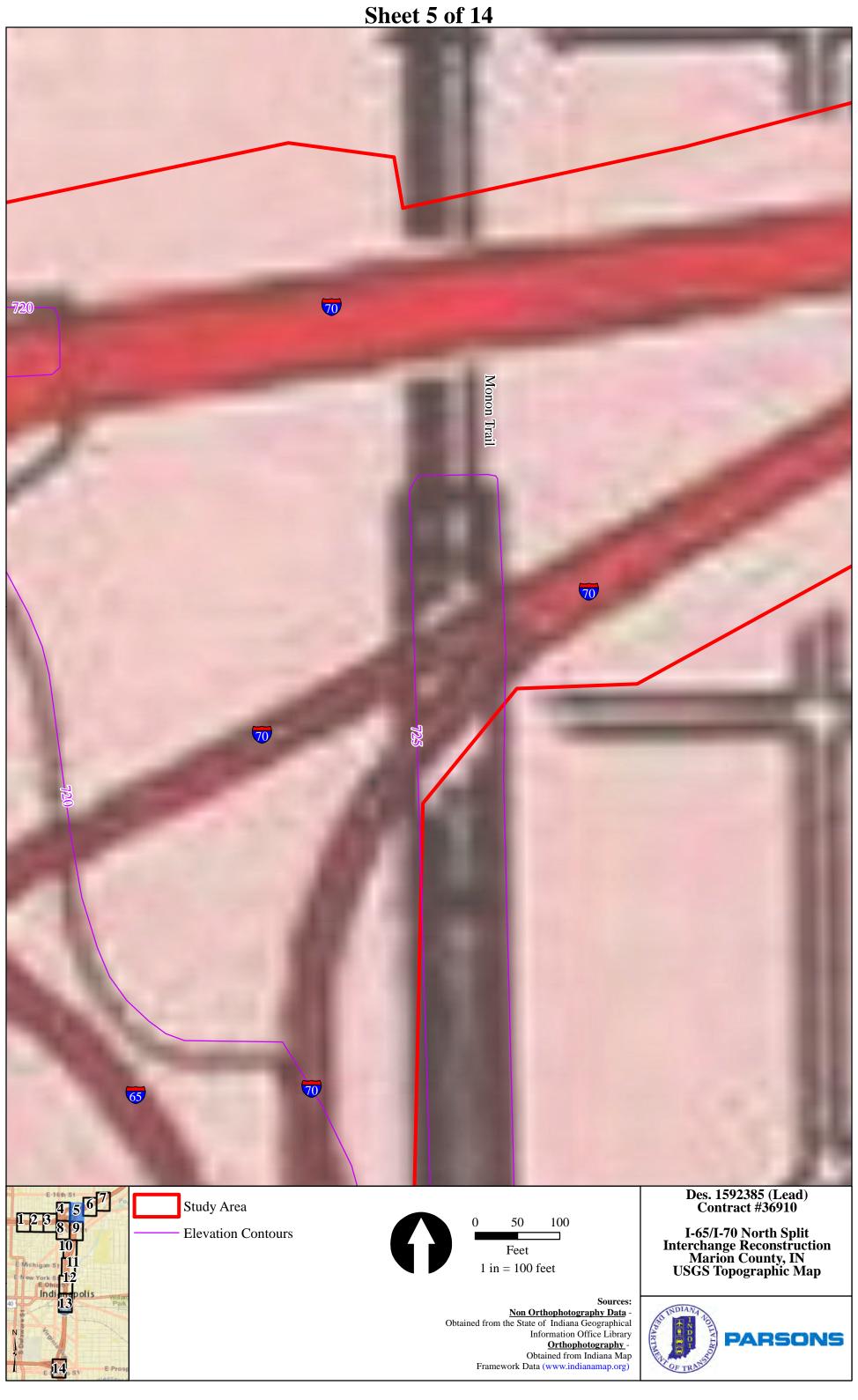


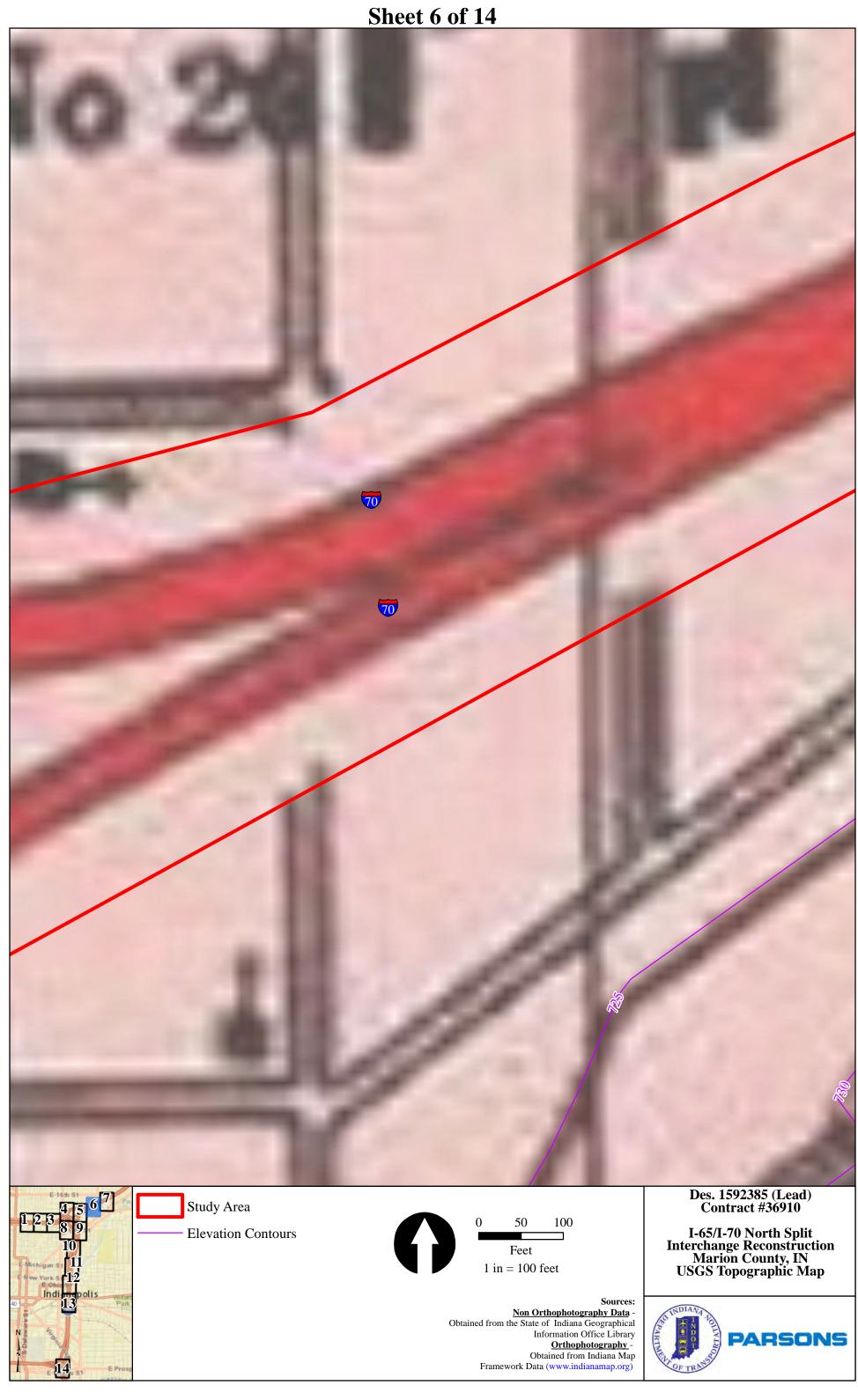


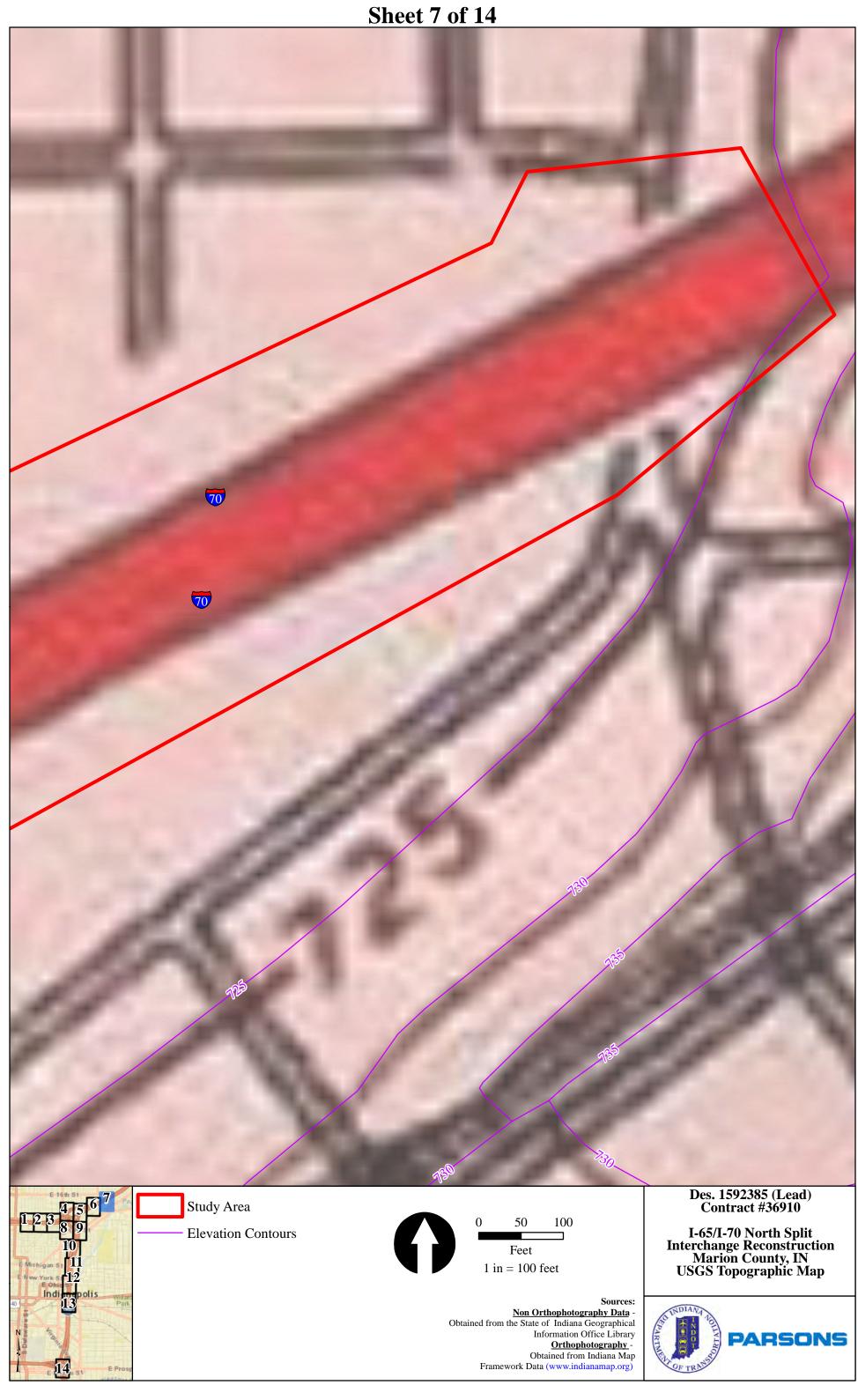




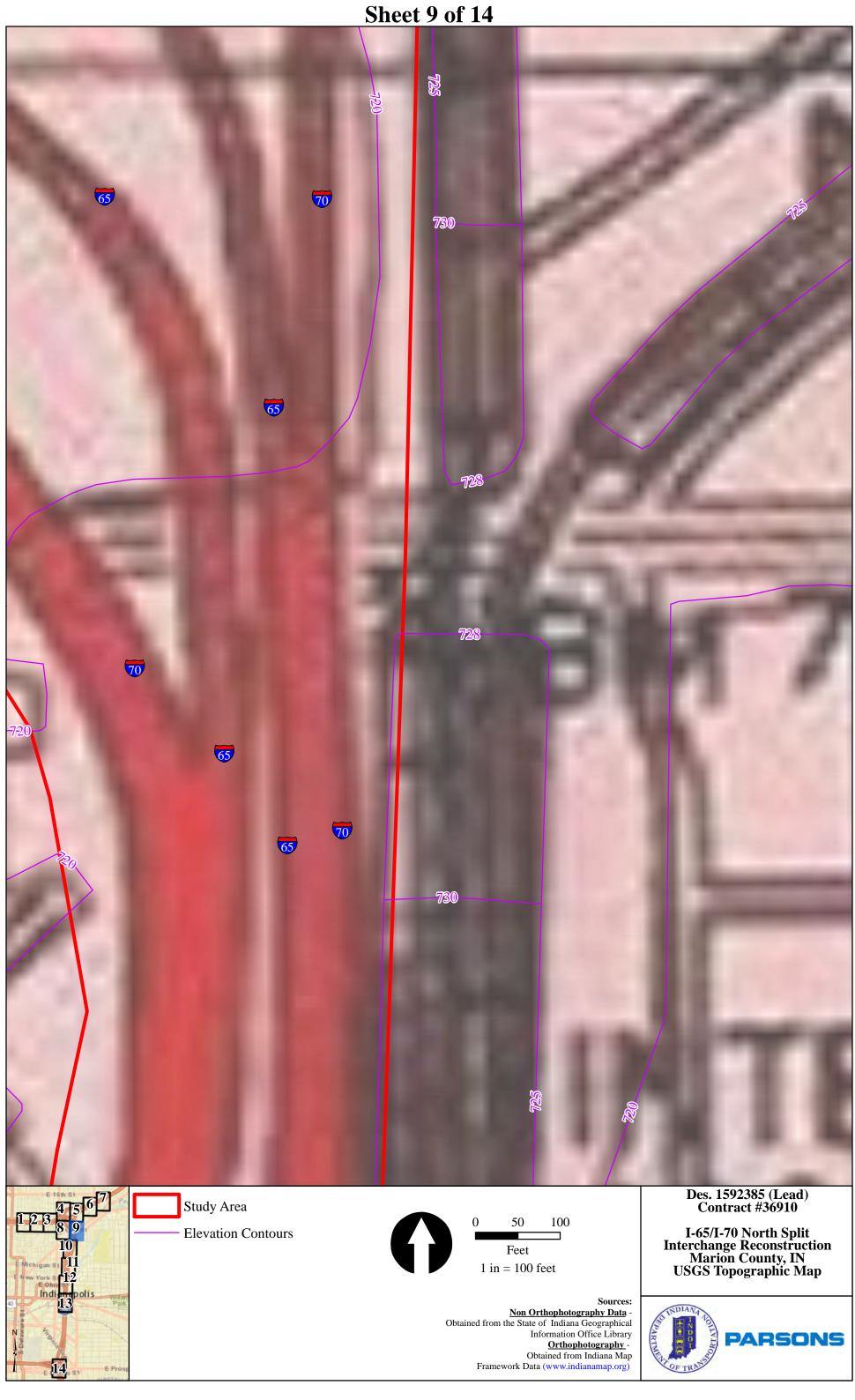












Sheet 10 of 14 65 725 70 70 70 **65** 65 Des. 1592385 (Lead) Contract #36910 Study Area 100 I-65/I-70 North Split Interchange Reconstruction Marion County, IN USGS Topographic Map **Elevation Contours** 1 in = 100 feet Sources:

Non Orthophotography Data

Obtained from the State of Indiana Geographical

Information Office Library **PARSONS** Orthophotography -Obtained from Indiana Map Framework Data (www.indianamap.org)

Sheet 11 of 14 70 65 65 65 Des. 1592385 (Lead) Contract #36910 Study Area I-65/I-70 North Split Interchange Reconstruction Marion County, IN USGS Topographic Map **Elevation Contours** 1 in = 100 feetSources:

Non Orthophotography Data

Obtained from the State of Indiana Geographical

Information Office Library **PARSONS**

<u>Orthophotography</u> -Obtained from Indiana Map

Framework Data (www.indianamap.org)

Sheet 12 of 14 715 65 65 713 720 Des. 1592385 (Lead) Contract #36910 Study Area 100 I-65/I-70 North Split Interchange Reconstruction Marion County, IN USGS Topographic Map **Elevation Contours** Feet 1 in = 100 feetSources:

Non Orthophotography Data

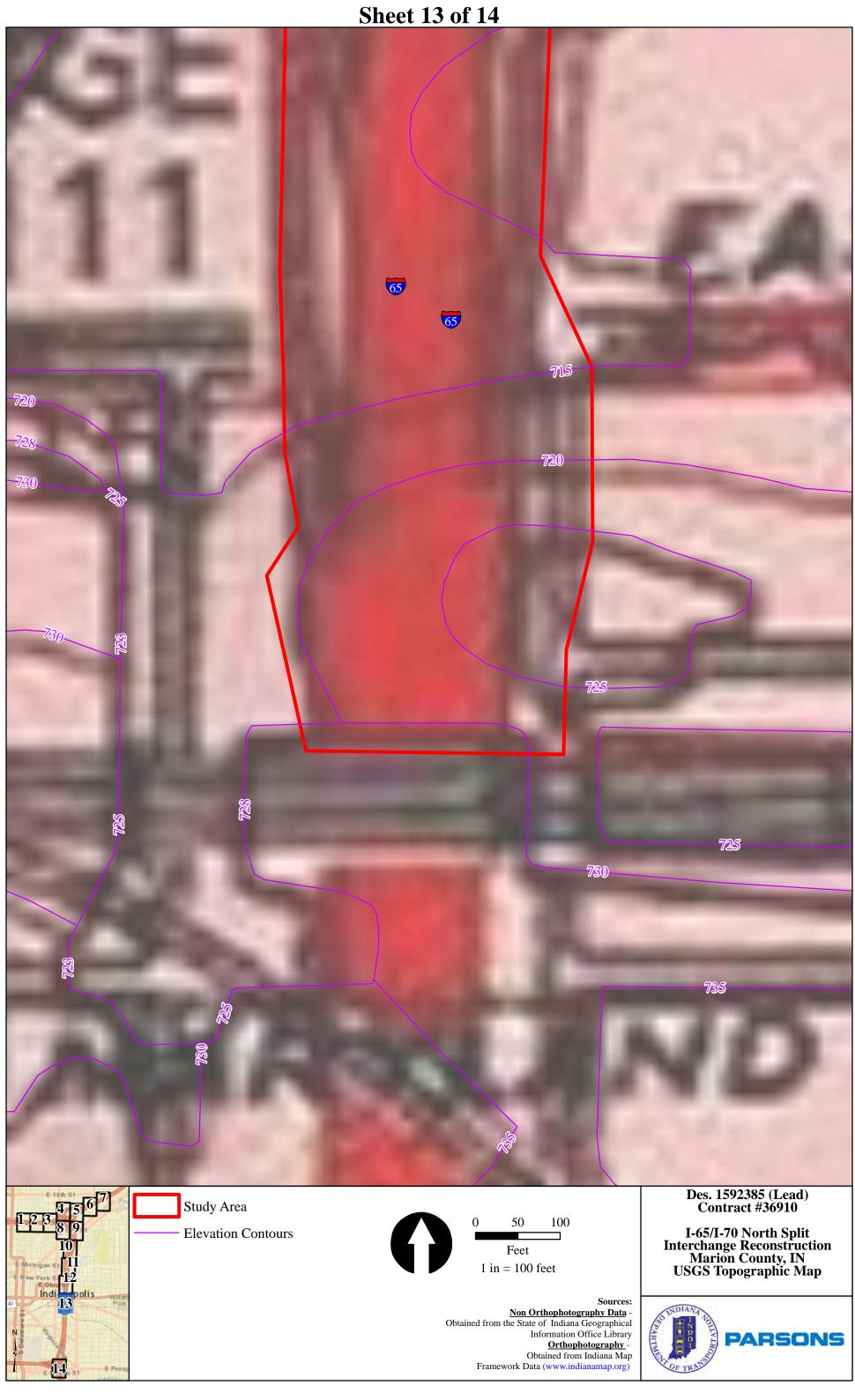
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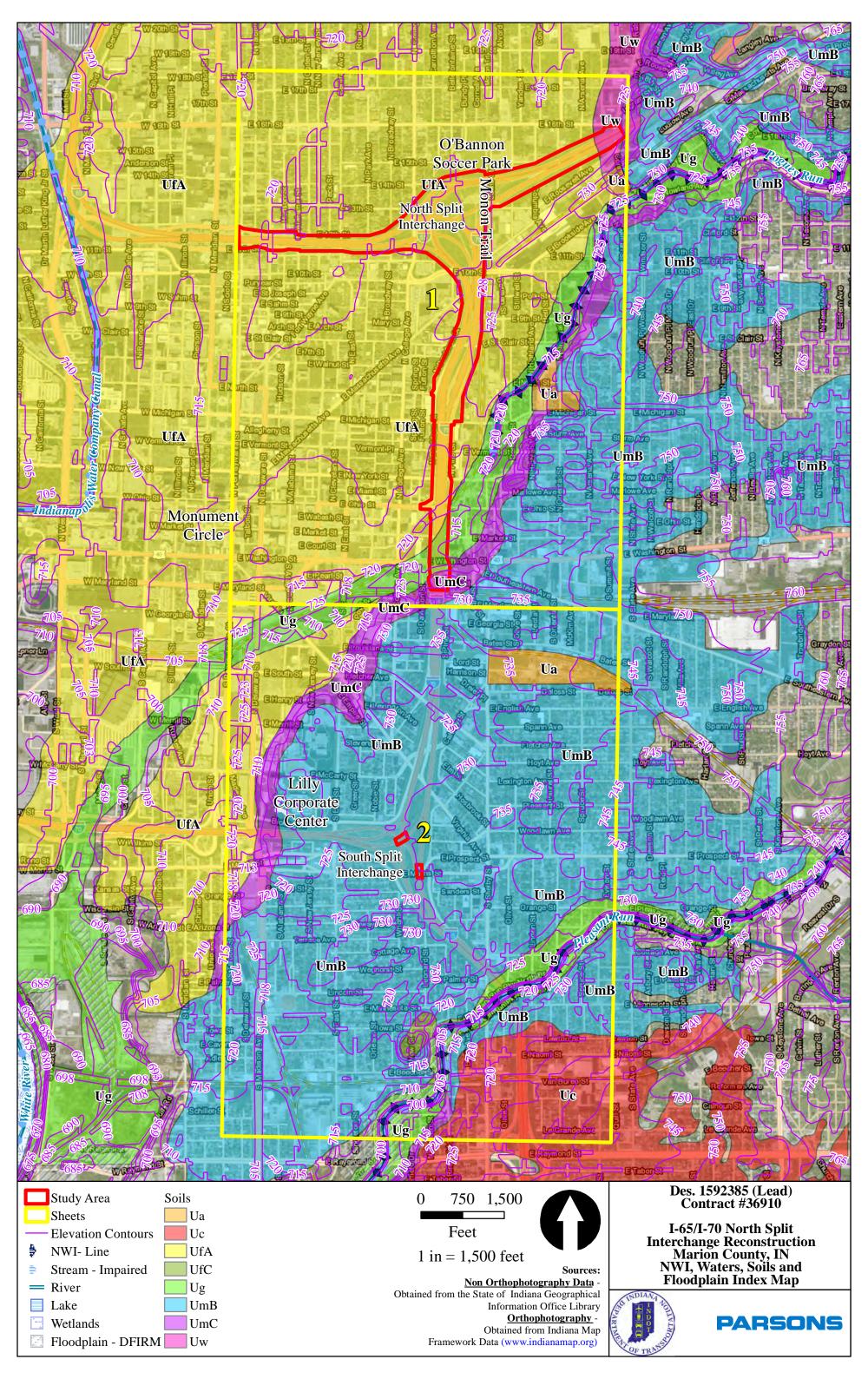
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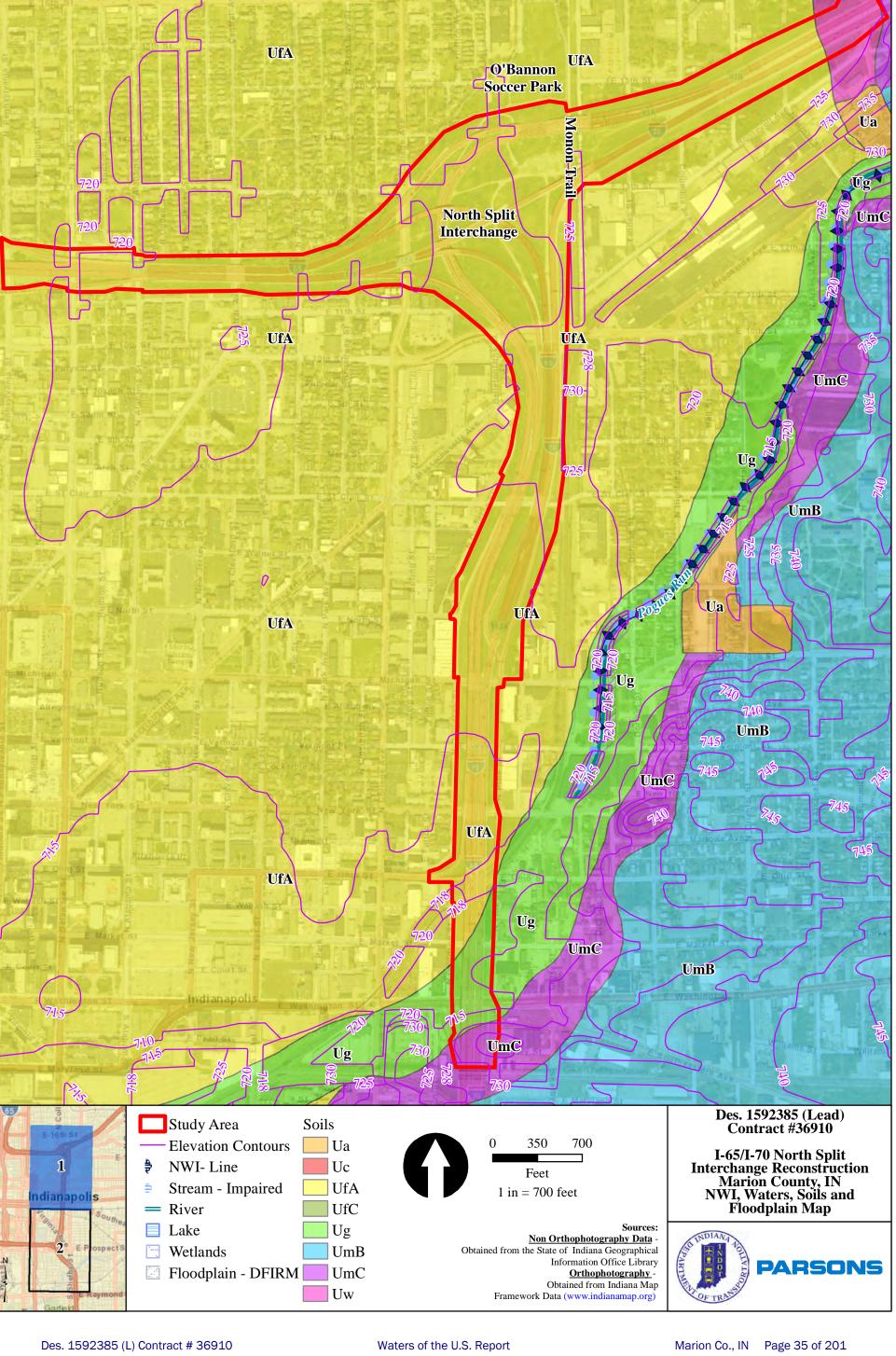
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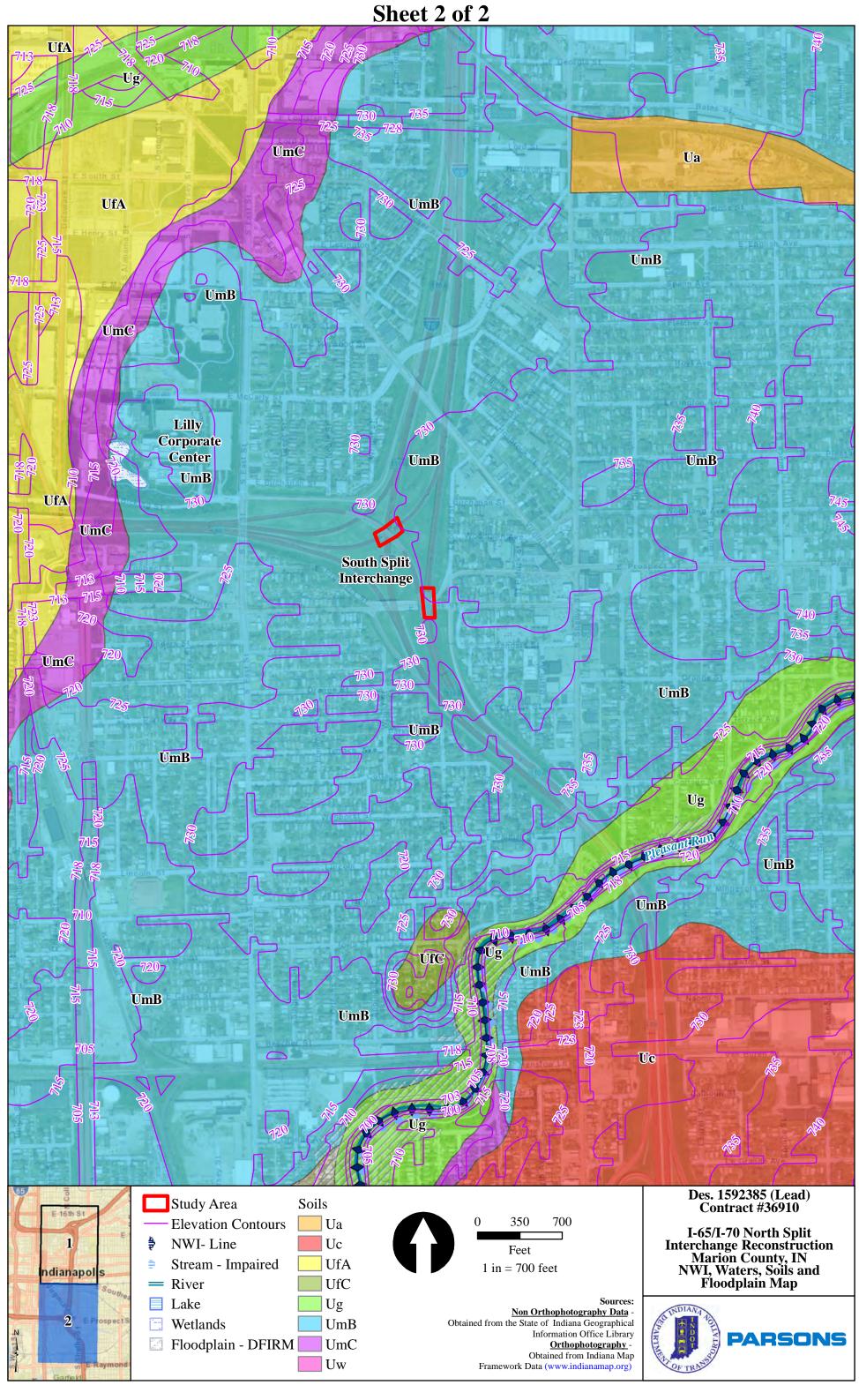




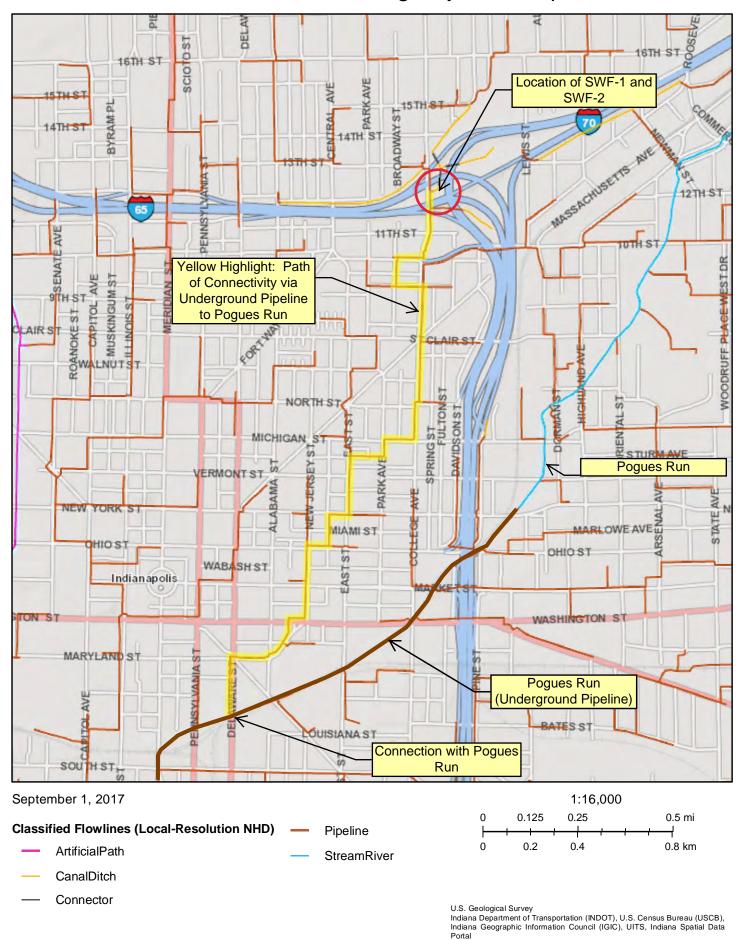


Sheet 1 of 2 Uw **UfA** O'Bannon Soccer Park Ua North Split **Um**C Interchange UfA **UfA UmC** UmB **U**a **UfA** UfA **UmB UmC** UfA **UfA** Ug UmC UmB **UmC** Ug Soils

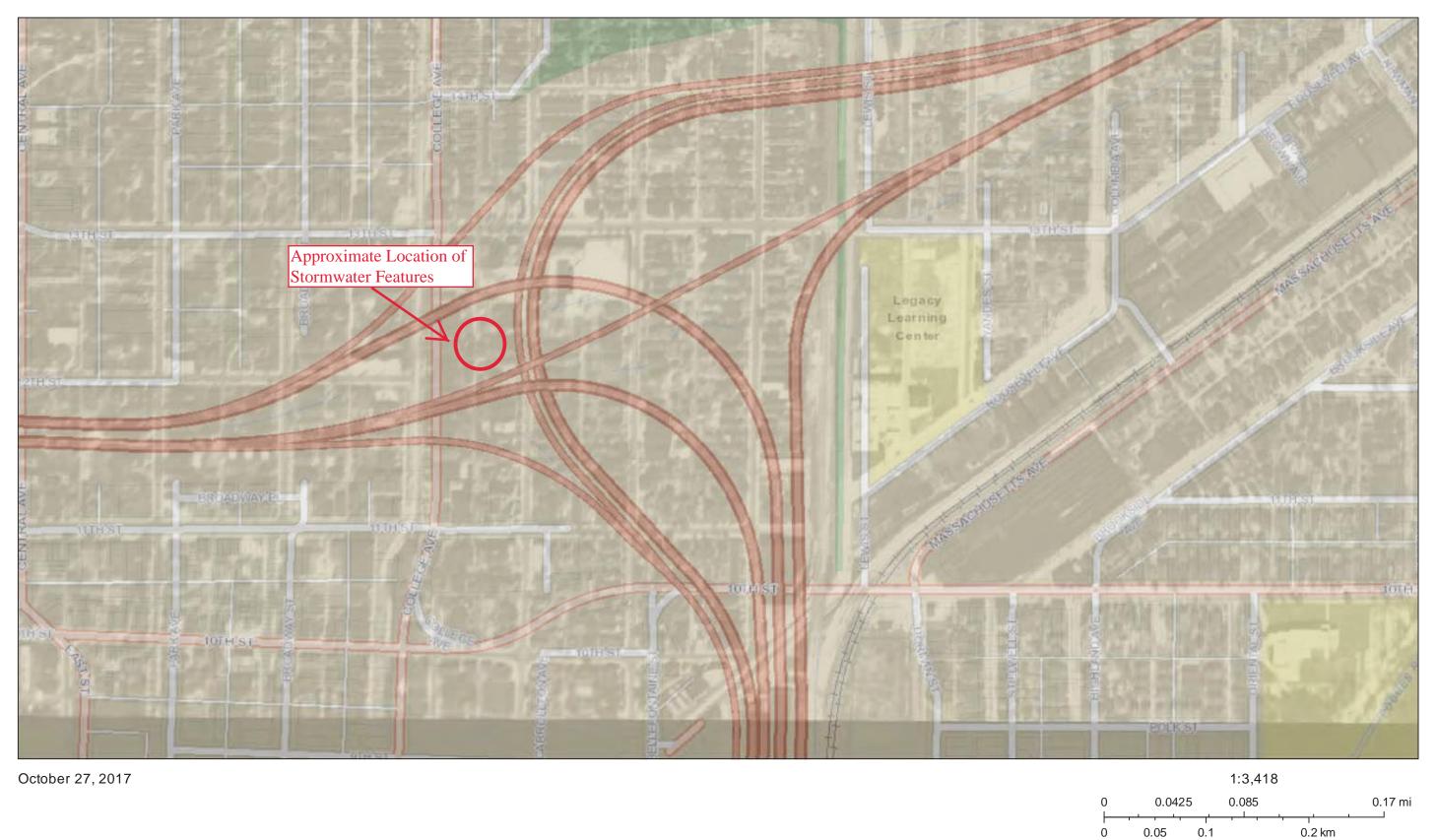




Storm Water Drainage System Map



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



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

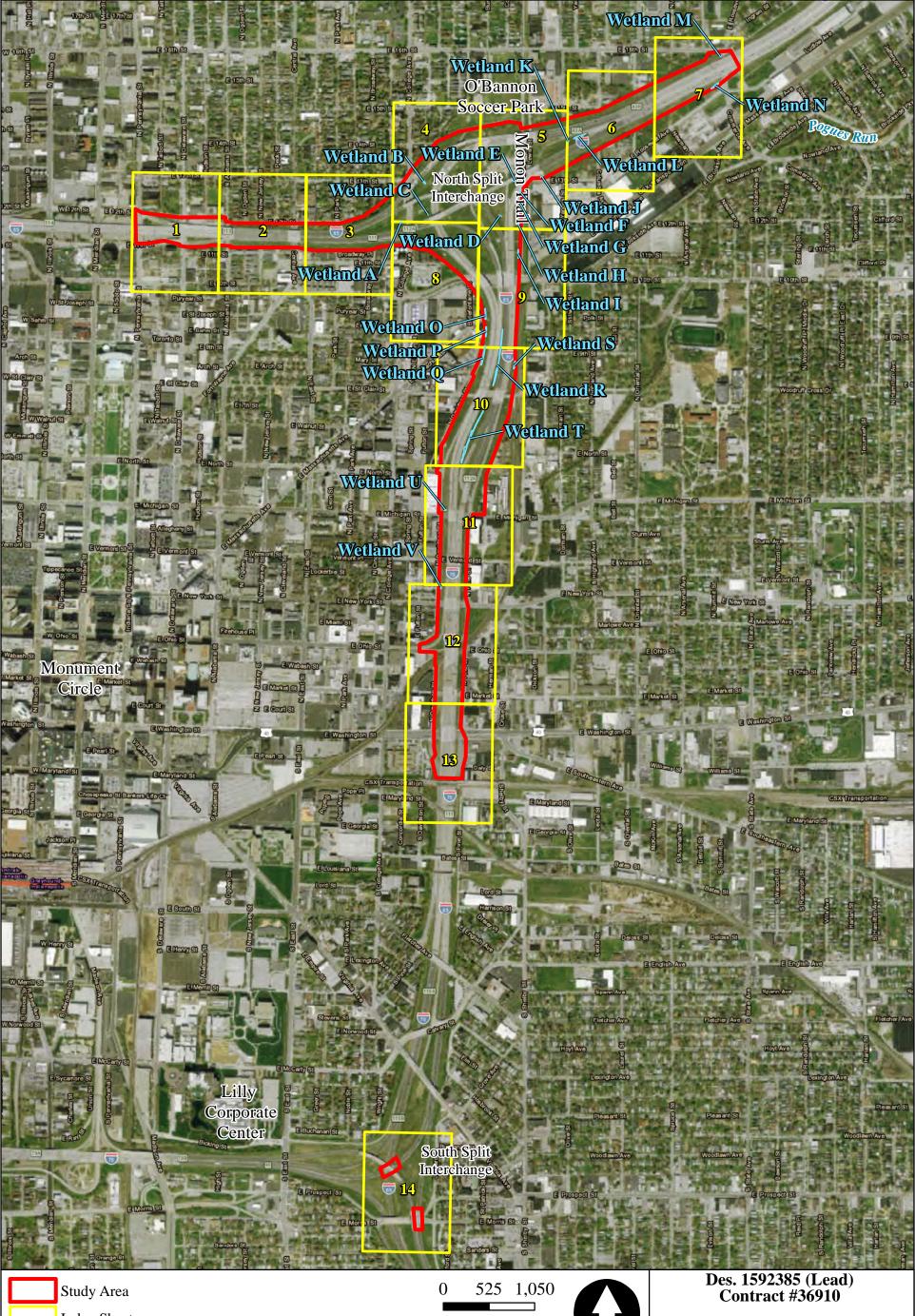
1937 Historic Aerial Map (Indianapolis) (2 of 2)



October 27, 2017 1:3,418 0.17 mi 0.2 km

0.05

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



Index Sheet

Delineated Wetlands

Feet

1 in = 1,050 feet



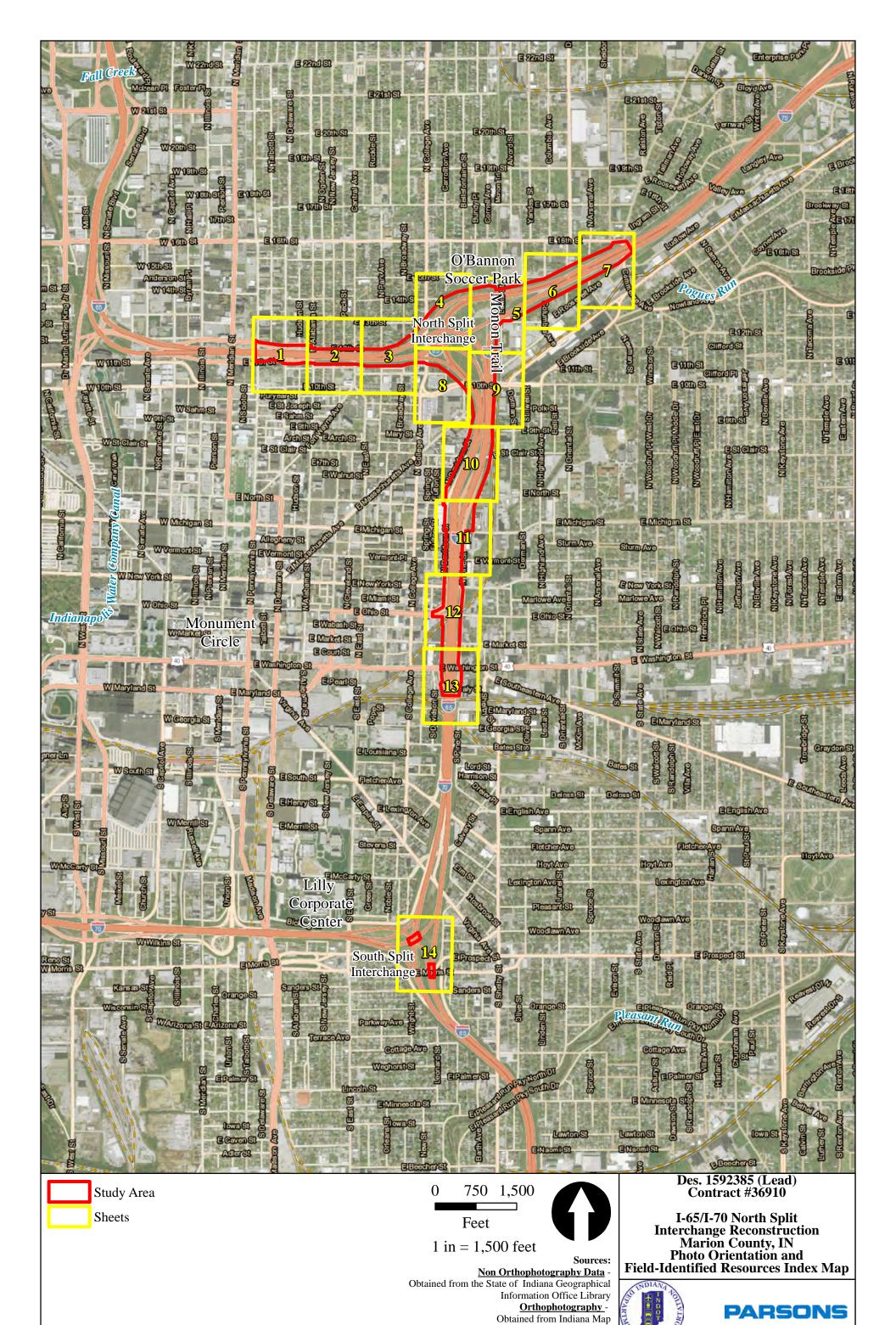
I-65/I-70 North Split Interchange Reconstruction Marion County, IN **Wetland Overview Map**





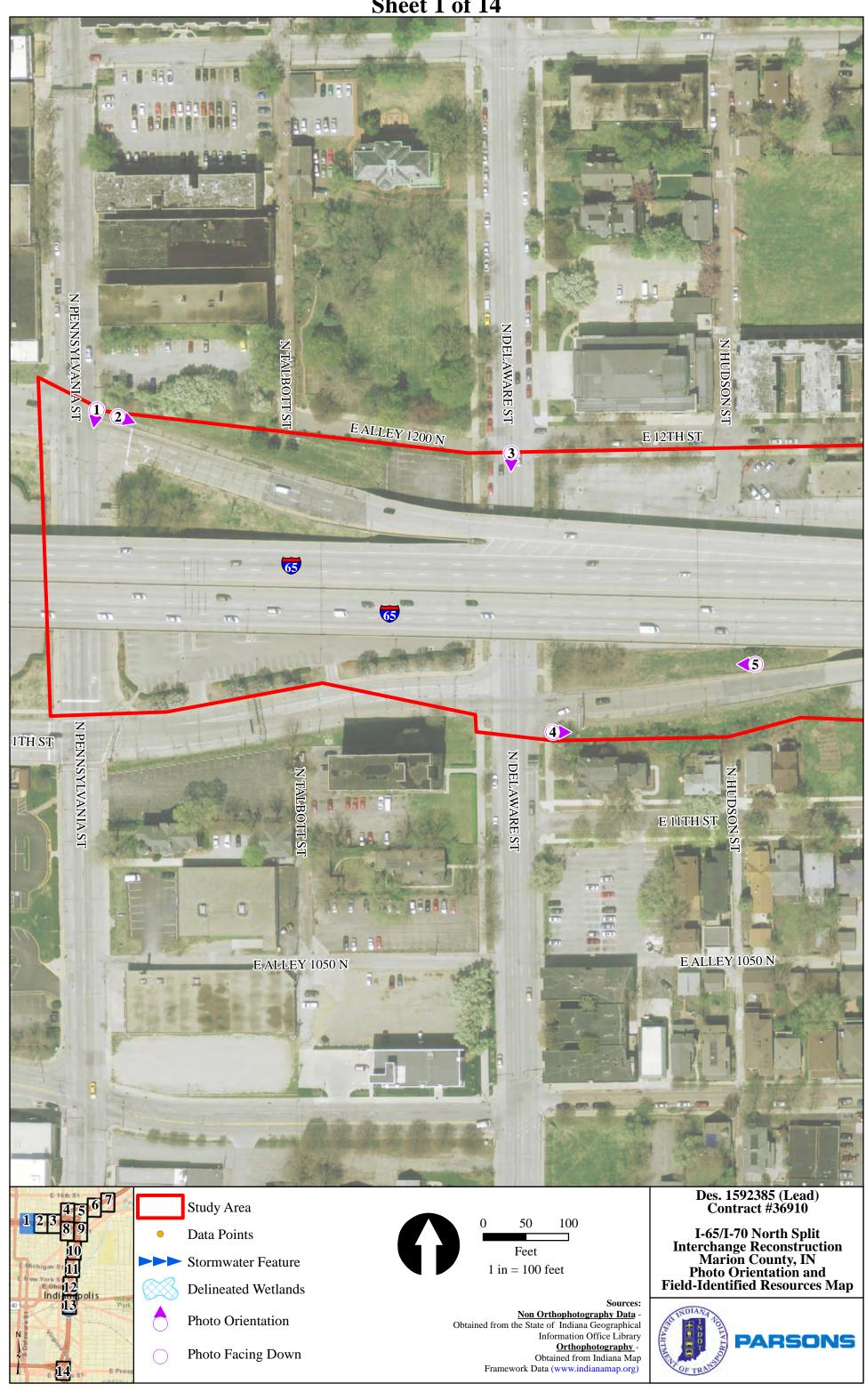
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Framework Data (www.indianamap.org)

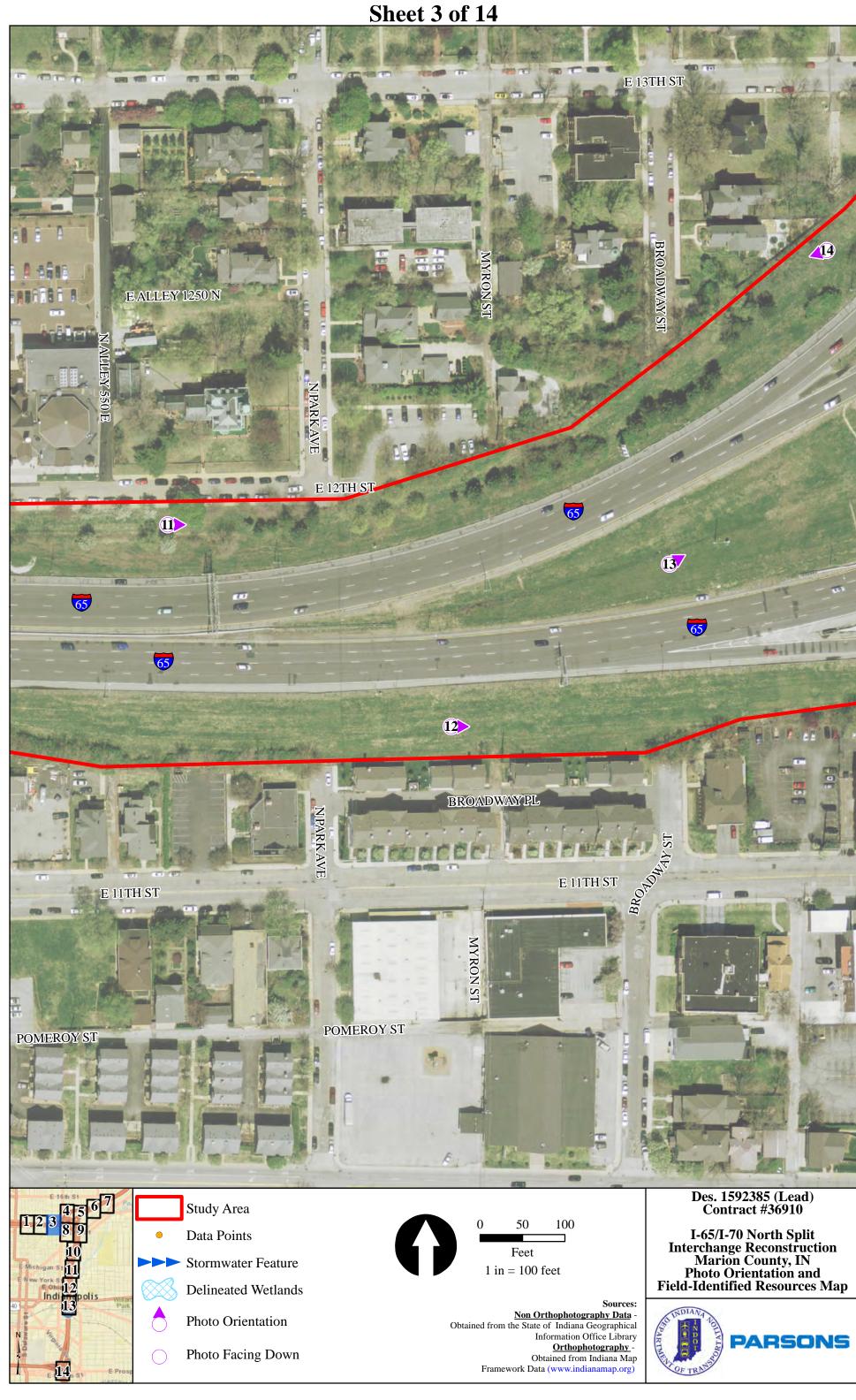


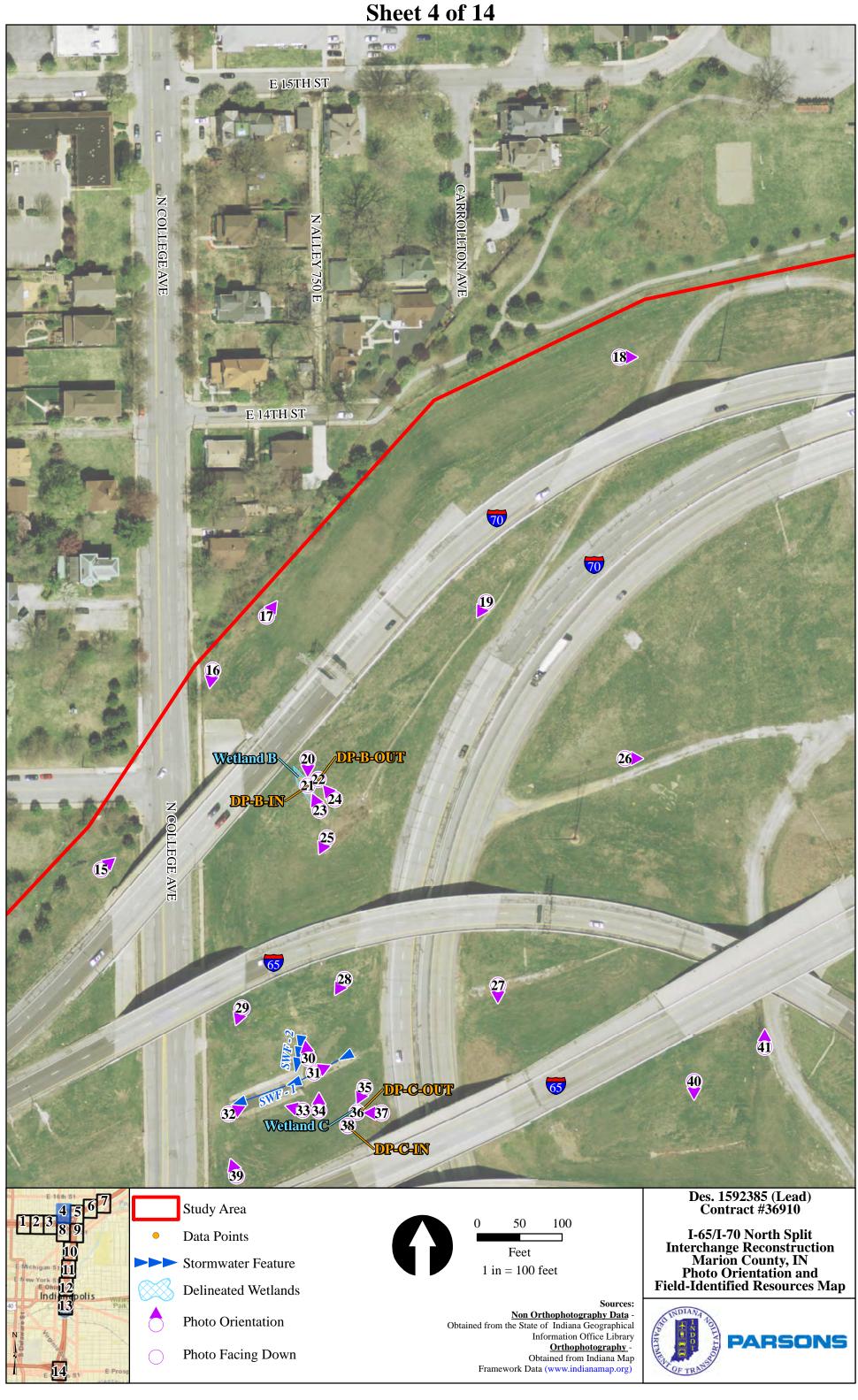
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Sheet 1 of 14

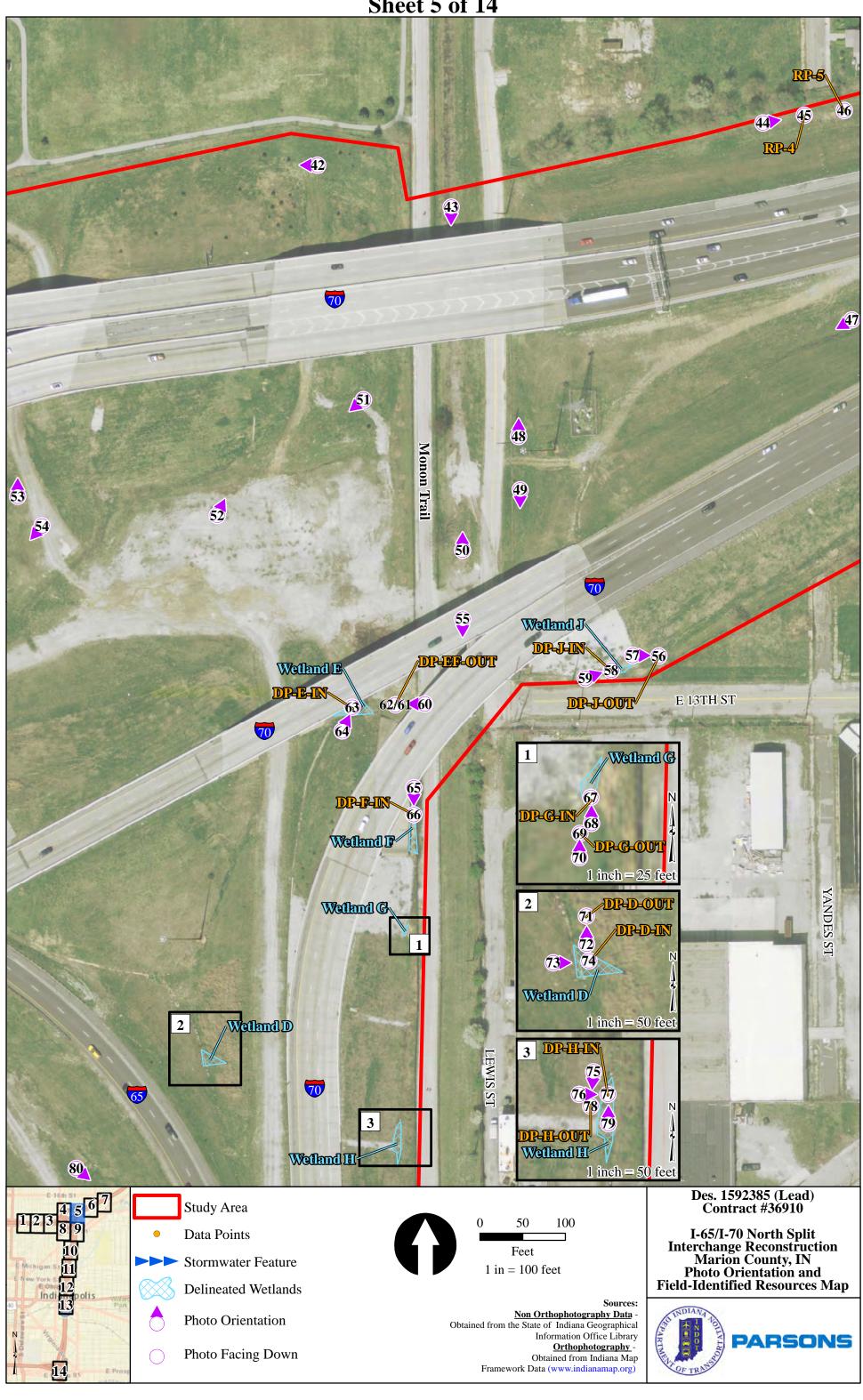


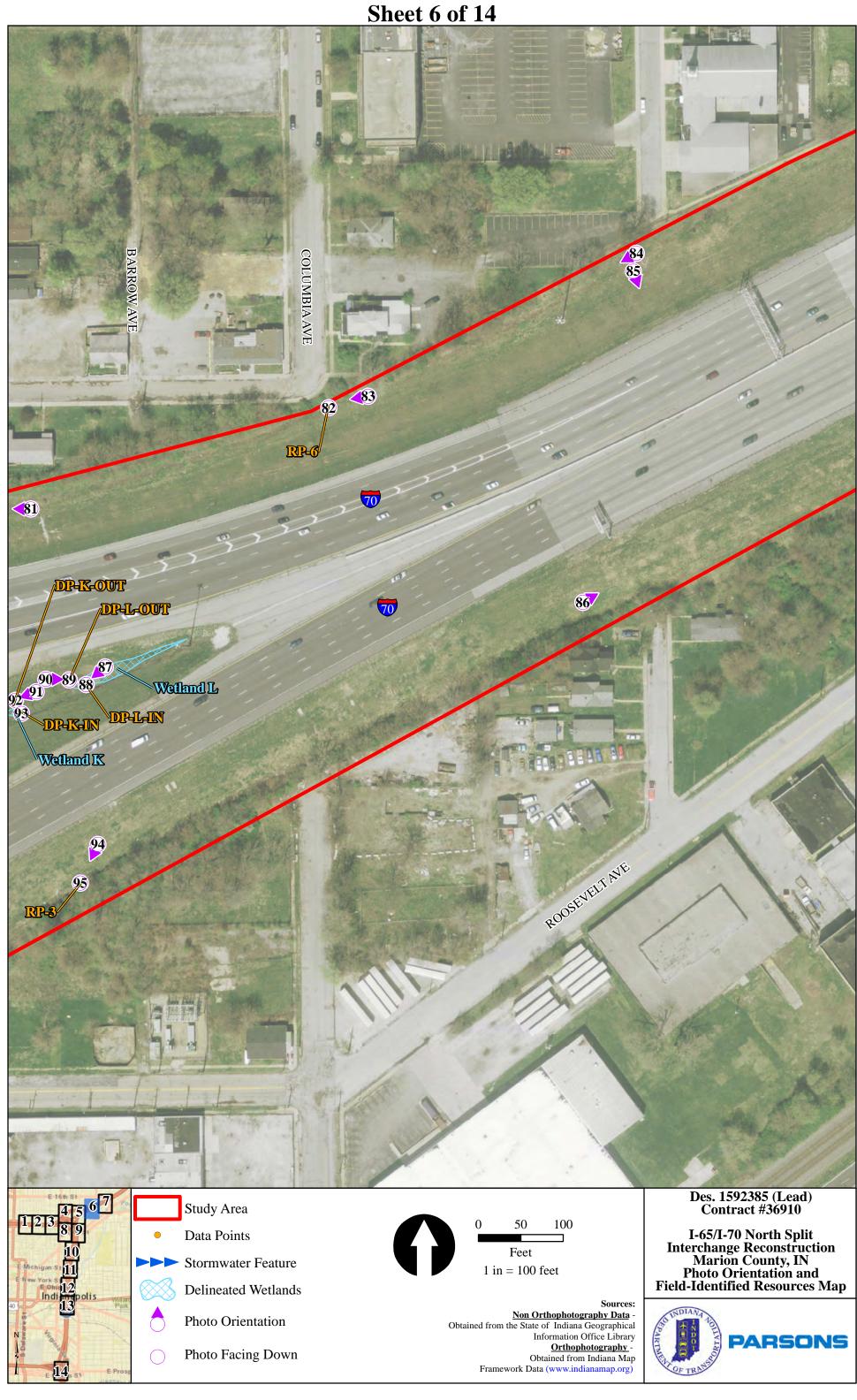


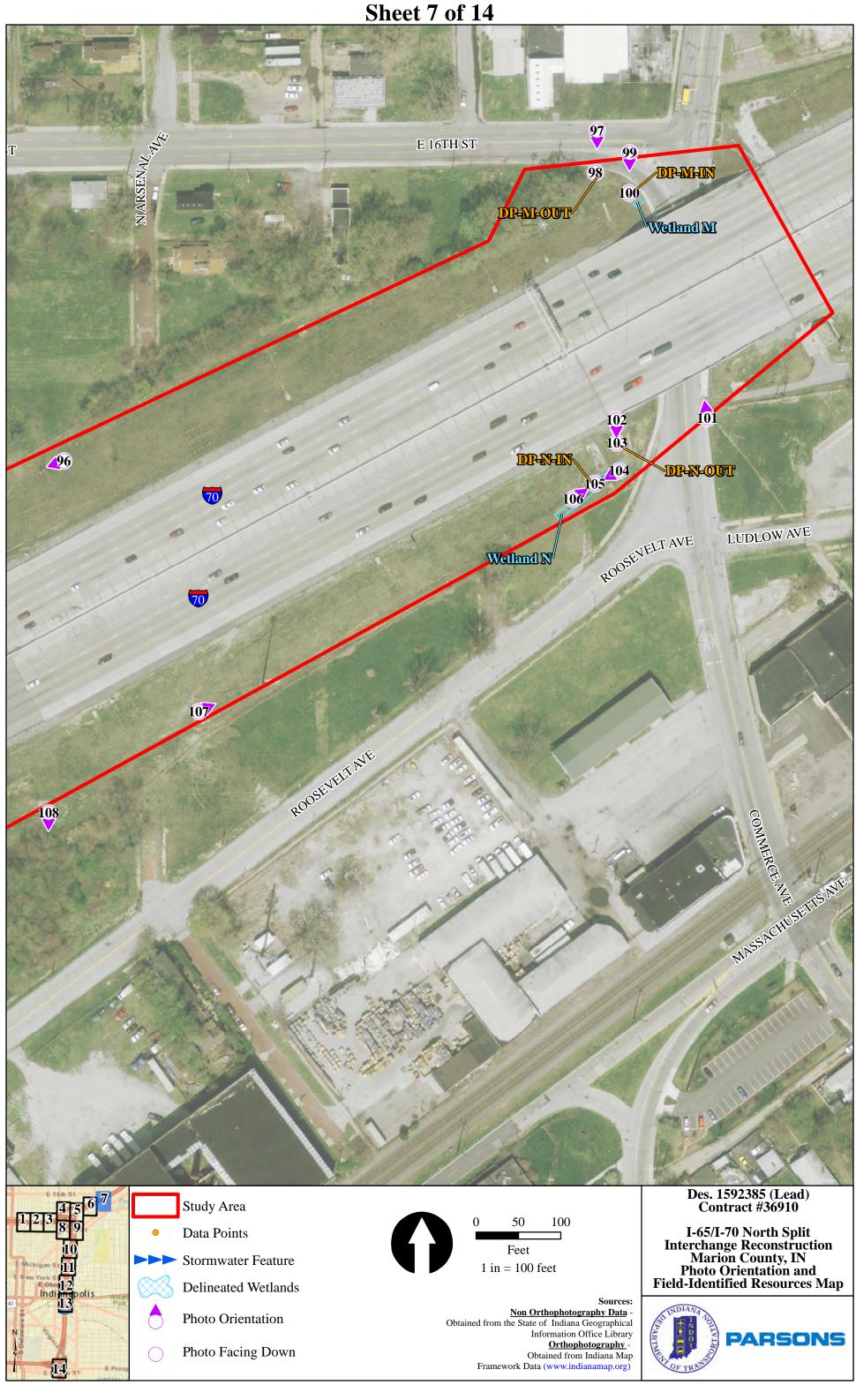




Sheet 5 of 14

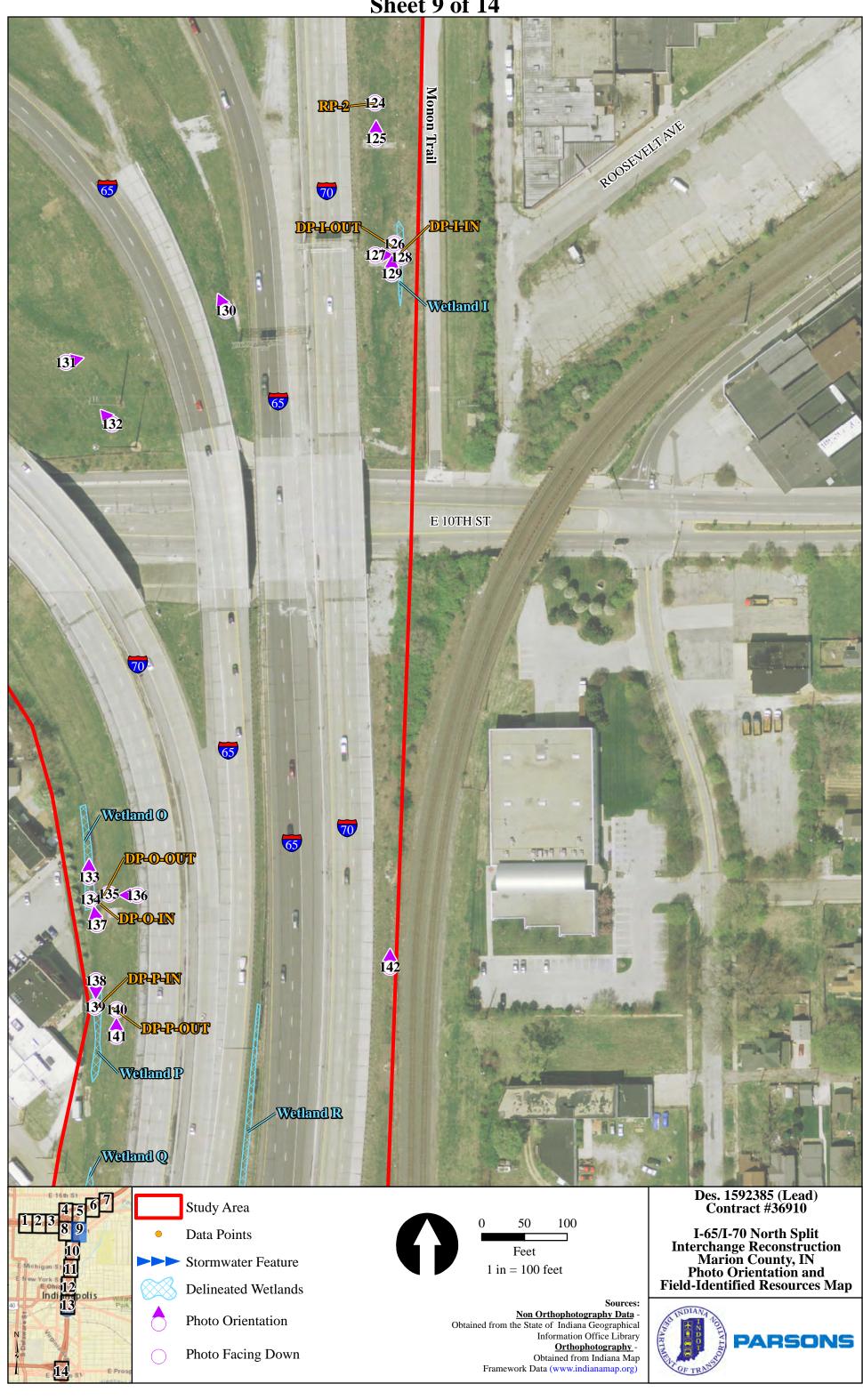




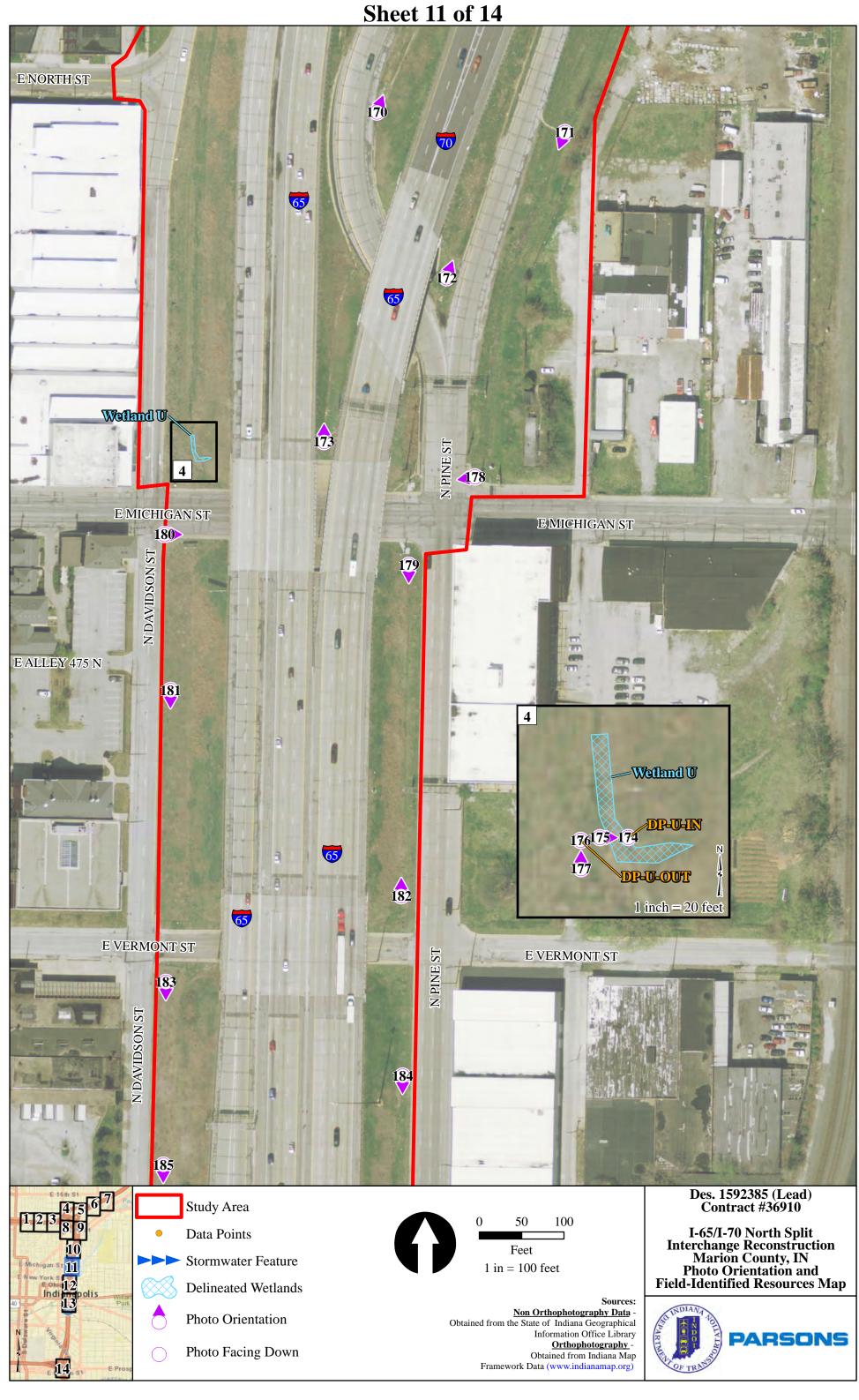


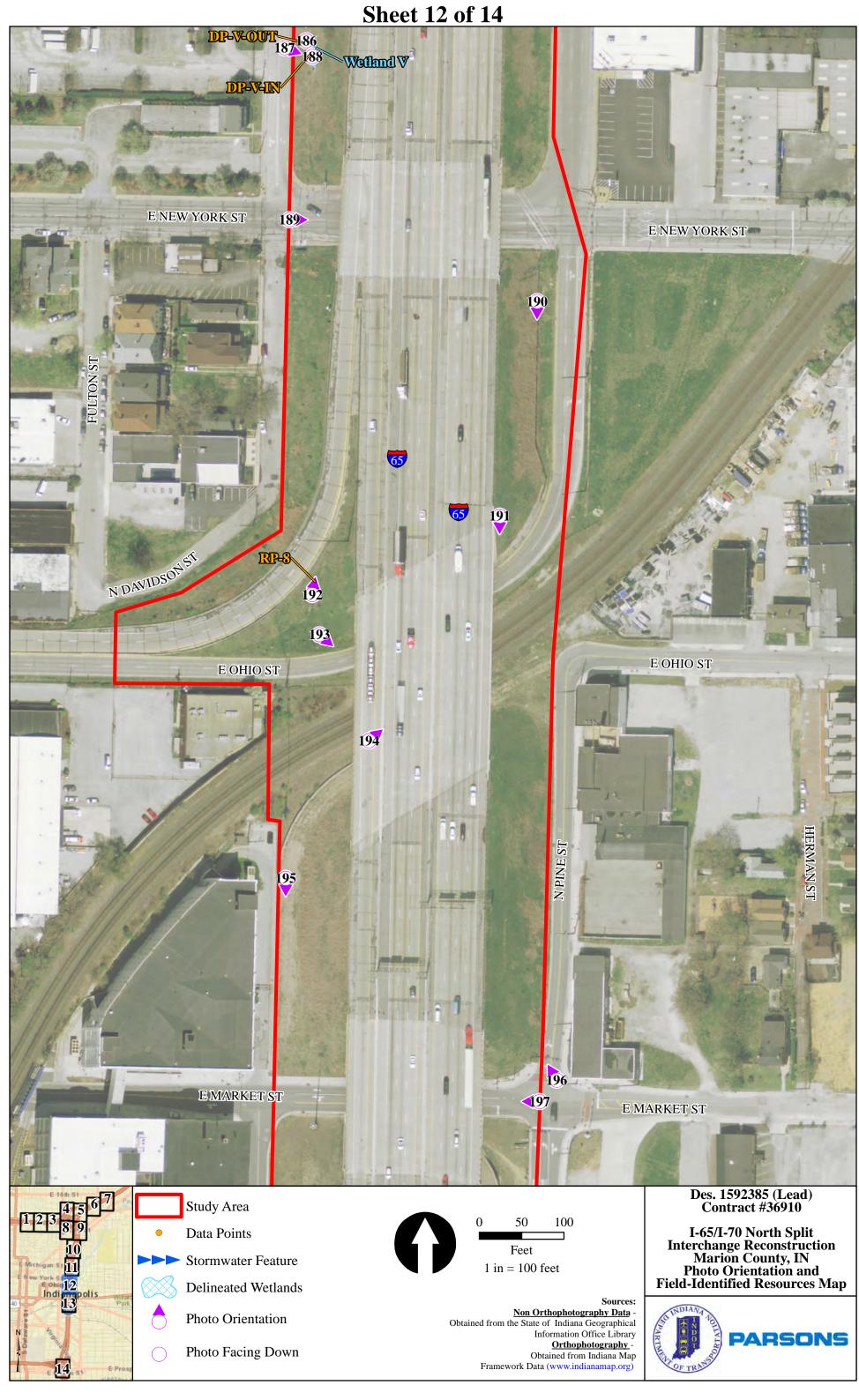


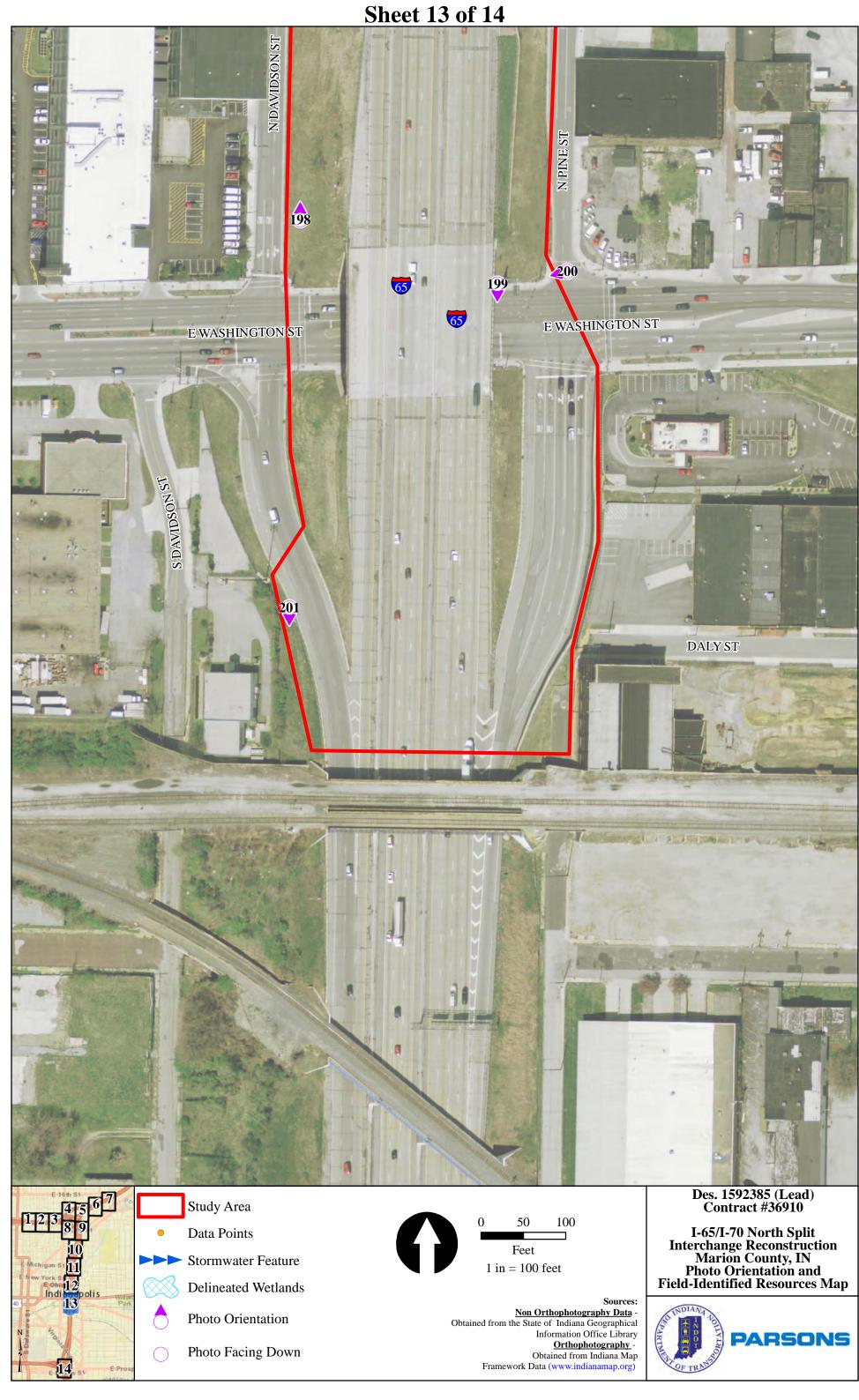
Sheet 9 of 14



Sheet 10 of 14 MASSACHUSEILSAVE 143 DP-Q-IN DP-Q-OUT 145146 Wedland Q 147 148 /Wetland S DP-S-OUT DP-S-IN 65 Wedland R DP-R-OUT DP-R-IN 149 /150 151 152 70 RP-7 164 70 165 E ST CLAIR ST 166 E ST CLAIR ST 157 DP-T-IN 160¹⁵⁹
162¹⁶¹ DP-T-OUT NDAVDSONST -Wedland T 158 70 163 167 168 65 Des. 1592385 (Lead) Contract #36910 Study Area 100 I-65/I-70 North Split Interchange Reconstruction Marion County, IN Photo Orientation and **Data Points** Feet Stormwater Feature 1 in = 100 feetField-Identified Resources Map **Delineated Wetlands** Sources: Non Orthophotography Data -Photo Orientation Obtained from the State of Indiana Geographical Information Office Library PARSONS Orthophotography -Photo Facing Down Obtained from Indiana Map Framework Data (www.indianamap.org)







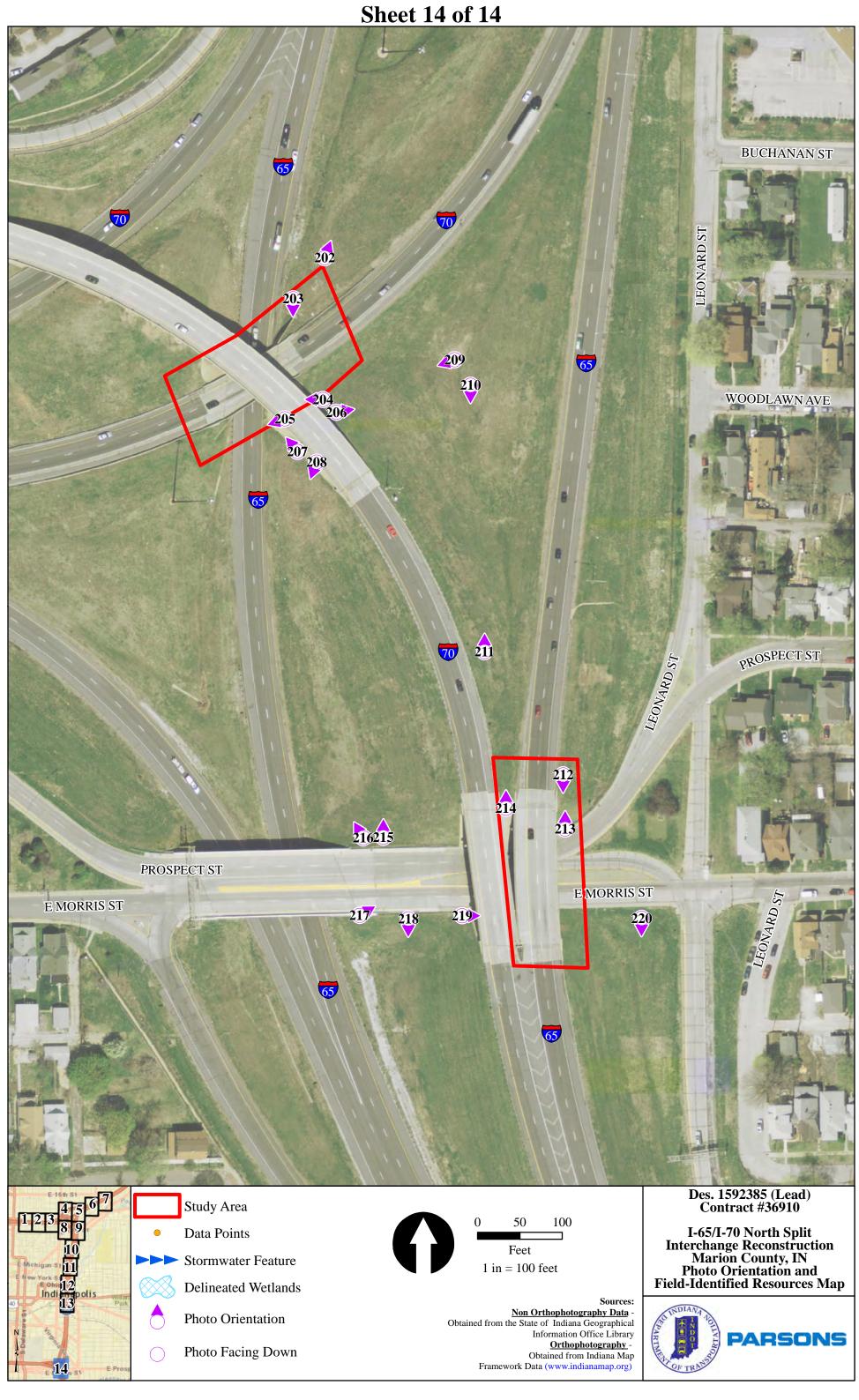






Photo 1 – View of the I-65 bridge over Pennsylvania Street facing south (10/3/2016).



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



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



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



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 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 12^{th} Street borders the right-of-way to the north (left).



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 12^{th} Street is immediately adjacent to the north (right).



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



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



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



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 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).

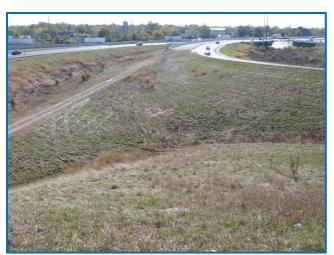


Photo 40 – View of the North Split infield between the I-65 northbound on-ramp and I-65 southbound on-ramp facing south (10/29/2015). No water resources were observed within this infield.



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



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



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



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).



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



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 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 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 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 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 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 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 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 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 they hydric soil 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 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.

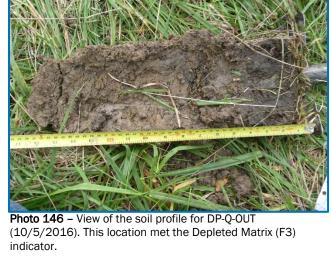




Photo 147 – View of DP-Q-OUT facing north (10/5/2016). This location failed to meet the hydrophytic vegetation and hydrology criteria.



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



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 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 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 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 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 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 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 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 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 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 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 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 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: 165/I70 Interchange Mod/Bridge Rehab-Des. 15923	385(L) C	City/County:	Indianapo	lis, 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, Tov	vnship, Raı	nge: Section 36, T16N, I	R3E
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none)	: Slope
Slope (%): <u>30</u> Lat: <u>39.782935</u>	L	ong: <u>-86.1</u>	45114		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)				NWI c	classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time	e of yea	r? Yes	≺ _ No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signifi					present? Yes X No
Are Vegetation, Soil, or Hydrology natura				eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing	sampling	g point le	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No Remarks:			e Sampled n a Wetlar		<
VEGETATION – Use scientific names of plants.					
	Cover	Dominant I Species?	Status	Number of Dominant S That Are OBL, FACW,	Species
2				Total Number of Domir Species Across All Stra	
4				Percent of Dominant S That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	=	Total Cove	r	Prevalence Index wor	rksheet:
1					Multiply by:
2.					0 x 1 =0
3.				-	10 x 2 = 140
4				FAC species	0 x 3 =0
5				FACU species3	0 x 4 = <u>120</u>
	=	Total Cove	r	UPL species	0 x 5 =0
Herb Stratum (Plot size: 5 ft. radius)	70		E4 0)4/	Column Totals:10	00 (A) <u>260</u> (B)
1. Phragmites australis (Common Reed)	70	<u>Y</u> Y	FACU	Prevalence Index	x = B/A =2.60
	30		FACU	Hydrophytic Vegetati	·
3				, , ,	Hydrophytic Vegetation
				2 - Dominance Tes	
				× 3 - Prevalence Ind	
6					Adaptations (Provide supporting
8				data in Remark	ks or on a separate sheet)
9.					ophytic Vegetation¹ (Explain)
10.				¹Indicators of hydric soil be present, unless distu	l and wetland hydrology must
		Total Cove		be present, unless diste	noca or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius				Hydrophytic	
1				Vegetation	
2		Total Cove		Present? Yes	s <u>X</u> No
Pemarke: (Include photo numbers here or on a congrete sheet					
Remarks: (Include photo numbers here or on a separate sheet.	.)				

SOIL Sampling Point: DP-A-IN

				ment the	indicator c	or commin	n the absence	of indicators.)
Depth (inches)	Matrix	0/		x Feature	s Type ¹	Loc ²	Touturo	Domonto
(inches) 0-5	Color (moist) 10YR 3/2	<u>%</u>	Color (moist)	%	<u>rype</u>	LOC	Clavilage	Remarks
	· ·		7.5\/D.5/0				Clay loam	0 " 1 5 1 1
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	С	M	Clay	
		<u> </u>	7.5YR 4/3	3	C	M	Sand loam	
		· —— –			·			
¹Type: C=C	Concentration, D=Dep	letion, RM=R	educed Matrix, MS	S=Masked	d Sand Gra	ins.	2Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:							for Problematic Hydric Soils ³ :
Histoso	` '			Gleyed Ma				Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
	listic (A3)			d Matrix (S				langanese Masses (F12)
	en Sulfide (A4)				neral (F1)		_	Shallow Dark Surface (TF12)
	d Layers (A5) uck (A10)		X Deplete	Gleyed M			Other	(Explain in Remarks)
	ed Below Dark Surfac	e (A11)		Dark Surfa				
	ark Surface (A12)	· (/ \			urface (F7)		3Indicators	s of hydrophytic vegetation and
	Mucky Mineral (S1)			Depressio				d hydrology must be present,
	ucky Peat or Peat (S	3)	· 		()			s disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			<u> </u>					
Depth (ir	nches):						Hydric Soil	Present? Yes X No
HYDROLO								
Wetland Hy	drology Indicators:							
Wetland Hy			d; check all that ap	pply)				ary Indicators (minimum of two required)
Wetland Hy Primary Indi X Surface	rdrology Indicators: cators (minimum of o water (A1)		Water-Sta	ined Leav	` ,			ary Indicators (minimum of two required) face Soil Cracks (B6)
Wetland Hy Primary Indi X Surface	vdrology Indicators: cators (minimum of o		Water-Sta	ined Leav auna (B13)		Sur	
Wetland Hy Primary Indi X Surface X High W X Saturat	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants	(B14)		Sur Dra Dry	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N	rdrology Indicators: cators (minimum of on Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)		Sur Dra Dry Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Livi	•	Sur Dra Dry Cra (C3) Sat	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) sion (A3) Marks (B1) and Deposits (B2) sposits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) dor (C1) res on Livied Iron (C4)	Sur Dra Dry Cra (C3) Sat Stu	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M	rdrology Indicators: cators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled)	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De	rdrology Indicators: cators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5)	one is required	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livi ed Iron (C4 fon in Tilled)	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De	rdrology Indicators: cators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I	ne is required	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reduction Surface	(B14) dor (C1) eres on Livi ed Iron (C4) on in Tilled (C7) (D9))	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparse	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) int Deposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave	ne is required	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reduction Surface	(B14) dor (C1) eres on Livi ed Iron (C4) on in Tilled (C7) (D9))	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparse	rdrology Indicators: cators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave	magery (B7) e Surface (B8	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface Well Data blain in Re	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 fon in Tilled (C7) (D9) emarks))	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel	rdrology Indicators: cators (minimum of or e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present?	magery (B7) e Surface (B8	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reduction Surface Well Data blain in Reduction Reduction Surface well Data blain in Reduction Reduct	(B14) dor (C1) eres on Livi ed Iron (C4 don in Tilled (C7) (D9) emarks))	Sur Dra Dry Cra (C3) Sat Stul Stul	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparse	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Y	magery (B7) e Surface (B8	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or V Other (Exp	ined Leavauna (B13 atic Plants Sulfide O Rhizosphe on Reduction Reduction Surface Well Data blain in Reduction Reduc	(B14) dor (C1) dor (C1) dor (C1) dor (C4) dor in Tillect (C7) (D9) demarks) 0.5) I Soils (Ce	Sur Dra Cra Sat Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
Wetland Hy Primary Indi X Surface X High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Present? Present? Y Present? Y Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8 fes X No	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or the Company of the C	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 0.5 8 0) Soils (C6	Sur Dra Dry Cra (C3) Satu Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) incomprise Position (D2)
Wetland Hy Primary Indi X Surface X High W X Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of of e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Present? Y	magery (B7) e Surface (B8 fes X No	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or the Company of the C	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 0.5 8 0) Soils (C6	Sur Dra Dry Cra (C3) Satu Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
Wetland Hy Primary Indi X Surface X High W X Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Present? Present? Y Present? Y Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8 fes X No	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or the Company of the C	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 0.5 8 0) Soils (C6	Sur Dra Dry Cra (C3) Satu Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
Wetland Hy Primary Indi X Surface X High W X Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obset Surface Wa Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Present? Present? Y Present? Y Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8 fes X No	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or the Company of the C	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 0.5 8 0) Soils (C6	Sur Dra Dry Cra (C3) Satu Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
Wetland Hy Primary Indi X Surface X High W X Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca Describe Re	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Present? Present? Y Present? Y Present? Y Present? Y Present? Y Present? Y	magery (B7) e Surface (B8 fes X No	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or the Company of the C	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 0.5 8 0) Soils (C6	Sur Dra Dry Cra (C3) Satu Stu FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15923	385(L) C	City/County:	Indianapo	lis, 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)	s	Section, Tov	vnship, Raı	nge: Section 36, T16N,	R3E	
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none	e): Slope	
Slope (%): <u>15</u> Lat: <u>39.782882</u>	L	ong: <u>-86.1</u>	45152		Datum: NAD 19	983
Soil Map Unit Name: Urban land-Fox complex (UfA)				NWI	classification: Not	t Wetland
Are climatic / hydrologic conditions on the site typical for this time						
Are Vegetation, Soil, or Hydrology signifi				Normal Circumstances"		X No
Are Vegetation, Soil, or Hydrology natura				eded, explain any answ	vers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sho			g point le	ocations, transect	s, important f	eatures, etc.
Hydrophytic Vegetation Present? Yes No Wetland Hydrology Present? Yes No Remarks:	×		e Sampled n a Wetlar		No <u>X</u>	_
romane.						
VEGETATION – Use scientific names of plants.						
Abs	Cover	Dominant I Species?	Status	Dominance Test wor Number of Dominant That Are OBL, FACW	Species	0 (A)
2				Total Number of Dom Species Across All St		<u>1</u> (B)
4.				Percent of Dominant S That Are OBL, FACW		0 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius) 1				Prevalence Index wo Total % Cover of: OBL species	: Multip	
2. 3.				FACW species		
3				FAC species		
5				FACU species 1		
		Total Cove	r	UPL species		
Herb Stratum (Plot size: 5 ft. radius)			=	Column Totals:1	100 (A)	400 (B)
	100	N	FACU NI	Prevalence Inde	ex = B/A =	4 00
Securigera varia (Crownvetch)	20			Hydrophytic Vegetat	<u> </u>	
4				1 - Rapid Test for		etation
5				2 - Dominance Te		
6.				3 - Prevalence Inc	dex is ≤3.0 ¹	
7.				4 - Morphological	Adaptations (Prov	vide supporting
8					ks or on a separat	•
9				Problematic Hyd	. , .	` ' '
10				¹ Indicators of hydric so be present, unless dist		
Woody Vine Stratum (Plot size: 30 ft. radius)	<u>120 </u>	Total Cove	r			
,				Hydrophytic		
1				Vegetation		
		Total Cove		Present? Ye	es No _	<u> </u>
Remarks: (Include photo numbers here or on a separate sheet.						
Tromano. (moidde pholo numbers here of off a separate sfieet.	.,					

Sampling Point: DP-A-OUT SOIL

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

Depth	Matri			x Features		. 2	_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	10YR 3/1						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	
1- 0.0							2.	
Hydric Soil		Depletion, RIVI=	Reduced Matrix, M	S=Masked	Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Sandy (Gleyed Ma	trix (S4)			Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
Black Hi	stic (A3)		Strippe	d Matrix (S	66)		Iron-N	langanese Masses (F12)
	n Sulfide (A4)			Mucky Mir			Very S	Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other	(Explain in Remarks)
	ıck (A10) d Below Dark Suı	face (A11)		ed Matrix (I Dark Surfa				
	ark Surface (A12)			ed Dark Su			³ Indicators	s of hydrophytic vegetation and
Sandy M	lucky Mineral (S	1)		Depressio	, ,			d hydrology must be present,
	icky Peat or Peat						unless	s disturbed or problematic.
	Layer (if observe	ed):						
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes No X
HYDROLO								
	drology Indicato							
	•	of one is require	ed; check all that ap					ary Indicators (minimum of two required)
	Water (A1)			ined Leave				face Soil Cracks (B6)
High vva	ater Table (A2)		Aquatic Fa	auna (B13)			· 	inage Patterns (B10) -Season Water Table (C2)
	larks (B1)		Hydrogen		` '			ryfish Burrows (C8)
· 	nt Deposits (B2)			Rhizosphe	. ,	ina Roots		uration Visible on Aerial Imagery (C9)
	posits (B3)			of Reduce		_		nted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iro	n Reducti	on in Tilled	d Soils (Ce		omorphic Position (D2)
Iron Dep	oosits (B5)		Thin Muck	Surface (C7)		FAC	C-Neutral Test (D5)
	on Visible on Aer		-					
	/ Vegetated Cond	cave Surface (E	38) Other (Ex	plain in Re	marks)			
Field Obser		Vaa N	lo X Donth (in	ahaa).				
Surface Wat			No $oldsymbol{ imes}$ Depth (in No $oldsymbol{ imes}$ Depth (in		>20			
Water Table Saturation P			No X Depth (in		>20	- Wetl	and Hydrolog	y Present? Yes No X
(includes car	oillary fringe)							y Fresent: Tes NO
Describe Re	corded Data (Stre	eam gauge, mo	nitoring well, aerial	pnotos, pr	evious ins	pections),	if available:	
Remarks:								
. torridino.								

Des. 1592385 (L) Contract # 36910

Marion Co., IN Page 96 of 201

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapo	olis, Marion County	Sampling Date: <u>4/26/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-B-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	_ Section, Township, Rai	nge: Section 36, T16N, F	R3E
Landform (hillslope, terrace, etc.): Roadside Embankment	Local relief	(concave, convex, none):	Slope
Slope (%): 60 Lat: 39.784347	Long: <u>-86.144126</u>		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		NWI c	lassification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of y	vear? Yes X No _	(If no, explain in R	demarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "	'Normal Circumstances" ہ	oresent? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If ne	eeded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? YesX No	within a Wetlar		< No
VECETATION . Her exicatific manner of plants			
VEGETATION – Use scientific names of plants.	Description to the Poster	l Barriago Tagrand	h d
Absolute Tree Stratum (Plot size: 30 ft. radius) % Cover 1	Species? Status	Number of Dominant S That Are OBL, FACW,	pecies
2		Total Number of Domir Species Across All Stra	
4.		Percent of Dominant S That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size:		OBL species 30 FACW species 0 FAC species 0 FACU species 0	
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	-	x = 0
1. Schoenoplectus tabernaemontani (Soft-Stem Club Rus 30	Y OBL	Column Totals:3	0 (A) 30 (B)
2.		Prevalence Index	x = B/A =1.00
3		Hydrophytic Vegetation	
4		X 1 - Rapid Test for I	
5		X 2 - Dominance Tes	
6		X 3 - Prevalence Ind	
7		data in Remark	Adaptations ¹ (Provide supporting s or on a separate sheet)
8			ophytic Vegetation (Explain)
9			and wetland hydrology must
	= Total Cover	be present, unless distu	irbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1		Hydrophytic	
2.		Vegetation Present? Yes	s _ X _ No
	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)		1	

onth			oth needed to docur			J. JJ		o. maisatoro.,		
epth nches)	Matrix Color (moist)	%	Color (moist)	x Feature %	s Type ¹	Loc ²	Texture	Remarks		
0-4	10YR 4/1	67	7.5YR 4/6	3	C	M	Sandy Loam			
0-4			7.511(4/0			IVI		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				
		pletion, RM	=Reduced Matrix, M	S=Masked	d Sand Gr	ains.		cation: PL=Pore Lining, M=Matrix.		
	Indicators:							for Problematic Hydric Soils ³ :		
_ Histosol	` '		Sandy (Prairie Redox (A16)		
	pipedon (A2) istic (A3)			Redox (S5 d Matrix (S				Surface (S7) langanese Masses (F12)		
	en Sulfide (A4)			Mucky Mi				Shallow Dark Surface (TF12)		
	d Layers (A5)			Gleyed M	. ,		=			
_	uck (A10)		X Deplete				Other	(Explain in Remarks)		
	d Below Dark Surfa	ce (A11)		Dark Surfa						
_ Thick Da	ark Surface (A12)		Deplete	d Dark Su	ırface (F7))	³ Indicators	s of hydrophytic vegetation and		
	Mucky Mineral (S1)		Redox I	Depressio	ns (F8)		wetland hydrology must be present,			
_ 5 cm Mu	ucky Peat or Peat (S	33)					unless	disturbed or problematic.		
							1			
	Layer (if observed)):								
Туре:):								
):					Hydric Soil	Present? Yes X No		
Type: Depth (in emarks:	ches):):					Hydric Soil	Present? Yes X No		
Type: Depth (in emarks:	ches):						Hydric Soil	Present? Yes X No		
Type: Depth (in marks: DROLO etland Hy	ches):	:	ired; check all that ap	yply)						
Type: Depth (in marks: DROLO etland Hy mary India	ches):	:			es (B9)		Seconda	ary Indicators (minimum of two required		
Type: Depth (in marks: DROLO etland Hy mary Indic_ Surface	ches):	:	Water-Sta	ined Leav	. ,		Seconda Suri	ary Indicators (minimum of two required face Soil Cracks (B6)		
DROLO etland Hy mary India Surface High Wa	ches):	:		ined Leav auna (B13)		Seconda Suri Dra	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10)		
DROLO etland Hy mary India Surface High Wa Saturatia	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	:	Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants) (B14)		Seconda Suri Dra Dry	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)		
DROLO etland Hy mary India Surface High Wa Saturati Water M	ches):	:	Water-Sta Aquatic Fa	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)	ring Roots	Seconda Surl Dra Dry Cra	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10)		
DROLO etland Hy mary India Surface High Wa Saturatia Water M Sedimen	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)	:	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe) (B14) dor (C1) res on Liv	_	Seconda Suri Dra Dry Cra s (C3) Sato	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)		
DROLO etland Hy mary India Surface High Wa Saturati Water M Sedimen Drift De	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2)	:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) res on Liv ed Iron (C4	4)	Seconda Suri Dra Dry Cra (C3) Satu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)		
DROLO Petland Hy mary India Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma	drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3)	:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)		
DROLO etland Hy mary India Surface High Wa Saturatia Water M Sedimen Drift Del Algal Ma Iron Dep	ches):	: one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Reduction	(B14) dor (C1) res on Lived Iron (C4 on in Tille	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)		
DROLO etland Hy imary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsel	ches):	: one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck G7) Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti Surface ((B14) dor (C1) res on Lived Iron (C4 on in Tille (C7) (D9)	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)		
DROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Inundati	ches):	: one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck G7) Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti Surface ((B14) dor (C1) res on Lived Iron (C4 on in Tille (C7) (D9)	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)		
DROLO etland Hy imary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsel	ches): dGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations:	: one is requ Imagery (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck G7) Gauge or	ined Leave auna (B13 stic Plants Sulfide O Rhizosphe of Reduce on Reducti Surface (Well Data blain in Re	(B14) dor (C1) res on Lived Iron (C4 on in Tille (C7) (D9)	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)		
DROLO etland Hy imary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely	ches): GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present?	: one is requ Imagery (Bre Surface (Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck G7) Gauge or (B8) Other (Exp	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reductic Surface (Well Data blain in Reductic)	(B14) dor (C1) deres on Lived Iron (C4 on in Tille (C7) (D9) emarks)	4)	Seconda Suri Dra Dry Cra (C3) Satu Sturi	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)		

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: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	: Indianapo	olis, Marion County	Sampling Date: 4/26/2016
Applicant/Owner: Indiana Department of Transportation (I					· -
Investigator(s): Brock Ervin and Stephany Stamatis (Pars	ons)	Section, To	wnship, Ra	nge: Section 36, T16N, F	R3E
Landform (hillslope, terrace, etc.): Roadside Embankmen			•		
Slope (%): 60 Lat: 39.784365				, ,	
Soil Map Unit Name: Urban Land - Fox Complex (UfA)					lassification: Not Wetland
Are climatic / hydrologic conditions on the site typical for the					
Are Vegetation, Soil, or Hydrology	•	· · · · · · · · · · · · · · · · · · ·			present? Yes X No
				·	
Are Vegetation, Soil, or Hydrology				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No X	le th	e Sampled	ΙΛιοα	
Hydric Soil Present? Yes	No X		in a Wetlaı		NoX
Wetland Hydrology Present? Yes	NoX	With	iii u wenai	100	
Remarks:					
VEGETATION – Use scientific names of plants	2				
VEGETATION – Ose scientific frames of plants	Absolute	Dominant	Indicator	Dominance Test work	rsheet:
Tree Stratum (Plot size: 30 ft. radius)		Species?		Number of Dominant S	
1				That Are OBL, FACW,	
2				Total Number of Domin	nant
3				Species Across All Stra	ata: <u>2</u> (B)
4				Percent of Dominant S	
5				That Are OBL, FACW,	or FAC: <u>50.00</u> (A/B)
Sapling/Shrub Stratum (Plot size: 30 ft. radius)		= Total Cov	er	Prevalence Index wor	ksheet:
1				Total % Cover of:	Multiply by:
2				OBL species0	x 1 =0
3				FACW species0	
4					0 x 3 = 150
5				FACU species50	
Herb Stratum (Plot size: 30 ft. radius)		= Total Cov	er		x = 0
Poa pratensis (Kentucky Blue Grass)	50	Υ	FAC	Column Totals: 10	00 (A) <u>350</u> (B)
2. Schedonorus arundinaceus (Tall False Rye Grass)	50	Υ	FACU	Prevalence Index	a = B/A = <u>3.50</u>
3				Hydrophytic Vegetation	on Indicators:
4				1 - Rapid Test for H	Hydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	
7					Adaptations (Provide supporting s or on a separate sheet)
8					ophytic Vegetation (Explain)
9.				Indicators of hydric soil	and wetland hydrology must
10				be present, unless distu	rbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius)	100	= Total Cov	er		
1				Hydrophytic	
2				Vegetation Present? Yes	s No _X_
		= Total Cov	er		
Remarks: (Include photo numbers here or on a separate	sheet.)				

SOIL Sampling Point: DP-B-OUT

Depth	cription. (Describ	- 10 mm mop	in needed to doct	annone the	ndicator (or confirn	n the absence	of indicators.)
	Matrix		Rec	lox Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/2	60					Loam	Rocky
	10YR 4/2	40						
4-20	10YR 3/2	97	7.5YR 3/4		С	M	Clay Loam	
7 20	10111 0/2						Oldy Louin	
	· -		7.5YR 5/8	_ 1	C	M		
¹ Type: C=C	Concentration, D=De	epletion, RM=	Reduced Matrix, N	//S=Masked	Sand Gra	ins.	² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso	I (A1)		Sandy	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
 '	listic (A3)			ed Matrix (S				anganese Masses (F12)
	en Sulfide (A4)			Mucky Mir			Very S	Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other	(Explain in Remarks)
	uck (A10) ed Below Dark Surfa	οςς (Λ11)		ed Matrix (,			
	ed Below Dark Suna ark Surface (A12)	ice (ATT)		Dark Surfa ed Dark Su			3Indicators	s of hydrophytic vegetation and
	Mucky Mineral (S1)			Depressio				d hydrology must be present,
	ucky Peat or Peat (S3)	110005	Боргоссіо	110 (1 0)			disturbed or problematic.
	Layer (if observed							· ·
Type:								
Depth (in	nches):						Hydric Soil	Present? Yes No X
Remarks:	,							
IVDDOLG	NCV							
IYDROLO								
-	drology Indicators							
	cators (minimum or		ad abadaal that	2001.4			Conondo	and ladicators (minimum of two required)
0	14/-1(44)		ed; check all that a		(D0)		<u> </u>	ary Indicators (minimum of two required)
	Water (A1)		Water-St	ained Leav	` '		Surf	face Soil Cracks (B6)
High Wa	ater Table (A2)		Water-St Aquatic F	ained Leav Fauna (B13)		Surf Drai	face Soil Cracks (B6) inage Patterns (B10)
High Wa	ater Table (A2) ion (A3)		Water-St Aquatic F True Aqu	ained Leav Fauna (B13 latic Plants) (B14)		Surf Drai Dry-	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
High Water N	ater Table (A2) ion (A3) ⁄/arks (B1)		Water-St Aquatic F True Aqu Hydroge	ained Leav Fauna (B13 latic Plants n Sulfide O) (B14) dor (C1)	ng Dooto	Surf Drai Dry- Cray	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
High Water No. Sedime	ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2)		Water-St Aquatic F True Aqu Hydroger Oxidized	ained Leav Fauna (B13 latic Plants n Sulfide Oo Rhizosphe) (B14) dor (C1) res on Livi	-	Surf Drai Cray Cray (C3) Satu	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
High Water N Sedime Drift De	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3)		Water-St Aquatic F True Aqu Hydroge Oxidized Presence	ained Leav Fauna (B13 latic Plants n Sulfide Oo Rhizosphe) (B14) dor (C1) res on Livi ed Iron (C4)	Surf Drai Cray Cray (C3) Satu Stur	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
High Water N Sedime Drift De Algal Ma	ater Table (A2) ion (A3) Marks (B1) ont Deposits (B2) posits (B3) at or Crust (B4)		Water-St Aquatic F True Aqu Hydrogei Oxidized Presence	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti	(B14) dor (C1) res on Livied Iron (C4 on in Tilled)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High Water Nater N	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one is requir	Water-St Aquatic F True Aqu Hydrogei Oxidized Presence Recent II	ained Leav Fauna (B13 latic Plants in Sulfide Oo Rhizosphe e of Reduce on Reducti ck Surface ((B14) dor (C1) res on Livi ed Iron (C4 on in Tilled)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
High W: Saturati Water N Sedime Drift De Algal M Iron De Inundat	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria	one is requir	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leav Fauna (B13 latic Plants In Sulfide Or Rhizosphe In Greduce In Reduction Reduction In Sulface (In Well Data	(B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High W: Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria y Vegetated Conca	one is requir	Water-St Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leav Fauna (B13 latic Plants in Sulfide Oo Rhizosphe e of Reduce on Reducti ck Surface ((B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High Ware Naturati Water Naturati Sedime Drift De Algal March Iron De Inundat Sparsel	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria y Vegetated Conca	one is requir	Water-St Aquatic F True Aqu Hydroge Oxidized Presence Recent II Thin Muc Gauge o Other (E:	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce ron Reducti ck Surface (ir Well Data	(B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Conca	I Imagery (B7ve Surface (E	Water-St Aquatic F True Aqu Hydrogei Oxidized Presencei Recent II Thin Muc Gauge o Other (E:	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce on Reducti ck Surface (ir Well Data explain in Re	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks))	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High Water Now Sedime Sedime Drift De Algal Mater Now Iron De Inundat Sparsel Field Obser Surface Water Table	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria y Vegetated Conca rvations: ter Present?	I Imagery (B7 ve Surface (B	Water-St Aquatic F True Aqu Hydroger Oxidized Presencer Recent In Thin Muce Gauge of Other (Enterty) X Depth (in X	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti ck Surface (ir Well Data explain in Re inches):	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)) I Soils (C6	Surf Drai Cray Satu Stur 6) Geo FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
High Water N Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria y Vegetated Conca rvations: ter Present? Present?	I Imagery (B7 ve Surface (B	Water-St Aquatic F True Aqu Hydrogei Oxidized Presencei Recent II Thin Muc Gauge o Other (E:	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti ck Surface (ir Well Data explain in Re inches):	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)) I Soils (C6	Surf Drai Cray Satu Stur 6) Geo FAC	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
High Water Now Sedime Sedime Drift De Algal Malgar Inon De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria y Vegetated Conca rvations: ter Present?	I Imagery (B7 ve Surface (B7 Yes I Yes I	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge o Other (E) No X Depth (in No X Depth (in No X Depth (in	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti ck Surface (ir Well Data xplain in Re inches):	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) >20 >20) Soils (C6	Surf Drai Cray Satu Stur 6) Geo FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
High Water Now Sedime Sedime Drift De Algal Malgar Inon De Inundat Sparsel Field Obser Surface Water Table Saturation F (includes ca	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Conca rvations: ter Present? Present? pillary fringe)	I Imagery (B7 ve Surface (B7 Yes I Yes I	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge o Other (E) No X Depth (in No X Depth (in No X Depth (in	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti ck Surface (ir Well Data xplain in Re inches):	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) >20 >20) Soils (C6	Surf Drai Cray Satu Stur 6) Geo FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
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High Water Mater Table Saturation Facuration	ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Conca rvations: ter Present? Present? pillary fringe)	I Imagery (B7 ve Surface (B7 Yes I Yes I	Water-St Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent In Thin Muc Gauge o Other (E) No X Depth (in No X Depth (in No X Depth (in	ained Leav Fauna (B13 latic Plants in Sulfide Or Rhizosphe e of Reduce con Reducti ck Surface (ir Well Data xplain in Re inches):	(B14) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) >20 >20) Soils (C6	Surf Drai Cray Satu Stur 6) Geo FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	: Indianapo	olis, 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 (Pars	ons)	Section, To	wnship, Ra	inge: Section 36, T16N,	R3E
Landform (hillslope, terrace, etc.): Roadside Embankmen	t		Local relief	(concave, convex, none	e): 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 tl	his time of yea	ar? Yes	X No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology					resent? Yes X No
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map			g point l	ocations, transect	s, important features, etc.
		<u></u>		<u>`</u>	
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X			e Sampled		
Wetland Hydrology Present? Yes X		with	in a Wetla	nd? Yes	X No
Remarks:					
VEGETATION – Use scientific names of plant					
Tree Stratum (Plot size: 30 ft. radius)	Absolute % Cover	Dominant Species?		Dominance Test wor	
1.				Number of Dominant That Are OBL, FACW	Species /, or FAC:1 (A)
2.				Total Number of Dom	
3				Species Across All St	_
4				Percent of Dominant	Species
5					/, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)		= Total Cov	er	Prevalence Index wo	orksheet:
1				Total % Cover of:	
2.					10 x 1 = 10
3.				FACW species	0 x 2 =0
4				FAC species	0 x 3 =0
5				· ·	0 x 4 =0
Herb Stratum (Plot size: 5 ft. radius)		= Total Cov	er	UPL species	
Typha sp. (Cattail)	10	Υ	OBL	Column Totals:	10 (A) 10 (B)
2				Prevalence Inde	ex = B/A = 1.00
3.				Hydrophytic Vegetat	tion Indicators:
4					· Hydrophytic Vegetation
5				X 2 - Dominance Te	
6				X 3 - Prevalence In	
7					Adaptations (Provide supporting rks or on a separate sheet)
8					rophytic Vegetation (Explain)
9					oil and wetland hydrology must
10		Total Cov		be present, unless dist	urbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)		- 10tal C0V	O1		
1				Hydrophytic	
2				Vegetation Present? Ye	es <u>X</u> No
		= Total Cov	er		
Remarks: (Include photo numbers here or on a separate	sheet.)			1	
The species of cattail could not be determined, because			ce. A patch	of reed canary grass wa	as located at the toe of slope;
however, a test pit determined that hydric soils were not	present in the	at area.			

	Matrix			x Feature		. 2	_	
iches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
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		
		· ——						
vne: C-C	oncentration, D=Dep	letion RM-	Reduced Matrix MS	S-Masker	Sand Gr	ine	² l or	cation: PL=Pore Lining, M=Matrix.
, ,	Indicators:	iction, rtivi=	reduced Matrix, Me	J-Masket	d Carlo Cre			for Problematic Hydric Soils ³ :
_ Histosol	(A1)		Sandy 0	Sleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
Histic E	pipedon (A2)			Redox (S5				Surface (S7)
_ Black H	istic (A3)		Stripped	Matrix (S	36)		Iron-M	anganese Masses (F12)
	en Sulfide (A4)		Loamy I	Mucky Mir	neral (F1)		Very S	Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other	(Explain in Remarks)
	uck (A10)		× Deplete	,	,			•
	d Below Dark Surface	e (A11)		Dark Surfa	` '		3	
	ark Surface (A12)				ırface (F7)			of hydrophytic vegetation and
_	Mucky Mineral (S1) ucky Peat or Peat (S3	3)	Redox I	Depressio	ns (F8)			d hydrology must be present, disturbed or problematic.
	Layer (if observed):						unic33	distance of problematic.
Type: Ro								
	ches): 15						Hydric Soil	Present? Yes X No
emarks:							•	
/etland Hy rimary Indio Surface High Wa Saturati Water M	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1)		Water-Stal Aquatic Fa True Aqua Hydrogen	ined Leav luna (B13 tic Plants Sulfide O) (B14) dor (C1)	na Roots	Surf Drai Dry- Cray	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
/etland Hy rimary India ✓ Surface _ High Wa _ Saturati _ Water M _ Sedime	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav iuna (B13 tic Plants Sulfide O Rhizosphe	(B14) dor (C1) res on Liv	-	Surf Drai Cray (C3) Satu	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Vetland Hy rimary Indio Surface High Wa Saturati Water M Sedime Drift De	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)		Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav Juna (B13 tic Plants Sulfide O Rhizosphe	(B14) (B14) dor (C1) res on Liv ed Iron (C4	.)	Surf Drai Dry Cray (C3) Satu Stur	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
/etland Hy rimary Indio ✓ Surface — High Wa — Saturati — Water M — Sedime — Drift Del — Algal Ma	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence	ined Leav luna (B13 tic Plants Sulfide O Rhizosphe of Reduce n Reducti	(B14) dor (C1) res on Lived Iron (C4 on in Tilled	.)	Surf Drai Dry Cray (C3) Satu Stur	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
etland Hy rimary Indio Surface High Wa Saturati Water N Sedime Drift De Algal Ma	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is requir	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leav iuna (B13 tic Plants Sulfide O Rhizosphe of Reduce n Reducti Surface ((B14) dor (C1) eres on Lived Iron (C4) on in Tilled	.)	Surf Drai Dry Cray (C3) Satu Stur	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
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etland Hy imary Indic Surface High Wa Saturati Water M Sedimer Algal Ma Iron Dep Inundati Sparsel eld Obser atter Table atturation Pe	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) ion Visible on Aerial I by Vegetated Concave vations: ter Present? Present? Y	magery (B7 e Surface (E es N es N	Water-Stal Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or V B8) Other (Exp No X Depth (inc	ined Leavaluna (B13 tic Plants Sulfide Ochricospherof Reduce of Reduce of Reduce (Well Data plain in Reduction Reduc	(B14) (B14) (dor (C1) (dor (C1) (res on Liv (ed Iron (C4) (on in Tilled (C7) (D9) (D9) (emarks) (0.5) (0.5) (0.5) (0.5)	d Soils (C	Surf Drai Cray Satu Stur 6) Geo X FAC	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
rimary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparser inface Water Table saturation Pencludes car	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cosits (B5) ion Visible on Aerial I by Vegetated Concave vations: ter Present? Present? Y	magery (B7 e Surface (E es N es N	Water-Stal Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or V B8) Other (Exp No X Depth (inc	ined Leavaluna (B13 tic Plants Sulfide Ochricospherof Reduce of Reduce of Reduce (Well Data plain in Reduction Reduc	(B14) (B14) (dor (C1) (dor (C1) (res on Liv (ed Iron (C4) (on in Tilled (C7) (D9) (D9) (emarks) (0.5) (0.5) (0.5) (0.5)	d Soils (C	Surf Drai Cray Satu Stur 6) Geo X FAC	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
/etland Hy rimary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dep Inundati Sparsel ield Obser urface Wat /ater Table aturation P ncludes cal escribe Re	drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I y Vegetated Concave vations: ter Present? Present? Y Present?	magery (B7 e Surface (E es N es N gauge, mo	Water-Stal Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or V B8) Other (Exp No Depth (inc	ined Leavaluna (B13 tic Plants Sulfide Or Reduce of Reduce of Reduce (Well Data blain in Reduches):ches):ches):ches):chotos, pr	(B14) (B14) (dor (C1) (res on Liv (ed Iron (C4) (on in Tilled (C7) (D9) (marks) <0.5 >15 >15 evious ins	Wet	Surf Drai Drai Dry- Cray Stur Stur Geo X FAC	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)

US Army Corps of Engineers

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: 165/I70 Interchange Mod/Bridge Rehab-Des. 15923	85(L) C	city/County:	Indianapo	lis, Marion County	Sampling Date: _4	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)	s	Section, Tow	nship, Rar	nge: Section 36, T16N,	, R3E	
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none	e): Slope	
Slope (%): <u>50</u> Lat: <u>39.783294</u>	L	.ong: <u>-86.1</u> 4	13914		Datum: NAD 198	33
Soil Map Unit Name: <u>Urban Land - Fox Complex (UfA)</u>				NWI	classification: Not V	Vetland
Are climatic / hydrologic conditions on the site typical for this time	e of yea	r? Yes	<_ No _	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology signific	cantly d	listurbed?	Are "	Normal Circumstances	" present? Yes>	< No
Are Vegetation, Soil, or Hydrology natura	ally prob	lematic?	(If ne	eded, explain any ansv	vers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map show	wing	sampling	point lo	ocations, transec	ts, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes No	×			_		
Hydric Soil Present? Yes X No			e Sampled n a Wetlan		No X	
Wetland Hydrology Present? Yes No	<u>×</u>	WILIII	n a wenan	iur res	NOX	•
Remarks:						
VEGETATION – Use scientific names of plants.						
	olute	Dominant I	ndicator	Dominance Test wo	rksheet:	
Tree Stratum (Plot size: 30 ft. radius) % C		Species?		Number of Dominant That Are OBL, FACW	•	(A)
2				Total Number of Dom	ninant	
3				Species Across All St	trata: 2	(B)
4				Percent of Dominant		
5		Total Cove	r	That Are OBL, FACW	/, or FAC:50.0	00 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)		Total Cove		Prevalence Index we	orksheet:	
1					: Multiply	-
2				OBL species		
3				FACW species		
4				FACILIANSIA		
5		Total Cove	<u> </u>	FACU species UPL species		
Herb Stratum (Plot size: 5 ft. radius)	=	Total Cove	ı	· ·		180 (B)
Schedonorus arundinaceus (Tall False Rye Grass)	30	Υ	FACU		(1)	(5)
2. Poa pratensis (Kentucky Blue Grass)	20	Y	FAC	Prevalence Inde	ex = B/A =3.	60
3				Hydrophytic Vegeta		
4				1 - Rapid Test for		ation
5				2 - Dominance T		
6				3 - Prevalence In		da a como a serio a se
7				4 - Morphologica data in Rema	rks or on a separate	sheet)
8				Problematic Hyd		
9				¹ Indicators of hydric so		
10		Total Cove		be present, unless dis	turbed or problemati	C.
Woody Vine Stratum (Plot size: 30 ft. radius)		Total Gove				
1				Hydrophytic		
2				Vegetation Present? Y	es No	×_
_	=	Total Cove	r			
Remarks: (Include photo numbers here or on a separate sheet.))			1		

SOIL Sampling Point: DP-C-OUT

		e to the depth				or confirm	the absence of in	ndicators.)
Depth (inches)	Matrix Color (moist)	%	Color (moist)	ox Feature %	S Type ¹	Loc ²	Texture	Remarks
0-20			10YR 4/6			M		Remarks
0-20	7.5YR 3/2	65	10114/0		C	IVI	<u>Loam</u>	
	10YR 3/2							
	-							
¹ Type: C=C	oncentration, D=De	epletion, RM=R	Reduced Matrix, M	S=Masked	d Sand Gra	ains.		n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		Coast Prair	ie Redox (A16)
	pipedon (A2)			Redox (S5			Dark Surface	• •
	istic (A3)			d Matrix (S			_	inese Masses (F12)
	en Sulfide (A4)			Mucky Mir			Very Shallo	ow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			Other (Expl	lain in Remarks)
	uck (A10)	١٥٥ (٨٩٩)		ed Matrix (,			
	d Below Dark Surfa	ace (A11)	X Redox				3Indiantara af la	ydrophytic vegetation and
	ark Surface (A12) Mucky Mineral (S1)			Depressio	urface (F7)			drology must be present,
	ucky Peat or Peat (S3)	Redux	Deblessio	115 (170)			urbed or problematic.
	Layer (if observed						dilicos distr	arbed of problematic.
Type:		•						
	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:							Trydric doil i les	163 <u>//</u> 160
	-0.1							
HYDROLO								
_	drology Indicator		di abaak all that a	nn!()			Cocondon In	diastora (minimum of two required)
	•	one is require	-		(DO)			dicators (minimum of two required)
	Water (A1)			ained Leav auna (B13	` ,			Soil Cracks (B6)
Saturati	ater Table (A2)							Patterns (B10)
	farks (B1)		True Aqua		, ,			son Water Table (C2) Burrows (C8)
	nt Deposits (B2)		Oxidized			ing Poots /		on Visible on Aerial Imagery (C9)
	posits (B3)		Oxidized			-		or Stressed Plants (D1)
	at or Crust (B4)					d Soils (C6		phic Position (D2)
	posits (B5)		Thin Mucl			2 00113 (00	. — .	utral Test (D5)
	ion Visible on Aeria	I Imagery (B7)	· · · · · · · · · · · · · · · · · · ·		. ,		170 140	arrai Test (Do)
	y Vegetated Conca		_	plain in Re				
Field Obser				p				
Surface Wat		Yes No	o X Depth (ir	nches):				
Water Table			o X Depth (ir			_		
Saturation P			o X Depth (ir		>20	- Wetla	and Hydrology Pre	esent? Yes No X
(includes ca	pillary fringe)							
Describe Re	corded Data (strea	m gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
FAC-Neutra	I Test = 0%.							

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapo	lis, Marion County	Sampling Date: <u>4/26/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-D-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	Section, Township, Ra	nge: Section 36, T16N, F	R3E
Landform (hillslope, terrace, etc.): Roadside Embankment	Local relief	(concave, convex, none)	: Slope
Slope (%): <u>50</u> Lat: <u>39.783268</u>	Long: <u>-86.141010</u>		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		NWI c	lassification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of y	ear? YesX_ No _	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:	within a Wetlan		< No
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: 30 ft. radius) % Cover 1	Species? Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	species
2		Total Number of Domir Species Across All Stra	
5	_= Total Cover	Percent of Dominant S That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size:		OBL species 1 FACW species 0 FAC species 0 FACU species 0	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	-	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
1. Typha sp. (Cattail) 10	Y OBL		
2			(= B/A =1.00
3		Hydrophytic Vegetati	Hydrophytic Vegetation
4		× 2 - Dominance Tes	· · · · · · · · · · · · · · · · · · ·
5		× 3 - Prevalence Ind	
6		4 - Morphological /	Adaptations (Provide supporting
8.		data in Remark	s or on a separate sheet)
9.		1	ophytic Vegetation (Explain)
10.		¹ Indicators of hydric soil be present, unless distu	l and wetland hydrology must
10	_= Total Cover	Do process, assess asses	
Woody Vine Stratum (Plot size: 30 ft. radius) 1		Hydrophytic	
2.		Vegetation	s Y No
	= Total Cover	Present? Yes	s <u>X</u> No
Remarks: (Include photo numbers here or on a separate sheet.)			
Dead cattail cover 60%. The species of cattail could not be determin	ed, because of the lack of	of inflorescence.	

SOIL Sampling Point: DP-D-IN

Profile Des	cription. (Describe	to the dep	th needed to doc			or confiri	m the absence	or indicators.)	
Depth (inches)	Matrix Color (moist)	%	Color (moist)	dox Feature %	es Type ¹	Loc ²	Texture	Remarks	
(inches) 0-2	10YR 3/1	100	Color (moist)		Туре	LUC	Sandy Loam	Root mass	
			7.5\/D.4/0						
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=C	Concentration, D=Dep	nletion PM-	-Peduced Matrix	MS-Masko	d Sand Gr	ine	² l oc	eation: PL=Pore Lining, M=Matrix.	
	Indicators:	pietion, ixivi-	-rreduced Matrix,	VIO-IVIASKE	a Sand Gre	ııı ıə.		for Problematic Hydric Soils ³ :	
Histoso			Sand	Gleyed Ma	atrix (S4)			Prairie Redox (A16)	
	pipedon (A2)			Redox (S			Dark Surface (S7)		
Black Histic (A3)			ed Matrix (,		Iron-Manganese Masses (F12)			
	en Sulfide (A4)			y Mucky Mi	. ,		Very Shallow Dark Surface (TF12)		
	ed Layers (A5)			y Gleyed M			Other	(Explain in Remarks)	
	uck (A10) ed Below Dark Surfac	ce (A11)		ted Matrix (x Dark Surfa					
	ark Surface (A12)	OC (A11)		ted Dark Su			³ Indicators	of hydrophytic vegetation and	
	Mucky Mineral (S1)			x Depressio				d hydrology must be present,	
	ucky Peat or Peat (S	,					unless	disturbed or problematic.	
	Layer (if observed)):							
Type: R	ock								
Depth (ir	nches): <u>18</u>						Hydric Soil	Present? Yes X No No	
Pebbly/rock	y throughout.								
Pebbly/rock	y throughout.								
HYDROLO	OGY								
HYDROLO Wetland Hy	OGY odrology Indicators								
HYDROLC Wetland Hy Primary Indi	OGY ordrology Indicators icators (minimum of o							ary Indicators (minimum of two required)	
HYDROLO Wetland Hy Primary Indi X Surface	OGY rdrology Indicators icators (minimum of o		Water-S	tained Leav	, ,		Surf	ace Soil Cracks (B6)	
HYDROLO Wetland Hy Primary Indi X Surface High W	ody odrology Indicators icators (minimum of e Water (A1) ater Table (A2)		Water-S Aquatic	tained Leav Fauna (B13	3)		Surf Drai	ace Soil Cracks (B6) nage Patterns (B10)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturati	ordrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3)		Water-S Aquatic True Aq	tained Leav Fauna (B13 uatic Plants	B) (B14)		Surf Drai Dry-	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturati Water M	ordrology Indicators icators (minimum of of water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-S Aquatic True Aq Hydroge	tained Leav Fauna (B13 uatic Plants n Sulfide O	B) (B14) dor (C1)	ing Roots	Surf Drai Dry- Cray	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water M Sedime	order (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Water-S Aquatic True Aq Hydroge Oxidized	tained Leav Fauna (B13 uatic Plants n Sulfide O d Rhizosphe	B) (B14) dor (C1) eres on Liv	-	Surf Drai Cray Cray (C3) Satu	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water M Sedime Drift De	order (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-S Aquatic True Aq Hydroge Oxidized	tained Leav Fauna (B13 uatic Plants in Sulfide O d Rhizosphe e of Reduce	B) (B14) dor (C1) eres on Livied Iron (C4	·)	Surf Drai Dry Cray (C3) Satu Stur	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water M Sedime Drift De	order variable (A2) ion (A3) Marks (B1) ent Deposits (B2) ion or Crust (B4)		Water-S Aquatic True Aq Hydroge Oxidized Presenc	tained Leav Fauna (B13 uatic Plants n Sulfide O d Rhizosphe	B) (B14) dor (C1) eres on Livited Iron (C4) ion in Tilled	·)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water N Sedime Drift De Algal M Iron De	order variable (A2) ion (A3) Marks (B1) ent Deposits (B2) ion or Crust (B4)	one is requir	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7)	·)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/ish Burrows (C8) uration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat	order variable (A2) ion (A3) Marks (B1) ent Deposits (B3) eat or Crust (B4) posits (B5)	one is requir	Water-S Aquatic Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge C	tained Leav Fauna (B13 uatic Plants In Sulfide O If Rhizosphe e of Reduct ron Reduct ck Surface or Well Data	(B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) I (D9)	·)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/ish Burrows (C8) uration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat	order variable (A2) ion (A3) Marks (B1) ion Deposits (B2) ion order (B4) posits (B5) ion Visible on Aerial by Vegetated Concavervations:	one is requir Imagery (B7 ve Surface (B	Water-S Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu Gauge C 38) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data	(B14) dor (C1) eres on Living der Iron (C4) ion in Tilled (C7) (D9) emarks)	·)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/ish Burrows (C8) uration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	order violation (A2) ion (A3) Marks (B1) ion (Deposits (B2) ion (B3) ion order (B4) posits (B4) posits (B5) ion Visible on Aerial by Vegetated Concav rvations: ter Present?	one is requir Imagery (B7 ve Surface (B	Water-S Aquatic Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu T) Gauge of B8) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) I (D9) emarks) < 0.5	·)	Surf Drai Dry Cray Cray (C3) Satu Stur 6) Geo	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/ish Burrows (C8) uration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	or vertices (Present?)	Imagery (B7 ve Surface (B YesI	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent I Thin Mu 7) Gauge 0 38) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches):	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (O5) (N5)	d Soils (C	Surf Drai Cray Cray (C3) Satu Stur 6) Geo X FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) :-Neutral Test (D5)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F	or vertices the Present?	Imagery (B7 ve Surface (B YesI	Water-S Aquatic Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu T) Gauge of B8) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches):	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (O5) (N5)	d Soils (C	Surf Drai Cray Cray (C3) Satu Stur 6) Geo X FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/ish Burrows (C8) uration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca	or vertical services of the Present?	Imagery (B7 ve Surface (B Yes I Yes I	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent I Thin Mu 7) Gauge 0 38) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches):	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (O5) (N5) (N5) (N5) (N5) (N5) (N5) (N5) (N	d Soils (C	Surf Drai Dry Cray (C3) Satu Stur 6) GeoX FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) :-Neutral Test (D5)	
HYDROLO Wetland Hy Primary Indi X Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca	order variable (A2) icators (minimum of a water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) ion Visible on Aerial by Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (B Yes I Yes I	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent I Thin Mu 7) Gauge 0 38) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches):	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (O5) (N5) (N5) (N5) (N5) (N5) (N5) (N5) (N	d Soils (C	Surf Drai Dry Cray (C3) Satu Stur 6) GeoX FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) :-Neutral Test (D5)	
Wetland Hy Primary Indi X Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa Water Table Saturation F (includes ca	order variable (A2) icators (minimum of a water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) ion Visible on Aerial by Vegetated Concavervations: ter Present? Present?	Imagery (B7 ve Surface (B Yes I Yes I	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent I Thin Mu 7) Gauge 0 38) Other (E	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches):	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (O5) (N5) (N5) (N5) (N5) (N5) (N5) (N5) (N	d Soils (C	Surf Drai Dry Cray (C3) Satu Stur 6) GeoX FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) :-Neutral Test (D5)	
Wetland Hy Primary Indi X Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca Describe Re	order vertical description of the control of the co	Imagery (B7 ve Surface (B7 Yes I Yes I Yes I n gauge, mo	Water-S Aquatic Aquatic True Aq Hydroge Oxidized Presence Recent I Thin Mu T) Gauge C 38) Other (E No Depth (No Depth (onitoring well, aerial	tained Leav Fauna (B13 uatic Plants en Sulfide O d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in Re inches): inches): inches): al photos, pu	(B14) (B14) (dor (C1) (eres on Livied Iron (C4) (ion in Tilled (C7) (D9) (D9) (D9) (N5) (N5) (N5) (N5) (N5) (N5) (N5) (N5	d Soils (C	Surf Drai Dry Cray Satu Stur 6) GeoX FAC	ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) :-Neutral Test (D5)	

US Army Corps of Engineers
Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/Cou	ınty: <u> </u>	ndianapo	lis, Marion County	_ Sampling Date: 4/26/2016
Applicant/Owner: Indiana Department of Transportation (IN	NDOT)				State: N	_ Sampling Point: DP-D-OUT
Investigator(s): Brock Ervin and Stephany Stamatis (Parso	ons)	Section	, Towr	nship, Ra	nge: Section 36, T16N,	R3E
Landform (hillslope, terrace, etc.): Roadside Embankment			Lo	cal relief	(concave, convex, none)): Slope
Slope (%): 50 Lat: 39.783324		Long:	86.14	1014		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		_				
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes	; ×	No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology						present? Yes X No
Are Vegetation, Soil, or Hydrology	-				eded, explain any answ	
SUMMARY OF FINDINGS – Attach site map						
Hydrophytic Vegetation Present? Yes X	Nn.					
Hydric Soil Present? Yes N				Sampled		N. V
Wetland Hydrology Present? Yes N	No X	'	vitnin	a Wetlar	id? Yes	No <u>X</u>
Remarks:						
VEGETATION – Use scientific names of plants),					
	Absolute	Domina			Dominance Test wor	ksheet:
Tree Stratum (Plot size: 30 ft. radius) 1	% Cover			_	Number of Dominant S That Are OBL, FACW	Species , or FAC:1 (A)
2					Total Number of Domi Species Across All Str	_
4.						
5.					Percent of Dominant S That Are OBL, FACW	Species , or FAC: <u>100.00</u> (A/B)
		= Total (Cover			
Sapling/Shrub Stratum (Plot size: 15 ft. radius)					Prevalence Index wo Total % Cover of:	
1.						$ \begin{array}{ccc} & & & & \\ \hline 0 & & & x & 1 = & & 0 \end{array} $
2. 3.						0 x 2 = 0
4.						5 x 3 = 15
5.						0 x 4 = 0
					· ·	0 x 5 =0
Herb Stratum (Plot size: 5 ft. radius)					Column Totals:	5 (A) <u>15</u> (B)
Setaria pumila (Yellow Bristle Grass)		Y		FAC	Drovolonee Inde	x = B/A = 3.00
2					Prevalence Inde Hydrophytic Vegetat	· · · · · · · · · · · · · · · · · · ·
3						Hydrophytic Vegetation
4					× 2 - Dominance Te	
5.					3 - Prevalence Inc	
6						Adaptations (Provide supporting
8.						ks or on a separate sheet)
9.					_	rophytic Vegetation (Explain)
10.					¹ Indicators of hydric so be present, unless dist	il and wetland hydrology must urbed or problematic.
West May Obstant (Division 2006)	5	= Total (Cover		, and a dist	
Woody Vine Stratum (Plot size: 30 ft. radius)					Hydrophytic	
1					Hydrophytic Vegetation	
2			201/07		_	es <u>X</u> No
	;	= rotart	Jover			
Remarks: (Include photo numbers here or on a separate s	,			,		
Last year's dead growth covers much of the ground (likely Dipsacus fullonum (Fuller's teasel, FACU).	r Panicum Vi	rgatum	switch	igrass/wa	and panic grass, FAC].	Also present is last year's

SOIL Sampling Point: DP-D-OUT

Profile Desc	ription: (Describe t	o the dept	h needed to docum	nent the i	ndicator o	or confirm	n the absence	of indicators.)
Depth	Matrix			k Feature:				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0-5	10YR 3/1	90					Loam	
	10YR 3/2	10						
5-15	10YR 4/4	50	7.5YR 4/6	2	С	М	Silty Loam	Sandy
	10YR 4/2	48						
15-20	10YR 3/3	70	7.5YR 4/6	4		М	Sandy Loam	Rocky
	10YR 4/3	26						
	1011(4/0							
1- 0.0							2.	
Hydric Soil	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	s=Masked	Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol			Sandy G	Sleyed Ma	triv (SA)			Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
Black Hi				Matrix (S				anganese Masses (F12)
	n Sulfide (A4)			/lucky Mir	, ,		Very S	Shallow Dark Surface (TF12)
	d Layers (A5)			Sleyed Ma			Other	(Explain in Remarks)
	ick (A10) d Below Dark Surface	(//11)		d Matrix (I Oark Surfa				
-	ark Surface (A12)	(A11)			rface (F7)		³ Indicators	of hydrophytic vegetation and
_	lucky Mineral (S1))epressio	, ,			d hydrology must be present,
	icky Peat or Peat (S3)					unless	disturbed or problematic.
Restrictive I	_ayer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No X
Remarks:								
Rocky Throu	ghout.							
LIVERGLO	OV							
HYDROLO								
_	drology Indicators:							
	cators (minimum of or	ne is requir			(5.0)			ary Indicators (minimum of two required)
l —	Water (A1)		Water-Stai				· 	face Soil Cracks (B6)
Saturation	iter Table (A2)		Aquatic Fa					nage Patterns (B10)
l —	arks (B1)		True Aquat		. ,			Season Water Table (C2) yfish Burrows (C8)
	nt Deposits (B2)		Oxidized R		. ,	na Roots		uration Visible on Aerial Imagery (C9)
	posits (B3)		Presence of			-		nted or Stressed Plants (D1)
-	at or Crust (B4)		Recent Iron					omorphic Position (D2)
Iron Dep	oosits (B5)		Thin Muck	Surface (C7)		FAC	C-Neutral Test (D5)
Inundati	on Visible on Aerial Ir	magery (B7	') Gauge or V	Vell Data	(D9)			
	Vegetated Concave	Surface (E	38) Other (Exp	lain in Re	marks)			
Field Obser								
Surface Wat			No X Depth (inc			_		
Water Table			No X Depth (inc			_		
Saturation P		es 1	No X Depth (inc	ches):	>20	Wet	land Hydrolog	y Present? Yes No _X_
(includes cap Describe Re	corded Data (stream	gauge, mo	nitoring well, aerial p	hotos, pr	evious ins	pections),	, if available:	
Remarks:								

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	92385(L)	City/County: Ind	dianapoli	is, Marion County	Sampling Date: 4/25/2016	
Applicant/Owner: Indiana Department of Transportation (IND	OT)			State: IN	Sampling Point: DP-E-IN	
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons	s)	Section, Townsh	hip, Ran	ge: Section 36, T16	SN, R3E	
Landform (hillslope, terrace, etc.): Drainage Outfall		Local	al relief (d	concave, convex, no	one): None	
Slope (%): 0 Lat: 39.784379		Long: <u>-86.14039</u>	395		Datum: <u>NAD 1983</u>	
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				N\	WI classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes X	_ No	(If no, explain	in Remarks.)	
Are Vegetation, Soil, or Hydrology sig	gnificantly	disturbed?	Are "N	Normal Circumstance	es" present? Yes X No	
Are Vegetation, Soil, or Hydrology na	iturally pro	blematic?	(If nee	eded, explain any an	swers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	sampling po	oint lo	cations, transe	ects, important features, etc	٥.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:		Is the Sa within a	-			
See DP-EF-OUT for out point.						
VEGETATION – Use scientific names of plants.						
		Species? Sta		Number of Domina That Are OBL, FAC	nt Species	
2 3				Total Number of Do Species Across All		
4				Percent of Dominar That Are OBL, FAC)
Sapling/Shrub Stratum (Plot size:				OBL species FACW species FAC species FACU species	of: Multiply by: 35	
Eleocharis obtusa (Blunt Spike-Rush)	30	YC	OBL	Column Totals.	(A) (B)	
2. Schoenoplectus tabernaemontani (Soft-StemClub-Rus 3.				Hydrophytic Vege X 1 - Rapid Test X 2 - Dominance X 3 - Prevalence 4 - Morphologic data in Rem Problematic H Indicators of hydric	for Hydrophytic Vegetation Test is >50%	
1				Hydrophytic Vegetation Present?	Yes <u>X</u> No	
Remarks: (Include photo numbers here or on a separate sh	eet.)					

SOIL Sampling Point: DP-E-IN

Profile Des								
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	S Type ¹	Loc ²	Texture	Remarks
0-3	10YR 3/1		Color (Illoist)	/0	Type	LUC	Loam	Remains
					· ——		· 	Parks
3-8	10YR 5/3			-	· ——		Sandy Loam	Коску
	10YR 3/2	30						
8-18	10YR 4/1	95	10YR 3/4	5	C	M	Clay Loam	
Hydric Soil Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I 5 cm M Restrictive	Concentration, D=De Indicators: I (A1) Epipedon (A2) Ilistic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) ed Below Dark Surfa eark Surface (A12) Mucky Mineral (S1) ucky Peat or Peat (S1)	ce (A11) S3)	Sandy (Sandy F Sandy F Loamy Loamy X Deplete Redox F	Gleyed Ma Redox (S5 d Matrix (S Mucky Mir Gleyed Ma d Matrix (Dark Surfa	atrix (S4) 5) 66) neral (F1) atrix (F2) F3) ace (F6) urface (F7)	ains.	Indicators Coast Dark S Iron-M Very S Other	cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils³: Prairie Redox (A16) urface (S7) anganese Masses (F12) challow Dark Surface (TF12) (Explain in Remarks) of hydrophytic vegetation and daydrology must be present, disturbed or problematic.
Depth (ir	nches):						Hydric Soil	Present? Yes X No
	nches):						Hydric Soil	Present? Yes X No
Depth (irreport of the content of th	nches):	s:					Hydric Soil	Present? Yes X No
Depth (in Remarks: YDROLC Vetland Hy	OGY		ed; check all that ap	pply)				Present? Yes X No
Depth (ir Remarks: YDROLO Vetland Hy Primary Indi X Surface	OGY vdrology Indicators icators (minimum of		Water-Sta	ined Leav	` '		Seconda	
Depth (in Depth	OGY /drology Indicators icators (minimum of a Water (A1) ater Table (A2)		Water-Sta	ined Leav auna (B13)		Seconda Surf Drai	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10)
Depth (in Depth	OGY vdrology Indicators icators (minimum of wWater (A1) ater Table (A2) ion (A3)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants	(B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Depth (in Depth	OGY Adrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Afish Burrows (C8)
Depth (in Depth	OGY Idrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Livi	-	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Depth (in Depth	OGY vdrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) eres on Livi	!)	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1)
Depth (in Depth	OGY /drology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (in Depth	OGY Adrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5)	one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livi ed Iron (C4 fon in Tilled (C7)	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1)
Depth (in Depth	orches):	one is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leavauna (B13 atic Plants Sulfide ORhizosphe of Reduce on Reducti Surface (Well Data	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9)	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (in Depth	OGY Idrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial by Vegetated Concar	one is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leavauna (B13 atic Plants Sulfide ORhizosphe of Reduce on Reducti Surface (Well Data	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9)	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2)
Depth (in lemanks: Primary Indi Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel	orches): OGY Indrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ion Deposits (B2) ionsits (B3) iat or Crust (B4) posits (B5) ion Visible on Aeria ly Vegetated Concar irvations:	one is require I Imagery (B7	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or S8) Other (Exp	ined Leavauna (B13 atic Plants Sulfide Or Rhizosphe of Reduce on Reducti s Surface (Well Data blain in Re	(B14) dor (C1) eres on Livi ed Iron (C4 fon in Tilled (C7) (D9) emarks)	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2)
Depth (in Depth	OGY Idrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concar rvations: ter Present?	one is require I Imagery (B7 ve Surface (E	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Gauge or Other (Exp	ined Leavauna (B13 stic Plants Sulfide Or Rhizosphe of Reduction Reduction Surface (Well Data blain in Reduction Red	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) eren in Tilled (C7) (D9) ermarks)	!)	Seconda Surf Drai Cray Cray (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2)
Depth (in Depth (in Depth (in Remarks: YDROLC YDROLC YURIAND Hy Primary Indi X Surface High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Water Table Saturation F	orches): orches): orches): orches): orches): orches): orches orches): orches orches	I Imagery (B7 ve Surface (E Yes X N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or S8) Other (Exp	ined Leave auna (B13 attic Plants Sulfide Or Reduce on Reducti a Surface (Well Data blain in Reduction Red	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) 6 16	d Soils (C	Seconda Surf Drai Dry- Cray (C3)	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Primary Indi X Surface High W X Saturat Water M Sedime Drift De Inundat Sparsel Field Obset Surface Water Table Saturation Fincludes ca	orches): OGY Indrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) Int Deposits (B2) Int Deposits (B3) Int or Crust (B4) Int Office (B5) Into Visible on Aeria Ity Vegetated Concar Invations: Iter Present?	I Imagery (B7 ve Surface (E Yes X N Yes X N	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Ball Other (Exp No Depth (in No Depth (in	ined Leave auna (B13 attic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reduction Redu	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 elon in Tilled (C7) (D9) emarks) 6 16 9	d Soils (C	Seconda	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Depth (in Remarks: YDROLC Wetland Hy Primary Indi X Surface High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa Vater Table Saturation Factorials Calcons	OGY Indrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	I Imagery (B7 ve Surface (E Yes X N Yes X N	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Ball Other (Exp No Depth (in No Depth (in	ined Leave auna (B13 attic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reduction Redu	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 elon in Tilled (C7) (D9) emarks) 6 16 9	d Soils (C	Seconda	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Primary Indi X Surface High W X Saturat Water M Sedime Drift De Inundat Sparsel Field Obset Surface Water Table Saturation Fincludes ca	OGY Indrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	I Imagery (B7 ve Surface (E Yes X N Yes X N	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Ball Other (Exp No Depth (in No Depth (in	ined Leave auna (B13 attic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reduction Redu	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 elon in Tilled (C7) (D9) emarks) 6 16 9	d Soils (C	Seconda	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) aration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)
Depth (in Remarks: YDROLC Vetland Hy Primary Indi X Surface High W X Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa Vater Table Saturation Fincludes ca Describe Re	OGY Indrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concarvations: ter Present? Present? Present? pillary fringe)	I Imagery (B7 ve Surface (E Yes X N Yes X N m gauge, mo	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Ball Other (Exp No Depth (in No Depth (in	ined Leave auna (B13 attic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reduction Redu	(B14) (B14) dor (C1) eres on Livi ed Iron (C4 elon in Tilled (C7) (D9) emarks) 6 16 9	d Soils (C	Seconda	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1) morphic Position (D2) -Neutral Test (D5)

US Army Corps of Engineers

Applicant/Owner: Indiana Department of Transportation (INDOT)	Project/Site: 165/170 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, Marion County	Sampling Date: <u>4/25/2016</u>
Landform (hillslope, terrace, etc.): Interchange Infield	Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-EF-OUT
Solid Name United Land - Fox Complex (UfA)	Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	Section, Township, Rar	nge: Section 36, T16N, I	R3E
Are climatic / hydrologic conditions on the site typical for this time of year? Yes_X No(If no, explair in Remarks.) Are vegetation Soil or Hydrology significantly disturbed?	Landform (hillslope, terrace, etc.): Interchange Infield	Local relief	(concave, convex, none)	: Flat
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 anaturally 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 No X Is the Sampled Area within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Wetland Pyresent? Yes No X Is the Sampled Area within a Wetland? Yes No X Wetland Pyresent? Yes No X No X Is the Sampled Area within a Wetland? Yes No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Sampled Area within a Wetland? Yes No X No X Is the Samp	Slope (%): 0 Lat: <u>39.784390</u>	Long: <u>-86.140219</u>		Datum: NAD 1983
Are Vegetation	Soil Map Unit Name: Urban Land - Fox Complex (UfA)		NWI c	classification: Not Wetland
Are Vegetation	Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in F	Remarks.)
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?				
Hydrophytic Vegetation Present? Yes No X within a Wetland? Yes No X No X No X No X within a Wetland? Yes No X No			eded, explain any answe	ers in Remarks.)
Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Within a Wetland? Yes No X Wetland Hydrology Present? Yes No X Wetland Hydrology must be present, unless disturbed or problematic. Yes No X Wetland Hydrology must be present, unless disturbed or problematic. Yes No X Wetland Hydrology must be present? Yes No X Wetland Hydrology must be present, unless disturbed or problematic. Yes No X Wetland Hydrology must be present? Yes No X Wetland Hydrology must be present? Yes No X Wydrophytic Vegetation Yes No X Yes No X Wydrophytic Vegetation Yes No X Wydrophytic Vegetation Yes No X Wydrophytic Vegetation Yes No X Wydrophytic Vegetation Yes No X Yes No X Wydrophytic Vegetation Yes No X Yes No X Wydrophytic Vegetation Yes No X Wydrophytic Vegetation Yes No X Yes No X Y	SUMMARY OF FINDINGS - Attach site map showing	յ sampling point lo	ocations, transects	s, important features, etc.
Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X Within a Wetland? Yes No X	Hydrophytic Vegetation Present? Yes No X			
Wetland Hydrology Present? Yes		-		No. Y
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.		within a wetian	id? fes	NO
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size:30 ft. radius) Absolute	Remarks:			
Dominant Indicator Species Status Stratum (Plot size: 30 ft. radius Scover Species Status Sta	Due to locations of wetlands and configuration of infrastructure, this p	oint was used as the ou	t point for points DP-E-IN	l and DP-F-IN.
Number of Dominant Species Status Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)	VEGETATION – Use scientific names of plants.			
1.			Dominance Test work	(sheet:
3.				
4		·	Total Number of Domir	
Percent of Dominant Species That Are OBL, FACW, or FAC:			Species Across All Stra	ata: <u>1</u> (B)
Prevalence Index worksheet: Total % Cover of:				
Total % Cover of:		= Total Cover	Prevalence Index wor	rkshoot:
2.	,			
3.				
5				
Herb Stratum (Plot size:5 ft. radius)	4	<u> </u>	FAC species) x 3 = 0
Herb Stratum (Plot size:5 ft. radius) 70 Y FACU Column Totals:70 (A)280 (B) 1. Schedonorus arundinaceus (Tall False Rye Grass) 70 Y FACU Prevalence Index = B/A =4.00	5		FACU species7	0 x 4 = <u>280</u>
1. Schedonorus arundinaceus (Tall False Rye Grass) 70 Y FACU 2.		= Total Cover	*	
2. Prevalence Index = B/A =4.00 3. Hydrophytic Vegetation Indicators:		Y FACII	Column Totals:7	<u>0</u> (A) <u>280</u> (B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations of (Provide supporting data in Remarks or on a separate sheet) 9 -		·	Prevalence Index	c = B/A = 4.00
4				
5			1 - Rapid Test for I	Hydrophytic Vegetation
6			2 - Dominance Tes	st is >50%
7			3 - Prevalence Ind	ex is ≤3.0 ¹
8			4 - Morphological	Adaptations (Provide supporting
9 Problematic Hydrophytic Vegetation (Explain) 10 Total Cover Woody Vine Stratum (Plot size: 30 ft. radius) 1 Total Cover Hydrophytic Vegetation (Explain) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation (Explain) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation (Explain) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation (Explain) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation (Explain) 1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
10				. , , ,
Woody Vine Stratum (Plot size:				
1		= Total Cover		
2	, , , , , , , , , , , , , , , , , , , ,		Hydrophytic	
= Total Cover			Vegetation	- N V
			Present? Yes	5 NO _X
Remarks. (moduce prioto numbers nere or on a separate sneet.)		·		
	Tremains. (include prioto numbers here of on a separate sneet.)			

SOIL Sampling Point: DP-EF-OUT

Color (moist)	Profile Des Depth	Matrix		Redox	c Feature	S			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Histos Soil Indicators: Histos Soil Indicators for Problematic Hydric Soils*: Histos Soil Indicators (A1) Sandy Redox (S5) Dark Surface (A16) Hydrogen Sulface (A2) Sandy Redox (S5) Dark Surface (A17) Inon-Maraginase Masses (F12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (F17) Sandy Mucky Mineral (S1) Send Mucky Peat or Peat (S3) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Restrictive Layer (if observed): Type: Rock Depth (inches): 3 Hydric Soil Present? Yes NoX Remarks: Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed it is assumed that soils are not hydric. Hydric Soil Present? Yes NoX Primary Indicators (iminimum of one is required; check all that appty) Surface Water (A1) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) True Aquatic Fauna (B13) Dariage Patterns (B10) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation (A3) True Aquatic Fauna (B13) Presence of Reduced Iron (C4) Subtration (Sites on Arrial Imagery (C9) Dirth Deposits (B3) Presence of Redox Der Well Data (D8) Sparsely Vegetated Concave Surface (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation (Sites on Arrial Imagery (B7) Gauge or Well Data (D8) Sparsely Vegetated Concave Surface (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation (Sites on Arrial Ima			%			Type ¹	Loc ²	Texture	Remarks
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. "Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Histosol (A1)	0-1	10YR 3/2	100					Sandy Loam	
Histosol (A1)	1-3	10YR 5/2	100					Sandy Loam	
Histosol (A1)									
Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Histosci (A1)									
Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Histoscol (A1)									
Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Histosci (A1)									
Histosol (A1)									
Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Histosci (A1)									
Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox (A16) Histo Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Histosol (A10) Dark Surface (S7) Histosol (A2) Sandy Redox (S5) Dark Surface (S7) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Depleted Delow Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology must be present, unless disturbed or problematic. Pepth (inches): 3 Hydric Soil Present? Yes No Xemarks: Semanush Very Pepth (Inches): 4 Hydric Soil Present? No Aquatic Fanna (B13) Saturation (A3) True Aquatic Fanna (B14) Sediment Deposits (B3) Dry-Season Water Table (C2) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Research			pletion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.		
Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Iterative Layer (Foberved): Type: Rock Depth (inches): 3 Hydric Soil Present? Yes No Xemarks: No A	•			0 1 0		(0.4)			•
Black Histic (A3)		` '							
Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Depressions (F8) Thype: Rock Depth (inches): 3 Bell Hydric Soil Present? Yes No X Depth (inches): Surface Water (A3) Secondary Indicators (minimum of two required: C2) Surface Water (A3) Sediment Deposits (B3) True Aquatic Fauna (B13) Sediment Deposits (B3) Presence of Reduced Iron (C4) Sediment Crust (B4) Redox Depressions (F8) Hydric Soil Present? Yes No X Depth (inches): Surface Water Afaks (B1) Sediment Crust (B4) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Popth (inches): 3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Water Soil Present? Yes No X Very Simple (R5) Hydric Soil Present? Yes No X Presence (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) Sediment Deposits (B3) Presence of Reduced Iron (C4) Sutured or Stressed Plants (D1) Algal Mator Crust (B4) Recent Iron Reduction in Titled Soils (C6) Geomphic Position (D2) Iron Deposits (B5) Thin Muck Surface (B7) Sparsely Vegatated Concave Surface (B8) Other (Explain in Remarks) Very Suter Table Present? Yes No X Depth (inches): Surface Water Present? Yes No X Depth (inches): Subscribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
Stratified Layers (A5)		, ,							
2 cm Muck (A10) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) unless disturbed or problematic. Sandy Mucky Peat or Peat (S3) Redox Depressions (F8) unless disturbed or problematic. Semarks				Loamy (Sleyed Ma	atrix (F2)		-	
Thick Dark Surface (A12) Depleted Dark Surface (F7)			4.0						
Sandy Mucky Mineral (S1)Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. **Extrictive Layer (if observed):			ice (A11)			. ,		31 12 1	of books and offered and of the
Type: Rock Depth (inches): 3	_		S3)	110000 E	opi coolo	113 (1 0)			
Depth (inches): 3									'
Remarks: Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydric. Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydric. Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydroc. Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydrocans. Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydrocans. Could not get past rock layer and not hydrocans.	Type: R	ock							
Remarks: Could not get past rock layer after 3 attempts. No above ground indications of hydrology were observed, and no hydrophytic plants were observed is assumed that soils are not hydric. Voteland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Primary Indicators (minimum of two required) Primary Indicators (minimum of two required (Primary Indicators (Minimum of two required) Primary Indicators (Minimum of two required (Minimum of two	Depth (ir	nches): 3						Usalvia Cail F	Present? Yes No X
Secondary Indicators (minimum of one is required; check all that apply)	ould not g			s. No above ground	indicatior	ns of hydro	ology were	1 -	
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) Other (Explain in Remarks) Sediment Present? Yes No X Depth (inches): Sediment Deposits (Pack (B1) Drainage Patterns (B10) Drainage Patterns	Could not g			s. No above ground	indication	ns of hydro	ology were	1 -	
Surface Water (A1)	Could not go is assume	d that soils are not	nydric.	s. No above ground	indication	ns of hydro	ology were	1 -	
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9 Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Surface Water Present?	Could not go is assume YDROLO Vetland Hy	OGY vdrology Indicators	nydric.			ns of hydro	ology were	e observed, and r	no hydrophytic plants were observed,
Saturation (A3)	could not go is assume YDROLO Vetland Hy Primary Indi	OGY rdrology Indicators icators (minimum of	nydric.	red; check all that ap	ply)		ology were	e observed, and r	no hydrophytic plants were observed,
Water Marks (B1)	could not go is assume YDROLO Vetland Hy Primary Indi Surface	OGY vdrology Indicators cators (minimum of	nydric.	red; check all that ap Water-Stai	ply) ned Leav	es (B9)	ology were	e observed, and r	no hydrophytic plants were observed, y Indicators (minimum of two required to the control of the control of two required to
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9	YDROLO Vetland Hy Surface High W	OGY vdrology Indicators cators (minimum of Water (A1) ater Table (A2)	nydric.	red; check all that ap Water-Stai Aquatic Fa	ply) ned Leav una (B13	es (B9)	ology were	e observed, and r Secondar Surfa Drain	no hydrophytic plants were observed, y Indicators (minimum of two required the Soil Cracks (B6) age Patterns (B10)
	Could not go is assume YDROLO Vetland Hy Primary Ind Surface High W Saturat	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3)	nydric.	red; check all that ap Water-Stai Aquatic Fa True Aqua	ply) ned Leav una (B13 tic Plants	es (B9)) (B14)	ology were	Secondar Surfa Drain Dry-S	no hydrophytic plants were observed, y Indicators (minimum of two required age Patterns (B10) Season Water Table (C2)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No No Saturation Present? Yes No No Saturation Present? Yes No No	Could not go is assume YDROLO Vetland Hy Primary Ind Surface High W Saturat Water M	OGY Identify and that soils are not of that soils are not of the control of the	nydric.	red; check all that ap — Water-Stai — Aquatic Fa — True Aquar — Hydrogen S	ply) ned Leav una (B13 tic Plants Sulfide Oo	es (B9)) (B14) dor (C1)		Secondar Surfa Drain Crayf	no hydrophytic plants were observed, y Indicators (minimum of two required ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) iish Burrows (C8)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Concave Surface (B8) Other (Explain in Remarks)	YDROLO Vetland Hy Surface High W Saturat Water M Sedime	OGY vidrology Indicators cators (minimum of water (A1) ater Table (A2) cion (A3) Marks (B1) ent Deposits (B2)	nydric.	red; check all that ap Water-Stai Aquatic Fa True Aquai Hydrogen S	ply) ned Leav una (B13 tic Plants Sulfide Od hizosphe	es (B9)) (B14) dor (C1) res on Liv	ing Roots	Secondar Surfa Drain Dry-S Crayf (C3) Satur	y Indicators (minimum of two required see Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) ish Burrows (C8) ration Visible on Aerial Imagery (C9)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sield Observations: Surface Water Present? Yes No _X Depth (inches): Vater Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): Setturation Present? Yes No _X Depth (inches):	YDROLO Vetland Hy Crimary Indi Surface High W Saturat Water M Sedime Drift De	OGY vorology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)	nydric.	red; check all that ap Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R	ply) ned Leav una (B13 tic Plants Sulfide Oo hizosphe of Reduce	es (B9)) (B14) dor (C1) res on Liv ed Iron (C4)	ing Roots	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt	y Indicators (minimum of two required code Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) rish Burrows (C8) ration Visible on Aerial Imagery (C9) and or Stressed Plants (D1)
Gurface Water Present? Yes No X Depth (inches): Surface Water Present? Yes No X Depth (inches): 3 Saturation Present? Yes No X Depth (inches): 3 Saturation Present? Yes No X Depth (inches): 3 Saturation Present? Yes No X Depth (inches): 3 Security of the present of the pr	YDROLO Vetland Hy Primary Indi Surface High W Saturat Water N Sedime Drift De Algal M	d that soils are not OGY Identifications (minimum of the Water (A1) ater Table (A2) ater (A3) Marks (B1) and Deposits (B2) are or Crust (B4)	nydric.	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence of Recent Iron	ply) ned Leav una (B13 tic Plants Sulfide Od hizosphe of Reduce	es (B9)) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille	ing Roots	Secondar Surfa Drain Crayf (C3) Satur Stunt G) Geon	y Indicators (minimum of two required company terms (B10) Season Water Table (C2) Sish Burrows (C8) Seation Visible on Aerial Imagery (C9) Sed or Stressed Plants (D1) Strong terms (D2)
Surface Water Present? Yes No _X _ Depth (inches): Vater Table Present? Yes No _X _ Depth (inches): Saturation Present? Yes No _X _ Depth (inches): >3 Saturation Present? Yes No _X _ Depth (inches): >3 Security of the present includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	YDROLO Vetland Hy Surface High W Saturat Water N Sedime Drift De Algal M Iron De	d that soils are not OGY Identifications (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) at or Crust (B4) posits (B5)	s: one is requir	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N	ply) ned Leav una (B13 tic Plants Sulfide Od hizosphe of Reduce n Reducti Surface (es (B9)) (B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	ing Roots	Secondar Surfa Drain Crayf (C3) Satur Stunt G) Geon	y Indicators (minimum of two required company terms (B10) Season Water Table (C2) Sish Burrows (C8) Seation Visible on Aerial Imagery (C9) Sed or Stressed Plants (D1) Strong terms (D2)
Vater Table Present? Yes No X Depth (inches): >3 Saturation Present? Yes No X Depth (inches): >3 Security of the present of th	YDROLO Vetland Hy Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparse	OGY Identify and that soils are not of that soils are not of the work of the	s: one is requir	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N	ply) ned Leav una (B13 tic Plants Sulfide Od hizosphe of Reduce n Reducti Surface (es (B9)) (B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	ing Roots	Secondar Surfa Drain Crayf (C3) Satur Stunt G) Geon	y Indicators (minimum of two required code Soil Cracks (B6) (B6) (B6) (B6) (B7) (B7) (B8) (B8) (B8) (B8) (B8) (B8) (B8) (B8
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includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparse Gurface Wa	d that soils are not OGY Identify Indicators icators (minimum of the Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concaurvations: ter Present?	I Imagery (B7 ve Surface (B	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V 38) Other (Exp	ply) ned Leav una (B13 tic Plants Sulfide Od hizosphe of Reduce n Reducti Surface (Vell Data lain in Re	es (B9)) (B14) dor (C1) res on Liv ed Iron (C2 on in Tiller (C7) (D9) emarks)	ing Roots	Secondar Surfa Drain Crayf (C3) Satur Stunt G) Geon	y Indicators (minimum of two required company terms (B10) Season Water Table (C2) Sish Burrows (C8) Seation Visible on Aerial Imagery (C9) Sed or Stressed Plants (D1) Strong terms (D2)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	YDROLO Vetland Hy Primary Indi Surface High W Saturat Water M Sedime Drift De Algal M Iron De Inundat Sparse Field Obse Surface Wa	d that soils are not OGY Idrology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) ator Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concarvations: ter Present?	I Imagery (B7 ve Surface (E	red; check all that ap Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R Presence C Recent Iron Thin Muck T) Gauge or V B8) Other (Exp	ply) ned Leav una (B13 tic Plants Sulfide Or hizosphe of Reducti Surface (Vell Data lain in Re	es (B9)) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	ing Roots I) d Soils (Co	Secondar Surfa Dry-S Crayf (C3) Satur Stunt G) Geon	y Indicators (minimum of two required to Soil Cracks (B6) to Season Water Table (C2) to Sish Burrows (C8) to Stressed Plants (D1) to Organized or Stressed Plants (D1) to Organized Position (D2) Neutral Test (D5)
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	YDROLC Vetland Hy Primary Indi Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsee Field Obse Surface Wa Vater Table Saturation F includes ca	d that soils are not OGY Identify Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria ly Vegetated Conca rvations: ter Present? Present? pillary fringe)	I Imagery (Bive Surface (Bives I	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V 38) Other (Exp	ply) ned Leavuna (B13 tic Plants Sulfide Odhizosphe of Reduction R	es (B9)) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks) >3 >3	ing Roots i) d Soils (Co	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go FAC-	y Indicators (minimum of two required to Soil Cracks (B6) to Season Water Table (C2) to Sish Burrows (C8) to Stressed Plants (D1) to Organized or Stressed Plants (D1) to Organized Position (D2) Neutral Test (D5)
	YDROLC Vetland Hy Primary Indi Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Sparsee Field Obse Surface Wa Vater Table Saturation F includes ca	d that soils are not OGY Identify Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ant Deposits (B2) aposits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria ly Vegetated Conca rvations: ter Present? Present? pillary fringe)	I Imagery (Bive Surface (Bives I	red; check all that ap Water-Stai Aquatic Fa True Aquar Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V 38) Other (Exp	ply) ned Leavuna (B13 tic Plants Sulfide Odhizosphe of Reduction R	es (B9)) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks) >3 >3	ing Roots i) d Soils (Co	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go FAC-	y Indicators (minimum of two required to Soil Cracks (B6) to Season Water Table (C2) to Sish Burrows (C8) to Stressed Plants (D1) to Organized or Stressed Plants (D1) to Organized Position (D2) Neutral Test (D5)

US Army Corps of Engineers

Project/Site: 165/170 Interchange Mod/Bridge Rehab-Des. 1	592385(L)	City/County:	Indianapo	olis, Marion County	_ Sampling Date: 4/25/2016
Applicant/Owner: Indiana Department of Transportation (IN	DOT)			State: IN	Sampling Point: DP-F-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsor	ns)	Section, Tov	vnship, Ra	inge: Section 36, T16N,	R3E
Landform (hillslope, terrace, etc.): Roadside Strip/Toe of Slo	оре	L	ocal relief	(concave, convex, none)	: None
Slope (%): <u>0</u> Lat: <u>39.784035</u>		Long: <u>-86.1</u>	40144		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	s time of ye	ar? Yes	K No _	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly	disturbed?	Are	"Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrologyn	aturally pro	blematic?	(If ne	eeded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling	point l	ocations, transect	s, important features, etc.
				<u> </u>	<u>· · · · · · · · · · · · · · · · · · · </u>
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No X		Is the	Sampled	l Area	
Wetland Hydrology Present? Yes X No		withi	n a Wetla	nd? Yes>	< No
Remarks:					
Due to riprap and concrete, there was no other appropriate OUT for out point.	area for ar	n out point, s	o the same	e out point was used for	Wetlands E and F. See DP-EF-
VEGETATION – Use scientific names of plants.					
·		Dominant I	ndicator	Dominance Test wor	ksheet:
Tree Stratum (Plot size: 30 ft. radius) 1.		Species?		Number of Dominant S That Are OBL, FACW,	
2				Total Number of Domi Species Across All Str	
4				Percent of Dominant S	Species
J		= Total Cove	r	That Are OBL, FACW,	or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				Prevalence Index wo	rksheet:
1					Multiply by:
2.					5 x 1 = 5
3				-	0
4				· ·	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
5		= Total Cove	r		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Herb Stratum (Plot size: 5 ft. radius)		= 10tal 00v0		Column Totals:	
1. Typha sp. (Cattail)	5	Y	OBL		
2. Rumex crispus (Curly Dock)		<u> </u>	FAC		x = B/A =1.57
3			NI	Hydrophytic Vegetat	
4					Hydrophytic Vegetation
5	·			X 2 - Dominance Te	
6				X 3 - Prevalence Inc	Adaptations (Provide supporting
7					ks or on a separate sheet)
8				Problematic Hydr	rophytic Vegetation (Explain)
9 10					il and wetland hydrology must
		= Total Cove		be present, unless distr	urbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)					
1				Hydrophytic Vegetation	
2					es <u>X</u> No
		= Total Cove	r		
Remarks: (Include photo numbers here or on a separate sl	,				
Last year's cattail stand was thick at about 100% coverage observed, but not included in the table above because the					

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Des. 1592385 (L) Contract # 36910

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

epth	Matrix			x Features		. 2		
inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	_Loc ²	<u>Texture</u>	Remarks
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	С	M	Clay Loam	Some sand
			10YR 2/1	1	C	M		
	. <u></u>						. <u> </u>	
Type: C=C	concentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Loc	cation: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso				Bleyed Ma				Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
	listic (A3)			Matrix (S	•		·	anganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mir Gleyed Ma				Shallow Dark Surface (TF12)
	uck (A10)		X Deplete				Other	(Explain in Remarks)
	ed Below Dark Surface	e (A11)		ark Surfa				
	ark Surface (A12)	. ,	Deplete	d Dark Su	rface (F7)		³ Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)		Redox [Depression	ns (F8)			d hydrology must be present,
	ucky Peat or Peat (S3						unless	disturbed or problematic.
	Layer (if observed):							
Type:								
Depth (in	nches):						Hydric Soil	Present? Yes X No
Remarks:							Tiyunic con	110001111 100 <u>77</u> 110 <u>——</u>
	OGV						Tiyunic con	110001111 100 <u>77</u> 110
YDROLC							Tiyunc con	1100 100 <u>77</u> 110
YDROLC	drology Indicators:	ne is requir	ed: check all that an	nlv)				
YDROLC Vetland Hy Primary Indi	drology Indicators: cators (minimum of o	ne is requir	•		as (BQ)		Seconda	ary Indicators (minimum of two require
YDROLC Vetland Hy Primary Indi Surface	rdrology Indicators: cators (minimum of o water (A1)	ne is requir	Water-Stai	ned Leave	` ,		Seconda Surf	ary Indicators (minimum of two require face Soil Cracks (B6)
YDROLC Vetland Hy Primary Indi Surface High W.	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2)	ne is requir	Water-Stai	ned Leave una (B13))		Seconda Surf Drai	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10)
YDROLO Wetland Hy Primary Indi Surface High W Saturati	rdrology Indicators: cators (minimum of o water (A1) ater Table (A2) ion (A3)	ne is requir	Water-Stai Aquatic Fa True Aqua	ned Leave una (B13) tic Plants) (B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
YDROLO Vetland Hy Primary Indi Surface High W Saturati Water N	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leave una (B13) tic Plants Sulfide Oc) (B14) dor (C1)	na Roots	Seconda Surf Drai Dry-	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
YDROLO Vetland Hy Primary Indi Surface High W. Saturati Water M	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants Sulfide Oc) (B14) dor (C1) res on Liv	-	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rish Burrows (C8) uration Visible on Aerial Imagery (C9)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De	rdrology Indicators: locators (minimum of of water (A1) later Table (A2) lion (A3) Marks (B1) lion Deposits (B2) liposits (B3)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants Sulfide Oc thizospher) (B14) dor (C1) res on Liv ed Iron (C4	.)	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) In the first surrows (C8) In the first surrows (C9)
YDROLC Vetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)	ne is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R	ned Leave una (B13) tic Plants Sulfide Oc hizospher of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C ² on in Tille	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLC Vetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M Iron De	rdrology Indicators: cators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence o Recent Iro	ned Leave una (B13) tic Plants Sulfide Oc hizosphe of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C ² on in Tilled	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) In the first surrows (C8) In the first surrows (C9)
YDROLO Vetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M Iron De Inundat	rdrology Indicators: cators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5)	magery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N	ned Leave una (B13) tic Plants Sulfide Oc hizosphe of Reduce n Reductic Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLO Vetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De Algal M. Iron De Inundat Sparsel	rdrology Indicators: cators (minimum of o Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave	magery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or N	ned Leave una (B13) tic Plants Sulfide Oc hizosphe of Reduce n Reductic Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLC Vetland Hy Primary Indi Surface High W. Saturati Water N. Sedime Drift De Algal M. Iron De Inundat Sparsel	rdrology Indicators: cators (minimum of or e Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave rvations: ter Present?	magery (B7 s Surface (B	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck // Gauge or \(\) 38) Other (Exp	ned Leave una (B13) tic Plants Sulfide Oc chizospher of Reduce n Reductic Surface (Well Data clain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) marks)	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLC Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave rvations: ter Present? Ye	magery (B7 s Surface (E es 1 es 1	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of the control	ned Leave una (B13) tic Plants Sulfide Oc chizosphe of Reduce on Reduction Surface (Well Data plain in Re ches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) marks)	.)	Seconda Surf Drai Dry- Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLO Vetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Water Table Saturation F	rdrology Indicators: cators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Inty Vegetated Concavery rvations: ter Present? Present? Yea	magery (B7 s Surface (E es 1 es 1	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck // Gauge or \(\) 38) Other (Exp	ned Leave una (B13) tic Plants Sulfide Oc chizosphe of Reduce on Reduction Surface (Well Data plain in Re ches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9) marks)	d Soils (C	Seconda Surf Drai Dry- Cray (C3)	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLC Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation Fincludes ca	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave rvations: ter Present? Present? Ye Present?	magery (B7 e Surface (E es 1 es 1	Water-Stai	ned Leave una (B13) tic Plants Sulfide Oc thizosphe of Reduce on Reducti Surface (Well Data clain in Re ches): ches):	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >20 >20	d Soils (C	Seconda Surf Drai Dry- Cray Satu Stur 6) X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)
YDROLC Vetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Vater Table Saturation Fincludes ca	rdrology Indicators: cators (minimum of one Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Inty Vegetated Concavery rvations: ter Present? Present? Yea	magery (B7 e Surface (E es 1 es 1	Water-Stai	ned Leave una (B13) tic Plants Sulfide Oc thizosphe of Reduce on Reducti Surface (Well Data clain in Re ches): ches):	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >20 >20	d Soils (C	Seconda Surf Drai Dry- Cray Satu Stur 6) X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)
Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obser Surface Wa Water Table Saturation F includes ca Describe Re	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave rvations: ter Present? Present? Ye Present?	magery (B7 e Surface (E es 1 es 1	Water-Stai	ned Leave una (B13) tic Plants Sulfide Oc thizosphe of Reduce on Reducti Surface (Well Data clain in Re ches): ches):	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >20 >20	d Soils (C	Seconda Surf Drai Dry- Cray Satu Stur 6) X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)
YDROLC Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De Algal M Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation Fincludes ca	rdrology Indicators: cators (minimum of or Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) iposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial In y Vegetated Concave rvations: ter Present? Present? Ye Present?	magery (B7 e Surface (E es 1 es 1	Water-Stai	ned Leave una (B13) tic Plants Sulfide Oc thizosphe of Reduce on Reducti Surface (Well Data clain in Re ches): ches):	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >20 >20	d Soils (C	Seconda Surf Drai Dry- Cray Satu Stur 6) X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)

US Army Corps of Engineers

inches of the soil. This was assumed to be caused by surface run-off and not by the water table.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/Count	y: Indianapo	olis, Marion County	Sampling Date: 4/26/2016
Applicant/Owner: Indiana Department of Transportation (II	NDOT)			State: IN	_ Sampling Point: DP-G-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parso	ons)	Section, T	ownship, Ra	inge: Section 36, T16N,	R3E
Landform (hillslope, terrace, etc.): Embankment, Toe-of-S	lope		Local relief	(concave, convex, none	e): Slope
Slope (%): 65 Lat: 39.783650		Long:86	.140185		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)					-
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes	× No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are	"Normal Circumstances"	resent? Yes X No
Are Vegetation, Soil, or Hydrology				eeded, explain any answ	
SUMMARY OF FINDINGS - Attach site map				ocations, transect	s, important features, etc.
.,					
Hydrophytic Vegetation Present? Yes X I Hydric Soil Present? Yes X I	No		he Sampled		
Wetland Hydrology Present? Yes X		wit	hin a Wetla	nd? Yes	X No
Remarks:					
VECETATION Use establish names of plants					
VEGETATION – Use scientific names of plants	Absolute	Daminant	la dia atau	Daminanaa Taat wa	ulanka ata
Tree Stratum (Plot size: 30 ft. radius)	% Cover		Indicator Status	Number of Dominant	
1		-			/, or FAC:1 (A)
2				Total Number of Dom	inant
3			-	Species Across All St	rata: 1 (B)
4				Percent of Dominant	
5		T		That Are OBL, FACW	/, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Co	ver	Prevalence Index wo	orksheet:
1				Total % Cover of	: Multiply by:
2				OBL species	10 x 1 =10
3				FACW species	0 x 2 =0
4				-	0 x 3 = 0
5		-		•	0 x 4 = 0
Herb Stratum (Plot size: 5 ft. radius)	<u></u>	= Total Co	ver	UPL species	
1. Typha sp. (Cattail)	10	Υ	OBL	Column Totals:	10 (A) 10 (B)
2.				Prevalence Inde	ex = B/A = 1.00
3.				Hydrophytic Vegeta	tion Indicators:
4				X 1 - Rapid Test for	· Hydrophytic Vegetation
5				X 2 - Dominance Te	
6				X 3 - Prevalence In	
7					Adaptations (Provide supporting rks or on a separate sheet)
8					rophytic Vegetation (Explain)
9					oil and wetland hydrology must
10				be present, unless dist	turbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)	10 :	= Total Co	vei		
1				Hydrophytic	
2				Vegetation Present? Yes	es <u>X</u> No
	<u></u> :	= Total Co	ver		
Remarks: (Include photo numbers here or on a separate	sheet.)			l	
Last years cat-tail growth cover about 60%. This year's ground not be determined, because of the lack of infloresce		corded as	only ten per	cent cover at time of obs	servation. The species of cattail

epth	cription: (Describe Matrix			x Feature	c			·
nches)	Color (moist)	%	Color (moist)	% realure	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 4/2	98	7.5YR 4/6	2	С	М	Sandy Loam	Rocky
5-10	Gley1 4/N	60	5YR 4/6	7	С	М	Clay Loam	Rocky
	10YR 4/2	33						
10-20	10YR 4/1	85	10YR 4/6	4	С	М	Clay Loam	Rockier toward bottom
	Gley1 4/N	10	5YR 3/4	- <u> </u>		M		
			0.1.07.	- <u> </u>				
		· -						
/pe: C=C	Concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Loc	cation: PL=Pore Lining, M=Matrix.
dric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso				Gleyed Ma				Prairie Redox (A16)
="	pipedon (A2)			Redox (S5				Surface (S7)
	listic (A3)			d Matrix (S				anganese Masses (F12)
	en Sulfide (A4)			Mucky Mi	, ,			Shallow Dark Surface (TF12)
	ed Layers (A5)		X Loamy X Deplete				Other	(Explain in Remarks)
	uck (A10)	o (A11)		o Matrix (Dark Surfa				
	ed Below Dark Surfac Park Surface (A12)	e (ATT)			ice (F6) irface (F7)		³ Indicators	of hydrophytic vegetation and
_	Mucky Mineral (S1)			Depressio				d hydrology must be present,
	ucky Peat or Peat (S	3)	11000%	Бергессію	113 (1 0)			disturbed or problematic.
	1 ('6 1 1)							
strictive	Layer (if observed):							
Туре:			<u></u>					
Type: Depth (in	nches):		_				Hydric Soil	Present? Yes X No
Type: Depth (in emarks:	nches):						Hydric Soil	Present? Yes X No
Type: Depth (in	onches):						Hydric Soil	Present? Yes X No
Type: Depth (in marks: DROLO	OGY vdrology Indicators:		and chack all that ar	oply)				
Type: Depth (in marks: DROLC etland Hy mary Indi	OGY vdrology Indicators:		-		os (BO)		Seconda	ary Indicators (minimum of two require
Type: Depth (in marks: DROLC etland Hy mary Indi Surface	OGY vdrology Indicators: icators (minimum of o		Water-Sta	ined Leav	(- /		Seconda	ary Indicators (minimum of two require face Soil Cracks (B6)
Type: Depth (in marks: DROLO tland Hy mary Indi Surface High W	OGY vdrology Indicators: icators (minimum of o		Water-Sta	ined Leav auna (B13)		Seconda Surf Drai	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10)
DROLO Etland Hy mary Indi Surface High Wa	OGY /drology Indicators: icators (minimum of of the Water (A1) ater Table (A2) ion (A3)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants) (B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2)
DROLO Type: Depth (in marks: DROLO Type: Type: DROLO Type:	OGY Idrology Indicators: icators (minimum of of e) Water (A1) ater Table (A2) ion (A3) Marks (B1)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)	ing Roots	Seconda Surf Drai Dry-	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
DROLC Type: Depth (in marks: DROLC Itland Hy Mary Indi Surface High W. Saturati Water M. Sedime	orches):		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) res on Liv	-	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
DROLC Etland Hy mary Indi Surface High W Saturati Water M Sedime Drift De	orches):		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) dor (C1) res on Liv	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
DROLO Etland Hy mary Indi Surface High W Saturati Water N Sedime Drift De Algal M	OGY vdrology Indicators: icators (minimum of of the Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) at or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) e-Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLO	OGY vdrology Indicators: icators (minimum of of external (Marks	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti a Surface ((B14) dor (C1) res on Liv ed Iron (C ² on in Tilled	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
DROLO DROLO DROLO DROLO DIA Surface High Wa Saturati Water May Sedime Drift De Algal M Iron De Inundat	OGY Idrology Indicators: icators (minimum of of et Water (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) aposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I	ne is require	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti a Surface ((B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) e-Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLC etland Hy mary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	orches):	ne is require	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti a Surface ((B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) e-Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLO etland Hy imary Indi Surface High W Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	orches):	ne is require magery (B7	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leaveauna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reductin Reduction Reducti	(B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLO etland Hy imary Indi Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	orches):	ne is require magery (B7 e Surface (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leaveauna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data blain in Reduches):	(B14) dor (C1) res on Liv ed Iron (C4) on in Tilled (C7) (D9)	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
DROLO DROLO DROLO DROLO DROLO DRIAN Surface High Wa Saturati Water Male Algal Male Iron De Inundat Sparsel DROLO D	OGY Ardrology Indicators: icators (minimum of of extention (A1) ater Table (A2) ion (A3) Marks (B1) and Deposits (B2) aposits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I by Vegetated Concave rvations: ter Present? Ye Present? Yeresent? Yeresent?	magery (B7 e Surface (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Irc Thin Muck) Gauge or 8) Other (Exp	ined Leave auna (B13 atic Plants Sulfide Och Reduce on Reduction R	(B14) (B14) dor (C1) res on Liv ded Iron (C4 on in Tilled (C7) (D9) emarks)	d Soils (Co	Seconda Surf Drai Dry- Cray (C3)	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)

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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	592385(L)	City/County:	Indianapo	lis, Marion County	Sampling Date: 4/26/201	6
Applicant/Owner: Indiana Department of Transportation (INI	DOT)			State: IN	Sampling Point: DP-G-O	UT
Investigator(s): Brock Ervin and Stephany Stamatis (Parson	s)	Section, Tov	nship, Raı	nge: Section 36, T16N	, R3E	
Landform (hillslope, terrace, etc.): Embankment, Toe-of-Slo	ре	L	ocal relief	(concave, convex, none	e): Slope	
Slope (%): <u>75</u> Lat: <u>39.783625</u>		Long: <u>-86.1</u> 4	10194		Datum: NAD 1983	
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				NWI	I classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for this	time of ye	ar? Yes	< No	(If no, explain in	ı Remarks.)	
Are Vegetation, Soil, or Hydrology si					s" present? Yes X No	
Are Vegetation, Soil, or Hydrology na	aturally pro	blematic?	(If ne	eded, explain any ansv	wers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	showing	sampling	point le	ocations, transec	ts, important features	, etc.
Hydrophytic Vegetation Present? Yes No	×					
Hydric Soil Present? Yes No	× ×		Sampled		No. V	
Wetland Hydrology Present? Yes No		Withi	n a Wetlar	nd? Yes	No <u>×</u> _	
Remarks:						
VEGETATION – Use scientific names of plants.						
		Dominant I Species?		Dominance Test wo		
1				Number of Dominant That Are OBL, FACW		(A)
2				Total Number of Dom	oinant	
3				Species Across All S		(B)
4				Percent of Dominant	Species	
5					V, or FAC:0	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove	r	Prevalence Index w	orksheet:	
1					f: Multiply by:	
2.					0 x 1 = 0	
3.				*	5 x 2 = 10	
4.				FAC species	0 x 3 = 0	_
5				FACU species	55 x 4 = 220	_
		= Total Cove	r	UPL species	15 x 5 = <u>75</u>	-
Herb Stratum (Plot size: 5 ft. radius)	40		E4011	Column Totals:	75 (A) <u>305</u>	(B)
Elymus repens (Creeping Wild Rye) Securigera varia (Crownvetch)	40	<u>Y</u> Y	FACU UPL	Prevalence Inde	ex = B/A =4.07	
Galium anarine (Sticky-Willy)	<u>15</u> 10	N	FACU	Hydrophytic Vegeta	<u> </u>	-
This is a second (Field Beauty)		N	FACU		r Hydrophytic Vegetation	
Iniaspi arvense (Field Pennycress) Conium maculatum (Poison-Hemlock)	5	N	FACW	2 - Dominance T		
6			171011	3 - Prevalence Ir		
7.				4 - Morphologica	al Adaptations (Provide suppo	orting
8.					irks or on a separate sheet)	
9.					drophytic Vegetation (Explain	· .
10.					oil and wetland hydrology musturbed or problematic.	ıst
Weeds Vine Chatter (Diet sine) 20 ft redius	75	= Total Cove	r	,	<u> </u>	
Woody Vine Stratum (Plot size: 30 ft. radius)				Hydrophytic		
1				Vegetation		
2		= Total Cove		Present? Y	'es No <u>X</u>	
		- 10tal 00VE				
Remarks: (Include photo numbers here or on a separate sh	neet.)					

SOIL Sampling Point: DP-G-OUT

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

(inches) 0-5				x Feature		. 3	_	
0-5	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	<u>Texture</u>	Remarks
	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						
		- —— ·		-				
	-							
<u> </u>								
		oletion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		cation: PL=Pore Lining, M=Matrix.
Hydric Soil I								for Problematic Hydric Soils ³ :
Histosol	(A1) ipedon (A2)			Gleyed Ma				Prairie Redox (A16)
Black His				Redox (S5 d Matrix (S				Surface (S7) anganese Masses (F12)
	n Sulfide (A4)			Mucky Mir				Shallow Dark Surface (TF12)
	Layers (A5)			Gleyed Ma				(Explain in Remarks)
2 cm Mu	, ,			ed Matrix ((
-	Below Dark Surfac	e (A11)		Dark Surfa	. ,		3	
	rk Surface (A12)			ed Dark Su	. ,)		of hydrophytic vegetation and
-	ucky Mineral (S1) cky Peat or Peat (S	3)	Redox I	Depressio	ns (F8)			d hydrology must be present, disturbed or problematic.
	ayer (if observed)						dilicoo	distance of problematic.
Type:	, , ,							
	ches):						Hydric Soil	Present? Yes No X
Remarks:							, , , , , , ,	
HYDROLOG	GY							
	GY Irology Indicators:	:						
Wetland Hyd	Irology Indicators:		ed; check all that ap	oply)			Seconda	ary Indicators (minimum of two required)
Wetland Hyd	Irology Indicators:		ed; check all that ap		es (B9)		<u> </u>	ary Indicators (minimum of two required) face Soil Cracks (B6)
Primary Indic	Irology Indicators: ators (minimum of o		Water-Sta Aquatic Fa	ined Leav auna (B13)		Surf	race Soil Cracks (B6) inage Patterns (B10)
Wetland Hyd Primary Indic	Irology Indicators: ators (minimum of o Water (A1) ter Table (A2)		Water-Sta	ined Leav auna (B13)		Surf	face Soil Cracks (B6)
Wetland Hyd Primary Indic. Surface \ High Wat Saturatio Water Ma	Arology Indicators: ators (minimum of o Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)		Surf Drai Dry- Cra	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
Wetland Hyd Primary Indic Surface \ High Wat Saturatio Water Ma Sedimen	Arology Indicators: ators (minimum of of the state of the		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe) (B14) dor (C1) res on Liv	-	Surf Drai Crai (C3) Satu	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Wetland Hyd Primary Indica Surface N High Wat Saturatio Water Ma Sedimen Drift Dep	Arology Indicators: ators (minimum of control of the control of th		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	iined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) (B14) dor (C1) res on Liv ed Iron (C4	4)	Surf Drai Crai (C3) Satu Stur	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Wetland Hyd Primary Indica Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Ma	Arology Indicators: ators (minimum of control of the control of th		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti) (B14) dor (C1) res on Lived Iron (C4 on in Tille	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Primary Indicate Surface Note High Water Mater Material M	Arology Indicators: ators (minimum of of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5)	one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti & Surface ((B14) dor (C1) vres on Lived Iron (C4 on in Tille	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Wetland Hyden Primary Indicate Number of Surface Number of Surface Number of Surface Number of Sufficient Number o	Arology Indicators: ators (minimum of of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial	one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface (Well Data	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9)	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Wetland Hyden Primary Indicators Surface Name Saturation Water May Sedimen Drift Dep Algal Margar Iron Deports Inundation Sparsely	Arrology Indicators: ators (minimum of of of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav	one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leavauna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface (Well Data	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9)	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Wetland Hyden Primary Indicators Surface North High Water May Sedimen Drift Dep Algal May Iron Deport Inundation Sparsely Field Observers	Archology Indicators: ators (minimum of of water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5) on Visible on Aerial Vegetated Concavivations:	one is requir Imagery (B7 e Surface (E	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leavauna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reductin Reduction Reducti	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9)	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Primary Indicate Surface Note that I have a second or se	Arology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concaverations: ar Present?	one is requir Imagery (B7 e Surface (E	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):	(B14) (B14) dor (C1) wres on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4)	Surf Drai Cray Cray Stur Stur 6) Geo	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Wetland Hyden Primary Indicate Nation Saturation Water May Sedimen Drift Depundation Iron Depundation Sparsely Field Observ Surface Water Table I	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Y	Imagery (B7 e Surface (E 'es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' 38) Other (Exp No X Depth (in-	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches): ches): ches): ches):	(B14) (dor (C1) Ires on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4) d Soils (Co	Surf Drai Cray Satu Stur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indicate Naturation Saturation Primary Indicate Naturation Sedimen Drift Deputer Algal Maruration Sparsely Field Observer Surface Water Table I Saturation Primary Indicate Naturation Indicate Naturat	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? Y esent?	Imagery (B7 e Surface (E 'es N	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches): ches): ches): ches):	(B14) (dor (C1) Ires on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4) d Soils (Co	Surf Drai Cray Satu Stur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) Season Water Table (C2) ryfish Burrows (C8) ruration Visible on Aerial Imagery (C9) rited or Stressed Plants (D1) remorphic Position (D2)
Wetland Hyden Primary Indicate Number of Saturation Principles of Surface water Table Incoludes cap	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' 38) Other (Exp No X Depth (in-	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur Stur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indicate Number of Saturation Principles of Surface water Table Incoludes cap	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' S8) Other (Exp No X Depth (in No X De	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur Stur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indicate Number of Saturation Principles of Surface water Table Incoludes cap	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' S8) Other (Exp No X Depth (in No X De	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur Stur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indices Surface Naturation Water May Sedimen Drift Dep Algal May Iron Dep Inundation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Profession Profession Recommendation Profession Profession Profession Recommendation Profession Profession Recommendation Recommendation Profession Recommendation Recommendation Recommendation Profession Recommendation Reco	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' S8) Other (Exp No X Depth (in No X De	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indices Surface Naturation Water May Sedimen Drift Dep Algal May Iron Dep Inundation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Profession Profession Recommendation Profession Profession Profession Recommendation Profession Profession Recommendation Recommendation Profession Recommendation Recommendation Recommendation Profession Recommendation Reco	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' S8) Other (Exp No X Depth (in No X De	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)
Wetland Hyden Primary Indices Surface Naturation Water May Sedimen Drift Dep Algal May Iron Dep Inundation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Sparsely Field Observ Surface Water Table I Saturation Profession Recommendation Profession Profession Recommendation Profession Profession Profession Recommendation Profession Profession Recommendation Recommendation Profession Recommendation Recommendation Recommendation Profession Recommendation Reco	Arology Indicators: ators (minimum of or Water (A1) ter Table (A2) on (A3) arks (B1) t Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present? Present? y esent? y esent? y illary fringe)	Imagery (B7 e Surface (E /es N /es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or ' S8) Other (Exp No X Depth (in No X De	ined Leave auna (B13 atic Plants Sulfide Or Reduce on Reductic Surface (Well Data plain in Reduches):ches):ches):ches):ches):ches):ches	(B14) (dor (C1) (res on Liv (ed Iron (C4) on in Tille (C7) (D9) emarks) >20 >20	4) d Soils (Co	Surf Drai Crai Satur 6) Geo FAC	race Soil Cracks (B6) rinage Patterns (B10) -Season Water Table (C2) ryfish Burrows (C8) - Arration Visible on Aerial Imagery (C9) - Arration Position (D1) - Arration Position (D2) - Neutral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des	s. 1592385(L)	City/Co	ounty:	Indianapo	olis, Marion County	Sampling Date: 10/	/4/2016
Applicant/Owner: Indiana Department of Transportation	(INDOT)				State: IN	Sampling Point: DF	P-H-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section	n, Tow	nship, Ra	nge: Section 36, T16N, F	R3E	
Landform (hillslope, terrace, etc.): Roadside Ditch					_		
Slope (%): <5 Lat: 39.783021							
					NWI c		
Are climatic / hydrologic conditions on the site typical for						·	
Are Vegetation, Soil, or Hydrology					'Normal Circumstances"		No
Are Vegetation, Soil, or Hydrology	_ naturally pro	oblemat	tic?	(If ne	eded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site ma	p showing	sam	pling	point I	ocations, transects	s, important feat	ures, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes X Yes X	No			Sampled		<u> </u>	
Remarks:	110						
VEGETATION – Use scientific names of plan	ts.						
Tree Stratum (Plot size:30 ft. radius) 1	Absolute % Cover	Specie	es?		Dominance Test work Number of Dominant S That Are OBL, FACW,	Species	(A)
2. 3.					Total Number of Domir Species Across All Stra	nant	
4					Percent of Dominant S That Are OBL, FACW,) (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total	Cove	r	Prevalence Index wor	ksheet:	
1					Total % Cover of:		y:
2.					OBL species6	0 x 1 = 60)
3.					FACW species) x 2 = <u>0</u>	
4					FAC species) x 3 = 0	
5					FACU species		
Herb Stratum (Plot size: 5 ft. radius)		= Total	Cove	r		x 5 =0	
Herb Stratum (Plot size: 5 ft. radius) 1. Typha sp. (Cattail)	60	Υ		OBL	Column Totals: 6	60 (A) <u>60</u>) (B)
2		·		OBL	Prevalence Index	c = B/A =1.00	
3.					Hydrophytic Vegetati		
4.					X 1 - Rapid Test for I	Hydrophytic Vegetation	on
5.					X 2 - Dominance Tes	st is >50%	
6.					X 3 - Prevalence Ind	ex is ≤3.0 ¹	
7					4 - Morphological / data in Remark	Adaptations ¹ (Provide ss or on a separate sh	
8					Problematic Hydro	ophytic Vegetation (E	xplain)
10					¹ Indicators of hydric soil be present, unless distu		gy must
	60			r	be present, unless disto		
Woody Vine Stratum (Plot size:30 ft. radius) 1					Hydrophytic		
2.					Vegetation	- V N-	
		= Total	Cove	r	Present? Yes	s <u>X</u> No	-
Remarks: (Include photo numbers here or on a separate	e sheet.)						
The species of cattail could not be determined, because	,	f inflore:	scenc	э.			

		0 10 1110 401	oth needed to docur			0. 00	αροσι	,
epth nches)	Matrix Color (moist)	%	Color (moist)	x Feature %	s Type ¹	Loc ²	Texture	Remarks
			Color (Indist)	/0	Type	LUC		
0-3	10YR 2/1						Sand Loa	<u> </u>
	10YR 4/2							
3-12	10YR 4/2	73	10YR 5/6	8	С	M	Sand Loa	<u> </u>
	10YR 3/1	15	7.5YR 3/4	4	C	M		
		epletion, RM	=Reduced Matrix, M	S=Masked	 I Sand Gra	ains.		Location: PL=Pore Lining, M=Matrix.
dric Soil	Indicators:						Indicate	ors for Problematic Hydric Soils ³ :
Histosol	` '			Gleyed Ma				ast Prairie Redox (A16)
	pipedon (A2)			Redox (S5				k Surface (S7)
	istic (A3)			d Matrix (S				n-Manganese Masses (F12)
	en Sulfide (A4)			Mucky Mir	, ,			ry Shallow Dark Surface (TF12)
	d Layers (A5) uck (A10)		X Deplete	Gleyed Ma			Oth	er (Explain in Remarks)
	d Below Dark Surfa	ace (A11)		Dark Surfa				
	ark Surface (A12)	200 (7.1.1)			ırface (F7)		3Indicat	tors of hydrophytic vegetation and
-	Mucky Mineral (S1)			Depressio				land hydrology must be present,
5 cm Mu	ucky Peat or Peat (S3)					unle	ess disturbed or problematic.
		,					Qi iii	cos disturbed of problematic.
	Layer (if observe	d):						oss disturbed of problematic.
	Layer (if observed nknown obstruction	d):						oss distributed of problematic.
Type: Ur		d):						Soil Present? Yes X No
Type: <u>Ur</u> Depth (in emarks:	nknown obstruction ches): 12	d):						•
Type: Ur Depth (in marks:	nknown obstruction ches): 12	i):						•
Type: Ur Depth (in marks: DROLO	nknown obstruction ches): 12	s:	ired; check all that ag	pply)			Hydric S	soil Present? Yes <u>X</u> No
Type: Ur Depth (in marks: DROLO etland Hy mary India	nknown obstruction ches): 12 OGY drology Indicator cators (minimum o	s:	ired; check all that ap		es (B9)		Hydric S	soil Present? Yes <u>X</u> No
Type: Ur Depth (in marks: DROLO etland Hy mary Indic	nknown obstruction ches): 12	s:	Water-Sta	ined Leav	` '		Hydric S	ndary Indicators (minimum of two require
DROLO etland Hy mary India Surface High Wa	nknown obstruction ches): 12 OGY drology Indicator cators (minimum o Water (A1) ater Table (A2)	s:	-	ined Leav auna (B13)		Hydric S	ndary Indicators (minimum of two require
DROLO etland Hy mary India Surface High Wa Saturatia	nknown obstruction ches): 12 OGY drology Indicator cators (minimum o Water (A1) ater Table (A2)	s:	Water-Sta	ined Leav auna (B13 atic Plants) (B14)		Hydric S	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Orainage Patterns (B10)
DROLO etland Hy mary India Surface High Wa Saturati Water M	oGY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3)	s:	Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)	ing Roots	Hydric S	ndary Indicators (minimum of two requires Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
DROLO etland Hy mary India Surface High Wa Saturati Water M Sedimen	oGY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1)	s:	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe) (B14) dor (C1) res on Liv	•	Seco S C (C3) S	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
DROLO etland Hy mary India Surface High Wa Saturati Water M Sedimen Drift De	drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	s:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	1)	Seco	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
DROLO Etland Hy mary India Surface High Wa Saturati Water M Sedimel Drift Del Algal Ma	drology Indicator cators (minimum or Water (A1) enter Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)	s:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille	1)	Seco S [(C3) S S S S	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
DROLO Etland Hy mary India Surface High Wa Saturatia Water M Sedimel Drift Del Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) and Deposits (B2) posits (B3) at or Crust (B4)	s: f one is requ	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leavenuna (B13 atic Plants Sulfide Ocariosphe of Reduce on Reduction Surface ((B14) dor (C1) res on Liv ed Iron (C ² on in Tilled	1)	Seco S [(C3) S S S S	ndary 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)
DROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimer Algal Ma Iron Dep	oches): 12 OGY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	s: f one is requ	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck F7) Gauge or	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti a Surface (Well Data	(B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9)	1)	Seco S [(C3) S S S S	ndary 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)
DROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimen Drift Dep Algal Ma Iron Dep	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concar	s: f one is requ Il Imagery (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Thin Muck G7) Gauge or (B8) Other (Exp	ined Leaveauna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reductic Surface (Well Data blain in Re	(B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	t) d Soils (Co	Seco S [(C3) S S S S	ndary 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)
DROLO etland Hy imary India Surface High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsel	drology Indicator cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) at or Crust (B4) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concar	s: f one is requ Il Imagery (B	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Thin Muck Gr) Gauge or (B8) Other (Exp	ined Leaveauna (B13 atic Plants Sulfide Och Rhizosphe of Reduce on Reductica Surface (Well Data blain in Reductiches):	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	t) d Soils (Co	Seco S [(C3) S S S S	ndary 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)
DROLO etland Hy mary India Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Inundatia Sparsely	DGY drology Indicator cators (minimum o Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aeria by Vegetated Concator vations: der Present?	s: f one is requ Il Imagery (B ave Surface (Yes Yes	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Thin Muck G7) Gauge or (B8) Other (Exp	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti a Surface (Well Data blain in Re ches): ches):	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled (C7) (D9) emarks)	t) d Soils (Co	Seco S [(C3) S S S S	ndary 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 = 100%.

Remarks:

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	92385(L)	City/County:	Indianapo	olis, Marion County	_ Sampling Date: 10/4/2016	
Applicant/Owner: Indiana Department of Transportation (IND	OT)			State: IN	_ Sampling Point: DP-H-OUT	
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tov	wnship, Ra	nge: Section 36, T16N,	R3E	
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none): Slope	
Slope (%): 30 Lat: 39.783012		Long: <u>-86.1</u>	40265		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 ye	ar? Yes	X No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology sig					present? Yes X No	
Are Vegetation, Soil, or Hydrology na				eded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map s	howing	sampling	g point l	ocations, transect	s, important features, e	etc.
Hydrophytic Vegetation Present? Yes No	×					
Hydric Soil Present? Yes No	×		e Sampled			
Wetland Hydrology Present? Yes No		Withi	in a Wetlar	nd? Yes	No <u>×</u>	
Remarks:						
VEGETATION – Use scientific names of plants.						
		Dominant Species?		Dominance Test wor		
1				Number of Dominant S That Are OBL, FACW)
2				Total Number of Domi	inant	
3				Species Across All Str)
4		-		Percent of Dominant S	Species	
5				That Are OBL, FACW	, or FAC:0 (A/	/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	-	= Total Cove	er	Prevalence Index wo	rksheet:	
1				Total % Cover of:	Multiply by:	
2				OBL species	0 x 1 =0	
3				FACW species	1 x 2 =2	
4				FAC species	10 x 3 = 30	
5				· ·	2 x 4 = 8	
Harb Christian (Platains, 5 ft radius	:	= Total Cove	er		00 x 5 = 500	
Herb Stratum (Plot size: 5 ft. radius) 1. Securigera varia (Crownvetch)	98	Υ	UPL	Column Totals:1	13 (A) <u>540</u> (E	B)
Securification (Crownvectry) Eupatorium serotinum (Late-Flowering Thoroughwort)	10	N	FAC	Prevalence Inde	ex = B/A = 4.78	
3. Melilotus alba (White Sweet-Clover)	2	N	UPL	Hydrophytic Vegetat		-
4. Solidago altissima (Tall Goldenrod)	1	N	FACU		Hydrophytic Vegetation	
5. Cirsium discolor (Field Thistle)	1	N	FACU	2 - Dominance Te	est is >50%	
6. Conium maculatum (Poison-Hemlock)	1	N	FACW	3 - Prevalence Inc	dex is ≤3.0 ¹	
7.				4 - Morphological	Adaptations ¹ (Provide supporting	ng
8.					ks or on a separate sheet)	
9				,	rophytic Vegetation (Explain)	
10				be present, unless dist	oil and wetland hydrology must urbed or problematic.	
Woody Vine Stratum (Diet size) 20 ft radius	113	= Total Cove	er			
Woody Vine Stratum (Plot size: 30 ft. radius)				Hydrophytic		
1				Vegetation		
2		= Total Cove		Present? Ye	es No _X_	
Demontos (Includo plata asserbana homana			-			
Remarks: (Include photo numbers here or on a separate sh	eet.)					
I .						

US Army Corps of Engineers

Sampling Point: DP-H-OUT SOIL

Profile Description: (Des					
Depth <u>Ma</u>	atrix	Redox Featu	ıres	_	
(inches) Color (moi	ist) %	Color (moist) %	Type ¹ Loc ²	Texture	Remarks
0-5 10YR 4/	3 100	,		Sand loam	Cobbles
5-22 10YR 4/-	4 60			Sand loam	Cobbles
10YR 4/	2 40				Cobbles
					COSSICO
¹ Type: C=Concentration, D	D-Doplotion PM-F	Poducod Matrix MS=Mas	od Sand Grains		cation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Depletion, Kivi-i	reduced iviatilix, ivio-iviasi	ted Sand Grains.		for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed	Matrix (S4)		Prairie Redox (A16)
Histic Epipedon (A2)		Sandy Redox (Surface (S7)
Black Histic (A3)		Stripped Matrix			anganese Masses (F12)
Hydrogen Sulfide (A4)		Loamy Mucky			Shallow Dark Surface (TF12)
Stratified Layers (A5)		Loamy Gleyed	, ,		(Explain in Remarks)
2 cm Muck (A10)		Depleted Matri	x (F3)	0.1101	(Explain in Homano)
Depleted Below Dark S	, ,	Redox Dark St	, ,		
Thick Dark Surface (A1	,	Depleted Dark			s of hydrophytic vegetation and
Sandy Mucky Mineral (Redox Depres	sions (F8)		d hydrology must be present,
5 cm Mucky Peat or Pe	, ,			unless	disturbed or problematic.
Restrictive Layer (if obser	rved):				
Type:		<u> </u>			
Depth (inches):				Hydric Soil	Present? Yes No X
Remarks:					
HADBOLOGA					
HYDROLOGY					
Wetland Hydrology Indica					
Wetland Hydrology Indica					ary Indicators (minimum of two required)
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1)	m of one is require	Water-Stained Le		Sur	face Soil Cracks (B6)
Wetland Hydrology Indica	m of one is require			Sur	
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1)	m of one is require	Water-Stained Le	13)	Suri Dra	face Soil Cracks (B6)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plai Hydrogen Sulfide	13) nts (B14) Odor (C1)	Suri Dra Dry- Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosp	nts (B14) Odor (C1) oheres on Living Root	Suri Dra Dry. Cra ts (C3) Satu	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plai Hydrogen Sulfide Oxidized Rhizosp Presence of Redi	nts (B14) Odor (C1) wheres on Living Root uced Iron (C4)	Suri Dra Dry· Cra ts (C3) Sati Stur	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plar Hydrogen Sulfide Oxidized Rhizosp	nts (B14) Odor (C1) wheres on Living Root uced Iron (C4)	Suri Dra Dry· Cra ts (C3) Sati Stur	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plai Hydrogen Sulfide Oxidized Rhizosp Presence of Redi	nts (B14) Odor (C1) Theres on Living Root	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Wetland Hydrology Indica Primary Indicators (minimum Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	m of one is require	Water-Stained Le Aquatic Fauna (B True Aquatic Plai Hydrogen Sulfide Oxidized Rhizosp Presence of Redi Recent Iron Redu Thin Muck Surface	nts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Ce)	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul 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)	m of one is require 2) Aerial Imagery (B7)	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfac	onts (B14) Odor (C1) Wheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Ca) Luced (C7) Luction (D9)	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul 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 A	m of one is require 2) Aerial Imagery (B7)	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfac	onts (B14) Odor (C1) Wheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Ca) Luced (C7) Luction (D9)	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul 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 A Sparsely Vegetated Co	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8)	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfac	onts (B14) Odor (C1) Wheres on Living Root Luced Iron (C4) Luction in Tilled Soils (C2) Luced (C7) Luced (D9) Remarks)	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul 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 A Sparsely Vegetated Co	m of one is require 2) Aerial Imagery (B7) bncave Surface (B8 Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Rede Recent Iron Rede Thin Muck Surfac Gauge or Well Da Other (Explain in	onts (B14) Odor (C1) Wheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Care (C7) Lata (D9) Remarks)	Surf Dra Dry- Cra ts (C3) Sate Stur C6) Geo	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on A Sparsely Vegetated Co Field Observations: Surface Water Present?	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in	onts (B14) Odor (C1) Wheres on Living Root Luced Iron (C4) Luction in Tilled Soils (C7) Lata (D9) Remarks)	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Wetland Hydrology Indica Primary Indicators (minimul 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 ASparsely Vegetated Coffield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimul 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 A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present?	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimul 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 ASparsely Vegetated Coffield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimul 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 ASparsely Vegetated Coffield Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimus) 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 A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (see Automatical Company (see Automatical Company) Secribe Recorded Data (see Automatical Company)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimus) 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 A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (see Automatical Company (see Automatical Company) Secribe Recorded Data (see Automatical Company)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)
Wetland Hydrology Indica Primary Indicators (minimus) 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 A Sparsely Vegetated Co Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (see Automatical Company (see Automatical Company) Secribe Recorded Data (see Automatical Company)	m of one is require 2) Aerial Imagery (B7) oncave Surface (B8 Yes No Yes No Yes No	Water-Stained Le Aquatic Fauna (B True Aquatic Plan Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Redu Thin Muck Surfact Gauge or Well Da Other (Explain in X Depth (inches): X Depth (inches): X Depth (inches):	onts (B14) Odor (C1) Sheres on Living Root Luced Iron (C4) Luction in Tilled Soils (Carter (C7) Lata (D9) Remarks) See (C7) Wee	Suri Dra Cra ts (C3) Satu Stur C6) Gec FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2) C-Neutral Test (D5)

US Army Corps of Engineers Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L	.) City/County: Indianapo	olis, 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, Ra	nge: Section 36, T16N, R	3E
Landform (hillslope, terrace, etc.): Ditch/Toe-of-Slope	Local relief	(concave, convex, none):	Concave
Slope (%): <u><3</u> Lat: <u>39.782090</u>	Long: <u>-86.140249</u>		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI cl	assification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes X No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "	'Normal Circumstances" p	oresent? Yes X No
Are Vegetation, SoilX, or Hydrologynaturally p	roblematic? (If ne	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point le	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No Yes X No Remarks:	within a Wetlar		No
VEGETATION - Have size ("Construction of all and			
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: 30 ft. radius)	Species? Status	Number of Dominant S That Are OBL, FACW, of	
2		Total Number of Domin Species Across All Stra	_
4. 5.	= Total Cover	Percent of Dominant Sp That Are OBL, FACW, o	pecies or FAC: <u>100.00</u> (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1		Prevalence Index wor Total % Cover of:	Multiply by:
2		· ·) x 1 = <u>70</u>
3		-	x 2 = 0
4		· ·	x 3 = 0 x 4 = 0
5	= Total Cover	1	x 5 =0
Herb Stratum (Plot size: 5 ft. radius)		Column Totals: 70	
1. Typha sp. (Cattail) 70			D/A 4.00
2		Hydrophytic Vegetation	= B/A = <u>1.00</u>
3		X 1 - Rapid Test for H	
4		X 2 - Dominance Tes	
5		× 3 - Prevalence Inde	
6			Adaptations (Provide supporting
8			s or on a separate sheet)
9.		•	phytic Vegetation (Explain)
10.		¹ Indicators of hydric soil be present, unless distu	and wetland hydrology must rbed or problematic.
	_= Total Cover	,	'
Woody Vine Stratum (Plot size:15 ft. radius)		Hydrophytic	
1		Vegetation	
	= Total Cover	Present? Yes	sX 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.		

US Army Corps of Engineers

SOIL Sampling Point: DP-I-IN

Profile Description: (Describe Depth Matrix		anded to decur	ant the in	adioator (r confirm	the cheenee	of indicators \
	to the depth h				or confirm	i the absence	of indicators.)
Depth <u>Matrix</u> inches) Color (moist)	% (Color (moist)	<u>k Features</u> %	Type ¹	Loc ²	Texture	Remarks
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		7.5YR 4/6	5			Janu	•
1011 4/1	35	7.511 4/0			M		Clay inclusions
ype: C=Concentration, D=Dep	letion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	ins.		cation: PL=Pore Lining, M=Matrix.
ydric Soil Indicators:							for Problematic Hydric Soils ³ :
_ Histosol (A1)			Sleyed Mat				Prairie Redox (A16)
_ Histic Epipedon (A2) _ Black Histic (A3)			ledox (S5) Matrix (S				Surface (S7) langanese Masses (F12)
_ Hydrogen Sulfide (A4)			Jucky Min				Shallow Dark Surface (TF12)
Stratified Layers (A5)			Gleyed Ma			-	
_ 2 cm Muck (A10)			d Matrix (F			Other	(Explain in Remarks)
Depleted Below Dark Surfac	e (A11)		ark Surfa				
Thick Dark Surface (A12)	0 (/ 1.1 /		d Dark Sur	` '		3Indicators	s of hydrophytic vegetation and
Sandy Mucky Mineral (S1)			epression				d hydrology must be present,
_ 5 cm Mucky Peat or Peat (S	3)			()			disturbed or problematic.
estrictive Layer (if observed):							
Type: Unknown		-					
Depth (inches): 16						Hydric Soil	Present? Yes X No
/DBOLOCY							
'DROLOGY /etland Hydrology Indicators:							
rimary Indicators (minimum of o	ne is required;	check all that ap	ply)				
Surface Water (A1)		Water-Stai	ned Leave			Seconda	ary Indicators (minimum of two require
High Water Table (A2)		Aquatic Fa		es (B9)			ary Indicators (minimum of two require face Soil Cracks (B6)
				` '		Sur	face Soil Cracks (B6)
Saturation (A3)		True Aqua	una (B13)	,		Suri	face Soil Cracks (B6) inage Patterns (B10)
			una (B13) tic Plants ((B14)		Suri Dra Dry	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
_ Water Marks (B1)		Hydrogen	una (B13) tic Plants (Sulfide Od	(B14) lor (C1)	na Roots	Suri Dra Dry- Cra	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Water Marks (B1) Sediment Deposits (B2)		Hydrogen S Oxidized R	una (B13) tic Plants (Sulfide Od hizospher	(B14) lor (C1) es on Livi	-	Suri Dra Cra Cra (C3) Sati	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)		Hydrogen S Oxidized R Presence of	una (B13) tic Plants (Sulfide Od hizospher of Reduced	(B14) lor (C1) es on Livi d Iron (C4)	Suri Dra Dry. Cra (C3) Sati Stur	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Hydrogen S Oxidized R Presence C Recent Iron	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reductio	(B14) lor (C1) es on Livi d Iron (C4 on in Tilled)	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5)	magery (R7)	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reduction Surface (((B14) lor (C1) les on Livi d Iron (C4 on in Tilled)	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I	• • • •	Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reductio Surface (O	(B14) lor (C1) es on Livi d Iron (C4 on in Tilled C7) (D9))	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	• • • •	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reductio Surface (O	(B14) lor (C1) es on Livi d Iron (C4 on in Tilled C7) (D9))	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave	e Surface (B8)	Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reductic Surface (Well Data (lain in Rer	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled (C7) (D9) marks))	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) imorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave (eld Observations:	e Surface (B8) 'es X No	Hydrogen S Oxidized R Presence c Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (Sulfide Od hizospher of Reduced n Reductio Surface ((Well Data (lain in Rer	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Suri Dra Dry· Cra (C3) Sati Sturi	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave (eld Observations: urface Water Present? Yater Table Present?	e Surface (B8) 'es X No 'es X No	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp	una (B13) tic Plants (Sulfide Od hizospher of Reducete n Reduction Surface ((Well Data (lain in Rer ches):	(B14) or (C1) es on Livi d Iron (C4 on in Tilled C7) (D9) marks) <1 3) I Soils (C6	Suri Dra Cra Cra (C3) Satu Stur Stur X Gec X FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave ield Observations: surface Water Present? Vater Table Present? Vaturation Present? Values capillary fringe)	e Surface (B8) 'es X No (es X	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp Depth (inc	una (B13) tic Plants (Sulfide Od hizospher of Reducet n Reductio Surface ((Vell Data (lain in Rer ches): ches):	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled C7) (D9) marks) <1 3 0) Soils (C6	Suri Dra Dry Cra (C3) Satu Stui S) X Gec X FAC	inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave ield Observations: urface Water Present? //ater Table Present? Y aturation Present?	e Surface (B8) 'es X No (es X	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp Depth (inc	una (B13) tic Plants (Sulfide Od hizospher of Reducet n Reductio Surface ((Vell Data (lain in Rer ches): ches):	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled C7) (D9) marks) <1 3 0) Soils (C6	Suri Dra Dry Cra (C3) Satu Stui S) X Gec X FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave ield Observations: urface Water Present? Y //ater Table Present? Y //aturation Present? Y //acludes capillary fringe) escribe Recorded Data (stream	e Surface (B8) 'es X No (es X	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp Depth (inc	una (B13) tic Plants (Sulfide Od hizospher of Reducet n Reductio Surface ((Vell Data (lain in Rer ches): ches):	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled C7) (D9) marks) <1 3 0) Soils (C6	Suri Dra Dry Cra (C3) Satu Stui S) X Gec X FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial I Sparsely Vegetated Concave (ield Observations: urface Water Present? Vater Table Present? Yaturation Present? Yaturation Present? Yacuration Present?	e Surface (B8) 'es X No (es X	Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp Depth (inc	una (B13) tic Plants (Sulfide Od hizospher of Reducet n Reductio Surface ((Vell Data (lain in Rer ches): ches):	(B14) lor (C1) les on Livi d Iron (C4 on in Tilled C7) (D9) marks) <1 3 0) Soils (C6	Suri Dra Dry Cra (C3) Satu Stui S) X Gec X FAC	face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	92385(L)	City/County:	Indianapo	olis, Marion County	Sampling Date: 10/4/2016
Applicant/Owner: Indiana Department of Transportation (IND	OT)			State: IN	_ Sampling Point: DP-I-OUT
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tov	nship, Ra	nge: Section 36, T16N,	R3E
Landform (hillslope, terrace, etc.): Near Toe-of-Slope		L	ocal relief	(concave, convex, none)): Slope
Slope (%): <u>5-10</u> Lat: <u>39.782111</u>		Long: <u>-86.1</u> 4	10268		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					
Are Vegetation, Soil, or Hydrology sig					present? Yes X No
Are Vegetation, Soil, or Hydrology na				eeded, explain any answ	
SUMMARY OF FINDINGS – Attach site map s			point le	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes			Sampled		NoX
VEGETATION – Use scientific names of plants.					
	% Cover	Species?	Status	Dominance Test wor Number of Dominant S That Are OBL, FACW	Species
2 3				Total Number of Domi Species Across All Str	
5.				Percent of Dominant S That Are OBL, FACW	Species , or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove	r	Prevalence Index wo	rksheet:
1				Total % Cover of:	Multiply by:
2.				OBL species	0 x 1 =0
3				FACW species	0 x 2 =0
4				FAC species	3 x 3 = 9
5				FACU species	93 x 4 = 372
5 th radius	:	= Total Cove	r	UPL species	0 x 5 =0
Herb Stratum (Plot size: 5 ft. radius)	00	V	FACIL	Column Totals:	96 (A) <u>381</u> (B)
Schedonorus arundinaceus (Tall False Rye Grass) Cirsium discolor (Field Thistle)	90	<u>Y</u> N	FACU FACU	Prevalence Inde	x = B/A =3.97
3. Symphyotrichum ontarionis (Ontario American-Aster)	2	N N	FAC	Hydrophytic Vegetat	
4. Eupatorium serotinum (Late-Flowering Thoroughwort)	1	N	FAC		Hydrophytic Vegetation
5			-	2 - Dominance Te	· · · · · ·
6.				3 - Prevalence Inc	
7.				4 - Morphological	Adaptations (Provide supporting
8.					ks or on a separate sheet)
9.				•	rophytic Vegetation (Explain)
10.				¹ Indicators of hydric so be present, unless dist	il and wetland hydrology must urbed or problematic.
West As Visco Otestano (Districts 200 ft modius)	96 :	= Total Cove	r		,
Woody Vine Stratum (Plot size: 30 ft. radius)				Hydrophytic	
1				Vegetation	
2		= Total Cove		Present? Ye	es No _X_
		- TOTAL COVE	1		
Remarks: (Include photo numbers here or on a separate she	eet.)		_		

OIL									
	cription: (Descr	ibe to the d	lepth ne				or confirn	n the absence	e of indicators.)
Depth	Matri				x Features		1 2	T	Damada
nches)	Color (moist			olor (moist)	%	Type ¹	Loc ²	Texture	Remarks
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
ype: C=Co	oncentration, D=	Depletion, R	RM=Red	uced Matrix, MS	S=Masked	Sand Gr	ains.		cation: PL=Pore Lining, M=Matrix.
/dric Soil I	Indicators:							Indicators	for Problematic Hydric Soils ³ :
_ Histosol	(A1)			Sandy 0	Sleyed Ma	trix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)				Redox (S5)				Surface (S7)
_ Black Hi					d Matrix (S				langanese Masses (F12)
	en Sulfide (A4)				Mucky Min	. ,		Very S	Shallow Dark Surface (TF12)
	d Layers (A5)				Gleyed Ma			Other	(Explain in Remarks)
	uck (A10)	rfo.co (A11)		X Deplete	d Matrix (F Dark Surfa				
	d Below Dark Su ark Surface (A12				d Dark Suna		١	3Indicator	s of hydrophytic vegetation and
_	Mucky Mineral (S	•			d Dark Su Depressior		,		d hydrology must be present,
_ Carray iv	,	,		11000% 1	opi cooloi	15 (1 0)			s disturbed or problematic.
5 cm Mu	icky Peat or Pea								
	ucky Peat or Pea								
estrictive l	Layer (if observ								
estrictive L	Layer (if observ							Hydric Soil	I Present? Yes X No
Restrictive I	Layer (if observ							Hydric Soil	I Present? Yes X No
estrictive I Type: Depth (inc emarks:	Ches):	ed):						Hydric Soil	I Present? Yes <u>X</u> No
Type: Depth (independent of the content of th	ches): GY drology Indicate	ors:							
Type:	Ches):	ors:	quired; c	check all that ap	ply)				I Present? Yes X No arry Indicators (minimum of two required
Type: Depth (incemarks: DROLO etland Hydinary Indice	ches): GY drology Indicate	ors:	quired; c	Water-Sta	ined Leave	, ,		Seconda Sur	ary Indicators (minimum of two required
DROLO etland Hyd Surface High Wa	GY drology Indicator (minimum) Water (A1) ater Table (A2)	ors:	quired; c	Water-Sta	ined Leave nuna (B13)			Seconda Sur	ary Indicators (minimum of two required
DROLO etland Hydimary Indic Surface	GY drology Indicator (minimum) Water (A1) ater Table (A2)	ors:	quired; c	Water-Sta	ined Leave nuna (B13)			Second: Sur Dra	ary Indicators (minimum of two required
DROLO etland Hydimary Indic Surface High Wa Saturatic Water M	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) darks (B1)	ors:	quired; c	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leave auna (B13) tic Plants Sulfide Oc	(B14) dor (C1)		Second: Sur Dra Dry Cra	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) lyfish Burrows (C8)
DROLO etland Hydimary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) darks (B1) at Deposits (B2)	ors:	quired; c	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave nuna (B13) tic Plants Sulfide Oc Rhizosphei	(B14) dor (C1) res on Liv	-	Second: Sur Dra Dry Cra (C3) Sat	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) offish Burrows (C8) uration Visible on Aerial Imagery (C9)
DROLO etland Hyd imary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	ors:	quired; c	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce	(B14) for (C1) res on Liv d Iron (C4	4)	Second:	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLO etland Hyd Saturatic Water M Sedimer Drift Dep Algal Ma	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) ant Deposits (B2) cosits (B3) at or Crust (B4)	ors:	quired; c	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C4 on in Tille	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) onted or Stressed Plants (D1) comorphic Position (D2)
Type: Depth (incemarks: DROLO etland Hydimary Indice Surface High Wa Saturatice Water M Sedimer Drift Dep Algal Ma Iron Dep	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ors: of one is rea		Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLO etland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio	Cators (minimum Water (A1) ater Table (A2) on (A3) at Deposits (B2) posits (B3) at or Crust (B4) on Visible on Ael	ors: of one is red	(B7)	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction Surface (Well Data	(B14) for (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) onted or Stressed Plants (D1) comorphic Position (D2)
DROLO etland Hyd imary Indic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely	Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches Ch	ors: of one is red	(B7)	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction Surface (Well Data	(B14) for (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) onted or Stressed Plants (D1) comorphic Position (D2)
Type: Depth (incemarks: DROLO etland Hydrimary Indice Surface High Wa Saturatice Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatice Sparsely	Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches Ch	ors: of one is rec	(B7) e (B8)	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13) tic Plants Sulfide Oc Rhizosphel of Reduce n Reductio Surface (Well Data blain in Re	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) onted or Stressed Plants (D1) comorphic Position (D2)
DROLO Type: Depth (incemarks: DROLO etland Hyding Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely eld Observe	Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches): Ches Ch	ors: of one is rec	(B7) se (B8) No	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or V Other (Exp	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reductic Surface (Well Data blain in Re	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) onted or Stressed Plants (D1) comorphic Position (D2)
Type: Depth (incemarks: TOROLO Toronto Indicemarks: TOROLO Toronto Indicemary Indice Surface High Water Management of the period of t	GY drology Indicate cators (minimum Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aei y Vegetated Convextions: er Present?	rial Imagery cave Surfac Yes Yes	(B7) se (B8) No No	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ined Leave auna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reductio Surface (Well Data blain in Re ches): ches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks)	4)	Seconda Sur Dra Cra Cra (C3) Sat Stu Stu	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)

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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159	92385(L) (City/County:	Indianapo	lis, Marion County	Sampling Date: 5/24/16
Applicant/Owner: Indiana Department of Transportation (INDO	OT)			State: IN	Sampling Point: DP-J-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)) :	Section, Tow	nship, Ra	nge: Section 31, T16N	I, R4E
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, non	e): Slope
Slope (%): <u>20</u> Lat: <u>39.784494</u>		Long: <u>-86.13</u>	39318		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				NW	I classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this ti	ime of yea	ar? Yes>	< No	(If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly	disturbed?	Are "	Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil, or Hydrology nat	urally pro	blematic?	(If ne	eded, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	nowing	sampling	point l	ocations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No Remarks:			e Sampled n a Wetlar		X No
VEGETATION – Use scientific names of plants.					
	6 Cover	Dominant In Species?	Status	Number of Dominant That Are OBL, FACV	t Species
2				Total Number of Dor Species Across All S	
5				Percent of Dominant That Are OBL, FACV	
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1					Multiply by: 30 x 1 =30
3				· -	0 x 2 =0
4				1	0 x 3 = 0
5				1	40 x 4 = 160
Herb Stratum (Plot size: 5 ft. radius)		= Total Cove	r	Column Totals:	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Schedonorus arundinaceus (Tall False Rye Grass)	40	Y	FACU	Column Totals.	(A) (B)
2. Typha sp. (Cattail)	30	<u> </u>	OBL	Prevalence Ind	dex = B/A = 2.71
3				Hydrophytic Vegeta	
4					or Hydrophytic Vegetation
5				2 - Dominance 1	
6				X 3 - Prevalence II	
7				data in Rema	al Adaptations (Provide supporting arks or on a separate sheet)
8					drophytic Vegetation (Explain)
9					soil and wetland hydrology must
10.		= Total Cove		be present, unless dis	sturbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1				Hydrophytic	
2				Vegetation Present?	/es <u>X</u> No
-	=	= Total Cove	r		
Remarks: (Include photo numbers here or on a separate she	et.)			•	
The species of cattail could not be determined, because of the	ne lack of	inflorescenc	e.		

epth Matrix			x Feature			the absence of in	,
ches) Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-8 10YR 4/1	95	7.5YR 3/4	5	С	M	Loam	
8-15 10YR 4/1	98	10YR 4/6	2	С	M	Loam	
pe: C=Concentration, D=Deple	etion. RM=Re	educed Matrix. MS	S=Masked	Sand Gra	ins.	2Location	n: PL=Pore Lining, M=Matrix.
dric Soil Indicators:		<u> </u>					Problematic Hydric Soils ³ :
Histosol (A1)		Sandy C	Bleyed Ma	trix (S4)		Coast Prair	rie Redox (A16)
Histic Epipedon (A2)		Sandy F	Redox (S5)		Dark Surfa	ce (S7)
Black Histic (A3)			l Matrix (S			Iron-Manga	anese Masses (F12)
Hydrogen Sulfide (A4)			Mucky Mir	, ,		Very Shallo	ow Dark Surface (TF12)
Stratified Layers (A5)			Gleyed Ma			Other (Exp	lain in Remarks)
2 cm Muck (A10)	(0.4.4)	× Deplete					
Depleted Below Dark Surface Thick Dark Surface (A12)	(ATT)		Dark Surfa	rface (F7)		3Indicators of h	ydrophytic vegetation and
Sandy Mucky Mineral (S1)			Depression	. ,			drology must be present,
5 cm Mucky Peat or Peat (S3)		11000% 2	ocpression	15 (1 0)			urbed or problematic.
strictive Layer (if observed):							·
Type: Rock		_					
Depth (inches): 15		_				Hydric Soil Pres	sent? Yes X No
DPOLOGY							
tland Hydrology Indicators:	e is required	· check all that an	nlv)			Secondary Ir	adicators (minimum of two require
tland Hydrology Indicators: nary Indicators (minimum of one	e is required	-		es (B9)			ndicators (minimum of two require
tland Hydrology Indicators: nary Indicators (minimum of one Surface Water (A1)	e is required	Water-Stai	ned Leav	(/		Surface	Soil Cracks (B6)
tland Hydrology Indicators: nary Indicators (minimum of one Surface Water (A1) High Water Table (A2)	e is required	Water-Stai	ned Leav una (B13)		Surface Drainage	Soil Cracks (B6) Patterns (B10)
tland Hydrology Indicators: nary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3)	e is required	Water-Stai Aquatic Fa True Aqua	ned Leav una (B13 tic Plants	(B14)		Surface Drainage Dry-Sea	Soil Cracks (B6) e Patterns (B10) son Water Table (C2)
tland Hydrology Indicators: mary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	e is required	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leav una (B13 tic Plants Sulfide O	(B14) dor (C1)	ng Roots (Surface Drainage Dry-Sea Crayfish	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8)
tland Hydrology Indicators: mary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e is required	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ned Leav una (B13 tic Plants Sulfide Oc thizosphe	(B14) dor (C1) res on Livi	_	Surface Drainage Dry-Sea Crayfish Saturatio	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
tland Hydrology Indicators: mary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	e is required	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leavuna (B13 tic Plants Sulfide October 1) the control of Reduce	(B14) dor (C1) res on Livi)	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) or Stressed Plants (D1)
tland Hydrology Indicators: mary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e is required	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ned Leavunna (B13 tic Plants Sulfide Od thizosphe of Reduce n Reducti	(B14) (bor (C1) res on Livi d Iron (C4 on in Tilled)	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9)
tland Hydrology Indicators: mary Indicators (minimum of one Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o	ned Leavena (B13) tic Plants Sulfide October (B12) thizosphe of Reducein Reductions	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled)	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
tland Hydrology Indicators: nary Indicators (minimum of one 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)	nagery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o Recent Iro Thin Muck Gauge or V	ned Leavena (B13) tic Plants Sulfide Oo Chizosphe of Reducen Reducti Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
tland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S	nagery (B7)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o Recent Iro Thin Muck Gauge or V	ned Leavena (B13) tic Plants Sulfide Oo Chizosphe of Reducen Reducti Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
stland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Id Observations:	nagery (B7) Surface (B8)	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o Recent Iro Thin Muck Gauge or V	ned Leavena (B13) tic Plants Sulfide Oct Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) (bor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
tland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Id Observations: rface Water Present?	nagery (B7) Surface (B8) s No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or V Other (Exp	ned Leavanne (B13) tic Plants Sulfide October (B12) tic Plants Sulfide October (B12) tic Plants Surface (Well Data plain in Received.	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Surface Drainage Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
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 Im Sparsely Vegetated Concave S Id Observations: rface Water Present? Yes turation Present? Yes	nagery (B7) Surface (B8) s No s No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or V Other (Exp	ned Leav una (B13 tic Plants Sulfide Oc thizosphe of Reduce n Reducti Surface (Well Data plain in Re ches): ches):	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)) d Soils (C6	Surface Drainage Dry-Sea Crayfish Saturatic Stunted Geomore FAC-Ne	Soil Cracks (B6) Patterns (B10) Son Water Table (C2) Burrows (C8) On Visible on Aerial Imagery (C9) Or Stressed Plants (D1) Othic Position (D2)
tland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Id Observations: fface Water Present? Yes ter Table Present?	nagery (B7) Surface (B8) s No s No s No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence of Recent Iro Thin Muck Gauge or V Other (Exp X Depth (inc	ned Leav una (B13 tic Plants Sulfide Oc thizosphe of Reduce n Reducti Surface (Well Data blain in Re ches): ches): ches): ches):	(B14) (B14) (dor (C1) res on Livided Iron (C4 on in Tilled (C7) (D9) marks) 14 14	Soils (C6	Surface Drainage Dry-Sea Crayfish Saturatic Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
tland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Id Observations: face Water Present? Yes uration Present? Yes eludes capillary fringe)	nagery (B7) Surface (B8) s No s No s No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence of Recent Iro Thin Muck Gauge or V Other (Exp X Depth (inc	ned Leav una (B13 tic Plants Sulfide Oc thizosphe of Reduce n Reducti Surface (Well Data blain in Re ches): ches):	(B14) (B14) (dor (C1) res on Livided Iron (C4 on in Tilled (C7) (D9) marks) 14 14	Soils (C6	Surface Drainage Dry-Sea Crayfish Saturatic Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)
tland Hydrology Indicators: mary Indicators (minimum of one 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 Im Sparsely Vegetated Concave S Id Observations: face Water Present? ter Table Present? Yes cludes capillary fringe)	nagery (B7) Surface (B8) s No s No s No	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence of Recent Iro Thin Muck Gauge or V Other (Exp X Depth (inc	ned Leav una (B13 tic Plants Sulfide Oc thizosphe of Reduce n Reducti Surface (Well Data blain in Re ches): ches):	(B14) (B14) (dor (C1) res on Livided Iron (C4 on in Tilled (C7) (D9) marks) 14 14	Soils (C6	Surface Drainage Dry-Sea Crayfish Saturatic Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) phic Position (D2) utral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159	92385(L)	City/County:	Indianapo	olis, Marion County	Sampling Date: <u>5/24/16</u>	
Applicant/Owner: Indiana Department of Transportation (INDO	OT)			State: IN	Sampling Point: DP-J-Ol	JT
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons))	Section, Tov	vnship, Ra	nge: Section 31, T16N,	R4E	
Landform (hillslope, terrace, etc.): Toe of slope		L	ocal relief	(concave, convex, none	e): Slope	
Slope (%): <u>20</u> Lat: <u>39.784510</u>		Long: <u>-86.1</u>	39314		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 ti	ime of yea	ar? Yes	≺ No	(If no, explain in	Remarks.)	
Are Vegetation, Soil, or Hydrology sign	nificantly	disturbed?	Are "	'Normal Circumstances"	" present? Yes X No	
Are Vegetation, Soil, or Hydrology nat	urally pro	blematic?	(If ne	eded, explain any answ	vers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sh	nowing	sampling	g point le	ocations, transect	ts, important features	, etc.
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks:			e Sampled n a Wetlar		No <u>X</u>	
The location of DP-J-OUT was chosen due to restrictions cau	used by th	ne fence and	riprap at t	he base of the slope.		
VEGETATION – Use scientific names of plants.						
	6 Cover	Species?	Status	Dominance Test work Number of Dominant That Are OBL, FACW	Species	(A)
2				Total Number of Dom Species Across All St		(B)
4				Percent of Dominant S That Are OBL, FACW	Species /, or FAC:0	(A/B)
	=	= Total Cove	r	Prevalence Index wo	orkshoot:	
Sapling/Shrub Stratum (Plot size:15 ft. radius) 1					: Multiply by:	
2.					0 x 1 = 0	
3.					0 x 2 = 0	
4.				FAC species	0 x 3 = 0	_
5				FACU species1	100 x 4 = 400	_
_	=	= Total Cove	r	UPL species	0 x 5 = 0	_
Herb Stratum (Plot size: 5 ft. radius)				Column Totals:1	100 (A) <u>400</u>	(B)
1. Schedonorus arundinaceus (Tall False Rye Grass)	80	<u>Y</u>	FACU	Drovolonoo Indo	ex = B/A =4.00	
Melilotus officinalis (Yellow Sweet-Clover) Symphyotrichum pilosum (Wt. Oldfield American-Aster)	15 5	N	FACU	Hydrophytic Vegetat	<u> </u>	-
			FACU		r Hydrophytic Vegetation	
4				2 - Dominance Te		
5				3 - Prevalence In		
6					I Adaptations (Provide suppo	orting
7				data in Remar	rks or on a separate sheet)	,g
8				Problematic Hyd	Irophytic Vegetation (Explain	1)
9				¹ Indicators of hydric so be present, unless dist	oil and wetland hydrology mu	ıst
_		= Total Cove		be present, unless dist	turbed of problematic.	
Woody Vine Stratum (Plot size: 30 ft. radius)						
1				Hydrophytic Vegetation		
2					es No <u>X</u>	
-		= Total Cove	r			
Remarks: (Include photo numbers here or on a separate she	et.)			I.		

epth	Matrix				Feature							
inches)	Color (moist)	%	_ Cole	or (moist)	%	Type ¹	Loc ²	Texture		Remarks	i	
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	1	OYR 5/3	10	C	M	Clay Loam				
			1	OYR 4/6	5	C	M	Clay Loam				
			M Dadua	ad Matrix, MC	Mookoo				stion. DI I	Doro Lining	M Matrix	
lydric Soil I	oncentration, D=De Indicators:	epielion, K	ivi=Reduc	ed Matrix, MS	=iviaskec	a Sand Gra	uris.	Indicators f		Pore Lining, natic Hvdri		Κ.
Histosol				Sandv G	leyed Ma	atrix (S4)			rairie Redo	•		
	pipedon (A2)				edox (S5				ırface (S7)	(- /		
Black His	stic (A3)			Stripped	Matrix (S	86)		Iron-Ma	nganese M	lasses (F12))	
	n Sulfide (A4)					neral (F1)		Very Sh	allow Dark	Surface (TI	F12)	
	Layers (A5)				Bleyed Ma			Other (E	Explain in F	Remarks)		
2 cm Mu	ick (A10) d Below Dark Surfa	aca (A11)		X Redox D	d Matrix (l							
	ark Surface (A12)	ace (ATT)				ırface (F7)		³ Indicators of	of hydrophy	vtic vegetation	on and	
	lucky Mineral (S1)				epressio	, ,				must be pre		
Sandy M	lucky willeral (31)											
_	icky Peat or Peat (·			unless o	disturbed o	r problemati	C.	
5 cm Mu Restrictive L	cky Peat or Peat (ayer (if observed	(S3)						unless o	disturbed o	r problemati	C.	
5 cm Mu	cky Peat or Peat (ayer (if observed	(S3)			•			unless o	disturbed o			
5 cm Mu Restrictive L Type: Roo Depth (inc	cky Peat or Peat (_ayer (if observed ck	(S3)						Hydric Soil F		Yes X		
Type: Roo Depth (inc Remarks: YDROLOG Wetland Hyc Surface V High Wa Saturation Water Manner Sedimen	GY drology Indicator eators (minimum of Water (A1) ter Table (A2)	(S3)	juired; che	eck all that app Water-Stain Aquatic Far True Aquat Hydrogen S Oxidized R Presence o	oly) ned Leav una (B13 ic Plants Sulfide Od hizosphe) (B14) dor (C1) res on Livi	•	Secondar Surfa Drain Dry-S Crayf (C3) Satur	y Indicator ce Soil Cra age Patter Season Wa iish Burrow ation Visib	Yes X s (minimum acks (B6) ns (B10) ter Table (C		quir
Type: Ron Depth (incomments) YDROLOG Vetland Hyce Surface V High Wa Saturation Water M: Sediments Algal Ma	GY drology Indicator eators (minimum of water (A1) eter Table (A2) on (A3) arks (B1) eter Deposits (B2) oosits (B3) eter or Crust (B4)	(S3)	juired; che	Water-Stain Aquatic Fan True Aquat Hydrogen S Oxidized R Presence of Recent Iror	oly) ned Leav una (B13 ic Plants Sulfide Ochizosphe of Reduce	(B14) dor (C1) res on Livied Iron (C4 on in Tilled)	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
5 cm Mu Restrictive L Type: Roo Depth (inc Remarks: YDROLOG Vetland Hyc Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep	GY drology Indicator cators (minimum of Water (A1) arks (B1) at Deposits (B2) boosits (B3) at or Crust (B4) boosits (B5)	s: f one is rec	- - - - - -	Water-Stain Aquatic Fan True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck	oly) ned Leav una (B13 ic Plants Sulfide Ochizosphe of Reduce of Reducti Surface ((B14) dor (C1) res on Livi ed Iron (C4 on in Tilled)	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
Type: Roo Depth (inc Remarks: YDROLOG Vetland Hyc Surface V High Wa Saturatio Water M: Sedimen Drift Dep Algal Ma Iron Dep Inundation	GY drology Indicator cators (minimum or water (A1) der Table (A2) on (A3) arks (B1) arks (B1) osits (B3) dror Crust (B4) osits (B5) on Visible on Aeria	s: f one is rec		Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	oly) ned Leav una (B13 ic Plants Sulfide Or hizosphe of Reduce n Reducti Surface ((B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
Type: Roo Depth (inc Remarks: YDROLOG Vetland Hyd Surface V High Wa Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation Sparsely	GY drology Indicator eators (minimum of Water (A1) ther Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aeria of Vegetated Concar	s: f one is rec		Water-Stain Aquatic Fan True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck	oly) ned Leav una (B13 ic Plants Sulfide Or hizosphe of Reduce n Reducti Surface ((B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
Type: Ron Depth (ince Remarks: YDROLOG Wetland Hyc Surface High Wa Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Observ	GY drology Indicator eators (minimum of water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aeria vectors:	s: f one is recovered at Imagery was Surface	(B7)	Water-Stair Aquatic Far True Aquat Hydrogen S Oxidized R Presence c Recent Iror Thin Muck Gauge or V	oly) ned Leav una (B13 cic Plants Sulfide Och hizosphe of Reduce n Reducti Surface (Vell Data lain in Re	(B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
Type: Roo Depth (inc Remarks: YDROLOG Wetland Hyc Surface V High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundation	GY drology Indicator eators (minimum of water (A1) arks (B1) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aeria vegetated Concavations: er Present?	s: f one is recovered at Imagery wave Surface Yes	(B7) (B8) No	Water-Stain Aquatic Far True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Exp	oly) ned Leav una (B13 ic Plants Sulfide Ochizosphe of Reduce n Reducti Surface (Vell Data lain in Re	(B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9))	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial ssed Plants (sition (D2)		quir
Type: Ron Depth (incommerce) YDROLOG Wetland Hyce Surface Water Management Drift Depth Algal Management Iron Depth Inundation Sparsely Field Observious	GY drology Indicator cators (minimum of water (A1) arks (B1) at Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) con Visible on Aeria avations: ar Present? Present?	s: f one is recovered at Imagery ave Surface Yes Yes	(B7) e (B8) No _>	Water-Stain Aquatic Fan True Aquat Hydrogen S Oxidized R Presence of Recent Iror Thin Muck Gauge or V Other (Exp	oly) ned Leav una (B13 ic Plants Sulfide Ochizosphe of Reducti Surface (Vell Data lain in Re	(B14) (B14) dor (C1) dor (C1) dor (C4) dor in Tilled (C7) (D9) demarks)) d Soils (Ce	Secondar Surfa Drain Dry-S Crayf (C3) Satur Stunt Go Geon	y Indicator ce Soil Cra age Patter Season Wa ish Burrow ation Visib ed or Stres norphic Po	s (minimum acks (B6) ns (B10) ter Table (C s (C8) le on Aerial seed Plants (sition (D2) st (D5)	of two red	quir ((C9)

US Army Corps of Engineers

FAC-Neutral Test = 50%

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159238	35(L) City	/County:	Indianapo	olis, 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)	Sec	tion, Tow	nship, Raı	nge: Section 31, T16N, R4E
Landform (hillslope, terrace, etc.): Roadside Ditch		Lo	ocal relief	(concave, convex, none): Concave/Sloped
Slope (%): 5 Lat: 39.785637	Lon	g: <u>-86.13</u>	8217	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 signific	antly dist	urbed?	Are "	Normal Circumstances" present? Yes X No
Are Vegetation, Soil, or Hydrology natural	lly proble	matic?	(If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	wing sa	mpling	point le	ocations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:			Sampled a Wetlar	
VEGETATION – Use scientific names of plants.				
Abso Tree Stratum (Plot size: 30 ft. radius) % Cc 1	over Sp		Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: (B)
5		atal Cayas		Percent of Dominant Species That Are OBL, FACW, or FAC:
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1	= To			Prevalence Index worksheet:
2				OBL species 40 x 1 = 40
3				FACW species0 x 2 =0
4				FAC species 0 x 3 = 0
5				FACU species 20 x 4 = 80 UPL species 0 x 5 = 0
Herb Stratum (Plot size: 5 ft. radius)	= To	otal Covel		Column Totals: 60 (A) 120 (B)
	40	Υ	OBL	Column Totals. (A) 120 (B)
Schedonorus arundinaceus (Tall False Rye Grass)	20	Υ	FACU	Prevalence Index = B/A =2.00
3				Hydrophytic Vegetation Indicators:
4				1 - Rapid Test for Hydrophytic Vegetation
5				2 - Dominance Test is >50%
6				X 3 - Prevalence Index is ≤3.0¹
7				4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
8				Problematic Hydrophytic Vegetation (Explain)
9				¹Indicators of hydric soil and wetland hydrology must
	60 = To	otal Cove	•	be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius) 1				Hydrophytic Vegetation
2				Present? Yes X No
	= To	otal Covel	-	
Remarks: (Include photo numbers here or on a separate sheet.)				
The species of cattail could not be determined, because of the la	ack of inflo	orescence	э.	

US Army Corps of Engineers

OIL								Sampling Point: DP-K-IN
Profile Des	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confir	m the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	<u>%</u>	Redo Color (moist)	x Feature %	s Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/1	95	7.5YR 3/4	5	C	М	Loam	Muddy, Nearly Saturated
7-11	10YR 2/1	60	7.5YR 4/6	4	С	M	Loam	
	10YR 5/2	35	7.5YR 2.5/3	1	С	М		
11-14	10YR 6/1	50	10YR 5/6	50	С	М	RockyLoam	Not saturated
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix.
lydric Soil Histoso	Indicators:			Gleyed Ma				s for Problematic Hydric Soils ³ : Prairie Redox (A16)
Black H Hydrogo Stratifie 2 cm M Deplete Thick D Sandy I 5 cm M	pipedon (A2) listic (A3) en Sulfide (A4) d Layers (A5) uck (A10) ed Below Dark Surface eark Surface (A12) Mucky Mineral (S1) ucky Peat or Peat (S3 Layer (if observed):	3)	Stripped Loamy I Loamy I Deplete X Redox I Deplete	Gleyed Ma d Matrix (Dark Surfa	S6) neral (F1) atrix (F2) F3) ace (F6) urface (F7)		Iron-M Very S Other 3Indicators wetlan	Surface (S7) Manganese Masses (F12) Shallow Dark Surface (TF12) (Explain in Remarks) s of hydrophytic vegetation and hydrology must be present, s disturbed or problematic.
Type: R								
	nches): <u>14</u>						Hydric Soil	I Present? Yes X No
Remarks:	•							
YDROLC	OGY rdrology Indicators:							
-	cators (minimum of o	ne is requi	red: check all that an	nlv)			Second	ary Indicators (minimum of two required
	Motor (A1)	iio io roqui	Water Sta		roc (B0)			face Soil Cracks (B6)

HYDROLOGY								
Wetland Hydrology Indica	ors:							
Primary Indicators (minimum	of one	is rec	uired;	chec	ck all that apply)			Secondary Indicators (minimum of two required)
X Surface Water (A1) X 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 A6	rial Ima	gery	(B7)		Water-Stained Leav Aquatic Fauna (B13 True Aquatic Plants Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduct Recent Iron Reduct Thin Muck Surface Gauge or Well Data	B) s (B14) odor (C1) eres on Living ed Iron (C4) tion in Tilled S (C7) a (D9)		 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) X Geomorphic Position (D2) FAC-Neutral Test (D5)
Sparsely Vegetated Cor Field Observations:	icave Si	лпасе	e (B8)	_	Other (Explain in R	emarks)	1	
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes	×	_ No _		Depth (inches): Depth (inches): Depth (inches):	10	- - Wetland I	Hydrology Present? Yes X No
Describe Recorded Data (st	eam ga	uge,	monito	oring	well, aerial photos, p	revious inspe	ections), if ava	ailable:
	ble was	obse	erved a	at a d	lepth of 10 inches. Pe	er the Corps	Supplementa	sumed to be caused by surface run-off and not by I Manual, Saturation (A3) indicator must be

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des	. 1592385(L)	City/Cour	nty: Indianapo	olis, Marion County	Sampling Date:	4/25/2016
Applicant/Owner: Indiana Department of Transportation	(INDOT)			State: N	_ Sampling Point:	: DP-K-OUT
Investigator(s): Brock Ervin and Stephany Stamatis (Pars	sons)	Section,	Township, Ra	nge: Section 31, T16N,	, R4E	
Landform (hillslope, terrace, etc.): Roadside Embankmer	nt		Local relief	(concave, convex, none	e): Slope	
Slope (%): <u>20</u> Lat: <u>39.785653</u>						
Soil Map Unit Name: Urban Land - Fox Complex (UfA)						
Are climatic / hydrologic conditions on the site typical for t						
Are Vegetation, Soil, or Hydrology						X No
Are Vegetation, Soil, or Hydrology	_ naturally pro	oblematic	? (If ne	eeded, explain any answ	vers in Remarks.)	
SUMMARY OF FINDINGS - Attach site ma	p showing	ı sampl	ing point l	ocations, transect	ts, important f	eatures, etc.
Hydrophytic Vegetation Present? Yes	No X					
Hydric Soil Present? Yes			the Sampled		No. V	
Wetland Hydrology Present? Yes		W	ithin a Wetlaı	nd? Yes	No <u>×</u>	_
Remarks:		I				
VEGETATION – Use scientific names of plant	ts.					
	Absolute	Domina	nt Indicator	Dominance Test wo	rksheet:	
Tree Stratum (Plot size: 30 ft. radius) 1			? Status	Number of Dominant That Are OBL, FACW		0 (A)
2				Total Number of Dom	ninant	
3				Species Across All St		1 (B)
4				Percent of Dominant	Species	
5				That Are OBL, FACW		0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total C	over	Prevalence Index wo	orksheet	
1					: Multip	plv bv:
2.				OBL species		
3.				FACW species		
4.				FAC species		
5.				FACU species1	100 x 4 =	400
		= Total C		UPL species	0 x 5 =	0
Herb Stratum (Plot size: 5 ft. radius)				Column Totals:1	100 (A)	400 (B)
Schedonorus arundinaceus (Tall False Rye Grass)				Drovolonoo Indo	ov. – P/A –	4.00
2				Prevalence Inde		+.00
3				1 - Rapid Test for		etation
4				0 D T		, idilon
5				3 - Prevalence In		
6				4 - Morphological		vide supportina
8.					rks or on a separat	
9.				Problematic Hyd	Irophytic Vegetatio	n¹ (Explain)
10.		-		¹ Indicators of hydric so be present, unless dist		
	100	= Total C	over	be present, unless dis		лис. ————
Woody Vine Stratum (Plot size: 30 ft. radius)						
1				Hydrophytic Vegetation		
2					es No _	X
		= Total C	over			
Remarks: (Include photo numbers here or on a separate	e sheet.)			•		

SOII maling Point: DP-K-OUT

Profile Description: (Description: (Description: Color (moist) Matrix Redox Features (inches) Color (moist) % Type Loc Texture Remarks (inches) Color (moist) S & Type Loc Texture Remarks (inches) Color (moist) S & Type Loc Texture Remarks (inches) Color (moist) S & Type Loc Texture Remarks (inches) Color (moist) S & Texture Remarks (inches) Color (moist) S & Texture (moist Color (moist Color (moist) S & Texture (moist Color (moist Color (moist) S & Texture (moist Color (moist) S & Texture (moist Color (moist	OIL								Sampling Point: Di 10001
	Profile Desc	ription: (Describ	pe to the dept				or confir	m the absence of i	ndicators.)
0-9	Depth						12	Tandona	Describe
9-15		-		Color (moist)	%	Type	LOC		Remarks
10YR 4/2				40VD E/0					
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Indicators for Problematic Mydric Soil Present? Yes									
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.	15-20			10YR 5/6	5	<u>C</u>	M		
Histosol (A1)		10YR 2/1						Rocky Loam	
Histosol (A1)			epletion, RM=	Reduced Matrix,	MS=Masked	Sand Gra	ains.		
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (TF12) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Send Mucky Mineral (S1) Send Mucky Mineral (S1) Send Mucky Mineral (S1) Send Mucky Mineral (S1) Setrictive Layer (if observed): Type: Depth (inches): Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Seturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Dark Matrix (B1) Sediment Deposits (B2) Dirit Deposits (B3) Presence of Reduced fron (C4) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced fron (C4) Surface (F7) Algal Mat or Crust (B4) Iron Deposits (B3) Presence of Reduced fron (C4) Sundor of Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B3) Depth (inches): Sealmation Visible on Aerial Imagery (B7) Sealmation Visible on Aerial Imagery (B7) Sealmation Visible on Aerial Imagery (B7) Sealmater (C2) Surface Water Present? Yes No X Depth (inches): Surface Water P	•								•
Black Histic (A3)		. ,							
Hydrogen Sulfide (A4) Stratified Layers (A5) Loarny Gleyed Matrix (F2) Stratified Layers (A5) Loarny Gleyed Matrix (F2) Cother (Explain in Remarks) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sendy Mucky Mineral (S1) Sendy Mucky Mineral (S1) Service Layer (if observed): Type: Depth (inches): Primary Indicators (minimum of one is required; check all that apply) Surface Water (A11) Surface Water (A12) Surface Water (A13) Surface Water (A13) Surface Water (A13) Surface Water (A14) Surface Water (A15) Surface Water (A15) Surface Water (A16) Surface Water (A17) Surface Water (A19)									` '
Stratified Layers (A5)					,	,			
2 cm Muck (A10) Depleted Matrix (F3) Redox Dark Surface (F6) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Set Mucky Pera tor Peat (S3) Redox Depressions (F8)						. ,			, ,
Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches):								00101 (EX	siam in remarks)
Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:	Depleted	Below Dark Surf	ace (A11)			` ,			
5 cm Mucky Peat or Peat (S3)									
Pyprology Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Saturation (A3) True Aquatic Fauna (B13) Saturation (A3) True Aquatic Plants (B14) Secondary Indicators (minimum of two required) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Secondary Indicators (minimum of two required) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Sodiment Deposits (B2) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Innudation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Sourface Water Present? Yes No Depth (inches): Sourface Water Present? Yes No Depth (inches): Sourface All that apply Secondary Indicators (minimum of two required) Secondary Indicators (B9) Surface Soil Cracks (B9) Surface Soil Cracks (B9) Surface Soil Cracks (B9) Surface Soil Crac		• , ,		Redo	x Depressio	ns (F8)			
Type:								uniess disi	turbed or problematic.
Popth (inches):		ayer (ii observe	u).						
Value Variable V		shoe):						Hydric Soil Bro	osont? Vos No X
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Pry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Iron Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) 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) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X Metland Hydrology Present? Yes No X Depth (inches): Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Soil Cracks (B1) Surface Soil C								Hydric Soli Fre	iselit: TesNoX_
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water-Stained Leaves (B9) Aquatic Fauna (B13) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drianage Patterns (B10) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Soil Cracks (B6) Surface Soil Cracks (B6) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Factorial Test (D1) Factorial Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): >20 Saturation Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Saturation Present? Yes Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Saturation Present? Yes Depth (i									
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Water-Stained Leaves (B9) Aquatic Fauna (B13) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drianage Patterns (B10) Sediment Deposits (B3) Presence of Reduced Iron (C4) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Soil Cracks (B6) Surface Soil Cracks (B6) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Factorial Test (D1) Factorial Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): >20 Saturation Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Saturation Present? Yes Depth (inches): >20 Wetland Hydrology Present? Yes No X Depth (inches): >20 Saturation Present? Yes Depth (i	IVDBOL O	CV							
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Surface Water (A1)	-								
High Water Table (A2)	•		of one is requir						· · · · · · · · · · · · · · · · · · ·
		` ,				` '			, ,
Water Marks (B1)								_	
Sediment Deposits (B2)		` '				, ,			
				-			na Poots		
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches):				·			•	· /	
Iron Deposits (B5)				·		•	•		
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No	_						. Cons (C		
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): includes capillary fringe)		, ,	al Imagerv (B7			,		17.0-100	
Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): Includes capillary fringe) Wetland Hydrology 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									
Water Table Present? Yes No _X Depth (inches):>20 Saturation Present? Yes No _X Depth (inches):>20 Wetland Hydrology Present? Yes No _X Depth (inches):>20	Surface Wate	er Present?	Yes N	No X Depth	(inches):		_ [
Saturation Present? Yes No _X Depth (inches):>20 Wetland Hydrology Present? Yes No _X includes capillary fringe)	Nater Table	Present?				>20	_ [
							Wet	land Hydrology Pr	resent? Yes No X
			am gauge. mo	nitoring well. aeri	al photos, pr	evious ins	pections)	, 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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592	2385(L) (City/County:	Indianapo	lis, Marion County	Sampling Date: 4/25/2016
Applicant/Owner: Indiana Department of Transportation (INDO	DT)			State: N	Sampling Point: DP-L-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	(Section, Tow	nship, Raı	nge: Section 31, T16N	N, R4E
Landform (hillslope, terrace, etc.): Roadside Ditch		L	ocal relief	(concave, convex, nor	ne): Concave/Sloped
Slope (%): 5 Lat: 39.785714	l	_ong: <u>-86.13</u>	37929		Datum: <u>NAD 1983</u>
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				NW	/I classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this tir	me of yea	ar? Yes>	<_ No _	(If no, explain in	n Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly o	disturbed?	Are "	Normal Circumstance	s" present? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally prol	blematic?	(If ne	eded, explain any ans	swers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sh	owing	sampling	point le	ocations, transed	cts, important features, etc
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No Remarks:			Sampled		X No
VEGETATION – Use scientific names of plants.					
	Cover	Dominant In Species?	Status	Number of Dominan That Are OBL, FAC	nt Species
2				Total Number of Doi Species Across All S	
5		Total Cove		Percent of Dominan That Are OBL, FAC	
Sapling/Shrub Stratum (Plot size:15 ft. radius) 1				OBL species FACW species FAC species FACU species	worksheet: of: Multiply by: 50 x 1 = 50 0 x 2 = 0 0 x 3 = 0 5 x 4 = 20 0 x 5 = 0
Herb Stratum (Plot size: 5 ft. radius)				Column Totals:	55 (A) <u>70</u> (B)
1. Typha sp. (Cattail)	50	<u> </u>	OBL	D	dec. D/A 4.07
Schedonorus arundinaceus (Tall False Rye Grass) . . .				Hydrophytic Veget	dex = B/A =ation Indicators: or Hydrophytic Vegetation
5				X 2 - Dominance	
6				X 3 - Prevalence I	
7				4 - Morphologic	al Adaptations (Provide supporting arks or on a separate sheet)
8					/drophytic Vegetation (Explain)
9					soil and wetland hydrology must
10		Total Cove		be present, unless di	isturbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1 2				Hydrophytic Vegetation Present?	Yes <u>X</u> No
_	=	Total Cove	r		
Remarks: (Include photo numbers here or on a separate shee	et.)			l .	
The species of cattail could not be determined, because of the	e lack of	inflorescenc	е.		

OIL								Sampling Point: DP-L-IN
Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the i	indicator	or confirr	m the absence	of indicators.)
Depth	Matrix Color (moist)	%	Color (moist)	x Feature	S Type ¹	Loc ²	Toyturo	Pomorko
(inches)	Color (moist)		Color (moist)	%	<u>rype</u>	LOC	<u>Texture</u>	Remarks
0-3	10YR 2/1	100	7.5)/5.4/0				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						
	oncentration, D=Dep	letion, RM=		S=Masked	d Sand Gr	ains.		cation: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histosol				Gleyed Ma	. ,			Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
	istic (A3) en Sulfide (A4)			d Matrix (S Mucky Mir	,			langanese Masses (F12) Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma			=	
	uck (A10)			ed Matrix (. ,		Other	(Explain in Remarks)
	d Below Dark Surfac	e (A11)		Dark Surfa	,			
	ark Surface (A12)	, ,		ed Dark Su	. ,)	³ Indicators	s of hydrophytic vegetation and
Sandy N	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		wetlan	d hydrology must be present,
	ucky Peat or Peat (S						unless	disturbed or problematic.
Restrictive	Layer (if observed)							
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Remarks:							•	
YDROLO	GY							
Vetland Hy	drology Indicators:							
Primary Indi	cators (minimum of c	ne is requi	ed; check all that ap	oply)				ary Indicators (minimum of two required
	Water (A1)		Water-Sta	ined Leav	es (B9)			face Soil Cracks (B6)
X High Wa	ater Table (A2)		Aquatic Fa	•	,			inage Patterns (B10)
Saturati	on (A3)		True Aqua	atic Plants	(B14)		Dry-	-Season Water Table (C2)
Water M	Marks (B1)		Hydrogen	Sulfide O	dor (C1)		Cra	yfish Burrows (C8)

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) X Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6) X High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Saturation (A3) True Aquatic Plants (B14) Dry-Season Water Table (C2) Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Prift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes X No Depth (inches): 12 Water Table Present? Yes X No Depth (inches): 2 Water Table Present? Yes No X Depth (inches): 2 Wetland Hydrology Present? Yes X No Saturation Present? Yes No X Depth (inches): 2 <	HTDRULUGT				
X Surface Water (A1)	Wetland Hydrology Indica	itors:			
X High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Water Table (A2) Aquatic Flauna (B13) Driv-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Sparsely Vegetated Concave Surface (B8) Surface Water Present? Yes X No Depth (inches): 0.5 Water Table Present? Yes X No Depth (inches): 2 Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Primary Indicators (minimur	n of one is required	check all that apply)		Secondary Indicators (minimum of two required)
Saturation (A3)			Water-Stained Leaves	(B9)	Surface Soil Cracks (B6)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8) Sediment Deposits (B2) X Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Surface Water Present?	X High Water Table (A2)		Aquatic Fauna (B13)		Drainage Patterns (B10)
Sediment Deposits (B2)	Saturation (A3)		True Aquatic Plants (B ²	14)	Dry-Season Water Table (C2)
Drift Deposits (B3)	Water Marks (B1)		Hydrogen Sulfide Odor	(C1)	Crayfish Burrows (C8)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Surface Water Present?	Sediment Deposits (B2	.)	X Oxidized Rhizospheres	on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5) Thin Muck Surface (C7)X FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present?	Drift Deposits (B3)		Presence of Reduced I	ron (C4)	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present?	Algal Mat or Crust (B4)		Recent Iron Reduction	in Tilled Soils (C6)	X Geomorphic Position (D2)
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present?	Iron Deposits (B5)		Thin Muck Surface (C7)	X FAC-Neutral Test (D5)
Surface Water Present? Yes X No Depth (inches): 0.5 Water Table Present? Yes X No Depth (inches): 12 Saturation Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes X No Depth (inches): 2 Remarks:	Inundation Visible on A	erial Imagery (B7)	Gauge or Well Data (D	9)	
Surface Water Present? Yes X No Depth (inches): 0.5 Water Table Present? Yes X No Depth (inches): 12 Saturation Present? Yes No X Depth (inches): 2 Wetland Hydrology Present? Yes X No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Sparsely Vegetated Co	ncave Surface (B8)	Other (Explain in Rema	arks)	
Water Table Present? Yes X No Depth (inches): 12 Saturation Present? Yes No X Depth (inches): 2 Wetland Hydrology Present? Yes X No Saturation Present? Yes X No	Field Observations:				
Saturation Present? Yes No X Depth (inches): 2 Wetland Hydrology Present? Yes X No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Water Present?	Yes X No	Depth (inches):	0.5	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table Present?	Yes X No	Depth (inches):	12	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		Yes No	X Depth (inches):	2 Wetland	Hydrology Present? Yes X No
	Describe Recorded Data (s	tream gauge, monite	oring well, aerial photos, previ	ous inspections), if av	ailable:
	Remarks:				
FAC-Neutral Test = 100%. High water table observed within 12 inches of the surface. Saturation was observed within the ton two inches of the soil					
1770 Hourar Foot - 10070. Fight water table observed within 12 mence of the sundee. Outdratten was observed within the top two menes of the son.	FAC-Neutral Test = 100%.	High water table ob	served within 12 inches of the	surface. Saturation w	as observed within the top two inches of the soil.

Supplemental Manual, Saturation (A3) indicator must be associated with an existing water table located immediately below the saturated zone.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, 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, Rar	nge: Section 31, T16N,	R4E
Landform (hillslope, terrace, etc.): Roadside Embankment	Local relief	(concave, convex, none)	: Sloped
Slope (%): <u>15</u> Lat: <u>39.785737</u>	Long: <u>-86.137998</u>		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 ye	ear? Yes X No _	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "	Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? (If ne	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	յ sampling point և	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes No _X	Is the Sampled	Area	
Hydric Soil Present? Yes X No	within a Wetlan		No <u>X</u>
Wetland Hydrology Present? Yes No _X			
Remarks.			
VEGETATION – Use scientific names of plants.			
Absolute	Dominant Indicator	Dominance Test wor	ksheet:
Tree Stratum (Plot size: 30 ft. radius) % Cover 1.	Species? Status	Number of Dominant S That Are OBL, FACW,	
2		Total Number of Domi	nant
3		Species Across All Str	ata: <u>1</u> (B)
4		Percent of Dominant S	
5	= Total Cover	That Are OBL, FACW,	or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)	10tai 00vci	Prevalence Index wo	
1	- ———		Multiply by:
2			0 x 1 = 0
3		· ·	0 x 2 = 0
4		· ·	0
5	= Total Cover		0
Herb Stratum (Plot size: 5 ft. radius)	= Total Cover	-	30 (A) 320 (B)
Schedonorus arundinaceus (Tall False Rye Grass) 80	Y FACU		
2	- ———		x = B/A =4.00
3		Hydrophytic Vegetat	
4			Hydrophytic Vegetation
5		2 - Dominance Te 3 - Prevalence Inc	
6			Adaptations (Provide supporting
7		data in Remark	ks or on a separate sheet)
8		Problematic Hydr	ophytic Vegetation (Explain)
10.		¹ Indicators of hydric so be present, unless dist	il and wetland hydrology must
80	= Total Cover	be present, unless dist	Tibed of problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)		I le calma na la catio	
1		Hydrophytic Vegetation	
2			s No _X_
	= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)			

SOIL Sampling Point: DP-L-OUT

Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redox Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Stratified Layers (A5) Stripped Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks	x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and nust be present,
1-4	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
10-15 10YR 4/4 100 Sandy Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Coast Prairie Redo. Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Iron-Manganese M. Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in R 2 cm Muck (A10) Nepleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
10-15 10YR 4/4 100 Sandy Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Sandy Redox (S5) Indicators for Problem Histic Epipedon (A2) Sandy Redox (S5) Dark Surface (S7) Black Histic (A3) Stripped Matrix (S6) Inon-Manganese Milled Layers (A5) Loamy Mucky Mineral (F1) Very Shallow Dark Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in R Z cm Muck (A10) Nepleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Z cm Muck (A10) X Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (S5) Dark Surface (S7) Loamy Mucky Mineral (F1) Very Shallow Dark Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Location: PL=P Indicators of Problem - Coast Prairie Redox - Coast P	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Sandy Redox (S5) Stripped Matrix (F2) Depleted Dark Surface (F6) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Indicators for Problem Sandy Gleyed Matrix (S4) Loamy Gleyed Matrix (S4) Loamy Redox (S5) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Wetland hydrology restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Redox (S5) Depleted Dark Surface (F8) Redox Depressions (F8) Wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Sandy Redox (S5) Stripped Matrix (F2) Depleted Dark Surface (F6) Redox Dark Surface (F6) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Indicators for Problem Sandy Gleyed Matrix (S4) Loamy Gleyed Matrix (S4) Loamy Redox (S5) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Wetland hydrology restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Redox (S5) Depleted Dark Surface (F8) Redox Dark Surface (F8) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Hydric Soil Indicators: Histosol (A1) Sandy Gleyed Matrix (S4) Dark Surface (S7) Sandy Redox (S5) Dark Surface (S7) Stripped Matrix (S6) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) Stratified Layers (A5) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) See Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	natic Hydric Soils ³ : x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) X Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (S5) Dark Surface (S7) Iron-Manganese Mick (F2) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) X Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	x (A16) asses (F12) Surface (TF12) emarks) tic vegetation and nust be present,
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6) Loamy Mucky Mineral (F1) Stratified Layers (A5) 2 cm Muck (A10) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox (S5) Depleted Dark Surface (F6) To be pleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Redox Depressions (F8) Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Mark Surface (S7) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Thick Dark Surface (A12) Redox Depressions (F8) Wetland hydrology runless disturbed or the plant of th	asses (F12) Surface (TF12) emarks) tic vegetation and must be present,
Black Histic (A3) Stripped Matrix (S6) Iron-Manganese Miles Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Very Shallow Dark Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in R 2 cm Muck (A10) X Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (A11) Depleted Dark Surface (F7) Indicators of hydrophy Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	Surface (TF12) emarks) tic vegetation and nust be present,
	Surface (TF12) emarks) tic vegetation and nust be present,
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Other (Explain in R 2 cm Muck (A10) X Depleted Matrix (F3) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) S cm Mucky Peat or Peat (S3)	emarks) tic vegetation and nust be present,
2 cm Muck (A10)	tic vegetation and nust be present,
 Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 5 cm Mucky Peat or Peat (S3) Redox Depressions (F8) Wetland hydrology runless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present? 	must be present,
Sandy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology runless disturbed or S cm Mucky Peat or Peat (S3) unless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	must be present,
5 cm Mucky Peat or Peat (S3) unless disturbed or Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	
Restrictive Layer (if observed): Type: Rocks Depth (inches): 15 Hydric Soil Present?	problematic.
Type: Rocks Depth (inches): 15 Hydric Soil Present?	
Depth (inches): 15 Hydric Soil Present?	
Remarks:	Yes X No
HYDROLOGY	
Wetland Hydrology Indicators:	
	(minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Crac	
High Water Table (A2) Aquatic Fauna (B13) Drainage Pattern	. ,
Saturation (A3) True Aquatic Plants (B14) Dry-Season Wat	
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows	
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible	e on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stress	sed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Pos	ition (D2)
Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Tes	t (D5)
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9)	
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	
Field Observations:	
Surface Water Present? Yes NoX Depth (inches):	
Water Table Present? Yes NoX Depth (inches):>15	
Saturation Present? Yes No _X Depth (inches):>15 Wetland Hydrology Present?	Yes No _X
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	
Remarks:	
Remarks:	

US Army Corps of Engineers Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159	92385(L) (City/County:	Indianapo	lis, Marion County	Sampling Date: 10/4/2016
Applicant/Owner: Indiana Department of Transportation (IND)	OT)			State: IN	Sampling Point: DP-M-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)	;	Section, Tov	vnship, Ra	nge: Section 31, T16N, R	4E
Landform (hillslope, terrace, etc.): Toe of slope		L	ocal relief	(concave, convex, none):	Sloped
Slope (%): 5 Lat: 39.788353		Long: <u>-86.1</u>	32051		Datum: NAD 1983
Soil Map Unit Name: <u>Urban land-Westland complex (Uw)</u>				NWI cla	assification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this ti	ime of yea	ar? Yes	≺ _ No _	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly	disturbed?	Are "	Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology nat	urally pro	blematic?	(If ne	eded, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map sh	nowing	sampling	g point le	ocations, transects,	, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No Remarks:			e Sampled n a Wetlar		No
VEGETATION – Use scientific names of plants.					
	6 Cover	Dominant I Species?	Status	Number of Dominant Sp That Are OBL, FACW, o	pecies
2				Total Number of Domina Species Across All Strat	_
4				Percent of Dominant Sp That Are OBL, FACW, o	
_		= Total Cove	r		
Sapling/Shrub Stratum (Plot size: 15 ft. radius)			N.II	Prevalence Index work	
1				Total % Cover of: OBL species 80	
2. 3.					x 2 =0
4.					x 3 =0
5				FACU species15	x 4 =60
		= Total Cove		UPL species0	x 5 =0
Herb Stratum (Plot size: 5ft radius)	40	Υ	ODI	Column Totals: 95	(A) <u>140</u> (B)
Typha sp. (Cattail) Eleocharis mamillata (Soft-stem Spike-Rush)	40	<u> </u>	OBL OBL	Prevalence Index	= B/A =1.47
3. Schedonorus arundinaceus (Tall False Rye Grass)	15	N	FACU	Hydrophytic Vegetatio	
4.				X 1 - Rapid Test for H	ydrophytic Vegetation
5.				X 2 - Dominance Test	t is >50%
6				X 3 - Prevalence Inde	ex is ≤3.0 ¹
7					daptations (Provide supporting
8					s or on a separate sheet)
9					phytic Vegetation (Explain) and wetland hydrology must
10				be present, unless distur	
Woody Vine Stratum (Plot size: 15ft radius)	95 =	= Total Cove	r		
1				Hydrophytic	
2.				Vegetation	V N-
		= Total Cove	r	Present? Yes	_X_ No
Remarks: (Include photo numbers here or on a separate she	et.)				
The species of cattail could not be determined, because of the	,	inflorescenc	e.		

US Army Corps of Engineers

SOIL Sampling Point: DP-M-IN

epth	Matrix		Redo	x Feature	9			
nches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-5	5Y 4/1	90	7.5YR 4/4	10	С	PL/M	Loam	Debris: brown glass, trash
				_				-
				_				
				_				
pe: C=C	Concentration, D=De	pletion, RM=	Reduced Matrix, M	S=Masked	d Sand Gra	ains.	² Lc	ocation: PL=Pore Lining, M=Matrix.
	Indicators:	•						s for Problematic Hydric Soils ³ :
Histoso	I (A1)		Sandy	Gleyed Ma	atrix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
	listic (A3)			d Matrix (S				Manganese Masses (F12)
	en Sulfide (A4)			Mucky Mi	, ,		-	Shallow Dark Surface (TF12)
	d Layers (A5) uck (A10)		Loamy X Deplete	Gleyed Matrix (Other	(Explain in Remarks)
	ed Below Dark Surfa	ice (A11)		Dark Surfa				
	ark Surface (A12)	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			ırface (F7)		³ Indicator	s of hydrophytic vegetation and
Sandy I	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		wetlar	nd hydrology must be present,
	ucky Peat or Peat (unles	s disturbed or problematic.
	Layer (if observed							
, <u> </u>	arge rocks and glass	3						
Depth (ir	nches): <u>5</u>						Hydric Soi	I Present? Yes X No
ging was	difficult due to rock dicators.	s, but was al	pandoned as unsafe	e due to gl	ass. Furth	er excavat	ion was unne	ecessary due to observed soil and
gging was drology in	dicators.		oandoned as unsafe	e due to gl	ass. Furth	er excavat	ion was unne	ecessary due to observed soil and
ging was drology in DROLO	OGY rdrology Indicators	s:			ass. Furth	er excavat		
ging was Irology in DROLO	OGY rdrology Indicators	s:	ed; check all that a	oply)		er excavat	Second	lary Indicators (minimum of two requir
ging was Irology in DROLO Itland Hy mary Indi	OGY rdrology Indicators cators (minimum of	s:	red; check all that a	oply) nined Leav	es (B9)	er excavat	Second	lary Indicators (minimum of two requir
ging was Irology in DROLO tland Hy mary Indi Surface High W	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2)	s:	ed; check all that a Water-Sta Aquatic F	oply) ained Leav auna (B13	es (B9)	er excavat	Second Sur Dra	lary Indicators (minimum of two requir rface Soil Cracks (B6) ainage Patterns (B10)
ging was Irology in DROLO tland Hy mary Ind Surface High W Saturat	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3)	s:	red; check all that a Water-Sta Aquatic F True Aqua	oply) ained Leav auna (B13 atic Plants	es (B9)) (B14)	er excavat	Second Sui Dra	lary Indicators (minimum of two requir rface Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2)
ging was rology in DROLO tland Hy mary Ind Surface High W Saturat Water M	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1)	s:	red; check all that a	oply) ained Leav auna (B13 atic Plants Sulfide O	es (B9)) (B14) dor (C1)		Second Sur Dra Dry Cra	lary Indicators (minimum of two requir rface Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8)
ging was rology in DROLO tland Hy mary Indi Surface High W Saturat Water M Sedime	ordicators. OGY Indicators	s:	red; check all that a Water-Sta Aquatic F True Aqua Hydrogen X Oxidized	oply) ained Leav auna (B13 atic Plants Sulfide O Rhizosphe	es (B9)) (B14) dor (C1) rres on Liv	ing Roots (Second Sui Dra Dry Cra C3) Sai	lary Indicators (minimum of two requir rface Soil Cracks (B6) ainage Patterns (B10) /-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9
ging was rology in DROLO tland Hy mary Indi Surface High W Saturat Water M Sedime Drift De	dicators. OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3)	s:	red; check all that a Water-Sta Aquatic F True Aqua Hydrogen X Oxidized Presence	oply) nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	es (B9)) (B14) dor (C1) ures on Livied Iron (C4	ing Roots (Second Sui Dra Dra Cra C3) Sai Stu	lary Indicators (minimum of two requir rface Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
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Project/Site: <u>I65/I70 Interchange Mod/Bridge Rehab-Des.</u>	1592385(L)	City/County:	Indianapo	olis, Marion County	Sampling Date: <u>10/3/2016</u>	
Applicant/Owner: Indiana Department of Transportation (I	NDOT)			State: IN	Sampling Point: DP-M-OUT	
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, To	wnship, Ra	nge: Section 31, T16N, R	:4E	
Landform (hillslope, terrace, etc.): Grassy Right-of-Way/S	houlder	l	ocal relief	(concave, convex, none):	Flat	
Slope (%): <3 Lat: 39.788419		Long: <u>-86.1</u>	32179		Datum: NAD 1983	
Soil Map Unit Name: Urban land-Westland complex (Uw)				NWI cl	assification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for the					·	
Are Vegetation, Soil, or Hydrology					oresent? Yes X No No	
Are Vegetation, Soil, or Hydrology				eeded, explain any answe	· · · · · · · · · · · · · · · · · · ·	
SUMMARY OF FINDINGS – Attach site map			,		, in the second second	
Hydrophytic Vegetation Present? Yes	No X	I. di	- 0			
Hydric Soil Present? Yes X	is the Sampled Area			NoX		
Wetland Hydrology Present? Yes	No X	WILLI	iii a vvetiai	iu: 165		
Remarks:	, .					
The location of DP-M-OUT was chosen due to the dominat DP-M-IN. Upon review, this area was determined not						
VEGETATION – Use scientific names of plants	S.					
7 O (D		Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: 30 ft. radius) 1		Species?	Status	Number of Dominant Sp That Are OBL, FACW, of		
2				Total Number of Domin	ant	
3				Species Across All Stra	ta: <u>2</u> (B)	
4				Percent of Dominant Sp		
5		= Total Cove		That Are OBL, FACW,	or FAC:50.00 (A/B)	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	-	= Total Cove	5 1	Prevalence Index wor	ksheet:	
1. Lonicera maackii (Amur Honeysuckle)	10	Y	UPL	Total % Cover of:	Multiply by:	
2. Catalpa speciosa (Northern Catalpa)	2	N	FACU		x 1 =0	
3. Betula sp. (birch sp.)	(2)	N	NI	FACW species10		
4		·			x 3 =0	
5		·			x 4 = 12	
Herb Stratum (Plot size: 5 ft. radius)	12	= Total Cove	er	UPL species10 Column Totals:11	$\frac{0}{3}$ x 5 = $\frac{50}{262}$ (B)	
1. Phalaris arundinacea (Reed Canary Grass)	100	Υ	FACW	Column Totals:	3 (A) <u>202</u> (B)	
2. Cirsium discolor (Field Thistle)		N	FACU	Prevalence Index	= B/A = <u>2.32</u>	
3				Hydrophytic Vegetation		
4				1 - Rapid Test for H		
5				2 - Dominance Tes		
6				3 - Prevalence Inde		
7					Adaptations (Provide supporting s or on a separate sheet)	
8					phytic Vegetation (Explain)	
9				1	and wetland hydrology must	
10				be present, unless distu	rbed or problematic.	
Woody Vine Stratum (Plot size: 30 ft. radius)	101	= Total Cove	er			
1				Hydrophytic		
2.				Vegetation Present? Yes	No _X_	
		= Total Cove		100		
Remarks: (Include photo numbers here or on a separate	sheet.)			<u> </u>		
	•					

SOIL Sampling Point: DP-M-OUT

Depth	Matrix		Red	ox Feature	s			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-13	10YR 3/1	100					Loam	Bricky debris
13-18	10YR 3/1	95	5YR 3/2	5	С	M	Loam	
18-22	10YR 4/1	96	2.5Y 3/3	4	С	M	Loam	
	-							
ydric Soil Histoso Histic E Black F Hydrog Stratifie	Concentration, D=Depl Indicators: ol (A1) Epipedon (A2) distric (A3) en Sulfide (A4) ed Layers (A5)	oletion, RM=	Sandy Sandy Strippe Loamy Loamy	Gleyed Ma Redox (S5 ad Matrix (S Mucky Mi Gleyed M ed Matrix (S	atrix (S4) 5) S6) neral (F1) atrix (F2)	ains.	Indicator Coas Dark Iron-l	cocation: PL=Pore Lining, M=Matrix. s for Problematic Hydric Soils ³ : t Prairie Redox (A16) Surface (S7) Manganese Masses (F12) Shallow Dark Surface (TF12) r (Explain in Remarks)
Deplete <pre> Complete Complete</pre>	ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) lucky Peat or Peat (S Layer (if observed)	3)	Redox Deplet	Dark Surfa	ace (F6) urface (F7)		wetla	rs of hydrophytic vegetation and and hydrology must be present, as disturbed or problematic.
Type:								
Depth (ii	nches):							I Dresent? Ves V No
emarks:							Hydric So	il Present? Yes X No
/DROLO	DGY						Hydric So	ii Present? Yes No
/DROLO	DGY ydrology Indicators							
/DROLO /etland Hy rimary Ind Surface High W Satural Water I Sedime Drift De Algal W	ydrology Indicators icators (minimum of e Water (A1) /ater Table (A2) cion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)	one is requir	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir	ained Leav auna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reducti k Surface	(B14) dor (C1) eres on Livied Iron (C4 ion in Tilled (C7)	.)	Second Su Dr Cr (C3) Sa Str G6)	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) (C-Neutral Test (D5)
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/DROLO /etland Hy rimary Ind _ Surface _ High W _ Saturat _ Water I _ Sedime _ Drift De _ Algal W _ Iron De _ Inundat _ Sparse	ydrology Indicators icators (minimum of of the Water (A1) fater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) flat or Crust (B4) eposits (B5) tion Visible on Aerial ly Vegetated Concav	one is requir	Water-Sta Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduct on Reduct k Surface	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) (D9)	.)	Second Su Dr Cr (C3) Sa Str G6)	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2)
TDROLO Tetland Hyrimary Indu Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse	ydrology Indicators icators (minimum of of the Water (A1) dater Table (A2) dion (A3) Marks (B1) ent Deposits (B2) deposits (B3) dat or Crust (B4) deposits (B5) tion Visible on Aerial ly Vegetated Concavervations:	one is requir Imagery (B7 re Surface (B	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Gas Other (Ex	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reduct k Surface Well Data	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled (C7) (D9)	.)	Second Su Dr Cr (C3) Sa Str G6)	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2)
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Control of the contro	ydrology Indicators icators (minimum of of et Water (A1) /ater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial ly Vegetated Concav rvations: ater Present?	Imagery (B7 e Surface (B	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Gas Other (Ex	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reduce k Surface Well Data xplain in Re	(B14) (B14) (dor (C1) (dor (C1) (dor (C1) (ced Iron (C4) (con in Tilled (con (C7) (con (C7) (con (C9) (con (C7) (con	D) Soils (Ce	Second Su Dr Cr. (C3) Sa Sti Sti S FA	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) .C-Neutral Test (D5)
YDROLO Vetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse Gurface Wa Vater Table Saturation Includes ca	ydrology Indicators icators (minimum of a water (A1) /ater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial ly Vegetated Concav rvations: ater Present?	Imagery (B7 re Surface (B7 res I res I res I	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Gas) Other (Ex No X Depth (in No X Depth (in	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reduct k Surface Well Data xplain in Re anches):	(B14) (B14) (dor (C1) (dor (C1) (dor (C1) (dor (C4) (C7) (D9) (D9) (D9) (D9) (D9) (D9) (D9) (D9	Soils (C6	Second Su Dr Cr (C3) Sa Str X FA	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2) .C-Neutral Test (D5)
Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse Field Obse Surface Wa Vater Table Saturation I	pdrology Indicators icators (minimum of ele water (A1) /ater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial ly Vegetated Concav rvations: ater Present? epersent?	Imagery (B7 re Surface (B7 res I res I res I	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Gas) Other (Ex No X Depth (in No X Depth (in	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reduct k Surface Well Data xplain in Re anches):	(B14) (B14) (dor (C1) (dor (C1) (dor (C1) (dor (C4) (C7) (D9) (D9) (D9) (D9) (D9) (D9) (D9) (D9	Soils (C6	Second Su Dr Cr (C3) Sa Str X FA	dary Indicators (minimum of two require rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) comorphic Position (D2)
YDROLO Vetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inunda Sparse Gield Obse Surface Wa Vater Table Saturation I Includes ca	pdrology Indicators icators (minimum of ele water (A1) /ater Table (A2) icion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial ly Vegetated Concav rvations: ater Present? epersent?	Imagery (B7 re Surface (B7 res I res I res I	Water-Sta Aquatic F Aquatic F True Aqu Hydroger Oxidized Presence Recent Ir Thin Muc Gauge or Gas) Other (Ex No X Depth (in No X Depth (in	ained Leav fauna (B13 atic Plants a Sulfide O Rhizosphe of Reduce on Reduct k Surface Well Data xplain in Re anches):	(B14) (B14) (dor (C1) (dor (C1) (dor (C1) (dor (C4) (C7) (D9) (D9) (D9) (D9) (D9) (D9) (D9) (D9	Soils (C6	Second Su Dr Cr (C3) Sa Str X FA	dary Indicators (minimum of two requirer of the Soil Cracks (B6) ainage Patterns (B10) by-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) anted or Stressed Plants (D1) becomorphic Position (D2) C-Neutral Test (D5)

US Army Corps of Engineers Midwest Region – Version 2.0 Page 142 of 201 Marion Co., IN

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	. 1592385(L)	City/County	/: Indianapo	olis, 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 (Parson	s)	Section, To	ownship, Ra	nge: Section 31, T16N, F	R4E
Landform (hillslope, terrace, etc.): Roadside Ditch			Local relief	(concave, convex, none)	: Concave
Slope (%): <5 Lat: 39.787414					
Soil Map Unit Name: Urban land-Westland complex (Uw)					
Are climatic / hydrologic conditions on the site typical for ti					
Are Vegetation, Soil, or Hydrology					present? Yes X No
Are Vegetation, Soil, or Hydrology	_naturally pro	oblematic?	(If ne	eeded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map			ng point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes X	No				
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X Yes X			ne Sampled		
Wetland Hydrology Present? Yes X		with	nin a Wetlaı	nd? Yes 🔀	< No
Remarks:					
V50574710N 11 : ::''					
VEGETATION – Use scientific names of plant				1	
Tree Stratum (Plot size: 30 ft. radius) 1		Dominant Species?	Status	Number of Dominant S That Are OBL, FACW,	Species
2.				, ,	
3.				Total Number of Domir Species Across All Stra	
4				Percent of Dominant S	thecies
5					or FAC:100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cov	/er	Prevalence Index wor	rkshoot:
					Multiply by:
1					0
3.					0 x 2 = 100
4.				1	0 x 3 = 0
5.				FACU species	0 x 4 =0
		= Total Cov	/er	UPL species	0 x 5 = 0
Herb Stratum (Plot size: 5 ft. radius)	50	V	EAC\\\	Column Totals:5	<u>50</u> (A) <u>100</u> (B)
Echinochloa crus-galli (Large Barnyard Grass)				Prevalence Index	x = B/A = 2.00
2. 3.				Hydrophytic Vegetati	
4.				' ' '	Hydrophytic Vegetation
5.				X 2 - Dominance Tes	st is >50%
6.				X 3 - Prevalence Ind	lex is ≤3.0 ¹
7.					Adaptations (Provide supporting
8.					ks or on a separate sheet)
9				1	ophytic Vegetation (Explain)
10				be present, unless distu	I and wetland hydrology must urbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius)	50	= Total Cov	ver .		
				Hydrophytic	
1				Vegetation	
		= Total Cov	/er	Present? Yes	s <u>X</u> No
		_ 10(a) 00(
Remarks: (Include photo numbers here or on a separate	sheet.)				

ofile Desc epth	Matrix		Redo	x Feature	S			
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/1	100					Sand	Sand grain colors highly variable
4-8	GLEY1 2.5/N	100					Org. loam	
8-20	GLEY1 3/N	66					Sand loam	
	5Y 4/1	30	10YR 4/4	4	С	М	Sand loam	
,,	· · · · · · · · · · · · · · · · · · ·	 pletion, RM=	 Reduced Matrix, M	S=Masked	 I Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix.
•	Indicators:			0	(0.1)			for Problematic Hydric Soils ³ :
Histosol	` '			Gleyed Ma Redox (S5				Prairie Redox (A16) Surface (S7)
	pipedon (A2) istic (A3)			d Matrix (S				anganese Masses (F12)
	en Sulfide (A4)			Mucky Mir				Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma				(Explain in Remarks)
	uck (A10)			ed Matrix (I				-/
	d Below Dark Surfa	ce (A11)		Dark Surfa	` ,		31	and have been been the second of the second
	ark Surface (A12) Mucky Mineral (S1)			ed Dark Su Depressio	ırface (F7)			of hydrophytic vegetation and dhydrology must be present,
	ucky Peat or Peat (\$	33)	Redux i	Depression	115 (F0)			d flydrology flust be present, disturbed or problematic.
		- /						
estrictive	Layer (if observed)):						
Restrictive Type:	Layer (if observed)							
Type: Depth (independent of the control of the	ches):		<u> </u>	however,	the botton	n layer co	_1	Present? Yes X No
Type: Depth (in- demarks: depleted la ark surface	ches):ayer was not observ was assumed to be	ed below the	<u> </u>	however,	the botton	n layer co	_1	
Type:	ches):ayer was not observ was assumed to be	ed below the present.	<u> </u>	however,	the botton	n layer co	_1	
Type: Depth (included in the content of the c	ches):ayer was not observ was assumed to be	ed below the present.	e thick dark surface;		the botton	n layer co	ntained inclusion	ons of depleted matrix with redox. Th
Type: Depth (included land land land land land land land lan	ches):ayer was not observ was assumed to be GY drology Indicators cators (minimum of	ed below the present.	<u> </u>	oply)		n layer co	ntained inclusion	ons of depleted matrix with redox. Th
Type: Depth (included in the content of the c	ches):ayer was not observ was assumed to be	ed below the present.	e thick dark surface;	oply) ined Leav	es (B9)	n layer co	ntained inclusion	ons of depleted matrix with redox. The
Type: Depth (included in the content of the c	ayer was not observe was assumed to be GY drology Indicators cators (minimum of Water (A1) ater Table (A2)	ed below the present.	e thick dark surface; red; check all that ar	oply) ined Leav auna (B13	es (B9)	n layer co	ntained inclusion Seconda Sur Dra	ons of depleted matrix with redox. The ary Indicators (minimum of two requirates Soil Cracks (B6)
Type: Depth (in: depleted la ark surface YDROLO Vetland Hy rimary India Surface High Wa Saturatio	ayer was not observe was assumed to be GY drology Indicators cators (minimum of Water (A1) ater Table (A2)	ed below the present.	e thick dark surface; red; check all that ar Mater-Sta Aquatic Fa	oply) ined Leav auna (B13 atic Plants	es (B9)) (B14)	n layer co	ntained inclusion Seconda Sur Dra Dry	ary Indicators (minimum of two requirace Soil Cracks (B6) inage Patterns (B10)
Type: Depth (included) Idemarks: Idepleted lateral surface Vetland Hydrimary India Surface High Water Mater	ches):ayer was not observ was assumed to be GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	ed below the present.	e thick dark surface; red; check all that ar Water-Sta Aquatic Fa True Aqua	oply) ined Leav auna (B13 atic Plants Sulfide Oo	es (B9)) (B14) dor (C1)		ntained inclusion Seconda Sur Dra Dry Cra	ary Indicators (minimum of two requirates Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Type: Depth (included in the content of the c	ayer was not observe was assumed to be a decided by the decided by	ed below the present.	red; check all that ar Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	oply) ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce	es (B9)) (B14) dor (C1) res on Livi	ng Roots	Seconda Sur Dra Dry Cra (C3) Stu	ary Indicators (minimum of two requirace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Type:	ayer was not observe was assumed to be was as a subject to be was assumed to be was assumed to be was assumed to be was assumed to be was as a subject to be was as a subject to be was as a subject to be was as as a subject to be was as a subject to be was as a subject to be was as a subject to be wa	ed below the present.	e thick dark surface; red; check all that ap	oply) ined Leaver auna (B13 atic Plants Sulfide Oor Rhizosphe of Reducer	es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilleo	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 inted or Stressed Plants (D1) omorphic Position (D2)
Type:	ayer was not observe was assumed to be was as a subject to be was assumed to be was assumed to be was as a was as a subject to be was as a	ed below the present.	e thick dark surface; red; check all that ar Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck	oply) ined Leav auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti a Surface (es (B9)) (B14) dor (C1) res on Livi ed Iron (C4) on in Tilled	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirerace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 inted or Stressed Plants (D1)
Type: Depth (in:	ches):ayer was not observ was assumed to be was assumed to be cators (minimum of Water (A1) ater Table (A2) on (A3) flarks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial	ed below the present. : one is requir	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	oply) ined Leave auna (B13 atic Plants Sulfide Or Rhizosphe of Reduce on Reducti x Surface (es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Type: Depth (included) Remarks: depleted later and surface Vetland Hy rimary India Surface High Wa Saturatia Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely	ayer was not observe was assumed to be a decided by the decided by	ed below the present. : one is requir	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	oply) ined Leave auna (B13 atic Plants Sulfide Or Rhizosphe of Reduce on Reducti x Surface (es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 inted or Stressed Plants (D1) omorphic Position (D2)
Type: Depth (in: lemarks: depleted la ark surface / DROLO / Vetland Hy rimary India Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely ield Obser	ayer was not observe was assumed to be was assumed to be was assumed to be a cators (minimum of water (A1) ater Table (A2) on (A3) ater Table (A2) on (A3) ater (B4) obsits (B3) at or Crust (B4) obsits (B5) on Visible on Aerial by Vegetated Concavorations:	ed below the present. : one is required in the present in the pre	red; check all that ag	pply) ined Leave auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti a Surface (Well Data blain in Re	es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9 inted or Stressed Plants (D1) omorphic Position (D2)
Type: Depth (in: temarks: depleted la ark surface YDROLO Vetland Hyu Trimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely ield Obser	ayer was not observe was assumed to be was assumed to be was assumed to be a cators (minimum of water (A1) ater Table (A2) on (A3) ater Table (A2) on (A3) at or Crust (B4) obsits (B3) at or Crust (B4) obsits (B5) on Visible on Aerial of Vegetated Concavorations:	ed below the present. : one is required to the present of the pre	e thick dark surface; red; check all that ag	oply) ined Leav auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti a Surface (Well Data blain in Re	es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled	ng Roots	Seconda Sur Dra Dry Cra (C3) Satu Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Type: Depth (in: Temarks: depleted la ark surface YDROLO Vetland Hy Trimary India Surface High Wa Sedimer July Algal Ma Iron Dep Inundati Sparsely Tield Obser Surface Water Table Selaturation P	ayer was not observe was assumed to be was assumed to be was assumed to be actions (minimum of Water (A1) ater Table (A2) on (A3) ater Table (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial by Vegetated Concaverations: er Present?	ed below the present. : one is required to see Surface (E	red; check all that ag	oply) ined Leaver auna (B13 atic Plants Sulfide Or Reduction Reduc	es (B9)) (B14) dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)	ng Roots) I Soils (Co	Seconda Sur Dra Dry Cra (C3) Sati Stur Stur Stur Stur	ary Indicators (minimum of two requirestace Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)

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.

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Marion Co., IN

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des	. 1592385(L)	City/Cou	ınty: Indianap	olis, Marion County	Sampling	Date: 10/3/20)16
Applicant/Owner: Indiana Department of Transportation (INDOT)			State: IN	Sampling	Point: DP-N-0	OUT
Investigator(s): Brock Ervin and Hannah Marriott (Parson	ıs)	Section,	, Township, Ra	ange: Section 31, T16N	I, R4E		
Landform (hillslope, terrace, etc.): Roadside Embankmer				(concave, convex, non			
Slope (%): <u>75</u> Lat: <u>39.787546</u>						AD 1983	
Soil Map Unit Name: Urban land-Westland complex (Uw)							d
Are climatic / hydrologic conditions on the site typical for t							
Are Vegetation, Soil, or Hydrology						es X N	lo
Are Vegetation, Soil, or Hydrology	naturally pro	blematio	c? (If n	eeded, explain any ans	wers in Rema	rks.)	
SUMMARY OF FINDINGS – Attach site ma							s, etc.
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes			s the Sample				
Wetland Hydrology Present? Yes		V	vithin a Wetla	ind? Yes	No _	<u> </u>	
Remarks:							
The location of DP-N-OUT was chosen due to the domin review, this area was determined not to be an extension			,	9	arnyard grass	at DP-N-IN. U	Jpon
VEGETATION – Use scientific names of plant	ts.						
Trac Charles (Dist size 20 ft rodius)			ant Indicator	Dominance Test wo	orksheet:		
Tree Stratum (Plot size: 30 ft. radius) 1		-	s? Status	Number of Dominant That Are OBL, FACV		1	(Δ)
2.					_		(71)
3.				Total Number of Dor Species Across All S		1	(B)
4.					_		()
5				Percent of Dominant That Are OBL, FACV		100.00	(A/B)
0 1 (0) 1 0 (D) (1 (45 ft radius)	:	= Total C	Cover	Prevalence Index w			
Sapling/Shrub Stratum (Plot size: 15 ft. radius)				Total % Cover o		Multiply by:	
1.				OBL species			
2				FACW species			
4.				FAC species			_
5				FACU species		·	_
		= Total C		UPL species	0 x 5	=0	
Herb Stratum (Plot size: 5 ft. radius)				Column Totals:	100 (A)	200	(B)
Phragmites australis (Common Reed)		Y		Prevalence Ind	fox - Β/Δ -	2.00	
2				Hydrophytic Vegeta			
3				× 1 - Rapid Test for			
4				× 2 - Dominance		3	
6.				3 - Prevalence I	ndex is ≤3.0 ¹		
7.				4 - Morphologica			
8.					arks or on a se		
9				Problematic Hy			,
10				¹ Indicators of hydric s be present, unless dis			nust
W. L. V. Co. J. (Di. J.)	100 :	= Total C	Cover	,			
Woody Vine Stratum (Plot size: 30 ft. radius)				Hydrophytic			
1				Vegetation			
2			Cover	Present?	res <u>X</u>	No	
		- Total C					
Remarks: (Include photo numbers here or on a separate	e sneet.)						

SOIL Sampling Point: DP-N-OUT

Profile Desc	ription: (Describ	e to the dept	h needed to docu	ment the	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature	4	12	T t	D d .
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/2						Sandy Iom	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	С	M		
12-20	10YR 5/2	100					Sandy lom	Very rocky
Hydric Soil Histosol Histic Ep Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da Sandy M 5 cm Mu	Indicators:	ace (A11)	Loamy Loamy Deplete Redox Deplete	Gleyed Ma Redox (St d Matrix (St Mucky Mi Gleyed M ed Matrix (Dark Surfa	atrix (S4) 5) S6) neral (F1) atrix (F2) F3) ace (F6) urface (F7)		Indicators Coast Dark S Iron-M Very S Other	cation: PL=Pore Lining, M=Matrix. For Problematic Hydric Soils ³ : Prairie Redox (A16) Surface (S7) Ianganese Masses (F12) Shallow Dark Surface (TF12) (Explain in Remarks) s of hydrophytic vegetation and d hydrology must be present, a disturbed or problematic.
Depth (in	ches):						Hydric Soil	Present? Yes No X
HYDROLO Wetland Hy	GY drology Indicator	s:						
Primary India	cators (minimum of	one is require	ed; check all that a	oply)			Seconda	ary Indicators (minimum of two required)
	Water (A1)		Water-Sta		` '			face Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic F					inage Patterns (B10)
Saturation	, ,		True Aqua		` '			-Season Water Table (C2)
	larks (B1)		Hydrogen			_		yfish Burrows (C8)
	nt Deposits (B2)		· · · · · · · · · · · · · · · · · · ·			ing Roots		uration Visible on Aerial Imagery (C9)
	posits (B3)				ed Iron (C4		· 	nted or Stressed Plants (D1)
_ ~	at or Crust (B4)					d Soils (C6		omorphic Position (D2)
	oosits (B5)	l Imaganı (D7	Thin Mucl		. ,			C-Neutral Test (D5)
	on Visible on Aeria				` '			
Field Obser		ive Surface (D	Other (Ex	piaiii iii ixe	-iliaiks)			
Surface Wat		Vas N	lo X Depth (in	rchas).				
Water Table			lo X Depth (ir			_		
Saturation P			lo X Depth (ir			 Wetl	and Hydrolog	y Present? Yes No X
(includes car								
Describe Re	corded Data (strea	ım gauge, moı	nitoring well, aerial	photos, pi	evious ins	pections),	if available:	
Remarks:								
EAC Moutral	Toot - 1000/ Co	turation was a	hearyad within the	ton 17 inn	has of the	coil This	wae accumed t	to be caused by surface run-off and not

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianapo	lis, 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, Rai	nge: Section 1, T15N, R	3E
Landform (hillslope, terrace, etc.): Roadside Ditch	Local relief	(concave, convex, none)	: Concave
Slope (%): 2 Lat: 39.780025	Long: <u>-86.141543</u>		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 y	ear? Yes X No _	(If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If ne	eded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point le	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:	within a Wetlan		<
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: 30 ft. radius) % Cover 1	Species? Status	Dominance Test wor Number of Dominant S That Are OBL, FACW,	Species
2		Total Number of Domi Species Across All Str	
5		Percent of Dominant S That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1 2			Multiply by: 5 x 1 = 15
3.		FACW species	0 x 2 =0
4		-	0 x 3 =0
5			0 x 4 = 0
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	1	0 x 5 = 0
	Y OBL	Column Totals:1	(A) <u>15</u> (B)
2.		Prevalence Inde	x = B/A =1.00
3		Hydrophytic Vegetat	
4		l 	Hydrophytic Vegetation
5		X 2 - Dominance Te	
6		X 3 - Prevalence Inc	
7		data in Remarl	Adaptations ¹ (Provide supporting so or on a separate sheet)
8			ophytic Vegetation (Explain)
9			and wetland hydrology must
	= Total Cover	be present, unless dist	urbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1	_	Hydrophytic	
2.		Vegetation	o V No
	= Total Cover	Present? Ye	s <u>X</u> No
Remarks: (Include photo numbers here or on a separate sheet.)		<u> </u>	
Previous years cover of cattail 75%. The species of cattail could not	be determined, because	of the lack of inflorescen	nce.

epth	Matrix		th needed to docui	x Feature	S			
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-9	GLEY1 2.5/N	100					Org. Loam	Roots
9-16	10YR 4/1	98	7.5YR 3/4	2	С	M	Clay Loam	Sandy, decomposing root matter
16-18	10YR 4/1	100					Sandy	
	•	 pletion, RM=		S=Masked	Sand Gr	ains.		cation: PL=Pore Lining, M=Matrix.
	Indicators:							for Problematic Hydric Soils ³ :
Histosol				Gleyed Ma				Prairie Redox (A16)
	pipedon (A2) listic (A3)			Redox (S5 d Matrix (S				Surface (S7)
_	en Sulfide (A4)			Mucky Mir	•			langanese Masses (F12) Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed Ma	, ,		=	(Explain in Remarks)
	uck (A10)		X Deplete				Other	(Explain in Remarks)
Deplete	d Below Dark Surfa	ce (A11)		Dark Surfa	, ,			
	ark Surface (A12)			d Dark Su)		s of hydrophytic vegetation and
-	Mucky Mineral (S1)	20)	Redox	Depressio	ns (F8)			d hydrology must be present,
	ucky Peat or Peat (S						uniess	disturbed or problematic.
estrictive	i aver ut observed	١-						
	Layer (if observed):						
Туре:							Hydric Soil	Present? Yes X No
Туре:	ches):						Hydric Soil	Present? Yes X No
Type: Depth (in emarks: DROLO etland Hy imary Indi	OGY rdrology Indicators cators (minimum of	:	red; check all that ap				Seconda	ary Indicators (minimum of two require
Depth (in emarks: DROLO etland Hy imary Indicates Surface	OGY rdrology Indicators cators (minimum of	:	Water-Sta	ined Leav	` '		Seconda Sur	ary Indicators (minimum of two require face Soil Cracks (B6)
DROLO etland Hy mary Indi Surface High Wa	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2)	:	Water-Sta Aquatic Fa	ined Leav auna (B13)		Seconda Sur Dra	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10)
DROLO etland Hy imary Indi Surface High Wa Saturati	OGY Ordrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3)	:	Water-Sta Aquatic Fa	ined Leav auna (B13 atic Plants) (B14)		Seconda Sur Dra Dry	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
DROLO etland Hy imary Indi Surface High Wa Saturati Water M	orches): OGY Indicators Ind	:	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)	ing Roots	Seconda Sur Dra Dry Cra	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
DROLO etland Hy imary Indi Surface High Wa Saturati Water M Sedime	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2)	:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) res on Liv	_	Seconda Sur Dra Dry Cra (C3) Sate	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
DROLO etland Hy mary Indi Surface High Wa Saturati Water M Sedime Drift De	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3)	:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	4)	Seconda Sur Dra Dry Cra (C3) Satu	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLO etland Hy imary Indi Surface High Wa Saturati Water N Sedime Drift De Algal Ma	order (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
DROLO etland Hy mary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3)	: one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leavenuna (B13 atic Plants Sulfide Ocariosphe of Reduce on Reduction Surface ((B14) dor (C1) res on Liv ed Iron (C4 on in Tille	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLO etland Hy imary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati	OGY rdrology Indicators cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	: one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	ined Leave auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti a Surface ((B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9)	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Depth (in permarks: DROLO etland Hy imary India Surface High Water Marcon Sedime Drift De Algal Marcon Deput Inundation Sparsel	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concav	: one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	ined Leave auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti a Surface ((B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9)	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
DROLO etland Hy imary Indi Saturati Water M Sedime Drift De Algal Mi Iron De Inundati Sparseleld Obser	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	: one is requir magery (Bive Surface (I	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp	ined Leaveauna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reductic Surface (Well Data blain in Reductic)	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Depth (in permarks: DROLO etland Hy imary India Saturati Water Manager Sedime Drift De Algal Manager Inon Dependent Sparseled Observarface Water Water Sedime	order (A1) ater Table (A2) fon (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavervations: ter Present?	: one is requir magery (Bive Surface (I	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp	ined Leaveauna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reductic Surface (Well Data blain in Reductic)	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
Type: Depth (in emarks: TDROLO etland Hy imary Indi C Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati Sparsel eld Obser urface Wat ater Table	DGY Perology Indicators Cators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial y Vegetated Concavivations: ter Present?	Imagery (Bive Surface (Bive Su	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck T) Gauge or B8) Other (Exp	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti a Surface (Well Data blain in Re ches): ches): ches):	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tille (C7) (D9) emarks)	4) d Soils (Ce	Second: Sur Dra Dry Cra (C3) Sati Stui	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)

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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159	92385(L) (City/County:	Indianapo	lis, Marion County	Sampling Date: _4	4/26/2016
Applicant/Owner: Indiana Department of Transportation (IND)	OT)			State: N	Sampling Point: _	DP-O-OUT
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)) ;	Section, Tov	vnship, Ra	nge: Section 1, T15N,	R3E	
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, non	e): Slope	
Slope (%): 10 Lat: 39.780040	1	Long: <u>-86.1</u>	41503		Datum: NAD 198	3
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				NW	I classification: Not V	Vetland
Are climatic / hydrologic conditions on the site typical for this ti	ime of yea	ar? Yes	≺ No	(If no, explain ir	n Remarks.)	
Are Vegetation, Soil, or Hydrology sign				Normal Circumstances		<_ No
Are Vegetation, Soil, or Hydrology nat				eded, explain any ans	wers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map sh	nowing	sampling	g point le	ocations, transec	ts, important fe	atures, etc.
Hydrophytic Vegetation Present? Yes No	×					
Hydric Soil Present? Yes No	×		Sampled		N. V	
Wetland Hydrology Present? Yes No		Withi	n a Wetlar	na? Yes	No <u>×</u>	•
Remarks:						
VEGETATION – Use scientific names of plants.						
·	bsolute	Dominant I	ndicator	Dominance Test wo	orksheet:	
	6 Cover	Species?	Status	Number of Dominant That Are OBL, FACV	t Species	(A)
2				Total Number of Dor		
3				Species Across All S		(B)
4				Percent of Dominant	Species	
5				That Are OBL, FACV		00 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)	=	= Total Cove	r	Prevalence Index w	orksheet:	
1				Total % Cover o	of: Multiply	/ by:
2				OBL species	0 x 1 =	0
3					0 x 2 =	-
4				-	60 x 3 =	
5				-	40 x 4 =	
Herb Stratum (Plot size: 5 ft. radius)	=	= Total Cove	r	-	0 x 5 =	
Poa pratensis (Kentucky Blue Grass)	60	Υ	FAC	Column Totals:	100 (A) <u> </u>	340 (B)
2. Schedonorus arundinaceus (Tall False Rye Grass)	40	Υ	FACU	Prevalence Ind	dex = B/A = 3.4	40
3				Hydrophytic Vegeta		
4				1 - Rapid Test fo	or Hydrophytic Vegeta	ation
5				2 - Dominance T		
6				3 - Prevalence II		
7				4 - Morphologica	al Adaptations¹ (Provicarks or on a separate	de supporting sheet)
8					drophytic Vegetation	*
9					soil and wetland hydro	
10				be present, unless dis	sturbed or problemation	c.
Woody Vine Stratum (Plot size: 30 ft. radius)	100 =	= Total Cove	Г			
1				Hydrophytic		
2				Vegetation Present?	res No:	×
_		= Total Cove				<u> </u>
Remarks: (Include photo numbers here or on a separate she	et.)			<u> </u>		
,						

SOIL Sampling Point: DP-O-OUT

	cription: (Describ	e to the dept				or confir	m the absence of	f indicators.)
Depth (inches)	Matrix Color (moist)	%	Redo Color (moist)	x Feature %	Type ¹	Loc²	Texture	Remarks
0-5	10YR 3/2	100	Color (Inoist)		Туре	LUC	Sandy Loam	Kemarks
			7.5VD 4/0				- <u> </u>	
5-14	10YR 4/1	90	7.5YR 4/6		C	M	Clay Loam	_
	10YR 4/3	9						
	<u> </u>							
	· -						·	
1Type: C=C	Concentration, D=De	nletion RM-	Reduced Matrix M	S-Masko	d Sand Gr		² l oca:	tion: PL=Pore Lining, M=Matrix.
	Indicators:	pietion, rivi–	ireduced Matrix, Mi	0-IVIASKE	J Sand Gra	iii i 5.		or Problematic Hydric Soils ³ :
Histoso			Sandy (Gleyed Ma	atrix (S4)			rairie Redox (A16)
	Epipedon (A2)			Redox (S5				rface (S7)
	Histic (A3)			d Matrix (S			Iron-Mar	nganese Masses (F12)
	en Sulfide (A4)				neral (F1)		Very Sh	allow Dark Surface (TF12)
	ed Layers (A5)			Gleyed M			Other (E	xplain in Remarks)
	luck (A10) ed Below Dark Surfa	200 (111)		d Matrix (Dark Surfa	,			
	ed Below Dark Sulfa Dark Surface (A12)	ice (ATT)			urface (F7)		³ Indicators o	f hydrophytic vegetation and
	Mucky Mineral (S1)			Depressio	` ,			nydrology must be present,
	lucky Peat or Peat (S3)		.,	- (- /			isturbed or problematic.
Restrictive	Layer (if observed	I):						
Type: R	ock							
Depth (ir	nches): <u>14</u>						Hydric Soil P	resent? Yes No X
HYDROLO	nev							
	ydrology Indicators	•						
	icators (minimum of		ed: check all that ar	nly)			Secondary	/ Indicators (minimum of two required)
	e Water (A1)	One is requir	Water-Sta		res (B9)			ce Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa		` ,			age Patterns (B10)
_	tion (A3)		True Aqua					eason Water Table (C2)
	Marks (B1)		Hydrogen					sh Burrows (C8)
	ent Deposits (B2)		Oxidized F			ing Roots	s (C3) Satura	ation Visible on Aerial Imagery (C9)
Drift De	eposits (B3)		Presence	of Reduce	ed Iron (C4	!)	Stunte	ed or Stressed Plants (D1)
Algal M	lat or Crust (B4)		Recent Iro	n Reducti	ion in Tille	d Soils (C	(6) Geom	orphic Position (D2)
Iron De	eposits (B5)		Thin Muck	Surface	(C7)		FAC-N	Neutral Test (D5)
	tion Visible on Aeria		-					
	ly Vegetated Conca	ve Surface (E	38) Other (Exp	olain in Re	emarks)			
Field Obse								
			No X Depth (in			-		
Water Table		· · · · · · · · · · · · · · · · · · ·	No X Depth (in			— I		
Saturation F	Present? apillary fringe)	Yes N	No X Depth (in	ches):	>14	_ Wet	lland Hydrology	Present? Yes No X
	ecorded Data (strea	m gauge, mo	nitoring well, aerial	photos, pi	evious ins	pections)	, if available:	
Remarks:								
İ								
FAC-Neutra	al Test = 0%.							

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, Marion County	Sampling Date: <u>10/5/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-P-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)	Section, Township, Rai	nge: Section 1, T15N, R3	BE
Landform (hillslope, terrace, etc.): Roadside Ditch	Local relief	(concave, convex, none):	Concave
Slope (%): <u><5</u> Lat: <u>39.779675</u>	Long: <u>-86.141540</u>		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI c	assification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>X</u> No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "	Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If ne	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point le	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes			No
VEGETATION – Use scientific names of plants.			
Absolute Tree Stratum (Plot size: 30 ft. radius) % Cover 1	Species? Status	Number of Dominant S That Are OBL, FACW,	pecies
2		Total Number of Domin Species Across All Stra	
4. 5.		Percent of Dominant Sp That Are OBL, FACW,	
Sapling/Shrub Stratum (Plot size:15 ft. radius) 1 2		Prevalence Index wor Total % Cover of: OBL species 0	Multiply by:
3		·	0 x 2 =
4			x 3 =0
5	_= Total Cover		x 4 = 0 x 5 = 0
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	Column Totals: 10	
	Y FACW		0.00
2		Hydrophytic Vegetation	= B/A = <u>2.00</u>
3		X 1 - Rapid Test for H	
4		X 2 - Dominance Tes	
5		X 3 - Prevalence Inde	
7.		4 - Morphological A	Adaptations (Provide supporting
8.			s or on a separate sheet)
9.			ophytic Vegetation (Explain)
10		be present, unless distu	and wetland hydrology must rbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)	_= Total Cover		
1		Hydrophytic	
2.		Vegetation	. ∨ Na
	= Total Cover	Present? Yes	sX No
Remarks: (Include photo numbers here or on a separate sheet.)			

pth	Matr				Features		. 2	_	
hes)	Color (moist		Color	(moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 2/1	100						Org. Ioam	Cobbles and trash/greasy
5-7	10YR 5/2	95	7.5	YR 5/6	5	C	M	Sand loam	Cobbles and trash
-9.7	10YR 5/1	85	7.5	YR 5/6	15	C	M	Silty loam	Cobbles and trash
.7-10	10YR 2/1	100						Sand loam	Possible burn layer
0-20	10YR 4/1	60	7.5`	YR 4/4	15	С	М	Sandy lom	Cobbles and trash
	10YR 4/2	25	_						
e: C=Co	oncentration, D=	Depletion, RM	M=Reduced	d Matrix, MS	=Masked	Sand Gra	ins.	²Lo	cation: PL=Pore Lining, M=Matrix.
ic Soil I	ndicators:	-						Indicators	s for Problematic Hydric Soils ³ :
Histosol			_	Sandy G				·	t Prairie Redox (A16)
	pipedon (A2)		_		edox (S5)				Surface (S7)
Black His	n Sulfide (A4)		_		Matrix (S lucky Min				Manganese Masses (F12)
-	Layers (A5)		_		Bleyed Ma			=	Shallow Dark Surface (TF12)
2 cm Mu				X Depleted				Other	(Explain in Remarks)
	l Below Dark Su		_		ark Surfa				
	rk Surface (A12	•	_			rface (F7)			s of hydrophytic vegetation and
	lucky Mineral (S cky Peat or Pea		-	Redox D	epressior	ns (F8)			nd hydrology must be present, s disturbed or problematic.
5 CITI IVIU	cky real of rea	t (33)						unies	s disturbed of problematic.
	aver (if observ	ed):							
trictive L	ayer (if observ	ed):							
Type: Depth (inconarks:	ches):	encountered						or some form of	I Present? Yes X No If similar irregularity. This layer was no cable.
Type:	ches):h dark layer was	encountered						or some form of	f similar irregularity. This layer was no
trictive L Type: Depth (included) narks: narter-includered po	ches):h dark layer was rominent enough	encountered						or some form of	f similar irregularity. This layer was no
Type: Depth (inconarks: marks: marter-includered pro-	ches):h dark layer was	encountered to be a brea	k in the de	pleted colum	nn, and F			or some form of	f similar irregularity. This layer was no
rictive L rype: Pepth (included in the content of the content	ches):h dark layer was rominent enough	encountered to be a brea	k in the de	pleted colum	oly)	3 and A11		or some form of a sidered applications.	f similar irregularity. This layer was no
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trictive L ype: lepth (included) arks: arter-includered pu ROLOGIAND Hodic Surface V High Wa	ches): h dark layer was rominent enough GY drology Indicate ators (minimum Water (A1) ter Table (A2)	encountered to be a brea	k in the de	pleted colun k all that app Water-Stair	oly) ned Leave	3 and A11		sr some form of nsidered applications of the second of the	f similar irregularity. This layer was no cable. lary Indicators (minimum of two requirer
rictive L ype: epth (included) arks: arter-includered put ROLOG and Hyc ary Indic Surface V High War Saturatio	ches): h dark layer was rominent enough GY drology Indicate ators (minimum Water (A1) ter Table (A2)	encountered to be a brea	k in the de	k all that app Water-Stair Aquatic Fau	oly) ned Leave una (B13) ic Plants	and A11		some form of a sidered applications of a sid	f similar irregularity. This layer was no cable. lary Indicators (minimum of two requirerface Soil Cracks (B6)
rictive L ype: epth (inc arks: arter-incl idered pr ROLOG and Hyc ary Indic Surface V High War Saturatio Water Mar	ches): ch dark layer was rominent enough GY drology Indicate ators (minimum Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2)	encountered to be a brea	k in the de	k all that app Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized R	oly) ned Leave una (B13) ic Plants Sulfide Ochizospher	es (B9) (B14) dor (C1) res on Livi	were con	Second Second Dra Dra Cra (C3) Some form of	f similar irregularity. This layer was no cable. lary Indicators (minimum of two required frace Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9)
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epth (inc arks: arter-incl idered pri ROLOG and Hyc ary Indic Surface V High War Saturatio Water Ma Sedimen Drift Dep Algal Ma Iron Dep Inundatic Sparsely	ches): ch dark layer was rominent enough GY drology Indicate ators (minimum Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3) tor Crust (B4) osits (B5) on Visible on Aero Vegetated Con	encountered to be a brea ors: of one is requ	uired; chec	k all that app Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck	oly) ned Leave una (B13) ic Plants Sulfide Ochizospher if Reduce n Reduction Surface (Vell Data	es (B9) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled	mg Roots	Second Second Sur Dra Cra (C3) Sat Stu 6)	f similar irregularity. This layer was no cable. lary Indicators (minimum of two requirer face Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9 inted or Stressed Plants (D1) omorphic Position (D2)
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DROLOG Inarks: Depth (incomarks: DROLOG Itland Hyder Surface V High War Saturatio Water Mary Sedimen Drift Dep Algal Ma Iron Dep Inundatio Sparsely Ind Observ face Water Uration Pr	ches):	rial Imagery (cave Surface Yes Yes	uired; chec	k all that app Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	oly) ned Leave una (B13) ic Plants Sulfide Ochizospher if Reduction Surface (IVell Data lain in Reduction hes): hes):	es (B9) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)	ng Roots) d Soils (Co	Second Second Sur Dra Dra Cra (C3) Sat Stu 6) X Gee X FA	f similar irregularity. This layer was no cable. lary Indicators (minimum of two requirer face Soil Cracks (B6) ainage Patterns (B10) /-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
DEPTH (incompression of the property of the pr	ches):	rial Imagery (cave Surface Yes Yes Yes	B7)	k all that app Water-Stair Aquatic Fau True Aquat Hydrogen S Oxidized RI Presence o Recent Iron Thin Muck S Gauge or W Other (Expl	oly) ned Leave una (B13) ic Plants Sulfide Ochizospher if Reduction Surface (in Vell Data lain in Rei hes): hes):	es (B9) (B14) (bor (C1) res on Livi d Iron (C4 on in Tilleo (C7) (D9) marks) >20 >20	ng Roots) d Soils (Co	Second Second Sur Dra Cra (C3) Sat Stu 6) X Gea X FAG	f similar irregularity. This layer was no cable. lary Indicators (minimum of two requirer face Soil Cracks (B6) ainage Patterns (B10) /-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) unted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

Project/Site: <u>I65/I70 Interchange Mod/Bridge Rehab-Des.</u>	1592385(L)	City/County:	Indianapo	olis, Marion County	_ Sampling Date: 10/5/2016	;
Applicant/Owner: Indiana Department of Transportation (II	NDOT)			State: IN	_ Sampling Point: DP-P-OU	Т
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tow	nship, Ra	nge: Section 1, T15N, F	R3E	
Landform (hillslope, terrace, etc.): Roadside Embankment	/Toe-of-Slop	e L	ocal relief	(concave, convex, none	e): <u>Flat</u>	
Slope (%): <5 Lat: 39.779675		Long: <u>-86.1</u> 4	11472		Datum: <u>NAD 1983</u>	
Soil Map Unit Name: Urban land-Fox complex (UfA)				NWI	classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes>	< 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 pro	blematic?	(If ne	eeded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map	showing	sampling	point l	ocations, transect	s, important features,	etc.
Hydrophytic Vegetation Present? Yes 1	No X					
Hydric Soil Present? Yes X			Sampled		🗸	
Wetland Hydrology Present? Yes 1		Withii	n a Wetlar	nd? Yes	No <u>×</u>	
Remarks:						
VEGETATION – Use scientific names of plants						
VEGETATION — Use scientific frames of plants		Dominant I	ndicator	Dominance Test wor	rkshoot:	
Tree Stratum (Plot size: 30 ft. radius)		Species?		Number of Dominant		
1				That Are OBL, FACW		A)
2				Total Number of Dom		
3				Species Across All St	rata: <u>1</u> (E	B)
4				Percent of Dominant		
5		= Total Cove		That Are OBL, FACW	/, or FAC:0 (A	A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove	'	Prevalence Index wo	orksheet:	
1					: Multiply by:	
2					0 x 1 =0	
3				1	0 x 2 =0	
4					0 x 3 = 0	
5					90 x 4 = 360	
Herb Stratum (Plot size: 5 ft. radius)		= Total Cove	r		$\frac{3}{93}$ $x 5 = \frac{15}{375}$	(D)
Schedonorus arundinaceus (Tall False Rye Grass)	80	Υ	FACU	Column Totals:	93 (A) <u>375</u>	(B)
2. Plantago lanceolata (English Plantain)	10	N	FACU	Prevalence Inde	ex = B/A = 4.03	
3. Linaria vulgaris (Butter and Eggs)	3	N	UPL	Hydrophytic Vegetat	tion Indicators:	
4. <u>Poa sp.</u>	(20)	N	NI	1 - Rapid Test for	· Hydrophytic Vegetation	
5				2 - Dominance Te		
6				3 - Prevalence Inc		
7				4 - Morphological	l Adaptations¹ (Provide suppor ¹ks or on a separate sheet)	ting
8					rophytic Vegetation (Explain)	
9				1	oil and wetland hydrology mus	
10				be present, unless dist		
Woody Vine Stratum (Plot size: 30 ft. radius)	93 :	= Total Cove	r			
1				Hydrophytic		
2.				Vegetation	no No V	
		= Total Cove		Present? Ye	es No _X_	
Remarks: (Include photo numbers here or on a separate	sheet.)					
, and a separate	,					
While the unidentified Poaceae would be dominant, it wou	ıld not alter t	the Dominan	ce Test or	Prevalence Index result	S.	

	cription: (Describe	to the dep				01 00111111		o:
Depth inches)	Matrix Color (moist)	%	Color (moist)	x Features %	Type ¹	Loc²	Texture	Remarks
0-4	10YR 3/1	50	COIOI (IIIOISI)		Турс	LOC	Loam	Cobbles, bricks, and trash
0 4	10YR 3/3	50					Loain	Cobbles, bricks, and trash
4 11		65	7 EVD 2/4				Crovellem	
4-11	10YR 4/2		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
	oncentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix.
	Indicators:							for Problematic Hydric Soils ³ :
_ Histosol				Sleyed Ma				Prairie Redox (A16)
	pipedon (A2)			Redox (S5)				Surface (S7)
	istic (A3)			l Matrix (S Mucky Min				langanese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Sleyed Ma	, ,		=	Shallow Dark Surface (TF12)
	uck (A10)			d Matrix (F			Other	(Explain in Remarks)
_ _ Depleted	d Below Dark Surfac	e (A11)		oark Surfa				
_ Thick Da	ark Surface (A12)		Deplete	d Dark Sui	rface (F7)		³ Indicators	s of hydrophytic vegetation and
_	Mucky Mineral (S1)		Redox I	Depression	ns (F8)			d hydrology must be present,
5 cm Mu	ucky Peat or Peat (St	3)					unless	disturbed or problematic.
	•	•					1	<u> </u>
estrictive	Layer (if observed):	•						'
estrictive I	Layer (if observed): ocks and Debris	•						
Type: Ro	Layer (if observed):	•					Hydric Soil	
estrictive I Type: Ro Depth (in emarks:	Layer (if observed): ocks and Debris ches): 14	•						
Type: Ro Depth (indemnarks:	Layer (if observed): ocks and Debris ches): 14							
Type: Ro Depth (indemarks:	Layer (if observed): ocks and Debris ches): 14 GY drology Indicators:		ad: chack all that an	nh/l			Hydric Soil	Present? Yes X No
Type: Ro Depth (incemarks: DROLO etland Hyrimary Indice	Layer (if observed): ocks and Debris ches): 14 GY drology Indicators: cators (minimum of o		-		oo (PO)		Hydric Soil	Present? Yes X No
Type: Ro Depth (incemarks: DROLO etland Hyr imary Indice Surface	CALOR (MINIMUM of CO.) Layer (if observed): A Color (Inc.) CALOR (Inc.) CALOR (Inc.) CALOR (Inc.) CALOR (Inc.) CALOR (Inc.) Water (A1)		Water-Sta	ned Leave	` '		Hydric Soil Seconda Sur	Present? Yes X No
Type: Ro Depth (incemarks: DROLO etland Hydimary India Surface High Wa	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2)		Water-Sta Aquatic Fa	ned Leave una (B13)	,		Hydric Soil Seconda Suri Dra	Present? Yes X No
DROLO etland Hydimary India Surface High Wa Saturatio	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3)		Water-Sta Aquatic Fa True Aqua	ned Leave una (B13) tic Plants ((B14)		Seconda Suri	Present? Yes X No
DROLO etland Hydimary India Surface High Wa Saturatia Water M	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) darks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ned Leave luna (B13) tic Plants (Sulfide Od	(B14) lor (C1)	ing Roots	Seconda Suria Dra Dry Cra	Present? Yes X No ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
DROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimen	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) draks (B1) nt Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ned Leave luna (B13) tic Plants (Sulfide Od	(B14) dor (C1) res on Livi	•	Seconda Suria Dra Dry Cra (C3) Sate	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
DROLO etland Hy imary India Surface High Water M Sedimer Drift Der	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ned Leave luna (B13) tic Plants (Sulfide Od thizospher of Reduce	(B14) for (C1) res on Livi d Iron (C4	·)	Seconda Suria Dra Dry Cra (C3) Satu	Present? Yes X No Present? Yes
DROLO etland Hy imary India Saturatia Water M Sedimel Drift Dep Algal Ma	GY drology Indicators: cators (minimum of or Water (A1) arter Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reduced n Reduction	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
DROLO etland Hy mary India Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reduced n Reduction	(B14) dor (C1) res on Livi d Iron (C4 on in Tilleo	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
DROLO etland Hydimary India Surface High Wa Saturatia Water M Sedimer Algal Ma Iron Deg	GY drology Indicators: cators (minimum of or Water (A1) arter Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	ne is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reduced n Reduction Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
rype: Ro Depth (incemarks: Dept	GY drology Indicators: cators (minimum of of the cators (B1) ater Table (A2) on (A3) darks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave	ne is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reduced n Reduction Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
Type: RC Depth (in- emarks: Sedimellor emarks: Depth (in- emarks: Valential (in- emarks: Depth (in- em	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations:	one is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ned Leave una (B13) tic Plants (Sulfide Od Rhizospher of Reduced n Reduction Surface ((Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
rimary India Saturatia Water M Sedimer Drift Der Algal Ma Iron Der Inundati Sparsely ield Obser	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I y Vegetated Concave vations: er Present?	magery (B7	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Other (Exp	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reducee n Reductic Surface ((Well Data olain in Rel	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	·)	Seconda Suria Dra Dry Cra (C3) Satu Sturia	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes
rype: RC Depth (in- emarks: /DROLO /etland Hyr rimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely ield Obser urface Wat /ater Table aturation P	GY drology Indicators: cators (minimum of of Mater (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave vations: er Present? Y	magery (Bīes !	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck	ned Leave una (B13) tic Plants (Sulfide Od thizospher of Reduce n Reductic Surface ((Well Data blain in Rei ches):	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)	d Soils (C	Seconda Suri Dra Cra (C3) Satu Sturi FAC	Present? Yes X No Present. Yes X No Present. Yes X No Present. Yes X No Present. Yes

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.

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Marion Co., IN

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	Indianapo	olis, Marion County	Sampling Date: 10/5/2016
Applicant/Owner: Indiana Department of Transportation (In	NDOT)			State: IN	_ Sampling Point: DP-Q-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, To	wnship, Ra	nge: Section 1, T15N, F	R3E
Landform (hillslope, terrace, etc.): Ditch			_ocal relief	(concave, convex, none	e): Concave
Slope (%): <5 Lat: 39.778919		Long: <u>-86.1</u>	41610		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 th	is time of ye	ar? 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 pro	blematic?	(If ne	eeded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point l	ocations, transect	s, important features, etc.
		1		•	
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes X N		Is th	e Sampled		
Wetland Hydrology Present? Yes X		with	in a Wetla	nd? Yes	X No
Remarks:					
VEGETATION – Use scientific names of plants	5.				
Tree Stratum (Plot size: 30 ft. radius)	Absolute % Cover	Dominant Species?		Dominance Test wor	
1				Number of Dominant That Are OBL, FACW	
2.				,	
3.				Total Number of Dom Species Across All St	_
4			-	Percent of Dominant S	Species
5					/, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cov	er	Prevalence Index wo	orksheet:
1				Total % Cover of:	
2.					65 x 1 = 65
3.				1	0 x 2 = 0
4.				FAC species	0 x 3 =0
5			-	1	0 x 4 =0
Herb Stratum (Plot size: 5 ft. radius)	:	= Total Cov	er		0 x 5 =0
1. Eleocharis palustris (Common Spike-Rush)	40	Υ	OBL	Column Totals:	65 (A) <u>65</u> (B)
Typha sp. (Cattail)		Y	OBL	Prevalence Inde	ex = B/A = 1.00
3				Hydrophytic Vegetat	tion Indicators:
4.				X 1 - Rapid Test for	· Hydrophytic Vegetation
5				X 2 - Dominance Te	
6				X 3 - Prevalence Inc	
7					Adaptations (Provide supporting rks or on a separate sheet)
8					rophytic Vegetation (Explain)
9		· 		¹Indicators of hydric so	oil and wetland hydrology must
10		Tatal Cau		be present, unless dist	urbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius)		= Total Cov	∂ I		
1				Hydrophytic	
2				Vegetation Present? Ye	es <u>X</u> No
	:	= Total Cov	er		
Remarks: (Include photo numbers here or on a separate s	sheet.)			1	
The remaining area is bare soil. South end of wetland bec	comes de-ve	getated. The	e species o	of cattail could not be det	termined, because of the lack of

SOIL Sampling Point: DP-Q-IN

Depth	cription: (Descri	•		x Feature				
(inches)	Color (moist)	%	Color (moist)	%	4	Loc ²	Texture	Remarks
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	С	M	Loam	Cobbles
	10YR 5/2	40						
	1011(3/2			-				
				<u> </u>				-
	-			_				
					·			
		epletion, RM:	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix.
•	Indicators:		Condu	Clayed M	ntring (C.4)			for Problematic Hydric Soils ³ :
Histoso	pipedon (A2)			Gleyed Ma Redox (S5				Prairie Redox (A16) Surface (S7)
	listic (A3)			d Matrix (S				langanese Masses (F12)
	en Sulfide (A4)			Mucky Mi				Shallow Dark Surface (TF12)
	ed Layers (A5)			Gleyed M			Other	(Explain in Remarks)
	uck (A10)	(0.4.4)		ed Matrix (
	ed Below Dark Surf Park Surface (A12)	ace (A11)		Dark Surfa	ace (F6) urface (F7)		3Indicator	s of hydrophytic vegetation and
	Mucky Mineral (S1)		Depressio	, ,			d hydrology must be present,
	ucky Peat or Peat			.,	- (- /			s disturbed or problematic.
Restrictive	Layer (if observe	d):						
Type:								
Depth (in Remarks:	nches):						Hydric Soil	Present? Yes X No
Remarks:							Hydric Soil	Present? Yes X No
Remarks:)GY						Hydric Soil	Present? Yes X No
Remarks: YDROLO Wetland Hy	OGY /drology Indicato	rs:	red; check all that a	oply)				ary Indicators (minimum of two required)
Remarks: YDROLO Wetland Hy Primary Indi	OGY /drology Indicato	rs:	red; check all that ap		res (B9)		Second	
YDROLO Wetland Hy Primary Indi Surface	OGY odrology Indicato icators (minimum c	rs:		ined Leav	` '		Second:	ary Indicators (minimum of two required)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati	ody odrology Indicato icators (minimum of water (A1) ater Table (A2) ion (A3)	rs:	Water-Sta	ined Leav auna (B13	3)		<u>Seconda</u> Sur Dra Dry	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
YDROLO Wetland Hy Primary Indi Surface High W Saturati Water M	ody vdrology Indicator icators (minimum of wWater (A1) ater Table (A2) ion (A3) Marks (B1)	rs:	Water-Sta Aquatic Fa True Aqua Hydrogen	nined Leav auna (B13 atic Plants Sulfide O	(B14) dor (C1)		Second: Sur Dra Dry Cra	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M	ordrology Indicators (minimum of Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	rs:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe	(B14) dor (C1) eres on Livi	•	Second: Sur Dra Dry Cra (C3) Sat	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De	order (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B3)	rs:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence	auna (B13 atic Plants Sulfide O Rhizosphe of Reduce	(B14) dor (C1) eres on Livied Iron (C4	.)	Second: Sur Dra Cra Cra (C3) Sat Stu	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De X. Algal M	ody Indrology Indicator Indr	rs:	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled	.)	Seconda	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water N. Sedime Drift De X. Algal M. Iron De	order of the proof	r s: of one is requi	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) eres on Livied Iron (C4) ion in Tilled	.)	Seconda	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De X Algal M Iron De Inundat	order of the property of the p	rs: of one is requi	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reducti c Surface Well Data	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) (D9)	.)	Seconda	ary Indicators (minimum of two required face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) comorphic Position (D2)
YDROLO Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De X Algal M Iron De Inundat	order of the control	rs: of one is requi	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or	nined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduct on Reducti c Surface Well Data	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) (D9)	.)	Seconda	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De X Algal M. Iron De Inundat Sparsel	order of the control	rs: of one is requi	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface Well Data plain in Re	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) (D9)	.)	Seconda	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De X Algal M. Iron De Inundat Sparsel	ody rdrology Indicator icators (minimum of water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) at or Crust (B4) posits (B5) ion Visible on Aeri ly Vegetated Concervations: ter Present?	r s: of one is requi	Water-Sta Aquatic Fi Aquatic Fi True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Ex	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduction Surface Well Data plain in Resuches):	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) ion in Tilled (C7) (D9)	.)	Seconda	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water N. Sedime Drift De Inundat Sparsel Field Obser Surface Water Table Saturation F	order of the following	rs: of one is requi	Water-Sta Aquatic Fi Aquatic Fi True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Ex	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reductic Surface Well Data plain in Reduction Red	(B14) (B14) dor (C1) eres on Livi ed Iron (C4) don in Tilled (C7) (D9) emarks)) d Soils (C6	Second: Sur Dra Cra Cra (C3) Sat Stu Stu X Geo	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De X Algal M Iron De Inundat Sparsel Field Obsel Surface Water Table Saturation F (includes ca	order of the contract of the c	rs: of one is requi	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Ex	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction Surface Well Data plain in Reduction Reduction Reduction Surface (Surface Well Data plain in Reduction Reduct	(B14) (B14) (dor (C1) eres on Livi ed Iron (C4 dion in Tilled (C7) (D9) emarks) >20 >20	d Soils (C6	Secondary	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De X Algal M. Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca) Describe Re	order of the contract of the c	rs: of one is requi	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Much 7) Gauge or B8) Other (Ex No X Depth (in No X Depth (in	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction Surface Well Data plain in Reduction Reduction Reduction Surface (Surface Well Data plain in Reduction Reduct	(B14) (B14) (dor (C1) eres on Livi ed Iron (C4 dion in Tilled (C7) (D9) emarks) >20 >20	d Soils (C6	Secondary	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
YDROLO Wetland Hy Primary Indi Surface High W Saturati Water N Sedime Drift De X Algal M Iron De Inundat Sparsel Field Obsel Surface Water Table Saturation F (includes ca	order of the contract of the c	rs: of one is requi	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Much 7) Gauge or B8) Other (Ex No X Depth (in No X Depth (in	nined Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction Surface Well Data plain in Reduction Reduction Reduction Surface (Surface Well Data plain in Reduction Reduct	(B14) (B14) (dor (C1) eres on Livi ed Iron (C4 dion in Tilled (C7) (D9) emarks) >20 >20	d Soils (C6	Secondary	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)
YDROLO Wetland Hy Primary Indi Surface High W. Saturati Water M. Sedime Drift De X Algal M. Iron De Inundat Sparsel Field Obsel Surface Wa Water Table Saturation F (includes ca) Describe Re	order of the contract of the c	rs: of one is requi	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized I Presence Recent Ird Thin Much 7) Gauge or B8) Other (Ex No X Depth (in No X Depth (in	ained Leave auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reduction Surface Well Data plain in Reduction Reduction Reduction Surface (Surface Well Data plain in Reduction Reduct	(B14) (B14) (dor (C1) eres on Livi ed Iron (C4 dion in Tilled (C7) (D9) emarks) >20 >20	d Soils (C6	Second:	ary Indicators (minimum of two required) face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2) C-Neutral Test (D5)

US Army Corps of Engineers
Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County:	Indianapo	olis, Marion County	Sampling Date: 10/5/201	6
Applicant/Owner: Indiana Department of Transportation (II	NDOT)			State: IN	Sampling Point: DP-Q-O	UT
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tov	nship, Ra	nge: Section 1, T15N, R	3E	
Landform (hillslope, terrace, etc.): Roadside Embankment	/Toe-of-Slop	e L	ocal relief	(concave, convex, none)	: None	
Slope (%): <u>5-10</u> Lat: <u>39.778926</u>		Long: <u>-86.1</u> 4	11584		Datum: NAD 1983	
Soil Map Unit Name: Urban land-Fox complex (UfA)				NWI d	classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for th	nis time of ye	ar? Yes	<_ No _	(If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are "	'Normal Circumstances"	present? Yes X No	
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map	showing	sampling	point l	ocations, transects	s, important features	, etc.
Hydrophytic Vegetation Present? Yes I	No X					
Hydric Soil Present? Yes X			Sampled		No. V	
Wetland Hydrology Present? Yes !		Withi	n a Wetlar	10? Yes	No <u>X</u>	
Remarks:		'				
VEGETATION – Use scientific names of plants	 3.					
Г		Dominant I	ndicator	Dominance Test work	ksheet:	
Tree Stratum (Plot size: 30 ft. radius) 1	· ·	Species?		Number of Dominant S That Are OBL, FACW,		(A)
2				Total Number of Domii	nant	
3				Species Across All Stra	_	(B)
4				Percent of Dominant S	Species	
5				That Are OBL, FACW,	or FAC: 0	(A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)		= Total Cove	ı	Prevalence Index wo	rksheet:	
1	1				Multiply by:	
2					0 x 1 =0	
3				· ·	0 x 2 = 0	-
4				· ·	0 x 3 = 30	-
5				-	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-
Herb Stratum (Plot size:5 ft. radius)		= Total Cove	r	*	01 (A) 395	(B)
Schedonorus arundinaceus (Tall False Rye Grass)	90	Y	FACU	Column Totals.	<u>y.</u> (A)	(D)
2. Setaria pumila (Yellow Bristle Grass)	10	N	FAC	Prevalence Index	x = B/A = 3.91	-
3. Daucus carota (Queen Anne's-Lace)	1	N	UPL	Hydrophytic Vegetati		
4. Setaria viridis (Green Bristlegrass)	(10)	N	NI		Hydrophytic Vegetation	
5				2 - Dominance Te		
6				3 - Prevalence Ind	ıex ıs ≤3.0° Adaptations¹ (Provide suppo	
7					Adaptations (Provide suppo ks or on a separate sheet)	orting
8				Problematic Hydr	ophytic Vegetation (Explain	1)
9					l and wetland hydrology mu	ıst
10.		= Total Cove		be present, unless distu	urbed or problematic.	
Woody Vine Stratum (Plot size: 30 ft. radius)						
1				Hydrophytic Vegetation		
2					s No _X_	
	:	= Total Cove	r			
Remarks: (Include photo numbers here or on a separate	sheet.)			1		

SOIL Sampling Point: DP-Q-OUT

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

(inches) 0-4 4-20	Color (moist)			x Feature	-			
	COIOI (IIIOIOI)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	Texture	<u>Remarks</u>
4-20	10YR 3/1	100					Loam	Cobbles
	10YR 4/2	75	7.5YR 5/6	5	C	M	Loam	Cobbles
	10YR 4/1	20						Cobbles
		· -		-				·
		· —— –						·
		·						
					·			
		letion, RM=F	Reduced Matrix, M	S=Masked	d Sand Gr	ains.		ocation: PL=Pore Lining, M=Matrix.
Hydric Soil Indi								s for Problematic Hydric Soils ³ :
Histosol (A1)				Gleyed Ma Redox (S5				t Prairie Redox (A16) Surface (S7)
Black Histic				d Matrix (S	,			Manganese Masses (F12)
Hydrogen St				Mucky Mir				Shallow Dark Surface (TF12)
Stratified Lay			Loamy	Gleyed Ma	atrix (F2)			(Explain in Remarks)
2 cm Muck (X Deplete					(2.7.2)
	elow Dark Surface	e (A11)		Dark Surfa	. ,		3	
	Surface (A12)			ed Dark Su)		s of hydrophytic vegetation and
	ky Mineral (S1) Peat or Peat (S3	3)	Redox	Depressio	ns (F8)			nd hydrology must be present, s disturbed or problematic.
Restrictive Laye							dilico	s distarsed of problematic.
Type:	,							
Depth (inches	3):						Hvdric Soi	I Present? Yes X No
Remarks:							,	
HYDROLOGY	,							
Wetland Hydrol	ogy Indicators:		d check all that ar	oply)			Second	lary Indicators (minimum of two required)
Wetland Hydrolo Primary Indicator	logy Indicators:		d; check all that ap		es (R9)			lary Indicators (minimum of two required)
Wetland Hydrolo Primary Indicator Surface Wat	ogy Indicators: rs (minimum of o ter (A1)		Water-Sta	ined Leav	, ,		Sui	rface Soil Cracks (B6)
Wetland Hydrolo Primary Indicator	ogy Indicators: rs (minimum of o ter (A1) Table (A2)			ined Leav auna (B13)		Sui	· · · · · · · · · · · · · · · · · · ·
Wetland Hydrolo Primary Indicator Surface Wat High Water	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3)		Water-Sta	ined Leav auna (B13 atic Plants) (B14)		Sui Dra Dry	rface Soil Cracks (B6) ainage Patterns (B10) r-Season Water Table (C2)
Wetland Hydrol Primary Indicator Surface Wat High Water Saturation (A	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants Sulfide O) (B14) dor (C1)	ing Roots (Sui Dra Dry Cra	rface Soil Cracks (B6) ainage Patterns (B10)
Wetland Hydrol Primary Indicator Surface Wat High Water Saturation (A	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1) eposits (B2)		Water-Sta Aquatic Fa True Aqua	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe	(B14) dor (C1) res on Liv	•	Sui Dra Cra Cra (C3) Sat Stu	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) anted or Stressed Plants (D1)
Wetland Hydrolo Primary Indicator Surface Wat High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce on Reducti	(B14) dor (C1) res on Lived Iron (C4 on in Tille	4)	Sur Dra Dry Cra Stat Stu Stu	rface Soil Cracks (B6) ainage Patterns (B10) v-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) anted or Stressed Plants (D1) comorphic Position (D2)
Wetland Hydrol Primary Indicator Surface Wat High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit	logy Indicators: rs (minimum of oter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) r Crust (B4) is (B5)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti & Surface ((B14) dor (C1) res on Lived Iron (C4) on in Tille	4)	Sur Dra Dry Cra Stat Stu Stu	rface Soil Cracks (B6) ainage Patterns (B10) y-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) anted or Stressed Plants (D1)
Wetland Hydrole Primary Indicator Surface Wate High Water Saturation (A Water Marks Sediment De Drift Deposit Algal Mat or Iron Deposit Inundation V	logy Indicators: rs (minimum of o ter (A1) Table (A2) A3) s (B1) eposits (B2) ts (B3) Crust (B4) rs (B5) //sible on Aerial I	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe of Reduce on Reducti & Surface ((B14) dor (C1) res on Lived Iron (C4) on in Tille (C7) (D9)	4)	Sur Dra Dry Cra Stat Stu Stu	rface Soil Cracks (B6) ainage Patterns (B10) v-Season Water Table (C2) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) anted or Stressed Plants (D1) comorphic Position (D2)
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Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	92385(L) (City/County:	Indianapo	olis, Marion County	Sampling Date: 4/27/2016
Applicant/Owner: Indiana Department of Transportation (IND	OT)			State: IN	Sampling Point: DP-R-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons	s) :	Section, Tov	vnship, Ra	nge: Section 1, T15N,	R3E
Landform (hillslope, terrace, etc.): Roadside Ditch		L	ocal relief	(concave, convex, none	e): Concave
Slope (%): <2 Lat: 39.778123	1	Long: <u>-86.1</u>	4117		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 yea	ar? Yes	≺ No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly	disturbed?	Are "	'Normal Circumstances'	" present? Yes X No No
Are Vegetation, Soil, or Hydrology na	turally pro	blematic?	(If ne	eded, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map s	howing	sampling	point l	ocations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No			e Sampled		× No
Wetland Hydrology Present? Yes X No		WILLIII	ii a vvetiai	iu: Tes	<u> </u>
Remarks:					
VEGETATION – Use scientific names of plants.	A l l (-	Danis and I	- P t	I Danish and Tark	wheels and
	% Cover	Dominant I Species?	Status	Number of Dominant That Are OBL, FACW	Species
2				Total Number of Dom Species Across All St	
4 5		Tatal Cause		Percent of Dominant That Are OBL, FACW	
Sapling/Shrub Stratum (Plot size:30 ft. radius)	=	= Total Cove	·r	Prevalence Index we	orksheet:
1					f: Multiply by:
2					10 x 1 = 10
3				· ·	0 x 2 = 0
4				-	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
		Total Cove	r		0
Herb Stratum (Plot size: 30 ft. radius)				-	10 (A) 10 (B)
1. <u>Typha sp. (Cattail)</u>		<u> </u>	OBL	Brayalanaa Inda	ex = B/A =1.00
2				Hydrophytic Vegeta	
3					r Hydrophytic Vegetation
5				X 2 - Dominance T	· · · · · ·
6.				X 3 - Prevalence In	ndex is ≤3.0¹
7.				4 - Morphologica	Adaptations (Provide supporting
8					rks or on a separate sheet) drophytic Vegetation (Explain)
9				-	oil and wetland hydrology must
10					sturbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius)	10 =	= Total Cove	r		
1				Hydrophytic	
2.				Vegetation Present? Y	es <u>X</u> No
		= Total Cove			
Remarks: (Include photo numbers here or on a separate she	eet.)			1	
Last year's cattail cover is approximately 80%. Wetland con					devegetated segment. The

Depth	Matrix		Redo	x Features	S			
nches)	Color (moist)	%	Color (moist)	%	_Type ¹	Loc ²	Texture	Remarks
0-4	10YR 2/1	100					Org. Loam	Mucky consistency
4-12	10YR 5/2	85	10YR 4/6	15	С	М	Silty Clay	
12-17	10YR 5/2	85	10YR 4/6	15	С	М	Clay	
Гуре: С=С	concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.	²Lo	cation: PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:						Indicators	for Problematic Hydric Soils ³ :
Histoso				Gleyed Ma				Prairie Redox (A16)
	pipedon (A2)			Redox (S5)				Surface (S7)
	istic (A3)			d Matrix (S	•			Manganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Min Gleyed Ma	. ,			Shallow Dark Surface (TF12)
	uck (A10)		X Deplete				Other	(Explain in Remarks)
X Deplete Thick D Sandy N 5 cm M	nd Below Dark Surface ark Surface (A12) Mucky Mineral (S1) ucky Peat or Peat (S3	3)	Redox I	Dark Surfa d Dark Su Depressior	ce (F6) rface (F7))	wetlan	s of hydrophytic vegetation and id hydrology must be present, s disturbed or problematic.
14							_	
	Layer (if observed):							
Type: wa	ater in pit							
Type: <u>wa</u> Depth (in							Hydric Soi	I Present? Yes <u>X</u> No
Type: Wide Depth (in Remarks: Vater in hole	e obstructed digging		n 17 inches.				Hydric Soi	I Present? Yes <u>X</u> No
Type: was Depth (in Remarks: Vater in hole	e obstructed digging		n 17 inches.				Hydric Soi	I Present? Yes <u>X</u> No
Type: was Depth (in Remarks: Vater in hole YDROLO Wetland Hy	e obstructed digging of drology Indicators:	deeper than		ooks)				
Type: With Depth (in Remarks: Vater in hole YDROLO Vetland Hy Primary Indi	e obstructed digging of the obstructed diggi	deeper than	ed; check all that ar		oo (B0)		Second	ary Indicators (minimum of two require
Type: Water In hole YDROLO Wetland Hy Primary Indi X Surface	e obstructed digging of the obstructed diggi	deeper than	ed; check all that ar	ined Leave	(- /		Second	ary Indicators (minimum of two require face Soil Cracks (B6)
Type: was Depth (in Remarks: Vater in hole VDROLO Vetland Hy Primary Indi X Surface High Was Depth (in the primary	e obstructed digging of the obstructed diggi	deeper than	ed; check all that ar — Water-Sta — Aquatic Fa	ined Leave auna (B13))		Second Sur	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10)
Type: was Depth (in Remarks: Vater in hole YDROLO Vetland Hy Primary Indi X Surface High Was Saturati	e obstructed digging of the control	deeper than	ed; check all that ap Water-Sta Aquatic Fa True Aqua	ined Leave auna (B13) atic Plants	(B14)		Second Sur Dra Dry	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
Type: Water In hole YDROLO Wetland Hy Primary Indi X Surface High Water IN Saturati Water IN	e obstructed digging of the control	deeper than	ed; check all that ar	ined Leave auna (B13) atic Plants Sulfide Oc	(B14) dor (C1)	ring Roots	Second Sur Dra Dry Cra	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) lyfish Burrows (C8)
Type: Wide Depth (in Remarks: Vater in hole YDROLO Vetland Hy Primary Indi X Surface High Wide Saturati Water M Sedime	e obstructed digging of the obstructed digging obstructed digging of the obstructed digging of the obstructed digging obstructed digging obstructed digging obstructed digging	deeper than	ed; check all that ar Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher	(B14) dor (C1) res on Liv	-	Second Sur Dra Dry Cra (C3) Sat	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Type: With Depth (in Permarks: Water in hole YDROLO Wetland Hy Primary Indi X Surface High With Saturati Water Mater Mate	e obstructed digging of the control	deeper than	ed; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave auna (B13) atic Plants Sulfide Oc	(B14) dor (C1) res on Liv d Iron (C4	4)	Second Sur Dra Dry Cra (C3) Sat Stu	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) lyfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Type: Wide Depth (in Remarks: Water in hole YDROLO Wetland Hy Primary Indi X Surface High Wide Saturati Water Note Sedime Drift De Algal M.	e obstructed digging of the obstructed digging obstructed digging of the obstructed digging of the obstructed digging obstructed digging obstructed digging obstructed digging	deeper than	ed; check all that and water-Sta	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce	(B14) dor (C1) res on Liv d Iron (C4 on in Tille	4)	Second	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Type: With Depth (in Remarks: Water in hole YDROLO Wetland Hy Primary Indi X Surface High With Saturati Water Mater Mat	e obstructed digging of the obstructed digging obstructed digging of the obstructed digging obstructed digging obstructed digging obstructed digging obstructed digging obstru	deeper than	ed; check all that ar Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7)	4)	Second	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)
Type: Water In hole YDROLO YDROLO Vetland Hy Primary Indi X Surface High Water In Sedime Drift De Algal M. Iron De Inundat	e obstructed digging of the control	ne is requir	ed; check all that are Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck O Gauge or	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Second	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)
Type: Water In hole YDROLO YDROLO Vetland Hy Primary Indi X Surface High Water In Sedime Drift De Algal M. Iron De Inundat	e obstructed digging of the contract of the co	ne is requir	ed; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 38) Other (Exp	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction s Surface (I Well Data blain in Re	(B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9)	4)	Second	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)
Type: With Depth (in Remarks: Vater in hole YDROLO Vetland Hy Primary Indi X Surface High With Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	e obstructed digging of the control	magery (B7	ed; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or Gauge or Other (Exp	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reduction Surface (I Well Data blain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks) <1	4)	Second	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)
Type: With Depth (in Remarks: Vater in hole YDROLO Vetland Hy Primary Indi X Surface High With Saturati Water M Sedime Drift De Algal M Iron De Inundat Sparsel	e obstructed digging of the contract of the co	magery (B7	ed; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or 38) Other (Exp	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductio c Surface (i Well Data blain in Re ches): ches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tille C7) (D9) marks) <1	4) d Soils (C	Second Sur Dra Cra (C3) Sat Stu 6) X Gee X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) syfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) comorphic Position (D2)

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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County:	Indianapo	olis, Marion County	_ Sampling Date: 4/27/2016
Applicant/Owner: Indiana Department of Transportation (If	NDOT)			State: IN	_ Sampling Point: DP-R-OUT
Investigator(s): Brock Ervin and Stephany Stamatis (Parso	ons)	Section, To	wnship, Ra	nge: Section 1, T15N, F	R3E
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none): Slope
Slope (%): 10 Lat: 39.778145		Long: <u>-86.1</u>	41195		Datum: <u>NAD 1983</u>
Soil Map Unit Name: <u>Urban Land - Fox Complex (UfA)</u>				NWI	classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes	× 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 pro	oblematic?	(If ne	eeded, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing	sampling	g point l	ocations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes X		Is the	e Sampled	l Area	
Hydric Soil Present? Yes X			n a Wetlar		No <u>X</u>
Wetland Hydrology Present? Yes N	NoX				
Remarks.					
VEGETATION – Use scientific names of plants	S.				
	Absolute			Dominance Test wo	rksheet:
Tree Stratum (Plot size: 30 ft. radius) 1		Species?		Number of Dominant That Are OBL, FACW	
2				Total Number of Dom	inant
3				Species Across All St	rata: <u>1</u> (B)
4				Percent of Dominant	
5		= Total Cove		That Are OBL, FACW	, or FAC: 100.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove	71	Prevalence Index wo	orksheet:
1					Multiply by:
2		·		1	0 x 1 =0
3		·		· · · · · · · · · · · · · · · · · · ·	0 x 2 = 0
4				·	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
5		= Total Cove		1	0
Herb Stratum (Plot size:5 ft. radius)		= TOTAL COVE	; 1	Column Totals:	
Poa pratensis (Kentucky Blue Grass)	60	Y	FAC	Column Foldio.	(1)
2. Elymus repens (Creeping Wild Rye, Quackgrass)	10	N	FACU	Prevalence Inde	ex = B/A =
3. Bromus inermis (Smooth Brome)	5	N	FACU	Hydrophytic Vegetat	
4					Hydrophytic Vegetation
5				× 2 - Dominance Te	
6				3 - Prevalence In	Adaptations (Provide supporting
7				data in Remar	ks or on a separate sheet)
8				Problematic Hyd	rophytic Vegetation¹ (Explain)
9					oil and wetland hydrology must
10.		= Total Cove		be present, unless dist	curbed or problematic.
Woody Vine Stratum (Plot size:30 ft. radius)					
1				Hydrophytic Vegetation	
2					es <u>X</u> No
		= Total Cove	er		
Remarks: (Include photo numbers here or on a separate :	sheet.)			•	

Sampling Point: DP-R-OUT SOIL

0-3 3-7 7-20	Color (moist) 10YR 2/1		Color (moist)	%	Type'	Loc ²	Texture	Remarks
		100	•				Loam	
	10YR 4/2	88	10YR 4/4	2		M	Loam	
7-20	10YR 2/1	10	101111111				Loam	
7-20			40)/D 0/0					
	10YR 4/2	98	10YR 3/6	2	C	M	Loam	
		· —— ·						
							2	
/pe: C=Conc dric Soil Ind		letion, RM=	Reduced Matrix, MS	s=Masked	Sand Gra	iins.		n: PL=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol (A1			Sandy G	Sleved Ma	atrix (S4)			rie Redox (A16)
Histic Epipe	•			Redox (S5			Dark Surfa	
Black Histic				Matrix (S				anese Masses (F12)
Hydrogen S					neral (F1)			ow Dark Surface (TF12)
Stratified La	ayers (A5)			Gleyed Ma				plain in Remarks)
2 cm Muck	. ,		× Depleted					,
	elow Dark Surface	e (A11)		Oark Surfa	` ,		3	
	Surface (A12)				ırface (F7)			nydrophytic vegetation and
	ky Mineral (S1) y Peat or Peat (S3	3)	Redox L	Depressio	ns (F8)			drology must be present, surbed or problematic.
	ver (if observed):	•					unicoo diot	arbed of problematio.
Туре:								
Depth (inche	es):						Hydric Soil Pre	sent? Yes X No
marks:								
etland Hydro mary Indicato Surface Wa High Water Saturation (ors (minimum of o ater (A1) Table (A2) (A3)	ne is require	ed; check all that ap	ned Leav una (B13 tic Plants) (B14)		Surface Drainag Dry-Sea	ndicators (minimum of two require Soil Cracks (B6) e Patterns (B10) ason Water Table (C2)
etland Hydro mary Indicato Surface Wa High Water Saturation (Water Mark	ors (minimum of o ater (A1) Table (A2) (A3) ss (B1)	ne is require	Water-Stai Aquatic Fa True Aqua	ned Leav una (B13 tic Plants Sulfide O) (B14) dor (C1)	ng Roots (Surface Drainag Dry-Sea Crayfish	Soil Cracks (B6) e Patterns (B10) son Water Table (C2)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D	ors (minimum of o ater (A1) Table (A2) (A3) (A3) (A5) (A9) (A9) (A9) (A9) (A9) (A9) (A9) (A9	ne is require	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leav una (B13 tic Plants Sulfide O) (B14) dor (C1) res on Liv	-	Surface Drainag Dry-Sea Crayfish C3) Saturati	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi	ors (minimum of orater (A1) Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4)	ne is require	Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leav una (B13 tic Plants Sulfide O thizosphe) (B14) dor (C1) res on Livied Iron (C4)	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or	ors (minimum of orater (A1) Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4) its (B5)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iron Thin Muck	ned Leav una (B13 tic Plants Sulfide O thizosphe of Reducti Surface ((B14) (B14) dor (C1) res on Livied Iron (C4 on in Tilled)	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) son Water Table (C2) Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi	clogy Indicators: cors (minimum of of ater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	magery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iron Thin Muck Gauge or N	ned Leav una (B13 tic Plants Sulfide O chizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Living di Iron (C4) on in Tilled (C7) (D9))	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation V Sparsely Ve	ors (minimum of o ater (A1) Table (A2) (A3) (S (B1) Deposits (B2) its (B3) r Crust (B4) its (B5) Visible on Aerial In	magery (B7	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iron Thin Muck Gauge or N	ned Leav una (B13 tic Plants Sulfide O chizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Living di Iron (C4) on in Tilled (C7) (D9))	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation (Sparsely Ve	clogy Indicators: cors (minimum of o ater (A1) Table (A2) (A3) (A3) (A5) (A5) (A5) (A5) (A5) (A5) (A5) (A5	magery (B7 e Surface (B	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence o Recent Iron Thin Muck Gauge or V 8) Other (Exp	ned Leav una (B13 tic Plants Sulfide Or chizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Living di Iron (C4) on in Tilled (C7) (D9))	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
etland Hydro mary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation V Sparsely Ve Eld Observati	clogy Indicators: cors (minimum of orater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	magery (B7 e Surface (B	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iron Thin Muck Gauge or V Other (Exp	ned Leav una (B13 tic Plants Sulfide O thizosphe of Reduce n Reducti Surface (Well Data clain in Re	(B14) (B14) dor (C1) res on Livied Iron (C4 on in Tilled (C7) (D9) emarks))	Surface Drainag Dry-Sea Crayfish C3) Saturatio Stunted Geomor	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
imary Indicato Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation V Sparsely Ve eld Observati	cors (minimum of of ater (A1) Table (A2) (A3) (A3) (A3) (A5) (A6) (A6) (A6) (A6) (A6) (A6) (A6) (A6	magery (B7 e Surface (B es N es N	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	ned Leavuna (B13 tic Plants Sulfide Ochizosphe of Reduction Reduct	(B14) (dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks)) d Soils (C6	Surface Drainag Dry-Sea Crayfish C3) Saturati Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) iutral Test (D5)
etland Hydro imary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation V Sparsely Ve eld Observation afface Water Fater Table Presidudes capilla	clogy Indicators: cors (minimum of oreater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	magery (B7 e Surface (B es N es N	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N So Other (Exp	ned Leav una (B13 tic Plants Sulfide O thizosphe of Reduce n Reducti Surface (Well Data blain in Re ches): ches): ches):	(B14) (dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) >20 >20	Soils (C6	Surface Drainag Dry-Sea Crayfish C3) Saturati Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) iphic Position (D2)
etland Hydro imary Indicate Surface Wa High Water Saturation (Water Mark Sediment D Drift Deposi Algal Mat or Iron Deposi Inundation V Sparsely Ve Eld Observation arface Water Fater Table Presidudes capilla	clogy Indicators: cors (minimum of oreater (A1) Table (A2) (A3) (A3) (A3) (A3) (A3) (A3) (A3) (A3	magery (B7 e Surface (B es N es N	Water-Stai Aquatic Fa Aquatic Fa True Aqua Hydrogen S Oxidized R Presence of Recent Iron Thin Muck Gauge or N Other (Exp	ned Leav una (B13 tic Plants Sulfide O thizosphe of Reduce n Reducti Surface (Well Data blain in Re ches): ches): ches):	(B14) (dor (C1) res on Livi ed Iron (C4 on in Tilled (C7) (D9) emarks) >20 >20	Soils (C6	Surface Drainag Dry-Sea Crayfish C3) Saturati Stunted Geomor FAC-Ne	Soil Cracks (B6) e Patterns (B10) ison Water Table (C2) i Burrows (C8) on Visible on Aerial Imagery (C9) or Stressed Plants (D1) rphic Position (D2) iutral Test (D5)

US Army Corps of Engineers Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, Marion County	Sampling Date: <u>10/5/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-S-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)	Section, Township, Rai	nge: Section 1, T15N, R3	BE
Landform (hillslope, terrace, etc.): Roadside ditch	Local relief	(concave, convex, none):	Concave
Slope (%): <u><5</u> Lat: <u>39.778478</u>	Long: <u>-86.140381</u>		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI c	assification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	'Normal Circumstances" p	oresent? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If ne	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:	within a Wetlar		No
VEGETATION – Use scientific names of plants.			
Tree Stratum (Plot size: 30 ft. radius) Absolute % Cover 1.	Species? Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	pecies
2		Total Number of Domin Species Across All Stra	
4.		Percent of Dominant Sp That Are OBL, FACW,	
Herb Stratum (Plot size: 5 ft. radius) 1. Typha sp. (Cattail) 25	_= Total Cover Y OBL N FACW	OBL species 25 FACW species 5 FAC species 0 FACU species 0 UPL species 0 Column Totals: 3 Prevalence Index Hydrophytic Vegetation X 1 - Rapid Test for H X 2 - Dominance Test X 3 - Prevalence Index data in Remarks Problematic Hydro	Multiply by: $x = 25$ $x = 10$
30	_= Total Cover	be present, unless distu	rbea or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1		Hydrophytic Vegetation Present? Yes	sX No
Remarks: (Include photo numbers here or on a separate sheet.) The species of cattail could not be determined, because of the lack of	of inflorescence.		

US Army Corps of Engineers

SOII moling Point: DP-S-IN

epth nches) 0-3			Podo	x Features				of indicators.)
	Matrix Color (moist)	%	Color (moist)	<u>x reatures</u> %	Type ¹	Loc ²	Texture	Remarks
	10YR 2/1	100					Loam	
3-20	10YR 4/1	90	7.5YR 4/3	10		M	Loam sand	
dric Soil In	dicators:	letion, RM=	Reduced Matrix, M			ains.	Indicators	cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils³:
Histosol (,		Sandy (Prairie Redox (A16)
	pedon (A2)			Redox (S5)				surface (S7)
Black Hist	Sulfide (A4)			l Matrix (S Mucky Min	•			anganese Masses (F12)
	Layers (A5)			Gleyed Ma				Shallow Dark Surface (TF12)
2 cm Muc			X Deplete				Other	(Explain in Remarks)
Thick Dar Sandy Mu 5 cm Muc	Below Dark Surfact k Surface (A12) ucky Mineral (S1) ky Peat or Peat (S	3)	Redox I Deplete	Dark Surfa d Dark Su Depression	ce (F6) rface (F7)		wetland	of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.
strictive La	ayer (if observed):							
Туре:								
Donth (incl	nes):						Hydric Soil	Present? Yes X No
emarks:	· ·						1.74	
emarks:							11,1	
DROLOG	SY.							
DROLOG	SY rology Indicators:							
DROLOG etland Hydi	SY rology Indicators: ttors (minimum of o		ed; check all that ap		(D0)		Seconda	ary Indicators (minimum of two require
DROLOG etland Hydi imary Indica _ Surface V	SY rology Indicators: utors (minimum of o		Water-Sta	ned Leave			Seconda	ary Indicators (minimum of two require ace Soil Cracks (B6)
DROLOG etland Hydi imary Indica _ Surface W _ High Wate	rology Indicators: stors (minimum of o Vater (A1) er Table (A2)		Water-Sta	ined Leave luna (B13)			Seconda Surf Drai	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10)
DROLOG etland Hydrimary Indica _ Surface W _ High Wate _ Saturation	rology Indicators: utors (minimum of o		Water-Sta Aquatic Fa True Aqua	ned Leave luna (B13) tic Plants	(B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
DROLOG etland Hydrogramary Indica Surface W High Water Saturation Water Ma	rology Indicators: stors (minimum of orwater (A1) er Table (A2) in (A3) rks (B1)		Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leave luna (B13) tic Plants Sulfide Oc	(B14) dor (C1)	ing Roots	Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8)
DROLOG etland Hydi mary Indica Surface V High Wate Saturatior Water Ma Sediment	rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave luna (B13) tic Plants Sulfide Oc Rhizosphel	(B14) dor (C1) res on Livi	-	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)
DROLOG etland Hydi mary Indica Surface W High Wate Saturatior Water Ma Sediment Drift Depo	rology Indicators: ators (minimum of orvater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	ined Leave luna (B13) tic Plants Sulfide Oc Rhizospher of Reduce	(B14) for (C1) res on Livi d Iron (C4	!)	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLOG etland Hydi imary Indica _ Surface W _ High Wate _ Saturatior _ Water Ma _ Sediment _ Drift Depo	rology Indicators: tors (minimum of orvater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave luna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
DROLOG etland Hydrimary Indica Surface W High Water Saturatior Water Ma Sediment Drift Depo	rology Indicators: tors (minimum of orvater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leave luna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reduction	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) /fish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLOG etland Hydrimary Indica Surface William Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	rology Indicators: stors (minimum of or vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) sits (B3) or Crust (B4) esits (B5)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leave iuna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reductic Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
DROLOG etland Hydrimary Indica Surface William Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation	rology Indicators: ators (minimum of or Vater (A1) er Table (A2) n (A3) rks (B1) Deposits (B2) osits (B3) or Crust (B4) sits (B5) n Visible on Aerial I Vegetated Concave	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck	ined Leave iuna (B13) tic Plants Sulfide Oc Rhizospher of Reduce n Reductic Surface (Well Data	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9)	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
DROLOG etland Hydrimary Indica Surface Will High Water Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely	rology Indicators: ators (minimum of orvater (A1) er Table (A2) a (A3) rks (B1) Deposits (B2) asits (B3) or Crust (B4) asits (B5) a Visible on Aerial I Vegetated Concave ations:	magery (B7 e Surface (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck) Gauge or '	ined Leave una (B13) tic Plants Sulfide Oc Rhizosphel of Reduce n Reductic Surface (Well Data blain in Re	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
DROLOG etland Hydi imary Indica Surface W High Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundation Sparsely	rology Indicators: ators (minimum of orvater (A1) er Table (A2) a (A3) rks (B1) Deposits (B2) asits (B3) or Crust (B4) asits (B5) a Visible on Aerial I Vegetated Concave ations:	magery (B7 e Surface (B	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or State Other (Exp	ined Leave una (B13) tic Plants Sulfide Oc Rhizosphel of Reduce n Reductic Surface (Well Data blain in Re	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks)	!)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)

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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 15	92385(L)	City/County:	Indianapo	olis, Marion County	_ Sampling Date: 10/5/2016	3
Applicant/Owner: Indiana Department of Transportation (INE	OOT)			State: IN	_ Sampling Point: DP-S-OU	JT
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tov	vnship, Ra	nge: Section 1, T15N, R	:3E	
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none)): Slope	
Slope (%): 30 Lat: 39.778489		Long: <u>-86.1</u>	40413		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 yea	ar? Yes	× No_	(If no, explain in I	Remarks.)	
Are Vegetation, Soil, or Hydrology signature.						
Are Vegetation, Soil, or Hydrology na				eded, explain any answ		
SUMMARY OF FINDINGS – Attach site map s	howing	sampling	g point le	ocations, transect	s, important features,	, etc.
Hydrophytic Vegetation Present? Yes No	×	le the	Sampled	Δερα		
Hydric Soil Present? Yes No			n a Wetlar		No <u>×</u> _	
Wetland Hydrology Present? Yes No	<u></u>				<u> </u>	
Remarks:						
VEGETATION – Use scientific names of plants.						
·	Absolute	Dominant I	ndicator	Dominance Test wor	ksheet:	
Tree Stratum (Plot size: 30 ft. radius) 1		Species?		Number of Dominant S That Are OBL, FACW,		(A)
2				Total Number of Domi	nant	
3				Species Across All Str		(B)
4				Percent of Dominant S	Species	
5		= Total Cove		That Are OBL, FACW,	, or FAC:0 ((A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove	:1	Prevalence Index wo	rksheet:	
1					Multiply by:	
2					0 x 1 =0	
3				· ·	0 x 2 = 0	
4					0 x 3 = 0	
5				· ·	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
Herb Stratum (Plot size:5 ft. radius)		= Total Cove	1			(B)
Securigera varia (Crownvetch)	80	Υ	UPL			(5)
2. Sporobolus compositus (Composite Dropseed)	10	N	UPL	Prevalence Inde	x = B/A =4.99	,
3. Asclepias syriaca (Common Milkweed)	1	N	FACU	Hydrophytic Vegetat		
4					Hydrophytic Vegetation	
5				2 - Dominance Te		
6				3 - Prevalence Inc	dex is ≤3.0 Adaptations¹ (Provide suppor	rtin a
7				data in Remark	ks or on a separate sheet)	rung
8				Problematic Hydr	rophytic Vegetation (Explain))
9					il and wetland hydrology mus	st
10.		= Total Cove		be present, unless dist	urbed or problematic.	
Woody Vine Stratum (Plot size: 30 ft. radius)						
1				Hydrophytic Vegetation		
2					es No _X_	
		= Total Cove	r			
Remarks: (Include photo numbers here or on a separate sh	eet.)			•		

US Army Corps of Engineers

SOIL Sampling Point: DP-S-OUT

Profile Des	cription: (Describ	e to the depth	needed to docu	ment the	indicator o	or confirm	the absence	of indicato	rs.)	
Depth	Matrix			x Feature	s					
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-3	10YR 3/2	100		_, ,			Silty loam	Gravel		
3-20	10YR 4/3	100					Silty loam	Gravel		
				_						
				-	- ——					
	· -									
				_, ,						
				-						
1- 0.0							2.			
	Concentration, D=D Indicators:	epletion, RM=R	educed Matrix, M	S=Maske	d Sand Gra	ains.			Pore Lining, M natic Hydric \$	
			0 1	01 184	(0.1)				-	ouis .
Histoso	` '			Gleyed Ma				Prairie Redo	X (A16)	
	pipedon (A2) listic (A3)			Redox (St d Matrix (\$				Surface (S7)	lasses (F12)	
	en Sulfide (A4)				neral (F1)			_	Surface (TF1	2)
	ed Layers (A5)			Gleyed M	. ,					2)
	uck (A10)			ed Matrix (Other	(Explain in F	Remarks)	
	ed Below Dark Surf	ace (A11)		Dark Surfa						
Thick D	ark Surface (A12)	•			urface (F7)		³ Indicators	s of hydrophy	tic vegetation	and
	Mucky Mineral (S1)		Redox	Depression	ns (F8)			, ,,	must be prese	nt,
	ucky Peat or Peat	. ,					unless	disturbed o	r problematic.	
Restrictive	Layer (if observe	d):								
Type:			_							
Depth (in	nches):		<u> </u>				Hydric Soil	Present?	Yes	No <u>×</u>
Remarks:							•			
HYDROLO	OGY									
Wetland Hy	drology Indicator	's:								
Primary Indi	icators (minimum o	f one is required	l; check all that a	oply)			Seconda	ary Indicators	s (minimum of	two required)
Surface	Water (A1)	•	Water-Sta	ined Leav	res (B9)			face Soil Cra		-
I —	ater Table (A2)		Aquatic F					inage Patter		
Saturat	` ,		True Aqua	`	,		· 	J	ter Table (C2)	
	Marks (B1)		Hydrogen		. ,			yfish Burrow	, ,	
	ent Deposits (B2)				eres on Livi	ina Roots (·	-	le on Aerial Im	agery (C9)
	eposits (B3)		· · · · · · · · · · · · · · · · · · ·		ed Iron (C4	_	. ,		sed Plants (D	
	lat or Crust (B4)		Recent Iro		,	•		omorphic Po		,
_	posits (B5)		Thin Mucl				· —	C-Neutral Te	, ,	
	tion Visible on Aeria	al Imagery (B7)	Gauge or		` '				()	
	ly Vegetated Conc		_							
Field Obse			,		,					
Surface Wa	ter Present?	Yes No	X Depth (in	ches):						
Water Table		·	X Depth (in		>20	_				
Saturation F			Depth (in		>20	Wetls	and Hydrolog	v Present?	Yes	No X
	pillary fringe)								. 55	
	ecorded Data (stream	am gauge, monit	toring well, aerial	photos, pi	revious ins	pections),	if available:			
Remarks:										

US Army Corps of Engineers

Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	: Indianapo	olis, Marion County	_ Sampling Date: 4/27/2016
Applicant/Owner: Indiana Department of Transportation (IN	NDOT)			State: IN	_ Sampling Point: DP-T-IN
Investigator(s): Brock Ervin and Stephany Stamatis (Parso	ons)	Section, To	wnship, Ra	inge: Section 1, T15N, F	R3E
Landform (hillslope, terrace, etc.): Roadside Ditch			Local relief	(concave, convex, none): Concave
Slope (%): 1 Lat: 39.777329		Long: <u>-86.</u>	141513		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		_			
Are climatic / hydrologic conditions on the site typical for th	is time of ye	ar? Yes	X No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	•				present? Yes X No
Are Vegetation, Soil, or Hydrology	-			eeded, explain any answ	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes X	No.				
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes X			ne Sampled		
Wetland Hydrology Present? Yes X		with	nin a Wetla	nd? Yes	X No
Remarks:					
VEGETATION – Use scientific names of plants	 S.				
	Absolute	Dominant	Indicator	Dominance Test wor	rksheet:
Tree Stratum (Plot size: 30 ft. radius) 1.		Species?		Number of Dominant S That Are OBL, FACW	Species , or FAC:1 (A)
2				Total Number of Domi Species Across All Sti	_
4				Percent of Dominant S	Species
o		= Total Cov	er	That Are OBL, FACVV	, or FAC: <u>100.00</u> (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)				Prevalence Index wo	
1				Total % Cover of:	
2					20 x 1 =
3				· ·	$\frac{0}{0}$ $\times 2 = \frac{0}{0}$
4				*	$ \begin{array}{ccccccccccccccccccccccccccccccccc$
5		= Total Cov		UPL species	
Herb Stratum (Plot size: 5 ft. radius)		- Total Cov	GI	Column Totals:	
1. Typha sp. (Cattail)	20	Y	OBL		
2					ex = B/A =1.00
3				Hydrophytic Vegetat	
4				1 - ·	Hydrophytic Vegetation
5				X 2 - Dominance Te	
6.					Adaptations (Provide supporting
7					ks or on a separate sheet)
8.				Problematic Hyd	rophytic Vegetation (Explain)
9				¹ Indicators of hydric so be present, unless dist	oil and wetland hydrology must
		= Total Cov		be present, unless dist	urbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)					
1				Hydrophytic Vegetation	
2			·	•	es <u>X</u> No
		= Total Cov	er		
Remarks: (Include photo numbers here or on a separate	sheet.)				
Last year's cattail cover is approximately 40%. Wetland or			ands conne	cted by a muddy, linear	devegetated segment. Also

epth	Matrix		Redo	x Feature				
nches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 2/1	100		. <u></u>			Org. Loa	m
7-7.5	10YR 4/1	70					Sandy Cl	ay
	10YR 4/2	30						
7.5-17	10YR 5/1	70	10YR 5/4	7	С	M	Rocky Cl	ay
	10YR 5/2	23						
, ,	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	 I Sand Gra	ains.		Location: PL=Pore Lining, M=Matrix.
dric Soil	Indicators:						Indicat	ors for Problematic Hydric Soils ³ :
_ Histosol	` '			Sleyed Ma				ast Prairie Redox (A16)
	pipedon (A2)			Redox (S5				rk Surface (S7)
_	istic (A3)			Matrix (S	•		· 	n-Manganese Masses (F12)
	en Sulfide (A4) d Layers (A5)			Mucky Mir Gleyed Ma				ry Shallow Dark Surface (TF12)
	uck (A10)		X Deplete				Oti	her (Explain in Remarks)
_	d Below Dark Surfac	e (A11)		Dark Surfa				
	ark Surface (A12)	- ()			rface (F7)		³ Indica	itors of hydrophytic vegetation and
 -	Mucky Mineral (S1)			Depressio				tland hydrology must be present,
_ 5 cm Mu	ucky Peat or Peat (S	3)					unl	less disturbed or problematic.
	Layer (if observed):							
	Layer (if observed): ocks and hard-packe							
Type: Ro							Hydric \$	Soil Present? Yes <u>X</u> No
Type: Ro	ocks and hard-packe						Hydric §	Soil Present? Yes <u>X</u> No
Type: Ro Depth (inc emarks:	ocks and hard-packed ches): 17	d clay					Hydric S	Soil Present? Yes <u>X</u> No
Type: Ro Depth (incemarks: DROLO etland Hyd	cks and hard-packed ches): 17	d clay	ed: check all that an	nlv)				
Type: Ro Depth (inc emarks: DROLO etland Hyd imary Indic	cks and hard-packed ches): 17 GY drology Indicators: cators (minimum of co	d clay	-		as (B9)		Secc	ondary Indicators (minimum of two require
Type: Ro Depth (inc emarks: DROLO etland Hyd imary Indic _ Surface	GY drology Indicators: cators (minimum of co	d clay	Water-Sta	ned Leav	` '		Secc	ondary Indicators (minimum of two required Surface Soil Cracks (B6)
Type: Ro Depth (inc emarks: TDROLO Tetland Hyd mimary Indic Surface High Wa	GY drology Indicators: cators (minimum of country (A1) ater Table (A2)	d clay	Water-Stal	ned Leav iuna (B13)		Secc	ondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
Type: Ro Depth (inc emarks: TDROLO Tetland Hyd imary India Surface High Wa Saturatio	GY drology Indicators: cators (minimum of compater (A1) ater Table (A2) on (A3)	d clay	Water-Sta Aquatic Fa True Aqua	ned Leav luna (B13 tic Plants) (B14)		Secc	ondary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
Type: Ro Depth (inc emarks: DROLO etland Hyd imary India Surface High Wa Saturatia Water M	GY drology Indicators: cators (minimum of co Water (A1) ater Table (A2) on (A3) darks (B1)	d clay	Water-Stal Aquatic Fa True Aqua Hydrogen	ined Leave luna (B13 tic Plants Sulfide Oc) (B14) dor (C1)	ing Roots	Seco	ondary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Type: Ro Depth (inc emarks: DROLO etland Hyd imary India Surface High Wa Saturatio Water M Sedimer	GY drology Indicators: cators (minimum of compared (Ma)) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)	d clay	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav luna (B13 tic Plants Sulfide Oo Rhizosphe) (B14) dor (C1) res on Liv	•	<u>Secc</u>	ondary 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)
Type: Ro Depth (inc emarks: DROLO etland Hyd imary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep	GY drology Indicators: cators (minimum of compared (Ma)) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	d clay	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leav iuna (B13 tic Plants Sulfide Oc Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	1)	Secc	ondary 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)
Type: Ro Depth (inc emarks: DROLO etland Hyd imary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	GY drology Indicators: cators (minimum of companies) water (A1) ater Table (A2) on (A3) flarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	d clay	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leaviuna (B13 tic Plants Sulfide Od Rhizosphe of Reduce n Reducti	(B14) dor (C1) res on Liv ed Iron (C4 on in Tille	1)	Seccion (C3)	ondary 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)
Type: Ro Depth (inc emarks: TDROLO etland Hyd imary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	GY drology Indicators: cators (minimum of compared (Ma)) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	ne is requir	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro	ined Leaviuna (B13 tic Plants Sulfide Od Rhizosphe of Reduce n Reducti Surface ((B14) dor (C1) res on Liv ed Iron (C ² on in Tilled	1)	Seccion (C3)	ondary 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)
Type: Ro Depth (inc emarks: TDROLO etland Hyd imary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep	GY drology Indicators: cators (minimum of companies (Ma) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ne is requir	Water-Stale Aquatic Falle Aquatic Falle True Aquale Hydrogen Oxidized Falle Presence Recent Iro Thin Muck Gauge or V	ined Leava iuna (B13 tic Plants Sulfide Oo Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	1)	Seccion (C3)	ondary Indicators (minimum of two require 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)
Type: Ro Depth (inc emarks: Surface High Wa Surface High Wa Saturatio Surface High Wa Saturatio Saturatio High Wa Inception I	GY drology Indicators: cators (minimum of comparison (Ma) dater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I	ne is requir	Water-Stale Aquatic Falle Aquatic Falle True Aquale Hydrogen Oxidized Falle Presence Recent Iro Thin Muck Gauge or V	ined Leava iuna (B13 tic Plants Sulfide Oc Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	1)	Seccion (C3)	ondary 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)
Type: Ro Depth (ind Temarks: TOROLO Tetland Hydrimary India Surface High Wa Saturatia Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatia Sparsely ield Observi	GY drology Indicators: cators (minimum of company) water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave vations:	ne is requir	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or V 38) Other (Exp	ined Leava iuna (B13 tic Plants Sulfide Oo Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	1)	Seccion (C3)	ondary 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)
Type: Ro Depth (inc Remarks: YDROLO Vetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely Field Observious	GY drology Indicators: cators (minimum of compared to the comp	magery (B7	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck // Gauge or V 38) Other (Exp	ined Leavauna (B13) tic Plants Sulfide Oo Rhizosphe of Reduce in Reducti Surface (Well Data blain in Reduches):	(B14) dor (C1) res on Liv d Iron (C4 on in Tilled C7) (D9)	1)	Seccion (C3)	ondary 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)
Type: Ro Depth (inc Remarks: YDROLO Vetland Hyd Surface High Wa Saturatio Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatio Sparsely	GY drology Indicators: cators (minimum of of water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial I by Vegetated Concave vations: er Present? Y	magery (B7 e Surface (E	Water-Stal Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck Gauge or V 38) Other (Exp	ined Leaviuma (B13 tic Plants Sulfide October Reduced In Reduced I	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tilled C7) (D9) emarks)	I) d Soils (Ce	Seccion (C3)	ondary Indicators (minimum of two require 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 = 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.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des	. 1592385(L)	City/Cou	nty: Indianapo	olis, Marion County	_ Sampling Da	te: 4/27/20	16
Applicant/Owner: Indiana Department of Transportation	(INDOT)			State: N	_ Sampling Poi	int: DP-T-C	DUT
Investigator(s): Brock Ervin and Stephany Stamatis (Pars	sons)	Section,	Township, Ra	nge: Section 1, T15N, F	R3E		
Landform (hillslope, terrace, etc.): Roadside Embankmer	nt		_ Local relief	(concave, convex, none	e): Slope		
Slope (%): 10 Lat: 39.777329							
Soil Map Unit Name: Urban Land - Fox Complex (UfA)							d
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology						X No	0
Are Vegetation, Soil, or Hydrology	_ naturally pro	blematic	? (If ne	eded, explain any answ	ers in Remarks	.)	
SUMMARY OF FINDINGS - Attach site ma	p showing	samp	ling point l	ocations, transect	:s, importan	t feature	s, etc.
Hydrophytic Vegetation Present? Yes	No X						
Hydric Soil Present? Yes X	No		the Sampled		No. '	Y	
Wetland Hydrology Present? Yes		, w	rithin a Wetlaı	id? fes	No	<u>`</u>	
Remarks:							
VEGETATION – Use scientific names of plan	ts.						
[Absolute	Domina	nt Indicator	Dominance Test wo	rksheet:		
Tree Stratum (Plot size: 30 ft. radius) 1	_	Species	Status	Number of Dominant That Are OBL, FACW	Species	1	(A)
2				Total Number of Dom		_	
3				Species Across All St	rata:	2	(B)
4				Percent of Dominant		50.00	(A /D)
			Cover	That Are OBL, FACW	, OI FAC:	30.00	(A/D)
Sapling/Shrub Stratum (Plot size:15 ft. radius)				Prevalence Index wo			
1				Total % Cover of:			
2				OBL species			
3				FACW species			
4				FAC species			_
5		= Total C	`ovor		$\begin{array}{c} 0 & x = 0 \\ 0 & x = 0 \end{array}$		_
Herb Stratum (Plot size: 5 ft. radius)		_ rotar c	ovei	Column Totals:		240	— (B)
Poa pratensis (Kentucky Blue Grass)	40	Y	FAC		(/ //		_ (-)
2. <u>Schedonorus arundinaceus (Tall False Rye Grass)</u>	30	Y	FACU	Prevalence Inde			_
3				Hydrophytic Vegeta			
4				1 - Rapid Test for		getation	
5				2 - Dominance Te			
6				3 - Prevalence In 4 - Morphological		rovido over	a a witin a
7					rks or on a sepa		borting
8				Problematic Hyd	rophytic Vegeta	tion (Explai	in)
9				¹ Indicators of hydric so			nust
10	70		`over	be present, unless dist	urbed or proble	matic.	
Woody Vine Stratum (Plot size: 30 ft. radius)		- i olai C	,O 4 GI				
1				Hydrophytic			
2				Vegetation Present? Yes	es No	_×	
		= Total C	Cover				
Remarks: (Include photo numbers here or on a separate	e sheet.)			1			

DP-T-OUT

pth ches)	Matrix Color (moist)	%	Color (moist)	x Feature: %	Type ¹	Loc²	Texture	Remarks
0-3	10YR 2/1	100	Color (molet)		Туро		Loam	Root mass
3-6	10YR 4/1	63	10YR 4/4	2	С	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		M	Loamy Clay	Very compacts
	10YR 5/1	25					Loamy Clay	
e: C=Co	oncentration. D=Dec	letion. RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	2 Loc	eation: PL=Pore Lining, M=Matrix.
	ndicators:		rioddod mann, m					for Problematic Hydric Soils ³ :
Histosol	(A1)			Sleyed Ma			Coast	Prairie Redox (A16)
	ipedon (A2)			Redox (S5				urface (S7)
Black His				l Matrix (S	,			anganese Masses (F12)
-	n Sulfide (A4)			Mucky Mir			Very S	hallow Dark Surface (TF12)
	Layers (A5)			Gleyed Ma			Other	(Explain in Remarks)
2 cm Mu		/A \	X Deplete					
	Below Dark Surfac	e (A11)		Dark Surfa	` '		3	a Charachard and a second
	irk Surface (A12)			d Dark Su				of hydrophytic vegetation and
,	lucky Mineral (S1) cky Peat or Peat (S	3)	Kedox L	Depressio	15 (FØ)			d hydrology must be present, disturbed or problematic.
	ayer (if observed)						4111635	aistance of problematic.
	cks/compact clay						1	
	ons/compact day							
, <u> </u>							Hydric Soil	Present? Yes X No
Depth (inc			<u> </u>				Hydric Soil	Present? Yes X No
Depth (inc	ches): <u>17</u>						Hydric Soil	Present? Yes X No
Depth (incomarks:	ches): <u>17</u>						Hydric Soil	Present? Yes X No
Depth (incomarks: DROLOGETIAND Hydrology	GY drology Indicators:							
Depth (incomarks: DROLOGUE tland Hydromary Indicomary	GY drology Indicators:		ed; check all that ap				Seconda	ry Indicators (minimum of two require
Depth (incomarks: DROLOGITIES TO THE PROPERTY OF THE PROPERTY	GY drology Indicators: ators (minimum of c		Water-Stai	ned Leav	` '		Seconda	ary Indicators (minimum of two require ace Soil Cracks (B6)
Depth (incomarks: DROLOGITIES TO THE PROPERTY OF THE PROPERTY	GY drology Indicators: ators (minimum of o		Water-Stai	ined Leav iuna (B13))		Seconda Surf Drai	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10)
Depth (incomarks: DROLOGITIES TO THE PROPERTY OF THE PROPERTY	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3)		Water-Stai Aquatic Fa True Aqua	ned Leave luna (B13) tic Plants) (B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
Depth (inconarks: DROLOGITATION (Incomary Indiconary I	GY drology Indicators: ators (minimum of compater (A1) ter Table (A2) on (A3) arks (B1)		Water-Stai Aquatic Fa True Aqua Hydrogen	ned Leave luna (B13) tic Plants Sulfide Od) (B14) dor (C1)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Afish Burrows (C8)
Depth (inconarks: DROLOGIA Bland Hydrogram Surface V High Wa Saturation Water M Sedimen	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave luna (B13) tic Plants Sulfide Oc Rhizosphe) (B14) dor (C1) res on Liv	•	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) rfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Depth (incomarks: DROLOGITIAN AND THE PROPERTY OF THE PROPERT	GY drology Indicators: ators (minimum of control of the control of		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave luna (B13) tic Plants Sulfide Oc Rhizosphe) (B14) dor (C1) res on Liv ed Iron (C4	·)	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two required ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) fish Burrows (C8) aration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1)
DROLOGIES Surface Surface Mater Mate	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) ot Deposits (B2) oosits (B3) t or Crust (B4)		Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o	ined Leave luna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C ² on in Tille	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
DROLOGITION OF THE PROPERTY OF	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4) oosits (B5)	one is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence o Recent Iro	ined Leave luna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce n Reduction	(B14) dor (C1) res on Liv d Iron (C4 on in Tille	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) fish Burrows (C8) aration Visible on Aerial Imagery (C9) ated or Stressed Plants (D1)
Depth (inconarks: DROLOGIAND INCOME	GY drology Indicators: ators (minimum of	one is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or V	ined Leave iuna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Lived Iron (C4 on in Tiller C7) (D9)	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (inconarks: DROLOGIAND INCOME PROLOGIAND IN	GY Irology Indicators: ators (minimum of control of co	one is requir	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence of Recent Iro Thin Muck Gauge or V	ined Leave iuna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) dor (C1) res on Lived Iron (C4 on in Tiller C7) (D9)	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (inconarks: DROLOGIANT Indication of the property of th	GY drology Indicators: ators (minimum of of the content of the co	one is requir Imagery (B7 e Surface (E	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized F Presence G Recent Iro Thin Muck Gauge or V 38) Other (Exp	ined Leavi iuna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce n Reducti Surface (Well Data	(B14) (bor (C1) res on Liv d Iron (C4 on in Tiller (C7) (D9) marks)	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (incomarks: DROLOGITIAN AND AND AND AND AND AND AND AND AND A	GY drology Indicators: ators (minimum of of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) t or Crust (B4) osits (B5) on Visible on Aerial Vegetated Concav vations: er Present?	Imagery (B7 e Surface (E	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Gauge or V Other (Exp	ined Leavi iuna (B13) tic Plants Sulfide Od Rhizosphe of Reduce in Reducti Surface (Well Data blain in Re	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	·)	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (incomarks: DROLOGITIAN AND THE PROPERTY OF THE PROPERT	GY drology Indicators: ators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial of Vegetated Concavitations: er Present? Yersent?	Imagery (B7 e Surface (E 'es N	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence (Recent Iro Thin Muck for July Cauge or Noundary (Exp	ined Leavi iuna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce in Reducti Surface (Well Data blain in Re ches): ches):	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller C7) (D9) marks)	d Soils (C	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Buted or Stressed Plants (D1) Burophic Position (D2) -Neutral Test (D5)
Depth (incomarks: DROLOGITIAN AND THE PROPERTY OF THE PROPERT	GY drology Indicators: ators (minimum of of other (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial of Vegetated Concavitations: er Present? Yersent?	Imagery (B7 e Surface (E 'es N	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized R Presence of Recent Iro Thin Muck Gauge or V Gauge or V Other (Exp	ined Leavi iuna (B13) tic Plants Sulfide Oc Rhizosphe of Reduce in Reducti Surface (Well Data blain in Re ches): ches):	(B14) (B14) dor (C1) res on Liv d Iron (C4 on in Tiller C7) (D9) marks)	d Soils (C	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Buted or Stressed Plants (D1) Burophic Position (D2) -Neutral Test (D5)
DROLOGITION TO THE COLUMN THE COLUMN TO THE	GY drology Indicators: ators (minimum of of the content of the co	Imagery (B7 e Surface (E 'es N 'es N	Water-Stai Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence (Recent Iro Thin Muck for July Cauge or Noundary (Exp	ined Leavi	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >17 >17	d Soils (C	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo FAC	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) r/fish Burrows (C8) uration Visible on Aerial Imagery (C9) atted or Stressed Plants (D1) morphic Position (D2)
Depth (incomarks: DROLOGITICAL SURFACE OF MAINTENANCE OF MAINTENA	GY drology Indicators: ators (minimum of of the content of the co	Imagery (B7 e Surface (E 'es N 'es N	Water-Stai	ined Leavi	(B14) (dor (C1) res on Liv red Iron (C4 on in Tiller (C7) (D9) marks) >17 >17	d Soils (C	Seconda Surf Drai Dry- Cray (C3) Satu Stur 6) Geo FAC	ary Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Affish Burrows (C8) Buration Visible on Aerial Imagery (C9) Buted or Stressed Plants (D1) Burophic Position (D2) -Neutral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(I	_) City/County: Indianapo	olis, Marion County	Sampling Date: <u>10/5/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: DP-U-IN
Investigator(s): Brock Ervin and Juliet Port (Parsons)	_ Section, Township, Ra	nge: Section 1, T15N, R3	E
Landform (hillslope, terrace, etc.): Toe-of-Slope	Local relief	(concave, convex, none):	Slope then flat
Slope (%): <u><3</u> Lat: <u>39.773975</u>	_ Long: <u>-86.143201</u>		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI cl	assification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are '	'Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally p	problematic? (If ne	eded, explain any answei	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:	within a Wetlan		No
VEGETATION – Use scientific names of plants.			
Tree Stratum (Plot size:30 ft. radius) Absolute	r Species? Status	Dominance Test work: Number of Dominant Sp That Are OBL, FACW, o	pecies
2		Total Number of Domina Species Across All Stra	
4.		Percent of Dominant Sp That Are OBL, FACW, o	
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1 2		OBL species0	Multiply by: x 1 =0
3			0 x 2 = 200
4		*	x 3 =
5			x 4 = 0 x 5 = 0
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	Column Totals: 10	
1. Cyperus esculentus (Chufa) 80	Y FACW		
2. Phragmites australis (Common Reed) 20	Y FACW		= B/A = <u>2.00</u>
3		Hydrophytic Vegetatio	
4		X 1 - Rapid Test for H	
5		X 2 - Dominance Tes	
6		X 3 - Prevalence Inde	
7		data in Remarks	daptations (Provide supporting or on a separate sheet)
8			phytic Vegetation (Explain)
9			and wetland hydrology must
10	= Total Cover	be present, unless distur	bed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius) 1		Hydrophytic Vegetation	
2			No
	_= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)			
P. australis located along slope and merges into C. esculentus alon	g the ditch. Source wate	r is, at least in part, from a	ın underdrain.

epth	ription: (Describe Matrix			x Feature					,
nches)	Color (moist)	%	Color (moist)	% r eature	Type ¹	Loc ²	Text	ure	Remarks
0-6	10YR 2/1	98	7.5YR 4/6	2	С	М	Org. lo	oam	
6-20	10YR 5/1	85	7.5YR 4/6	15	С	М	Clay lo	oam	
		· ——							
	oncentration, D=Dep	letion, RM=	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	India		tion: PL=Pore Lining, M=Matrix.
Histosol Histic Ep Black Hi Hydroge Stratified 2 cm Mu	(A1) pipedon (A2) stic (A3) sn Sulfide (A4) d Layers (A5) lock (A10)		Sandy F Stripped Loamy Loamy X Deplete		66) neral (F1) atrix (F2)		(Coast Pr Dark Sui Iron-Mar Very Sha	rairie Redox (A16) face (S7) nganese Masses (F12) allow Dark Surface (TF12) xplain in Remarks)
_ Thick Da _ Sandy M	d Below Dark Surface ark Surface (A12) Mucky Mineral (S1)			Dark Surfa d Dark Su Depressio	ırface (F7))	٧	vetland h	f hydrophytic vegetation and hydrology must be present,
	icky Peat or Peat (S						- '	unless d	isturbed or problematic.
estrictive l	_ayer (if observed):							unless d	isturbed or problematic.
estrictive I Type:	_ayer (if observed):								
Restrictive I	_ayer (if observed):								resent? Yes X No
Type: Depth (incemarks:	ches): GY drology Indicators:						Hydri	c Soil P	resent? Yes <u>X</u> No
estrictive I Type: Depth (inc emarks: 'DROLO /etland Hyd rimary Indic	Ches):		red; check all that ar				Hydri	c Soil P	resent? Yes X No
Type: Depth (incemarks: DROLO Vetland Hydrimary Indic	GY drology Indicators: cators (minimum of o Water (A1) ter Table (A2)			ined Leav auna (B13)		Hydri	econdary Surfac	resent? Yes <u>X</u> No
DROLO etland Hyd imary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2)		red; check all that ap — Water-Sta — Aquatic Fa — True Aqua — Hydrogen — Oxidized F	ined Leav auna (B13 atic Plants Sulfide Oo Rhizosphe) (B14) dor (C1) res on Liv	ing Roots (Hydri Se	econdary Surfac Draina Dry-Se Crayfi Satura	resent? Yes X No VIndicators (minimum of two requires to Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9)
Type: Depth (incemarks: DROLO etland Hydimary Indice Surface High Wa Saturatic Water M Sedimer Drift Dep	GY drology Indicators: cators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1)		red; check all that ar Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence	ined Leav auna (B13 atic Plants Sulfide O Rhizosphe of Reduce) (B14) dor (C1) res on Liv ed Iron (C4	_	Hydri	econdary Surface Draina Dry-Si Crayfi Satura Stunte	resent? Yes X No Indicators (minimum of two requires to Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)
Type: Depth (incemarks: TDROLO Toronto India Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundation	GY drology Indicators: cators (minimum of or Water (A1) tter Table (A2) on (A3) arks (B1) nt Deposits (B2) posits (B3)	ne is requi	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	ined Leave auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti Surface (Well Data	(B14) dor (C1) res on Liv ed Iron (C4 on in Tiller (C7) (D9)	4)	Hydri	econdary Surfac Draina Dry-Si Satura Stunte	resent? Yes X No VIndicators (minimum of two requires Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9 and or Stressed Plants (D1)
rype: Depth (inc emarks: DROLO Type inc emarks: DROLO Tetland Hyd emary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely	GY drology Indicators: cators (minimum of or	ne is requi	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	ined Leave auna (B13 atic Plants Sulfide Oc Rhizosphe of Reduce on Reducti Surface (Well Data	(B14) dor (C1) res on Liv ed Iron (C4 on in Tiller (C7) (D9)	4)	Hydri	econdary Surfac Draina Dry-Si Satura Stunte	resent? Yes X No VIndicators (minimum of two require the Soil Cracks (B6) age Patterns (B10) ageno Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9 and or Stressed Plants (D1) orphic Position (D2)
rype: Depth (inc emarks: Type: Depth (inc emarks: Type: Perpendict Type: Perpendict Type: Perpendict Type: Perpendict Type: Perpendict Perpendi	GY drology Indicators: cators (minimum of or	ne is requi	red; check all that ap Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck 7) Gauge or	ined Leavauna (B13 atic Plants Sulfide Or Rhizosphe of Reduce on Reducti s Surface (Well Data blain in Re	(B14) dor (C1) res on Liv ed Iron (C4 on in Tiller (C7) (D9)	4)	Hydri	econdary Surfac Draina Dry-Si Satura Stunte	resent? Yes X No VIndicators (minimum of two require the Soil Cracks (B6) age Patterns (B10) ageno Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9 and or Stressed Plants (D1) orphic Position (D2)
Type: Depth (inc emarks: TOROLO Toron Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely ield Observired	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial I or Vegetated Concave vations: er Present?	magery (Bes Surface (I	red; check all that ag Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F Presence Recent Iro Thin Muck 7) Gauge or B8) Other (Exp	ined Leavauna (B13 stic Plants Sulfide Oo Rhizosphe of Reduce on Reductic Surface (Well Data blain in Reductic)	(B14) (B14) dor (C1) res on Liv ed Iron (C4 on in Tiller (C7) (D9) emarks)	4)	Hydri	econdary Surfac Draina Dry-Si Satura Stunte	resent? Yes X No VIndicators (minimum of two require the Soil Cracks (B6) age Patterns (B10) ageno Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9 and or Stressed Plants (D1) orphic Position (D2)

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.

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Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	Indianapo	olis, Marion County	Sampling Date: 10/5/201	6
Applicant/Owner: Indiana Department of Transportation (I	NDOT)			State: IN	Sampling Point: DP-U-OL	UT
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, To	wnship, Ra	nge: Section 1, T15N, R	:3E	
Landform (hillslope, terrace, etc.): Maintained Roadside R	ight-of-Way	I	_ocal relief	(concave, convex, none)): Flat	
Slope (%): <1 Lat: 39.773974		Long: <u>-86.1</u>	43225		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 the	nis time of ye	ar? Yes	X No_	(If no, explain in I	Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are '	'Normal Circumstances"	present? Yes X No	
Are Vegetation, Soil, or Hydrology	naturally pro	blematic?	(If ne	eded, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map	showing	samplin	g point l	ocations, transects	s, important features	, etc.
Hydrophytic Vegetation Present? Yes	No X	lo th	a Camplad	I Avon		
Hydric Soil Present? Yes	No		e Sampled in a Wetlar		No <u>×</u> _	
Wetland Hydrology Present? Yes	NoX	With	iii a wellai	100		
Remarks:						
VEGETATION – Use scientific names of plants	 S.					
		Dominant	Indicator	Dominance Test wor	ksheet:	
Tree Stratum (Plot size: 30 ft. radius) 1	· ·	Species?		Number of Dominant S That Are OBL, FACW,		(A)
2				Total Number of Domi	nant	
3				Species Across All Str		(B)
4				Percent of Dominant S		
5		= Total Cove		That Are OBL, FACW,	or FAC: 0	(A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	<u>-</u>	= TOTAL COVE	∃ I	Prevalence Index wo	rksheet:	
1					Multiply by:	
2					0 x 1 =0	
3				*	0 x 2 = 0	-
4				i -	0	-
5					$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-
Herb Stratum (Plot size: 5 ft. radius)	<u> </u>	= Total Cove	∃ I	-	90 (A) 360	(B)
Schedonorus arundinaceus (Tall False Rye Grass)	75	Υ	FACU			. (5)
2. Plantago lanceolata (English Plantain)		N	FACU		x = B/A = 4.00	-
3. Trifolium pratense (Red Clover)	5	N	FACU	Hydrophytic Vegetat		
4					Hydrophytic Vegetation	
5				2 - Dominance Te 3 - Prevalence Inc		
6					Adaptations¹ (Provide suppo	orting
7				data in Remark	ks or on a separate sheet)	nung
8.				Problematic Hydr	ophytic Vegetation (Explain	1)
9				¹ Indicators of hydric soil be present, unless distributed in the present of the	il and wetland hydrology mu	ıst
		= Total Cove		be present, unless distr		
Woody Vine Stratum (Plot size: 15 ft. radius)						
1				Hydrophytic Vegetation		
2					es No _X	
		= Total Cove	er 			
Remarks: (Include photo numbers here or on a separate	sheet.)]

Sampling Point: DP-U-OUT SOIL

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

(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	Texture	Remarks
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
		-				
<u> </u>						
		oletion, RM=Re	educed Matrix, MS=Masked Sand Gra	ins.		cation: PL=Pore Lining, M=Matrix.
Hydric Soil						for Problematic Hydric Soils ³ :
Histosol			Sandy Gleyed Matrix (S4) Sandy Redox (S5)			Prairie Redox (A16) Surface (S7)
	pipedon (A2) istic (A3)		Stripped Matrix (S6)			langanese Masses (F12)
	en Sulfide (A4)		Loamy Mucky Mineral (F1)			Shallow Dark Surface (TF12)
	d Layers (A5)		Loamy Gleyed Matrix (F2)			(Explain in Remarks)
2 cm Mu	uck (A10)		Depleted Matrix (F3)			(27p.am m remaile)
	d Below Dark Surfac	e (A11)	Redox Dark Surface (F6)			
	ark Surface (A12)		Depleted Dark Surface (F7)			s of hydrophytic vegetation and
	Mucky Mineral (S1) ucky Peat or Peat (S	3)	Redox Depressions (F8)			d hydrology must be present, s disturbed or problematic.
	Layer (if observed)				uniess	disturbed of problematic.
Type:						
	ches):				Hydric Soil	Present? Yes No X
Remarks:	,					
HYDROLO	GY					
	drology Indicators:	i				
1	•		l; check all that apply)		Seconda	ary Indicators (minimum of two required)
	Water (A1)	ono io roquirou	Water-Stained Leaves (B9)			face Soil Cracks (B6)
l 	ater Table (A2)		Aquatic Fauna (B13)			inage Patterns (B10)
Saturati	, ,		True Aquatic Plants (B14)		·	-Season Water Table (C2)
Water M	` '		Hydrogen Sulfide Odor (C1)			yfish Burrows (C8)
	nt Deposits (B2)		Oxidized Rhizospheres on Livir	na Roots (uration Visible on Aerial Imagery (C9)
	posits (B3)		Presence of Reduced Iron (C4)	•		nted or Stressed Plants (D1)
	at or Crust (B4)		Recent Iron Reduction in Tilled			pmorphic Position (D2)
_	posits (B5)		Thin Muck Surface (C7)	,		C-Neutral Test (D5)
	on Visible on Aerial	Imagery (B7)	Gauge or Well Data (D9)			. ,
	y Vegetated Concav					
Field Obser	vations:					
Surface Wat	er Present?	'es No	X Depth (inches):	_		
Water Table	Present?	'es No	X Depth (inches): >20	_		
Saturation P		'es No	X Depth (inches): >20	Wetla	nd Hydrolog	y Present? Yes No X
(includes car Describe Re		n gauge monit	oring well, aerial photos, previous insp	ections) i	f available	
Dodding ito	oordod Data (otrodir	r gaago, mom	ioning well, dental priotes, providuo inop		availabio.	
Remarks:						
						

US Army Corps of Engineers

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, 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, Ra	nge: Section 1, T15N, R	3E
Landform (hillslope, terrace, etc.): Toe of Slope	Local relief	(concave, convex, none)	: Concave
Slope (%): <u><3</u> Lat: <u>39.771530</u>	Long: <u>-86.143346</u>		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		NWI o	classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No _	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "	Normal Circumstances"	present? Yes X No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes X No Yes X No No Remarks:	within a Wetlar		< No
VEGETATION – Use scientific names of plants.		·	
Absolute Tree Stratum (Plot size: 30 ft. radius) % Cover 1	Species? Status	Number of Dominant S That Are OBL, FACW,	Species
2		Total Number of Domin Species Across All Str	
4. 5.		Percent of Dominant S That Are OBL, FACW,	
Herb Stratum (Plot size: 5 ft. radius) 1. Typha sp. (Cattail) 10 2	_= Total Cover Y OBL	OBL species 1 FACW species 6 FAC species 6 FACU species 6 UPL species 6 Column Totals: 1 Prevalence Index Hydrophytic Vegetati X 1 - Rapid Test for X 2 - Dominance Te X 3 - Prevalence Index	$ \frac{\text{Multiply by:}}{0} \times 1 = \frac{10}{0} $ $ \frac{0}{0} \times 2 = 0 $ $ \frac{0}{0} \times 3 = 0 $ $ \frac{0}{0} \times 4 = 0 $ $ \frac{0}{0} \times 5 = 0 $ $ \frac{0}{0} \times 10 $ (B) $ \frac{0}{0} \times 4 = \frac{1.00}{0} $ For Indicators: Hydrophytic Vegetation st is >50%
7		data in Remark — Problematic Hydr	ss or on a separate sheet) ophytic Vegetation (Explain) I and wetland hydrology must
	_= Total Cover	Hydrophytic Vegetation	s <u>X</u> No
Remarks: (Include photo numbers here or on a separate sheet.) Last year's cattail cover 80%. The species of cattail could not be dete	ermined, because of the	lack of inflorescence.	

SOIL Sampling Point: DP-V-IN

Depth	Matrix		Ra	dox Feature	25			
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 2/1	95	10YR 3/3	4	С	М	Org. Loam	Mucky with sand
			7.5YR 2.5/3	 1	C	М		
5-14	10YR 5/1	 75	7.5YR 4/4			M	Sandy Clay	
14-16	7.5YR 2.5/2	60	7.5YR 4/6			M		pebbly, sandy
14-10			7.511(4/0			IVI	ROCKY LOAIII	pebbly, salidy
	10YR 2/2	35					·	
	10YR 6/6	_ 4						
Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix,	— ——— MS=Maske	d Sand Gra	ins.	²Loc	cation: PL=Pore Lining, M=Matrix.
	Indicators:							for Problematic Hydric Soils ³ :
Histosol	(A1)		Sand	Gleyed M	atrix (S4)		Coast	Prairie Redox (A16)
	pipedon (A2)			Redox (S				Surface (S7)
	istic (A3)			ed Matrix (anganese Masses (F12)
	en Sulfide (A4)			y Mucky M				Shallow Dark Surface (TF12)
	d Layers (A5) uck (A10)			y Gleyed M			Other	(Explain in Remarks)
	лск (А10) d Below Dark Surfa	re (Δ11)		ted Matrix x Dark Surf				
	ark Surface (A12)	ce (ATT)		ted Dark S	. ,		3Indicators	of hydrophytic vegetation and
	Mucky Mineral (S1)			x Depression				d hydrology must be present,
	ucky Peat or Peat (S	3)		,	· -/			disturbed or problematic.
	Layer (if observed)							
Type: Ro	ocks							
Remarks:	ches): <u>16</u>						Hydric Soil	Present? Yes X No
Remarks:	ghout.						Hydric Soil	Present? Yes X No
Remarks: Rocky throug	ghout.	:					Hydric Soil	Present? Yes X No
Remarks: Rocky through	ghout.		ired; check all that	apply)				
Remarks: Rocky through YDROLO Vetland Hy Primary India	ghout. GY drology Indicators cators (minimum of		•	apply) tained Lea	/es (B9)		Seconda	ary Indicators (minimum of two require
Remarks: Rocky through the properties of the pr	ghout. GY drology Indicators cators (minimum of		Water-S	tained Leav			Seconda	ary Indicators (minimum of two require face Soil Cracks (B6)
Remarks: Rocky through the properties of the pr	GY drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-S Aquatic		3)		Seconda Surf Drai	ary Indicators (minimum of two require
YDROLO Wetland Hy Primary India X Surface X High Wa Saturatia	GY drology Indicators cators (minimum of Water (A1) ater Table (A2)		Water-S Aquatic True Aq	tained Leav Fauna (B1	B) s (B14)		Seconda Surf Drai Dry-	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10)
YDROLO Vetland Hy Primary India X Surface X High Wa Saturati Water M	GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)		Water-S Aquatic True Aq Hydroge	tained Leav Fauna (B13 uatic Plants	3) s (B14) odor (C1)	ng Roots	Seconda Surf Drai Dry-	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
YDROLO Vetland Hy Primary India X Surface X High Wa Saturati Water M Sedimer	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)		Water-S Aquatic True Aq Hydroge Oxidized	tained Leavers (B13) Fauna (B13) uatic Plants en Sulfide C	B) s (B14) odor (C1) eres on Liv	-	Seconda Surf Drai Dry- Cray (C3) Satu	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8)
YDROLO Vetland Hy Primary India X Surface X High Wa Saturati Water M Sedimen Drift De	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2)		Water-S Aquatic True Aq Hydroge Oxidized	tained Leaver Fauna (B13 uatic Plants en Sulfide Central Rhizosphere	B) s (B14) odor (C1) eres on Liv ed Iron (C4)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimel Drift Del Algal Ma	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Water-S Aquatic True Aq Hydroge Oxidized	tained Lear Fauna (B1: uatic Plants en Sulfide C I Rhizospho e of Reductron Reduct	B) s (B14) odor (C1) eres on Liv ed Iron (C4) ion in Tille)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the first of the season water Table (C2) In the season water Table (
YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimer Drift Der Algal Ma Iron Der	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial	one is requ	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge 6	tained Lear Fauna (B1; uatic Plants In Sulfide C If Rhizospho e of Reduct ron Reduct ck Surface or Well Data	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9))	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
YDROLO YDROLO Yetland Hy Primary India X Surface X High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Inundati Sparsel	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav	one is requ	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge 6	tained Leaveraum (B13 uatic Plants en Sulfide Carlot Reduction Red	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9))	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
YDROLO YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Inundati Sparsel	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concavivations:	one is requ Imagery (E	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu G7) Gauge C	tained Leaverage	B) G (B14) G (B14) Gres on Lived Iron (C4) Gres on Lived Iron (C4) Gres on Lived Iron (C7) Gres on Liv)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
YDROLO YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Sparsely	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present?	Imagery (E	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge (688) Depth (6	tained Lear Fauna (B1: uatic Plants en Sulfide C d Rhizospho e of Reduct ron Reduct ck Surface or Well Data explain in R	(C7) a (D9) emarks))	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimen Algal Ma Iron Dep Inundati Sparsely Field Obser	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial y Vegetated Concav vations: er Present?	Imagery (Eve Surface Yes X	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge (6) (B8) Other (6) No Depth (6)	tained Lear Fauna (B1; uatic Plants en Sulfide C d Rhizosphe e of Reduct ron Reduct ck Surface or Well Data explain in R inches): inches): inches):	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9) emarks) 0.5)	Seconda Surf Drai Crai Crai (C3) Satu Stur 6) X Geo	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
Primary India YDROLO Wetland Hy Primary India X Surface X High Wa Saturatia Water M Sedimen Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes cal	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent?	Imagery (Eve Surface of Yes X	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge (6) (B8) Other (E) No Depth (1) No Depth (1)	tained Lear Fauna (B1; uatic Plants en Sulfide C d Rhizosphi e of Reduct ron Reduct ck Surface or Well Data explain in R inches): inches): inches): inches): inches):	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9) emarks) 0.5 12) Soils (C	Seconda Surf Drai Dry- Cray Satu Stur Stur X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) Vish Burrows (C8) Uration Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1) Imorphic Position (D2)
Primary India YDROLO Wetland Hy Primary India X Surface X High Wa Saturatia Water M Sedimen Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes cal	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present?	Imagery (Eve Surface of Yes X	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge (6) (B8) Other (E) No Depth (1) No Depth (1)	tained Lear Fauna (B1; uatic Plants en Sulfide C d Rhizosphi e of Reduct ron Reduct ck Surface or Well Data explain in R inches): inches): inches): inches): inches):	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9) emarks) 0.5 12) Soils (C	Seconda Surf Drai Dry- Cray Satu Stur Stur X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)
Primary India YDROLO Wetland Hy Primary India X Surface X High Wa Saturatia Water M Sedimen Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation Perincludes cal	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present? resent?	Imagery (Eve Surface of Yes X	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge (6) (B8) Other (E) No Depth (1) No Depth (1)	tained Lear Fauna (B1; uatic Plants en Sulfide C d Rhizosphi e of Reduct ron Reduct ck Surface or Well Data explain in R inches): inches): inches): inches): inches):	B) s (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tilled (C7) a (D9) emarks) 0.5 12) Soils (C	Seconda Surf Drai Dry- Cray Satu Stur Stur X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)
YDROLO Wetland Hy Primary India X Surface X High Wa Saturati Water M Sedimel Drift Del Algal Ma Iron Dep Inundati Sparsely Field Obser Surface Wat Water Table Saturation P includes cal Describe Re	ghout. GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) darks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial y Vegetated Concav vations: er Present? Present? pillary fringe) corded Data (strear	Imagery (E //e Surface //es Yes Yes n gauge, m	Water-S Aquatic True Aq Hydroge Oxidized Presend Recent Thin Mu Gauge of (B8) Depth (No Depth (No X Depth (onitoring well, aeria	tained Lear Fauna (B1; uatic Plants en Sulfide C d Rhizospho e of Reduct ron Reduct ck Surface or Well Data explain in R inches): inches): al photos, p	(C7) a (D9) emarks) 0.5 12 0 revious ins	y Soils (C	Seconda Surf Drai Dry Cray (C3) Satu Stur 6) X Geo X FAC	ary Indicators (minimum of two require face Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) morphic Position (D2) C-Neutral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des.	1592385(L)	City/County	: Indianapo	olis, Marion County	Sampling Date: 4/27/2016
Applicant/Owner: Indiana Department of Transportation (I	NDOT)			State: IN	Sampling Point: DP-V-OUT
Investigator(s): Brock Ervin and Stephany Stamatis (Parso	ons)	Section, To	wnship, Ra	nge: Section 1, T15N, R	3E
Landform (hillslope, terrace, etc.): Roadside Embankment	t		Local relief	(concave, convex, none)	: None
Slope (%): 5 Lat: 39.771566					
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		_			
Are climatic / hydrologic conditions on the site typical for th				-	·
Are Vegetation, Soil, or Hydrology	•				present? Yes X No
Are Vegetation, Soil, or Hydrology	-			eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes	No X				
Hydric Soil Present? Yes	No X		e Sampled		No. V
Wetland Hydrology Present? Yes	No X	With	in a Wetlar	10? Yes	No <u>X</u> _
Remarks:		•			
VEGETATION – Use scientific names of plants	S.				
20.00	Absolute	Dominant		Dominance Test work	ksheet:
Tree Stratum (Plot size: 30 ft. radius) 1		Species?		Number of Dominant S That Are OBL, FACW,	Species or FAC:1 (A)
2				Total Number of Domii	nant
3				Species Across All Stra	ata: <u>2</u> (B)
4				Percent of Dominant S	
5		= Total Cov		That Are OBL, FACW,	or FAC: 50.00 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cov	GI .	Prevalence Index wo	rksheet:
1				Total % Cover of:	
2					0 x 1 =0
3					0 x 2 = 0
4					<u>'0</u> x 3 = <u>210</u>
5		= Total Cov		-	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Herb Stratum (Plot size:5 ft. radius)		= Total Cov	ei	Column Totals: 9	
Poa pratensis (Kentucky Blue Grass)	70	Y	FAC		
2. Schedonorus arundinaceus (Tall False Rye Grass)	20	Y	FACU		x = B/A =
3. Cirsium discolor (Field Thistle)	2	N	FACU	Hydrophytic Vegetati	
4. Taraxacum officinale (Common Dandelion)	_ 1	N	FACU	· ·	Hydrophytic Vegetation
5. Lamium purpureum (Purple Deadnettle)	_ 1	N	UPL	2 - Dominance Te 3 - Prevalence Ind	
6. Plantago lanceolata (English Plantain)	1	N	FACU		Adaptations (Provide supporting
7.					ks or on a separate sheet)
8				Problematic Hydr	ophytic Vegetation (Explain)
9				¹ Indicators of hydric soi be present, unless distu	il and wetland hydrology must
		= Total Cov		be present, unless dist	Tibed of problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)					
1				Hydrophytic Vegetation	
2	_	T			s No _X_
		= Total Cov	er 		
Remarks: (Include photo numbers here or on a separate	sheet.)				

Sampling Point: DP-V-OUT SOIL

Profile Desc	cription: (Describe t	o the depth	needed to docu	ment the i	ndicator o	or confirn	n the absence	of indicators.)
Depth	Matrix			x Features				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type'	Loc ²	Texture	Remarks
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
				- '				
	oncentration, D=Depl	etion, RM=Re	educed Matrix, M	S=Masked	Sand Gra	ains.		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Hydric Soil			0	011 114-	(a) (O 4)			•
Histosol	(A1) pipedon (A2)			Gleyed Ma Redox (S5)				Prairie Redox (A16) Surface (S7)
	istic (A3)			d Matrix (S				anganese Masses (F12)
	en Sulfide (A4)			Mucky Min				Shallow Dark Surface (TF12)
Stratified	d Layers (A5)			Gleyed Ma			=	(Explain in Remarks)
	uck (A10)			ed Matrix (F				,
	d Below Dark Surface	e (A11)		Dark Surfa	. ,		31 - 1 1 1	of books about a constation and
	ark Surface (A12) /lucky Mineral (S1)			ed Dark Sur Depression	, ,			of hydrophytic vegetation and dhydrology must be present,
	ucky Peat or Peat (S3	5)	\\Cdox	Бергеззіої	13 (1 0)			disturbed or problematic.
	Layer (if observed):	,						'
Type: Ro	ock		_					
Depth (in	ches): <u>18</u>						Hydric Soil	Present? Yes No X
Remarks:								
Rocky throug	ghout. Notably reddis	sh subsoil.						
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of or	ne is required	l; check all that ap	oply)			Seconda	ary Indicators (minimum of two required)
l —	Water (A1)			ined Leave			·	ace Soil Cracks (B6)
	ater Table (A2)			auna (B13)				nage Patterns (B10)
Saturati	` ,		True Aqua		. ,			Season Water Table (C2)
·	larks (B1)		Hydrogen		. ,	D		yfish Burrows (C8)
	nt Deposits (B2)		Oxidized F			-		uration Visible on Aerial Imagery (C9)
	posits (B3) at or Crust (B4)		Recent Iro	of Reduce				nted or Stressed Plants (D1) morphic Position (D2)
	posits (B5)		Thin Muck			2 00113 (00		C-Neutral Test (D5)
l —	on Visible on Aerial Ir	magery (B7)	Gauge or	,	,			(= 0)
	y Vegetated Concave		_	plain in Re				
Field Obser	vations:				-			
Surface Wat	er Present? Ye	es No	X Depth (in	ches):				
Water Table	Present? Ye	es No	X Depth (in	ches):	>18			
Saturation P	resent? Ye	es No	X Depth (in	ches):	>18	Wetl	and Hydrolog	y Present? Yes No X
(includes ca	oillary fringe) corded Data (stream	gauga manit	coring well periol	nhotos pro	vious ins	noctions)	if available:	
Describe Re	colded Data (Stream	gauge, monit	oning well, aerial	priotos, pre	evious iris	pections),	ii available.	
Remarks:								

US Army Corps of Engineers

Project/Site: 165/170 Interchange Mod/Bridge Rehab-Des. 1592385(L) City/County: Indianap	olis, Marion County	Sampling Date: <u>4/26/2016</u>
Applicant/Owner: Indiana Department of Transportation (INDOT)	State: IN	Sampling Point: RP-1
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons) Section, Township, R.	ange: Section 36, T16N, R	3E
Landform (hillslope, terrace, etc.): Interchange Infield Drainage Area Local relie	f (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 cl	assification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are	"Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology naturally problematic? (If r	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point	locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No Is the Sample within a Wetland Hydrology Present? Remarks:		NoX
VEGETATION – Use scientific names of plants.		
Tree Stratum (Plot size: 30 ft. radius) Absolute Dominant Indicator % Cover Species? Status 1	Number of Dominant Sp That Are OBL, FACW, of	pecies
2	Total Number of Domin Species Across All Stra	_
4.	Percent of Dominant Sp That Are OBL, FACW, of	
Sapling/Shrub Stratum (Plot size: 15 ft. radius) 1 = Total Cover	·	Multiply by:
2	OBL species 0	x 1 = 0 x 2 = 80
3	·	x 3 = 0
5	· · · · · · · · · · · · · · · · · · ·	x 4 =0
= Total Cover	'	x 5 =0
Herb Stratum (Plot size: 5 ft. radius)	Column Totals: 40) (A) <u>80</u> (B)
1. Phalaris arundinacea (Reed Canary Grass) 40 Y FACW	Prevalence Index	= B/A =2.00
2	Hydrophytic Vegetation	·
4	X 1 - Rapid Test for H	
5	X 2 - Dominance Tes	t is >50%
6.	3 - Prevalence Inde	ex is ≤3.0 ¹
7.	4 - Morphological A	Adaptations (Provide supporting
8		s or on a separate sheet)
9	•	phytic Vegetation (Explain)
10	be present, unless distu	and wetland hydrology must rbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)		
, , , , , , , , , , , , , , , , , , , ,	Hydrophytic	
1	Vegetation	
= Total Cover	Present? Yes	No
Remarks: (Include photo numbers here or on a separate sheet.)		

Profile Des	cription: (Describe	to the depth				or confire	n the absence of ir	ndicators.)		
Depth	Matrix			x Feature		1 - 2	T 4	Describe		
(inches) 0-6	Color (moist)	<u>%</u> _	Color (moist)	%	Type ¹	Loc ²		Remarks		
	10YR 2/1		7.5\/D.0/0							
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=C	oncentration, D=Dep	letion, RM=F	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location	n: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indicators for I	Problematic Hydric Soils ³ :		
Histoso				Gleyed Ma				ie Redox (A16)		
	pipedon (A2)			Redox (S5			Dark Surface	• •		
	istic (A3)			d Matrix (S			_	anese Masses (F12)		
	en Sulfide (A4)			Mucky Mir	, ,		-	ow Dark Surface (TF12)		
	d Layers (A5) uck (A10)			Gleyed Matrix (Other (Exp	lain in Remarks)		
	d Below Dark Surface	e (A11)		Dark Surfa	,					
-	ark Surface (A12)	,,,,,			ırface (F7)		³ Indicators of h	ydrophytic vegetation and		
	Mucky Mineral (S1)			Depressio	. ,			drology must be present,		
	ucky Peat or Peat (S3	3)	<u>—</u>	·	, ,			urbed or problematic.		
Restrictive	Layer (if observed):									
Type:										
Depth (in	ches):						Hydric Soil Pres	sent? Yes No X		
Remarks:										
HYDROLO	GY									
_	drology Indicators:									
Primary Indi	cators (minimum of o	ne is require					Secondary In	dicators (minimum of two required)		
	Water (A1)		Water-Sta		, ,		Surface Soil Cracks (B6)			
	ater Table (A2)		Aquatic Fa				Drainage Patterns (B10)			
Saturati			True Aqua				Dry-Season Water Table (C2)			
	Marks (B1)		Hydrogen			_	- '	Burrows (C8)		
	nt Deposits (B2)		Oxidized F			-		on Visible on Aerial Imagery (C9)		
	posits (B3)		Presence					or Stressed Plants (D1)		
	at or Crust (B4)		Recent Iro			Soils (C	· ·	phic Position (D2)		
	posits (B5)	(DZ)	Thin Muck		,		FAC-Net	utral Test (D5)		
	ion Visible on Aerial I		_							
Field Obser	y Vegetated Concave	в Ѕипасе (В	8) Other (Exp	Diain in Re	emarks)	1				
Surface Wat		00 N	o X Depth (in	ohoo):						
Water Table		· · · · · · · · · · · · · · · · · · ·	o X Depth (in	,		_				
			o X Depth (in		>20	_ Wot	land Hydrology Pro	ocent? Vec Y No		
	pillary fringe)							esent? Yes X No No		
Describe Re	ecorded Data (stream	gauge, mor	itoring well, aerial	photos, pr	evious ins	pections)	, if available:			
Remarks:										
FAC-Neutra	I Test = 100%.									

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592	385(L) C	City/County:	Indianapo	lis, Marion County	_ Sampling Date:	10/5/2016
Applicant/Owner: Indiana Department of Transportation (INDO	T)			State: IN	Sampling Point: RP-2	
Investigator(s): Brock Ervin and Juliet Port (Parsons)		Section, Tov	vnship, Raı	ange: Section 36, T16N, R3E		
Landform (hillslope, terrace, etc.): Roadside Embankment		L	ocal relief	(concave, convex, none	e): Slope	
Slope (%): 20 Lat: 39.782577	L	ong: <u>-86.1</u>	40341		Datum: <u>NAD 19</u>	983
Soil Map Unit Name: Urban land-Fox complex (UfA)				NWI	classification: Not	Wetland
Are climatic / hydrologic conditions on the site typical for this tim						
Are Vegetation, Soil, or Hydrology signif				Normal Circumstances"		X No
Are Vegetation, Soil, or Hydrology natur				eded, explain any answ		
SUMMARY OF FINDINGS – Attach site map sho			g point le	ocations, transect	s, important fe	eatures, etc.
Hydrophytic Vegetation Present? Yes			e Sampled n a Wetlar		NoX	_
Area reviewed because soils felt saturated when walking over t	this area	l.				
VEGETATION – Use scientific names of plants.						
	Cover	Dominant I Species?	Status	Number of Dominant That Are OBL, FACW	Species	<u>0</u> (A)
2				Total Number of Dom Species Across All St		<u>1</u> (B)
4		Total Cove		Percent of Dominant S That Are OBL, FACW		<u>0</u> (A/B)
Sapling/Shrub Stratum (Plot size:				OBL species FACW species FAC species FACU species UPL species	Multip 0	0 20 0 360 0
Schedonorus arundinaceus (Tall False Rye Grass)	90	Υ	FACU	Column Totals:1	100 (A)	380 (B)
2. Echinochloa crus-galli (Large Barnyard Grass)	10	N	FACW	Prevalence Inde	ex = B/A =3	3.80
3.				Hydrophytic Vegetat	tion Indicators:	
4				1 - Rapid Test for	Hydrophytic Vege	tation
5				2 - Dominance Te		
6				3 - Prevalence Inc		
7				4 - Morphological	I Adaptations¹ (Prov rks or on a separate	ride supporting
8				Problematic Hyd		·
9				Indicators of hydric so		
10				be present, unless dist		
Woody Vine Stratum (Plot size: 30 ft. radius) 1				Hydrophytic Vegetation Present? Ye	es No _	_x_
Remarks: (Include photo numbers here or on a separate sheet	t.)			1		

epth	cription: (Describe to Matrix		Redo	x Features	2			
nches)	Color (moist)	%	Color (moist)	% realures	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 4/1	100					Sand loam	Cobbles
3-9	5YR 4/1	85	7.5YR 4/6	15	С	М	Clay loam	Cobbles
9-20	GLEY1 4/10Y	65	7.5YR 4/4	10	С	М	Clay loam	Cobbles
	GLEY1 2.5/N	15	10YR 5/4	10	С	М	Clay loam	Cobbles/decomposing organics(?)
, ,	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	nins.		cation: PL=Pore Lining, M=Matrix.
	Indicators:			0	(0.1)			for Problematic Hydric Soils ³ :
_ Histosol	(A1) Dipedon (A2)			Gleyed Ma Redox (S5				Prairie Redox (A16) Surface (S7)
	stic (A3)			d Matrix (S				langanese Masses (F12)
_	en Sulfide (A4)			Mucky Mir	•			Shallow Dark Surface (TF12)
_ Stratified	d Layers (A5)		X Loamy	Gleyed Ma	atrix (F2)		-	(Explain in Remarks)
 '	ıck (A10)		× Deplete				_ _	,
	d Below Dark Surface	e (A11)		Dark Surfa	` '		31	af budaan buda waxa tatta a aad
Thick Dark Surface (A12) Depleted Dark Surface (F7)							s of hydrophytic vegetation and	
	andy Mucky Mineral (S1) Redox Depressions (F8) wetland hydrology must be presen unless disturbed or problematic.							
	Layer (if observed):	,						·
_								
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Depth (in-							Hydric Soil	Present? Yes X No
Depth (incemarks:	GY						Hydric Soil	Present? Yes X No No
Depth (incemarks:	GY drology Indicators:							
Depth (incemarks:	GY drology Indicators: cators (minimum of or	ne is requir					Seconda	ary Indicators (minimum of two require
Depth (incemarks: DROLO etland Hydical imary Indice Surface	GY drology Indicators: cators (minimum of or Water (A1)	ne is require	Water-Sta	ined Leave	` '		Seconda Sur	ary Indicators (minimum of two require face Soil Cracks (B6)
Depth (incemarks: DROLO etland Hydimary India Surface High Wa	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2)	ne is require	Water-Sta	ined Leave auna (B13))		Seconda Sur Dra	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10)
Depth (incemarks: DROLO etland Hyrimary India Surface High Wa	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3)	ne is require	Water-Sta Aquatic Fa True Aqua	ined Leave auna (B13) atic Plants	(B14)		Seconda Sur Dra Dry	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2)
Depth (incemarks: DROLO etland Hyrimary India Surface High Water Mater Mate	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen	ined Leave auna (B13) atic Plants Sulfide Oc	(B14) dor (C1)	na Roots	Seconda Sur Dra Dry Cra	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8)
Depth (incemarks: DROLO Total And Hydrimary India Surface High Water Water Water Water Water Water Sedimen	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave auna (B13) atic Plants Sulfide Oc Rhizosphe	(B14) dor (C1) res on Livi	-	Seconda Sur Dra Dry Cra (C3) Sati	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9)
Depth (incemarks: DROLO etland Hydimary India Surface High Water M Sedimer Drift Dep	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	ne is requir	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized F	ined Leave auna (B13) atic Plants Sulfide Oc Rhizosphe of Reduce	(B14) dor (C1) res on Livi d Iron (C4)	Seconda Sur Dra Dry Cra (C3) Satt	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
Depth (incemarks: DROLO Total Algal Market Depth (incemarks: Depth (incemarks: Depth (incemarks: Surface High Water Market Sediment Drift Depth (incemarks: Algal Market Depth (incemarks: Dept	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4)	ne is require	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leave auna (B13) atic Plants Sulfide Oc Rhizosphel of Reduce on Reduction	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: DROLO Torrest and the properties of the proper	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)		Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro	ined Leave auna (B13) atic Plants Sulfide Oc Rhizosphe of Reduce on Reduction	(B14) dor (C1) res on Livi d Iron (C4 on in Tilled)	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1)
DROLO etland Hy imary India Surface High Wa Saturatia Water M Sedimer Drift Der Algal Ma Iron Der	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5)	magery (B7	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductic Surface ((B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: DROLO Toronto and the control of the control o	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave	magery (B7	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductic s Surface ((B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9))	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: DROLO TOROLO Toronto India Surface High Water Marger Mater Ma	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave vations: er Present?	magery (B7 Surface (B	Water-Sta Aquatic Fa Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Iro Thin Muck Gauge or Gauge or Other (Exp	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reducte on Reduction Surface (Well Data plain in Re	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: Depth (incema	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave vations: er Present? Ye Present?	magery (B7 Surface (B es N	Water-Sta Aquatic Fa True Aqua Hydrogen Oxidized Fa Presence Recent Irc Thin Muck Gauge or S8) Other (Exp No X Depth (in	ined Leave auna (B13) atic Plants Sulfide Oc Rhizosphe of Reduce on Reductic Surface (Well Data plain in Re ches): ches):	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled C7) (D9) marks))	Seconda	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Surface High Water Mater Table atturation Pencludes cap	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave vations: er Present? Present? Ye resent?	magery (B7 Surface (B es N es N	Water-Sta	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductic Surface (Well Data plain in Re ches): ches): ches): ches):	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled (C7) (D9) marks)	Soils (Co	Seconda Sur Dra Dry Cra (C3) Sati Stui 6) Gec FAC	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) inted or Stressed Plants (D1) omorphic Position (D2)
Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Depth (incemarks: Surface High Water Mater Table atturation Pencludes cap	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave vations: er Present? Present? Ye resent? Ye	magery (B7 Surface (B es N es N	Water-Sta	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductic Surface (Well Data plain in Re ches): ches): ches): ches):	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled (C7) (D9) marks)	Soils (Co	Seconda Sur Dra Dry Cra (C3) Sati Stui 6) Gec FAC	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)
Depth (incemarks: DROLO Vetland Hyrimary India Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundati Sparsely Vetland Obser Vater Table Baturation Pencludes cap	GY drology Indicators: cators (minimum of or Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) cosits (B3) at or Crust (B4) cosits (B5) on Visible on Aerial In y Vegetated Concave vations: er Present? Present? Ye resent?	magery (B7 Surface (B es N es N	Water-Sta	ined Leave auna (B13) atic Plants Sulfide Oc Rhizospher of Reduce on Reductic Surface (Well Data plain in Re ches): ches): ches): ches):	(B14) (B14) dor (C1) res on Livi d Iron (C4 on in Tilled (C7) (D9) marks)	Soils (Co	Seconda Sur Dra Dry Cra (C3) Sati Stui 6) Gec FAC	ary Indicators (minimum of two require face Soil Cracks (B6) inage Patterns (B10) -Season Water Table (C2) yfish Burrows (C8) uration Visible on Aerial Imagery (C9) nted or Stressed Plants (D1) omorphic Position (D2) C-Neutral Test (D5)

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(I	_) City/County: Indianapo	olis, 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, Ra	ange: Section 31, T16N, R4E		
Landform (hillslope, terrace, etc.): Roadside Ditch	Local relief	(concave, convex, none)	: Concave	
Slope (%): <u><5</u> Lat: <u>39.785073</u>	_ Long: <u>-86.137961</u>		Datum: NAD 1983	
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI c	classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No _	(If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are	"Normal Circumstances"	present? Yes X No	
Are Vegetation X, Soil , or Hydrology naturally p	problematic? (If ne	eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point l	ocations, transects	s, important features, etc.	
Hydrophytic Vegetation Present? Yes No X Hydric Soil Present? Yes X No No Wetland Hydrology Present? Yes No X Remarks:	within a Wotla		No <u>X</u>	
Area reviewed due to devegetated roadside ditch. Did not have downare sparsely vegetated concave surface (B8) due to allelopathic pure surface (B8		vershadowed by Lonicera	a macckii. Not considered to	
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30 ft. radius) Absolute % Cove	r Species? Status	Dominance Test work Number of Dominant S That Are OBL, FACW,		
2	NI	Total Number of Domir Species Across All Stra	_	
5	= Total Cover	Percent of Dominant S That Are OBL, FACW,	pecies or FAC: 0 (A/B)	
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	= Total Cover	Prevalence Index wor	rksheet:	
1			Multiply by:	
2) x 1 =0	
3) x 2 = 0	
4) x 3 = 0	
5		· ·	x = 0 x = 0 x = 0	
Herb Stratum (Plot size: 5 ft. radius)	_= Total Cover	Column Totals:		
1	NI	Column Totals.	(A) (B)	
2		Prevalence Index	c = B/A = 0	
3	NI	Hydrophytic Vegetati	on Indicators:	
4			Hydrophytic Vegetation	
5		2 - Dominance Tes		
6		3 - Prevalence Ind		
7			Adaptations (Provide supporting as or on a separate sheet)	
8			ophytic Vegetation (Explain)	
9			and wetland hydrology must	
	= Total Cover	be present, unless distu	urbed or problematic.	
Woody Vine Stratum (Plot size: 30 ft. radius)		Hydrophytic		
1		Vegetation		
2	= Total Cover	Present? Yes	s No <u>X</u>	
Remarks: (Include photo numbers here or on a separate sheet.)				
Lonicera maackii (amur honeysuckle, NI) dominates backslope, ove of honeysuckle; inhibits germination. Backslope also contained Cat Frontslope contained Alliaria petiolata (garlic-mustard, FAC), Ambro	alpa speciosa (northern	catalpa, FACU), Rhus gla	bra (smooth sumac, NI).	

Sampling Point: RP-3

SOIL								Sampling Point: M 3		
Profile Desc	ription: (Describe	to the dept	h needed to docum			or confire	m the absence of	indicators.)		
Depth	Matrix	%		K Features		Loc ²	Toyturo	Domorko		
(inches) 0-1	Color (moist) 10YR 3/1	100	Color (moist)	%	Type ¹	LOC	<u>Texture</u> Loam	Remarks		
1-4	10YR 3/2	50					Loam			
	10YR 4/2	50			-		Sand loam			
4-6	10YR 4/1	92	7.5YR 4/6	8		M	Silty loam			
			7.511 4/0			IVI	· — · — —			
6-7	10YR 4/2	100	5VD 0 5/0				Sand			
7-22	10YR 3/1	70	5YR 2.5/2	3	C	M	Loam			
1- 0.0	10YR 4/2	24	7.5YR 4/4	3	<u>C</u>	M	2,			
Type: C=Cc Hydric Soil I		oletion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ins.		on: PL=Pore Lining, M=Matrix. r Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy G	sleyed Ma	trix (S4)		Coast Pra	airie Redox (A16)		
	ipedon (A2)			edox (S5			Dark Surf			
Black His				Matrix (S				ganese Masses (F12)		
Hydroge	n Sulfide (A4)		Loamy N	/lucky Min	neral (F1)		Very Sha	llow Dark Surface (TF12)		
Stratified	Layers (A5)			Sleyed Ma			Other (Ex	plain in Remarks)		
2 cm Mu	,			d Matrix (F						
	Below Dark Surfac	e (A11)		ark Surfa	` '		3			
	rk Surface (A12)				rface (F7)			³ Indicators of hydrophytic vegetation and		
	ucky Mineral (S1) cky Peat or Peat (S	3)	Redox L	epression	15 (ГО)		wetland hydrology must be present, unless disturbed or problematic.			
	ayer (if observed)						1			
Type:										
Depth (inc	ches):						Hydric Soil Pro	esent? Yes X No		
HYDROLO(GY									
Wetland Hyd	Irology Indicators:									
Primary Indic	ators (minimum of o	one is requir	ed; check all that ap	ply)			Secondary	Indicators (minimum of two required)		
Surface	Water (A1)		Water-Stai		, ,		Surface	e Soil Cracks (B6)		
High Wa	ter Table (A2)		Aquatic Fa				Drainag	ge Patterns (B10)		
Saturation	on (A3)		True Aquat	tic Plants	(B14)			ason Water Table (C2)		
	arks (B1)		Hydrogen \$					h Burrows (C8)		
	t Deposits (B2)		Oxidized R			-		tion Visible on Aerial Imagery (C9)		
	osits (B3)		Presence of					d or Stressed Plants (D1)		
_	t or Crust (B4)		Recent Iron			Soils (C	, <u> </u>	orphic Position (D2)		
	osits (B5)	l /D3	Thin Muck	•			FAC-No	eutral Test (D5)		
	on Visible on Aerial Vegetated Concav									
Field Observ		e Suriace (E	88) Other (Exp	iaiii III Ke	marks)					
Surface Wate		/oc N	lo X Depth (inc	has).						
Water Table			No X Depth (inc		>22	-				
Saturation Pr (includes cap	esent?		No X Depth (inc			_ Wet	land Hydrology P	resent? Yes No X		
		n gauge, mo	nitoring well, aerial p	hotos, pre	evious ins	pections)	, 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.

Des. 1592385 (L) Contract # 36910

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592	2385(L) City/County: Indianapo	lis, Marion County	Sampling Date: <u>4/25/2016</u>			
Applicant/Owner: Indiana Department of Transportation (INDOT) State: IN Sampling Point: RP-4						
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	Section, Township, Rar	nge: Section 31, T16N, F	₹4E			
Landform (hillslope, terrace, etc.): Roadside Ditch	Local relief ((concave, convex, none):	Concave			
Slope (%): <u>~1</u> Lat: <u>39.786273</u>	Long: <u>-86.138491</u>		Datum: NAD 1983			
Soil Map Unit Name: Urban Land - Fox Complex (UfA)		NWI cl	lassification: Not Wetland			
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes X No _	(If no, explain in R	emarks.)			
Are VegetationX, Soil, or Hydrology sign	nificantly disturbed? Are "l	Normal Circumstances" p	present? Yes X No No			
Are Vegetation, Soil, or Hydrology natu	urally problematic? (If ne	eded, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point lo	ocations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes No _	X le the Sampled	A-00				
Hydric Soil Present? Yes No _	X within a Wetlan		No <u>×</u> _			
Wetland Hydrology Present? Yes No _	_X	iu: .55				
Remarks:						
Reviewed due to lack of vegetation in the roadside ditch.						
VEGETATION – Use scientific names of plants.						
	osolute Dominant Indicator	Dominance Test work	sheet:			
Tree Stratum (Plot size: 30 ft. radius) % 1	Cover Species? Status	Number of Dominant Sport That Are OBL, FACW, or				
2		Total Number of Domin				
3		Species Across All Stra	ata: 0 (B)			
4		Percent of Dominant Sp				
	= Total Cover	That Are OBL, FACW,	or FAC:0 (A/B)			
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	= 10tai 00v0i	Prevalence Index wor	ksheet:			
1			Multiply by:			
2			x 1 =0			
3		*	x 2 =0			
4		*	x 3 =			
5			x 4 =0			
Herb Stratum (Plot size: 5 ft. radius)	= Total Cover	-	x = 0			
1		Column Totals:0) (A) 0 (B)			
2		Prevalence Index	= B/A =			
3.		Hydrophytic Vegetation	on Indicators:			
4.		1 - Rapid Test for H	Hydrophytic Vegetation			
5		2 - Dominance Tes				
6		3 - Prevalence Inde	ex is ≤3.0 ¹			
7			Adaptations (Provide supporting			
8			s or on a separate sheet)			
9		-	ophytic Vegetation (Explain) and wetland hydrology must			
10		be present, unless distu				
Woody Vine Stratum (Plot size: 30 ft. radius)	= Total Cover					
1		Hydrophytic				
2.		Vegetation	🗸			
	= Total Cover	Present? Yes	S No _X			
Demander (Include whate growth as here are as a constant above	-4\					
Remarks: (Include photo numbers here or on a separate shee	₹ī.)					
Only contained dead vegetation. No living veg present during						

Profile Des	cription: (Describe	to the dep	th needed to docur	nent the i	ndicator	or confir	m the absence of indicators.)	
Depth	Matrix			x Feature		. 2			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
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		<u> </u>		-	. <u></u>		
12-20	10YR 4/2	58	10YR 5/6	1	С	M	RockyLoam		
	10YR 2/1	40	10YR 3/6	1		M	·		
	-			. ———			· 		
	-						· ——		
1							2:		
	Concentration, D=Dep Indicators:	letion, RM=	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	Location: PL=Poi	e Lining, M=Matrix.	
-			Condu	Clayed Me	atrice (CA)			•	
Histoso	pipedon (A2)			Gleyed Ma Redox (S5			Coast Prairie Redox Dark Surface (S7)	(A16)	
	listic (A3)			d Matrix (S			Iron-Manganese Mas	ses (F12)	
	en Sulfide (A4)			Mucky Mir			Very Shallow Dark S		
	ed Layers (A5)			Gleyed Ma			Other (Explain in Rer	•	
	uck (A10)			d Matrix (I			Other (Explain in Kei	ilaiks)	
	ed Below Dark Surface	e (A11)		Dark Surfa					
	ark Surface (A12)				ırface (F7)		³ Indicators of hydrophytic	vegetation and	
	Mucky Mineral (S1)		Redox [Depression	ns (F8)		wetland hydrology mu	•	
	ucky Peat or Peat (S3						unless disturbed or p	roblematic.	
	Layer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Present? Y	es No <u>X</u>	
HYDROLO	OGY								
	/drology Indicators:								
•	icators (minimum of o	na is raqui	red: check all that an	ndy)			Secondary Indicators (minimum of two required)	
	e Water (A1)	rie is requi	Water-Sta		os (R9)				
	ater Table (A2)		Aguatic Fa		, ,		Surface Soil Cracks (B6) Drainage Patterns (B10)		
Saturat	` ,		True Aqua	` '	,		Drainage Patterns (B10) Dry-Season Water Table (C2)		
	Marks (B1)		Hydrogen				Dry-Season Water Table (C2) Crayfish Burrows (C8)		
	ent Deposits (B2)		Oxidized F			ina Roots			
	eposits (B3)		Presence			-	Stunted or Stresse		
	lat or Crust (B4)		Recent Iro						
	posits (B5)		Thin Muck			(-	FAC-Neutral Test		
	tion Visible on Aerial I	magery (B		`	,			()	
	ly Vegetated Concave		-						
Field Obse	<u> </u>		, 						
Surface Wa	ter Present? Y	es	No X Depth (in	ches):					
Water Table		· · · · · · · · · · · · · · · · · · ·	No X Depth (in						
Saturation F			No X Depth (in		>20	Wet	land Hydrology Present?	/es No <u>X</u>	
	ecorded Data (stream	gauge, mo	onitoring well, aerial p	photos, pr	evious ins	pections)	, if available:		
Remarks:									
Aron was -1	ovogotatod but indi	tor Po (C-	arcaly Vagatatad C-	noovo Sa	rfaca) da-	e net en-	oar to be the source as as in-	cations of surface or	
ground water							ear to be the cause, as no ind o be disturbed and lack of veg		

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 159	2385(L) (City/County:	Indianapo	olis, 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)	wnship, Ra	nge: Section 31, T16N, R4E						
Landform (hillslope, terrace, etc.): Roadside Ditch		l	ocal relief	(concave, convex, none): Concave				
Slope (%): ~1 Lat: 39.786285	!	Long: <u>-86.1</u>	38324	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 ti	me of yea	ar? 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 nati	urally pro	blematic?	(If ne	eeded, explain any answers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map sh	nowing	samplin	g point l	ocations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No _ Hydric Soil Present? Yes No _ Wetland Hydrology Present? Yes No _ Remarks:			e Sampled in a Wetlar					
Remarks.								
VEGETATION – Use scientific names of plants.								
	Cover	Dominant Species?	Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)				
2				Total Number of Dominant Species Across All Strata: (B)				
4. 5.				Percent of Dominant Species That Are OBL, FACW, or FAC:50.00 (A/B)				
Sapling/Shrub Stratum (Plot size: 15 ft. radius)		= Total Cove		Prevalence Index worksheet:				
2				OBL species10 x 1 =10				
3				FACW species0 x 2 =0				
4				FAC species 0 x 3 = 0				
5				FACU species 6 x 4 = 24				
Herb Stratum (Plot size: 5 ft. radius)	=	= Total Cove	er	UPL species 0 $x = 0$ 0 0 0 0 0 0 0 0 0				
Schoenoplectus tabernaemontani (Soft-Stem Club Rus	10	Υ	OBL	Column Totals. 10 (A) 34 (B)				
2. Elymus repens (Creeping Wild Rye)	4	Υ	FACU	Prevalence Index = B/A =2.13				
3. Schedonorus arundinaceus (Tall False Rye Grass)	2	N	FACU	Hydrophytic Vegetation Indicators:				
4				1 - Rapid Test for Hydrophytic Vegetation				
5				2 - Dominance Test is >50%				
6				3 - Prevalence Index is ≤3.0¹				
7				4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)				
8				Problematic Hydrophytic Vegetation (Explain)				
9				¹Indicators of hydric soil and wetland hydrology must				
10.		= Total Cove		be present, unless disturbed or problematic.				
Woody Vine Stratum (Plot size: 30 ft. radius) 1				Hydrophytic				
2.				Vegetation				
		= Total Cove	er	Present? Yes No _X_				
Remarks: (Include photo numbers here or on a separate she	et.)			1				
Prevalence Index not applicable as the hydrology criterion wa	as not pre	esent.						

US Army Corps of Engineers

Des. 1592385 (L) Contract # 36910

Profile Des	cription: (Describe	to the dep				or confirm	n the absence	of indicators.)		
Depth (inches)	Matrix Color (moist)	%	Color (moist)	x Feature %	S Type ¹	Loc ²	Texture	Remarks		
1-8	10YR 2/1	100	Odior (moist)		Турс		MuckyLoam	Kemarks		
8-14	10YR 5/1	60	10YR 5/6	4			RockyLoam			
0-14	-			. ———			ROCKYLOAIII			
	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			·					
	Concentration, D=Dep Indicators:	oletion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gra	ins.		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :		
Histoso			Sandy	Sloved M	otriv (CA)			•		
	Epipedon (A2)			Bleyed Ma Redox (S5				Prairie Redox (A16) Surface (S7)		
	listic (A3)			Matrix (S				anganese Masses (F12)		
	en Sulfide (A4)				neral (F1)		· 	Shallow Dark Surface (TF12)		
Stratifie	ed Layers (A5)			Gleyed M			-	(Explain in Remarks)		
	uck (A10)		× Deplete				_	,		
	ed Below Dark Surfac	e (A11)		Dark Surfa			3			
	Park Surface (A12)				urface (F7)			of hydrophytic vegetation and		
	Mucky Mineral (S1) lucky Peat or Peat (S	3)	Redox L	Depressio	ns (F8)			d hydrology must be present, disturbed or problematic.		
	Layer (if observed)						uniess	disturbed of problematic.		
Type: R		-								
	nches): 17						Hydric Soil	Present? Yes X No		
Remarks:										
	201									
HYDROLO)GY _/ drology Indicators:									
	icators (minimum of c		rad: chack all that an	nly)			Secondo	ary Indicators (minimum of two required)		
		ne is requir			ros (DO)			ary Indicators (minimum of two required)		
	e Water (A1)		Water-Stai				Surface Soil Cracks (B6)			
	ater Table (A2)		Aquatic Fa True Aqua				Drainage Patterns (B10)			
Saturat	Marks (B1)		Hydrogen		, ,		Dry-Season Water Table (C2) Crayfish Burrows (C8)			
	ent Deposits (B2)		Oxidized R			na Roots		uration Visible on Aerial Imagery (C9)		
	eposits (B3)		Presence of			-		nted or Stressed Plants (D1)		
	lat or Crust (B4)		Recent Iro					pmorphic Position (D2)		
Iron De	` ,		Thin Muck			- 33 (3		C-Neutral Test (D5)		
	tion Visible on Aerial	Imagery (B7						· -/		
	ly Vegetated Concav		-							
Field Obse		`								
Surface Wa	iter Present? Y	'es I	No X Depth (inc	ches):						
Water Table	e Present? Y	'es I	No X Depth (inc	ches):	>17					
Saturation F			No X Depth (inc			_ Wet	land Hydrolog	y Present? Yes No X		
	ecorded Data (stream	gauge, mo	onitoring well, aerial p	ohotos, pi	evious ins	pections),	if available:			
Remarks:										
remarks:										
Eoo Nassta	Toot - 500/									
Fac-Neutra	I Test = 50%.									

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(L)	City/County: Indianapo	lis, 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, Rai	nge: Section 31, T16N, I	R4E
Landform (hillslope, terrace, etc.): Roadside Ditch	Local relief	(concave, convex, none)	: Concave
Slope (%): <u><3</u> Lat: <u>39.786608</u>	Long: <u>-86.136903</u>		Datum: NAD 1983
Soil Map Unit Name: Urban land-Fox complex (UfA)		NWI c	classification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significantly			present? Yes X No
Are VegetationX_, Soil, or Hydrology naturally pr	oblematic? (If ne	eded, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes NoX			
Hydric Soil Present? Yes X No	is the Sampled		
Wetland Hydrology Present? Yes NoX	Within a Wetlan	nd? Yes	No <u>X</u>
Remarks:			
Area reviewed due to devegetated roadside ditch. Did not have down have Sparsely Vegetated Concave Surface (B8) due to allelopathic p		vershadowed by Lonicera	a macckii. Not considered to
VEGETATION – Use scientific names of plants.			
	Dominant Indicator	Dominance Test worl	ksheet:
Tree Stratum (Plot size: 30 ft. radius) % Cover 1.	Species? Status	Number of Dominant S That Are OBL, FACW,	
2		Total Number of Domir	nant
3		Species Across All Stra	
4		Percent of Dominant S	Species
5			or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size: 15 ft. radius)	_= Total Cover	Prevalence Index wo	rksheet:
1		Total % Cover of:	Multiply by:
2.		OBL species	0 x 1 =0
3.		FACW species	0 x 2 =0
4		FAC species	0 x 3 =0
5		FACU species	0 x 4 =0
	_= Total Cover	UPL species	0 x 5 =0
Herb Stratum (Plot size: 5 ft. radius)		Column Totals:	0 (A) 0 (B)
1		Prevalence Index	x = B/A =
3.		Hydrophytic Vegetati	on Indicators:
4.		1 - Rapid Test for	Hydrophytic Vegetation
5		2 - Dominance Te	st is >50%
6		3 - Prevalence Ind	ex is ≤3.0 ¹
7			Adaptations (Provide supporting s or on a separate sheet)
8			ophytic Vegetation (Explain)
9		Indicators of hydric soi	I and wetland hydrology must
10		be present, unless distu	urbed or problematic.
Woody Vine Stratum (Plot size: 30 ft. radius)	_= Total Cover		
1		Hydrophytic	
2		Vegetation Present? Yes	s No _X_
	_= Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.)		<u> </u>	
Lonicera macckii (amur honeysuckle, NI) dominates backslope, over			
of honeysuckle; inhibits germination. Backslope also contained Acer Catalpa speciosa (northern catalpa, FACU), Lonicera maackii (amur			

Depth Matrix	Profile Desc	ription: (Describe	to the depti	n needed to docum	ent the	indicator o	or confir	m the absence o	of indicators.)		
0-3							. 2				
3-5				Color (moist)	%	Type'	Loc		Remarks		
10YR 4/1	0-3	10YR 2/1	100					Org. loam			
10YR 6/4	3-5	10YR 4/2	75	5YR 3/4	1	C	M	Loam			
5-9 10YR 4/1 100 10YR 5/6 4 C M Sand loam 9-20 10YR 4/2 60 10YR 5/6 4 C M Sand loam Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Thype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Thistoper Suffice (A1) Histics Epipeston (A2) Sandy Redox (S5) Hydrogen Sulfide (A4) Histics Epipeston (A2) Sandy Redox (S5) Hydrogen Sulfide (A4) Loamy Mukoty Mineral (F1) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Sandy Mukoty Mineral (S1) Sem Mukoty Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Trash, bricks, and rocks throughout and volume increases with depth. **MPROLOGY** Wetland Hydrology Indicators: Indicators (inhimium of one is required: che		10YR 4/1	17	10YR 5/6	2	C	M	Loam			
10YR 4/2		10YR 6/4	5					Sand loam			
Type: C—Concentration, D—Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soll Indicators: Histosol (A1) Histosol (A2) Sandy Redox (S5) Black Histot (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Zera Muck (A10) Depleted Boltow Dark Surface (A11) Thick Dark Surface (A12) Sandy Redox Depressions (F8) Depleted Boltow Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (F1) Thick Dark Surface (A12) Sondy Mucky Mineral (F1) Thick Dark Surface (A12) Sondy Mucky Mineral (F1) Thick Dark Surface (A12) Sondy Mucky Mineral (S1) Hydric Soil Present? Yes X No Wetland Hydrology Indicators: Primary Indicators (minimum of two required) Hydric Soil Present? Yes X No Wetland Hydrology Indicators: Primary Indicators (minimum of two required) Hydric Soil Present? Yes X No Depleted Matrix (S2) Southand Notes throughout and volume increases with depth. Hydric Soil Present? Yes X No Depleted Matrix (S2) Secondary Indicators (minimum of two required) Hydric Soil Present? Yes X No Depleted Matrix (S2) Secondary Indicators (minimum of two required) Hydric Soil Present? Yes X No Secondary Indicators (minimum of two required) Hydric Soil Present? (S2) Southand National Indicators (Minimum of two required) Secondary Indicators (minimum of two required) Hydric Soil Present? (S2) Southand National Indicators (Minimum of two required) Southand National Indicators (Minimum of two required) Hydric Soil Present?	5-9	10YR 4/1	100					Sand loam			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Indicators for Problematic Hydric Soils*: Loamy Mucky Matrix (S4) Black Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (F12) Strainfield Layers (A5) Loamy Gleyed Matrix (F2) Loamy Mucky Mineral (F1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Som Mucky Peat or Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Trash, bricks, and rocks throughout and volume increases with depth. Hydric Soil Present? Yes X No Remarks: Pimary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Hydric Soil Cracks (B6) Drint Deposits (B3) Presence of Reduced Frans (B13) Presence of Reduced fron (C4) Saturation (A3) True Aquatic Plants (B14) Presence of Reduced fron (C4) Sediment Deposits (B2) Oxidazed Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) **Location: PL-Pore Lining, Metartic (S1) Dark Surface (S7) Indicators of Problematic Hydric Soil Present (F12) Other (Explain in Remarks) **Location: PL-Pore Lining, Metartic (F1) Dark Surface (F7) **Indicators of Problematic Hydric Soil Present (F12) Other (Explain in Remarks) **Depth (inches): Depth (inches): Secondary Indicators (minimum of two required) Hydric Soil Present? Yes No X Depth (inches): Secondary Indicators (minimum of two required) Secondary Indicators (minimum of tw	9-20	10YR 4/2	60	10YR 5/6	4	C	М	Sand loam			
Hydric Soil Indicators: Histosol (A1) Histosol (A1) Histosol (A2) Black Histol (A3) Hydrogo Sulfide (A4) Hydrogo Sulfide (A6) Hydrogo Sulfide (A6) Hydrogo Sulfide (A6) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A12) Sandy Redox (B5) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (B1) Sandy Mucky Mineral (B1) Sandy Mucky Mineral (B1) Sandy Mucky Mineral (B1) Redox Dark Surface (F7) Sandy Mucky Mineral (B1) Redox Dark Surface (F7) Sandy Mucky Mineral (B1) Redox Dark Surface (F7) Sandy Mucky Mineral (B1) Sandy Mucky Mineral (B1) Redox Dark Surface (F7) Redox Dark Surface (F7) Sandy Mucky Mineral (B1) Redox Dark Surface (F7) Redox Dark Surface (F7) Restrictive Layer (if observed): Type: Depth (inches): Trash, bricks, and rocks throughout and volume increases with depth. Hydric Soil Present? Yes X No Remarks: Hydric Soil Present? Yes X No No Remarks: Indicators for Problematic Hydric Soils*: Indicators of Problematic Hydrology must be present, unless disturbed or problemate. Remarks: Indicators of Problematic Hydrology must be present, unless disturbed or problemate. Remarks: Indicators of Problematic Hydrology must be present, unless disturbed or problemate. Remarks: Indicators of Problematic Hydrology must be present, unless disturbed or problemate. Remarks: Indicators of Problematic Hydrology must be present, unless disturbed or problematic. Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Redox Dark Surface (F7) Indicators of hydrophytic vegetation and wetland hydrology must be present? Yes X No Remarks: Remarks: Indicators of Problematic Hydrologo Hydro		10YR 4/1	36					Sand loam			
Histic Epipedon (A2) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F2) Loamy Mucky Mineral (F2) Loamy Mucky Mineral (F2) Corn Muck (A10) Depleted Below Dark Surface (A11) Sartaffied Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A12) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Semulated Redox Dark Surface (F7) Sandy Mucky Mineral (S1) Semulated Restrictive Layer (if observed): Type: Depth (inches): Type: Depth (inches): Wetland Hydrology Indicators: Pimary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Pirage Patterns (B14) Pydrogen Sulfide Odor (C1) Aquatic Patter (A4) Redox Deptits (B2) Dorit Deposits (B3) Presence of Reduced fron (C4) Sediment Deposits (B3) Presence of Reduced fron (C4) Saturation (F8) Sufface (F7) Sufface Water (A7) Aquatic Fauna (B13) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Saturation (A3) Sediment Deposits (B3) Presence of Reduced fron (C4) Saturation (A3) Saturation (A4) S			letion, RM=F	Reduced Matrix, MS	=Masked	d Sand Gra	ins.				
Black Histic (A3)	Histosol	(A1)		Sandy G	sleyed Ma	atrix (S4)		Coast P	rairie Redox (A16)		
Hydrogen Sulfide (Aa) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Cern Muck (A10) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sedingth of Peat (S3) Restrictive Layer (if observed): Type: Depth (inches): Remarks:								Dark Su	ırface (S7)		
Straffied Layers (A5)											
2 cm Muck (A10) X Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F7) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sandy Mucky Mineral (S1) Redox Depressions (F8) Sediment Deposits (B2) Water Marks (B1) Surface (A12) Secondary Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes X No Phype: Depth (Inches): Type: Depth (Inches): Trash, bricks, and rocks throughout and volume increases with depth. Hydric Soil Present? Yes X No Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10) Drainage Patterns									, ,		
Depleted Below Dark Surface (A11)					-	. ,		Other (E	Explain in Remarks)		
Thick Dark Surface (A12) Depleted Dark Surface (F7)		, ,	e (A11)		,	,					
Sandy Mucky Mineral (S1) Redox Depressions (F8)			(,)	· · · · · · · · · · · · · · · · · · ·				³ Indicators of	of hydrophytic vegetation and		
Restrictive Layer (if observed): Type:	Sandy M	lucky Mineral (S1)		Redox D	epressio	ns (F8)		wetland	hydrology must be present,		
Type: Depth (inches): Hydric Soil Present? Yes _X No Remarks: Trash, bricks, and rocks throughout and volume increases with depth. ### Wetland Hydrology Indicators: ### Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) ### Surface Waiter (AB) ### Drainage Patterns (B10) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B1) ### Secondary Indicators (minimum of two required) ### Surface Waiter (B10) ### Surface Waiter (B10		•	·					unless o	disturbed or problematic.		
Depth (inches):		,									
Remarks: Trash, bricks, and rocks throughout and volume increases with depth. ### Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) Surface Water (A1) Surface Water (A2) Aquatic Fauna (B3) Surface Soil Cracks (B6) Primary Indicators (minimum of two required) Surface Water (A3) Surface Water (A4) Surface Soil Cracks (B6) Primary Indicators (minimum of two required) Surface Water (A1) Surface Soil Cracks (B6) Primary Indicators (minimum of two required) Surface Water (A1) Surface Soil Cracks (B6) Primary Indicators (minimum of two required) Surface Water (B4) Surface Soil Cracks (B6) Drainage Patterns (B10) Crayfish Burrows (C8) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface (C7) Surface Water Present? Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Surface Water Present? Yes No Wetland Hydrology Present? Yes No X Depth (inches): Surface Water Present? Yes No X Depth (inches): Surface Soil Cracks (B6) Drainage Patterns (B10) Secondary Indicators (minimum of two required) Surface Water Present? Yes No X Depth (inches): Surface Soil Cracks (B6) Drainage Patterns (B10) Secondary Indicators (minimum of two required) Secondary Indicators (B6) Surface Soil Cracks (B6) Drainage Patterns (B10) Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Surface Soil Cracks (B6) Surface Soil Cracks (B6) Drainage Patterns (B10) Secondary Indicators (minimum of two required) Secondary Indicators (B10) Secondary Indicators (B10) Secondary Indicators (B10) Secondary Indicators (B10) Surface Soil Cracks (B6) Drainage Patterns (B10) Secondary Indicators (B10) Secondary Indicat								Hydric Soil F	Present? Yes X No		
Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required)								Tiyano con i	100 100 100 100 100 100 100 100 100 100		
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1)											
Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1)											
High Water Table (A2)	_			ed; check all that ap	ply)			Secondar	y Indicators (minimum of two required)		
High Water Table (A2)			•			es (B9)			-		
Water Marks (B1)	High Wa	ater Table (A2)		Aquatic Fa	una (B13) ` ´		 , ,			
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Prift Deposits (B3) Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Selficial Depth (inches): Sel	Saturation	on (A3)		True Aquat	tic Plants	(B14)					
Drift Deposits (B3)	Water M	larks (B1)		Hydrogen \$	Sulfide O	dor (C1)		Crayf	ish Burrows (C8)		
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6)X Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks)	Sedimer	nt Deposits (B2)		Oxidized R	hizosphe	res on Livi	ng Roots	s (C3) Satur	ation Visible on Aerial Imagery (C9)		
Iron Deposits (B5) Thin Muck Surface (C7) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present?	Drift Dep	posits (B3)		Presence of	of Reduce	ed Iron (C4)				
Inundation Visible on Aerial Imagery (B7) Gauge or Well Data (D9) Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes NoX Depth (inches): Water Table Present? Yes NoX Depth (inches): >20 Wetland Hydrology Present? Yes NoX (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		, ,					l Soils (C	· —	, ,		
Sparsely Vegetated Concave Surface (B8) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No _X _ Depth (inches): Water Table Present? Yes No _X _ Depth (inches): Saturation Present? Yes No _X _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		` ,	. (5-)			,		FAC-	Neutral Test (D5)		
Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			0 , , ,			` '					
Surface Water Present? Yes No _XDepth (inches): Water Table Present? Yes No _XDepth (inches): Saturation Present? Yes No _XDepth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			e Surface (B	otrier (Exp	iain in Re	emarks)					
Water Table Present? Yes No X Depth (inches): >20 Saturation Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			'ρς N	o X Denth (inc	has).						
Saturation Present? Yes No X Depth (inches): >20 Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:			· · · · ·				-				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Saturation P	resent? Y					_ Wet	tland Hydrology	Present? Yes No _X		
			n gauge, mor	itoring well, aerial p	hotos, pr	evious ins	pections)	, if available:			
Occupate Venetated Occupant Octobrish that a 1990 and a second octobrish that	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	likely caused	by allelopathic che	micals from h	noneysuckle leaf de	composit	ion, and no	other hy	ydrology indicator	s were present except geomorphic		

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absence of honeysuckle. Therefore, wetland hydrology was not considered to be present.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1	592385(L)	City/Cou	nty: Indianap	olis, Marion County	Sampling Date: 4/26/2016
Applicant/Owner: Indiana Department of Transportation (IN	DOT)			State: IN	Sampling Point: RP-7
Investigator(s): Brock Ervin and Stephany Stamatis (Parsor	ns)	Section,	Township, Ra	ange: Section 1, T15N, R3	BE
Landform (hillslope, terrace, etc.): Roadside Ditch			_ Local relief	(concave, convex, none):	Concave
Slope (%): 0 Lat: 39.777881		Long:8	36.142104		Datum: NAD 1983
Soil Map Unit Name: Urban Land - Fox Complex (UfA)				NWI c	lassification: Not Wetland
Are climatic / hydrologic conditions on the site typical for this	s time of ye	ar? Yes	X No	(If no, explain in R	lemarks.)
Are Vegetation, Soil, or Hydrologys					present? Yes X No
Are Vegetation, Soil, or Hydrologyn				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map				ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes No	o X		the Commission	J A	
Hydric Soil Present? Yes No			s the Sampled vithin a Wetla		NoX
Wetland Hydrology Present? Yes No	o <u>×</u>	, vi	illilli a vvella	nd: res	
Remarks:					
Poorly defined roadside ditch. Point reviewed due to low a	mount of ve	egetation	1.		
VEGETATION – Use scientific names of plants.					
	Absolute		int Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: 30 ft. radius) 1.			s? Status	Number of Dominant S That Are OBL, FACW,	pecies or FAC:0 (A)
2					、 ,
3				Total Number of Domin Species Across All Stra	_
4				Percent of Dominant Sp	necies
5					or FAC:0 (A/B)
Sapling/Shrub Stratum (Plot size:15 ft. radius)		= Total C	Cover	Prevalence Index wor	ksheet:
1					Multiply by:
2.					x 1 =0
3.				FACW species0	x 2 =0
4				FAC species0	x 3 =0
5		· ——			x 4 =0
Herb Stratum (Plot size: 5 ft. radius)		= Total C	Cover		x 5 =0
Rumex crispus (Curly Dock)	2	N	FAC	Column Totals:0	(A) <u>0</u> (B)
2. Elymus sp.	2	N N	NI	Prevalence Index	= B/A =
3. Unidentified Small sprouts	2		NI	Hydrophytic Vegetation	on Indicators:
4.				1 - Rapid Test for H	Hydrophytic Vegetation
5				2 - Dominance Tes	
6				3 - Prevalence Inde	
7					Adaptations ¹ (Provide supporting s or on a separate sheet)
8					ophytic Vegetation (Explain)
9				•	and wetland hydrology must
10				be present, unless distu	
Woody Vine Stratum (Plot size:30 ft. radius)	6=	= Total C	Cover		
1				Hydrophytic	
2				Vegetation Present? Yes	s NoX
		= Total C	Cover		
Remarks: (Include photo numbers here or on a separate sl	heet.)			1	
Lacked enough identifiable live veg. to be considered a strayear (based on stems present). Currently has about 6% to					

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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.

Profile Desc	ription: (Describe t	o the dept	th needed to docun	nent the	indicator of	or confirm	n the absence	of indicators.)
Depth	Matrix		Redox	x Feature				
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
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	С	M	Clay Loam	Rocky
12-18	10YR 3/3	50					Sandy Loam	Large Rocks
	10YR 3/6	50						
1 _{Type:} C_C	oncentration, D=Depl	otion DM	Poduced Metrix MS		d Sand Cra	ino	21.00	cation: PL=Pore Lining, M=Matrix.
Hydric Soil		elion, Kivi=	Reduced Matrix, Mc	=iviasket	u Sanu Gra	11115.		for Problematic Hydric Soils ³ :
Histosol			Sandy G	Sleyed Ma	atrix (S4)			Prairie Redox (A16)
	pipedon (A2)			Redox (S5				Surface (S7)
Black Hi				l Matrix (S				anganese Masses (F12)
Hydroge	n Sulfide (A4)		Loamy N	Mucky Mi	neral (F1)		Very S	Shallow Dark Surface (TF12)
	d Layers (A5)			Gleyed M			Other	(Explain in Remarks)
	ıck (A10)			d Matrix (,			,
	d Below Dark Surface	(A11)		Dark Surfa	, ,		3	
	ark Surface (A12)				urface (F7)			of hydrophytic vegetation and
	lucky Mineral (S1) icky Peat or Peat (S3)	Redox L	Depressio	ons (F8)			d hydrology must be present, disturbed or problematic.
	Layer (if observed):)					unicss	disturbed of problematic.
Type:								
Depth (inc							Hydric Soil	Present? Yes No X
Remarks:							1.7	
	presence of 10YR 4/2							enough to yield a positive indicator for F3
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of or	ne is requir	ed; check all that ap	ply)			Seconda	ary Indicators (minimum of two required)
Surface	Water (A1)		Water-Stai	ned Leav	es (B9)		Surf	ace Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	una (B13	3)		Drai	nage Patterns (B10)
Saturation	on (A3)		True Aqua					Season Water Table (C2)
Water M	larks (B1)		Hydrogen	Sulfide O	dor (C1)		Cray	yfish Burrows (C8)
Sedimer	nt Deposits (B2)		Oxidized R	hizosphe	eres on Livi	ng Roots	(C3) Satu	uration Visible on Aerial Imagery (C9)
Drift Dep	oosits (B3)		Presence of	of Reduce	ed Iron (C4)	Stur	nted or Stressed Plants (D1)
Algal Ma	at or Crust (B4)		Recent Iro	n Reduct	ion in Tilled	Soils (C	6) <u>X</u> Geo	morphic Position (D2)
Iron Dep	oosits (B5)		Thin Muck	Surface	(C7)		FAC	C-Neutral Test (D5)
Inundation	on Visible on Aerial Ir	magery (B7	') Gauge or \	Nell Data	(D9)			
Sparsely	Vegetated Concave	Surface (E	38) Other (Exp	lain in Re	emarks)			
Field Obser	vations:							
Surface Water			No X Depth (inc			_		
Water Table	Present? Ye	es N	No X Depth (inc	ches):	>20	_		
Saturation P		es N	No X Depth (inc	ches):	>20	_ Wetl	and Hydrolog	y Present? Yes No X
	corded Data (stream	gauge, mo	nitoring well, aerial p	ohotos, pi	revious insp	pections),	if available:	
Remarks:								
nomans.								
Sparsely Veg	getated Concave Sur	face (B8) n	ot considered prese	nt due to	old growth	vegetatio	on from previou	s years sprouts, which indicate that
vegetation w	ill exceed 5%. Lack	of vegetation	on doesn't appear to	be result	t of standin	g water; n	nay be deveget	tated due to fuel spill.

Project/Site: 165/I70 Interchange Mod/Bridge Rehab-Des. 1592385(<u>-</u>) City/County: <u>Indianapo</u>	lis, Marion County	Sampling Date: <u>4/26/2016</u>	
Applicant/Owner: Indiana Department of Transportation (INDOT)		State: IN	Sampling Point: RP-8	
Investigator(s): Brock Ervin and Stephany Stamatis (Parsons)	_ Section, Township, Rai	Section, Township, Range: Section 1, T15N, R3E		
Landform (hillslope, terrace, etc.): Hillslope	Local relief	(concave, convex, none)	: Slope	
Slope (%): <u>50</u> Lat: <u>39.769817</u>	_ Long: <u>-86.143349</u>		Datum: NAD 1983	
Soil Map Unit Name: <u>Urban Land - Fox Complex (Ufa)</u>		NWI c	classification: Not Wetland	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X No _	(If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "	Normal Circumstances"	present? Yes X No	
Are Vegetation, Soil, or Hydrology naturally	problematic? (If ne	eded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point le	ocations, transects	s, important features, etc.	
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No	is the outliplea			
Wetland Hydrology Present? Yes No X Remarks:		nd? Yes	NoX	
This data point was taken within a steep, paved roadside ditch.				
VEGETATION – Use scientific names of plants.				
Tree Stratum (Plot size: 30 ft. radius)	r Species? Status	Dominance Test work Number of Dominant S That Are OBL, FACW,	species	
2		Total Number of Domir Species Across All Stra		
4.		Percent of Dominant S That Are OBL, FACW,		
Sapling/Shrub Stratum (Plot size:15 ft. radius) 1	= Total Cover		Multiply by:	
2. 3.		OBL species 9) x 2 = 0	
4		· ·) x3= 0	
5.) x 4 = 0	
	= Total Cover	UPL species) x 5 =0	
Herb Stratum (Plot size: 5 ft. radius) 1. Typha sp. (Cattail) 95	Y OBL	Column Totals: 9	5 (A) <u>95</u> (B)	
1. <u>Typha sp. (Cattail)</u> 95 2		Prevalence Index	c = B/A =1.00	
3.		Hydrophytic Vegetati	· · · · · · · · · · · · · · · · · · ·	
4.		X 1 - Rapid Test for I	Hydrophytic Vegetation	
5.		X 2 - Dominance Tes	st is >50%	
6		X 3 - Prevalence Ind	ex is ≤3.0 ¹	
7		4 - Morphological	Adaptations (Provide supporting	
8			s or on a separate sheet) ophytic Vegetation (Explain)	
9			I and wetland hydrology must	
10		be present, unless distu		
Woody Vine Stratum (Plot size: 30 ft. radius)	= Total Cover			
1		Hydrophytic		
2.		Vegetation Present? Yes	s <u>X</u> No	
	= Total Cover	100		
Remarks: (Include photo numbers here or on a separate sheet.)		I		
The species of cattail could not be determined, because of the lack	of inflorescence.			

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Des. 1592385 (L) Contract # 36910

rofile Description: (I Depth	Matrix		Redox Feature				
nches) Color		Color (mo		Type ¹	Loc ²	Texture	Remarks
0-2 10YF	R 4/2 100					Loam	
ype: C=Concentratio	n D-Donlotion F	M-Paduaad Ma	atrix MS=Maaka	d Sand Cr	ino	2l oo	ation: PL=Pore Lining, M=Matrix.
dric Soil Indicators		NVI=Reduced IVIZ	illix, ivio-iviaske	u Sanu Gra	aii i5.		for Problematic Hydric Soils ³ :
Histosol (A1)	•	g	Sandy Gleyed M	atrix (S4)			Prairie Redox (A16)
_ Histic Epipedon (A:	2)		Sandy Redox (S				urface (S7)
Black Histic (A3)	-/		Stripped Matrix (anganese Masses (F12)
_ Hydrogen Sulfide (A4)		_oamy Mucky Mi				hallow Dark Surface (TF12)
_ Stratified Layers (A			_oamy Gleyed M				Explain in Remarks)
_ 2 cm Muck (A10)			Depleted Matrix			(,
_ Depleted Below Da	rk Surface (A11)		Redox Dark Surf	` '			
Thick Dark Surface			Depleted Dark S	, ,			of hydrophytic vegetation and
Sandy Mucky Mine	, ,	F	Redox Depression	ons (F8)			hydrology must be present,
_ 5 cm Mucky Peat c	, ,					unless	disturbed or problematic.
estrictive Layer (if o	oserved):						
Type: Concrete							
Depth (inches): 2							
emarks:							
emarks:						Problematic hy	ydric soil indicators were not evaluat
emarks: eeper examination of ecause the hydrology	criterion was not i					Problematic hy	ydric soil indicators were not evaluat
emarks: eeper examination of ecause the hydrology	dicators:	met (both vegeta	ttion and hydrold			Problematic hy	ydric soil indicators were not evaluat plematic soil indicators).
emarks: eeper examination of ecause the hydrology DROLOGY detland Hydrology In	dicators:	met (both vegeta	ttion and hydrolo	ogy must pa		Problematic hyevaluating prob	ydric soil indicators were not evaluat plematic soil indicators).
emarks: eeper examination of ecause the hydrology TDROLOGY etland Hydrology In rimary Indicators (min Surface Water (A1)	dicators:	met (both vegeta	that apply) ter-Stained Leav	egy must pa		Problematic hyevaluating hyevalua	ydric soil indicators were not evaluate plematic soil indicators). Ty Indicators (minimum of two requirence Soil Cracks (B6)
emarks: eeper examination of ecause the hydrology DROLOGY etland Hydrology In rimary Indicators (min Surface Water (A1) High Water Table (dicators:	quired; check all	that apply) ter-Stained Leavuatic Fauna (B13)	ves (B9)		Problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating hybrid hyb	ydric soil indicators were not evaluat plematic soil indicators). ry Indicators (minimum of two require
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min Surface Water (A1) High Water Table (Saturation (A3)	dicators:	quired; check all — Wa — Aqı — Tru	that apply) ter-Stained Leavuatic Fauna (B13)	ves (B9) s (B14)		Problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating	ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2)
emarks: eeper examination of ecause the hydrology DROLOGY etland Hydrology In rimary Indicators (min Surface Water (A1) High Water Table (dicators: mum of one is re	quired; check all — Wa — Aqu — Tru — Hyo	that apply) tter-Stained Leavuatic Fauna (B13) e Aquatic Plants drogen Sulfide C	ves (B9) 3) 5 (B14) 9dor (C1)	ass before	Problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating hybrid	ry Indicators (minimum of two required ace Soil Cracks (B6) nage Patterns (B10) Season Water Table (C2) fish Burrows (C8)
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min _ Surface Water (A1) _ High Water Table (_ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits	dicators: mum of one is re	quired; check all — Wa — Aqu — Tru — Hyu — Oxi	that apply) tter-Stained Leav uatic Fauna (B13 ie Aquatic Plants drogen Sulfide C	ves (B9) 3) 6 (B14) bdor (C1) eres on Liv	ing Roots (Problematic hyevaluating hyevaluatin	ry Indicators were not evaluate plematic soil indicators). ry Indicators (minimum of two require ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min _ Surface Water (A1) _ High Water Table (dicators: mum of one is re A2)	quired; check all — Wa — Aqu — Tru — Hyo — Oxi — Pre	that apply) tter-Stained Leavuatic Fauna (B13) e Aquatic Plants drogen Sulfide C	ves (B9) 3) 5 (B14) 0dor (C1) eres on Livied Iron (C4)	ing Roots (Problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating problematic hyevaluating hybrid	ry Indicators (minimum of two required ace Soil Cracks (B6) (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min _ Surface Water (A1) _ High Water Table (_ Saturation (A3) _ Water Marks (B1) _ Sediment Deposits _ Drift Deposits (B3) _ Algal Mat or Crust	dicators: mum of one is re A2)	quired; check all — Wa — Aqı — Tru — Hyo — Oxi — Pre	that apply) ter-Stained Leavuatic Fauna (B13 e Aquatic Plants drogen Sulfide Codized Rhizospho esence of Reductent Iron Reducted	ves (B9) 3) 5 (B14) 0dor (C1) eres on Liv ed Iron (C4	ing Roots (Problematic hyevaluating hybrid hy	ry Indicators (minimum of two required ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min High Water Table (Saturation (A3) Water Marks (B1) Sediment Deposits Drift Deposits (B3) Algal Mat or Crust Iron Deposits (B5)	dicators: mum of one is re A2) (B2)	quired; check all Wa Aqu Tru Hyo Oxi Rec Thi	that apply) tter-Stained Leavuatic Fauna (B13) e Aquatic Plants drogen Sulfide C	ves (B9) B) B (B14) Ddor (C1) Beres on Livied Iron (C4) Cion in Tilled	ing Roots (Problematic hyevaluating hybrid hy	ry Indicators (minimum of two required ace Soil Cracks (B6) (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1)
emarks: eeper examination of ecause the hydrology TOROLOGY Tetland Hydrology In rimary Indicators (min and a surface Water (A1) High Water Table (and a surface Marks (B1) Sediment Deposits (B3) Algal Mat or Crust and Iron Deposits (B5) Inundation Visible (B3)	dicators: mum of one is re A2) (B2) (B4) on Aerial Imagery	quired; check all — Wa — Aqu — Tru — Hyo — Oxi — Pre — Reo — Thi (B7) — Ga	that apply) ther-Stained Leavuatic Fauna (B13) the Aquatic Plants drogen Sulfide Clidized Rhizosphe esence of Reduct cent Iron Reduct in Muck Surface	ves (B9) 3) 5 (B14) odor (C1) eres on Livi ed Iron (C4) cion in Tilleo (C7) a (D9)	ing Roots (Problematic hyevaluating hybrid hy	ry Indicators (minimum of two required ace Soil Cracks (B6) age Patterns (B10) Season Water Table (C2) fish Burrows (C8) ration Visible on Aerial Imagery (C9) ted or Stressed Plants (D1) morphic Position (D2)
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US Army Corps of Engineers
Des. 1592385 (L) Contract # 36910

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):
В.	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):
SEC A.	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the iew 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:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	ere Are no "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Require

1. Waters of the U.S.

a.	Indica	ate presence of waters of U.S. in review area (check all that apply): 1
		TNWs, including territorial seas
		Wetlands adjacent to TNWs
		Relatively permanent waters ² (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):

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.

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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

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:

(i) General Area Conditions:

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 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 OHWM ⁶ (check all indicators that apply): clear, natural line impressed on the bank changes in the character of soil destruction of terrestrial vegetation the presence of wrack line sediment sorting vegetation matted down, bent, or absent leaf litter disturbed or washed away sediment deposition water staining 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: Oil or scum line along shore objects Fine shell or debris deposits (foreshore) Physical markings/characteristics Other (list): Mean High Water Mark indicated by: Survey to available datum; Physical markings; Vegetation lines/changes in vegetation types.
Cha	emical Characteristics: racterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.) Explain: .tify specific pollutants, if known:

(iii)

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)	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.	Cha	acteristics 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) <u>General Flow Relationship with Non-TNW</u> : Flow is: <u>Pick List</u> . 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:	
		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; gone characteristics; etc.). Explain: Identify specific pollutants, if known:	eneral watershed
	(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.	Cha	acteristics 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:

<u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u> <u>Directly abuts? (Y/N)</u> <u>Size (in acres)</u>

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-RPWs ⁸ 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 jurisidictional. 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. 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).
SUC	DLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH 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:
Ide	ntify water body and summarize rationale supporting determination:

E.

⁸See Footnote # 3.

To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 Prior 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 <u>sole</u> 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.
	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. 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: Digitial Flood Insurance Rate Map (DFIRM). 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929) Photographs: Aerial (Name & Date): Orthose 2011. or

B. ADDITIONAL COMMENTS TO SUPPORT JD: