Waters of the U.S. Report

County Line Road Expansion Project

Marion County & Johnson County

Des. No. 2002553

Prepared by:

HNTB

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1. PROJECT INFORMATION

Date(s) of Field Reconnaissance: October 7, 2020

1.1 LOCATION

The project is located along County Line Road, from State Road (SR) 37 (future Interstate (I)-69) to SR 135 (South Meridian Street), in Marion and Johnson Counties, Indiana.

- Sections 21, 22, 23, 26, 27, and 28, Township 14 North, Range 3 East
- Maywood Quadrangle, Indiana 7.5 Minute Series
- 39.63471115, -86.18171484, NAD 83 (2011) InGCS Johnson-Marion

1.2 PROJECT DESCRIPTION

The City of Indianapolis is planning to proceed with an added travel lane project on County Line Road in Marion and Johnson Counties. The project is located on County Line Road approximately 500 feet east of SR 37 and 950 feet west of S Meridian Street (SR 135). Project activities will include construction of two additional travel lanes and a new two-way left turn lane, shared paths on the north and south sides of the road, and two bridge replacements.

2. DESKTOP RECONNAISSANCE

2.1 SOIL ASSOCIATIONS AND SERIES TYPES

According to the Soil Survey Geographic (SSURGO) Database for Marion County and for Johnson County, Indiana, the following mapped soils series are within the County Line Road expansion project area (Attachments pages 17-30).

- **Fox complex (FxC2):** very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. These soils formed in thin loess and in loamy alluvium or just in loamy alluvium overlying stratified calcareous sandy outwash on outwash plains, stream terraces, valley trains, kames, and glacial moraines. Slopes are 6 to 12 percent. Fox complex is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Genesee loam (Ge):** very deep, well drained soils that formed in loamy alluvium on flood plains. Genesee loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Ockley loam (ObaA):** very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 0 to 2 percent. Oakley loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Rensselaer silty clay loam (Re):** very deep, poorly drained or very poorly drained soils formed in loamy sediments on till plains, stream terraces, outwash terraces, outwash plains, glacial drainage channels, and lake plains. Rensselaer silty clay loam is considered a hydric soil. This soil type has a hydric rating of 100%.

- **Whitaker silt loam (Wh):** very deep, somewhat poorly drained soils formed in stratified silty and loamy outwash on outwash plains, lake plains, till plains, valley trains, and stream terraces. Slopes are 0 to 2 percent. Whitaker silt loam is not considered a hydric soil, but hydric inclusions of Rensselaer are known in flats, drainageways, outwash plains, and glacial drainage channels. This soil has a hydric rating of 5%.

- **Brookston silty clay loam-Urban land complex (YbvA):** very deep, poorly drained soils formed in as much as 51 cm (20 inches) of silty material and the underlying loamy till in depressions on till plains and moraines. Slopes are 0 to 2 percent. Brookston silty clay complex is considered a hydric soil. This soil type had a hydric rating of 65%.

- **Crosby silt loam (YclA):** very deep, somewhat poorly drained soils that are moderately deep to dense till. Crosby soils formed in as much as 56 cm (22 inches) of loess or other silty material and in the underlying loamy till. They are on till plains. Slopes are 0 to 2 percent. Crosby silt loam is not considered a hydric soil but hydric inclusions of Treaty-Drained are known in swales, depressions, and water-lain moraines. This soil type has a hydric rating of 5%.

- **Fox-Urban land complex (YfhC2):** very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. These soils formed in thin loess and in loamy alluvium or just in loamy alluvium overlying stratified calcareous sandy outwash on outwash plains, stream terraces, valley trains, kames, and glacial moraines. Slopes are 6 to 12 percent. Fox-Urban land complex is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Fox loam-Urban land complex (YflB2):** very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. Slopes are 2 to 6 percent. Fox loam is not considered a hydric soil but inclusions of Westland-Drained are known in swales on stream terraces and depressions on stream terraces. This soil type has a hydric rating of 3%.

- **Genesee loam-Urban land complex (YgcAH):** very deep, well drained soils that formed in loamy alluvium on flood plains. Slopes are 0 to 2 percent. Genesee loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Miami clay loam-Urban land complex (YmdC3):** very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 6 to 12 percent. Miami clay loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Miami clay loam-Urban land complex (YmdD3):** very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 12 to 18 percent. Miami clay loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Miami silt loam-Urban land complex (YmsB2):** very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying

loamy till. They are on till plains. Slopes are 2 to 6 percent. Miami clay loam is not considered a hydric soil, but hydric inclusions of Treaty are known in till plains. This soil type has a hydric rating of 5%.

- **Miami silt loam-Urban land complex (YmsC2):** very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 6 to 12 percent. Miami silt loam is not considered a hydric soil, but hydric inclusions of Treaty are known in till plains. This soil type has a hydric rating of 5%.

- **Ockley loam-Urban land complex (YobA):** very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 0 to 2 percent. Ockley loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Ockley loam-Urban land complex (YobB2):** very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 2 to 6 percent. Ockley loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Rensselaer silty clay loam-Urban land complex (YreA):** very deep, poorly drained or very poorly drained soils formed in loamy sediments on till plains, stream terraces, outwash terraces, outwash plains, glacial drainage channels, and lake plains. Slopes are 0 to 2 percent. Rensselaer silty clay loam is considered a hydric soil. This soil type has a hydric rating of 70%.

- **Gessie silt loam (Ge):** very deep, well drained soils that formed in calcareous, loamy alluvium on flood plains. Slopes are 0 to 2 percent. Gessie silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Ockley silt loam (OcA):** very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 0 to 2 percent. Ockley silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Treaty silty clay loam (ThrA):** very deep, poorly drained soils that formed in loess and in the underlying loamy till. The Treaty soils are in depressions on till plains. Slopes are 0 to 1 percent. Treaty silty clay loam is considered a hydric soil. This soil type has a hydric rating of 95%.

- **Urban land-Crosby silt loam complex (UcfA):** very deep, somewhat poorly drained soils that are moderately deep to dense till. Crosby soils formed in as much as 56 cm (22 inches) of loess or other silty material and in the underlying loamy till. They are on till plains. Slopes are 0 to 2 percent. Urban land-Crosby silt loam complex is not considered a hydric soil but hydric inclusions of Treaty-Drained are known in depressions, swales, and water-lain moraines. This soil type has a hydric rating of 5%.

- **Fox-Urban land complex (YfoC2):** very deep, well drained soils which are moderately deep to stratified calcareous sandy outwash. Slopes are 6 to 15 percent. Fox-Urban land complex is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Gessie silt loam-Urban land complex (YgbAH):** very deep, well drained soils that formed in calcareous, loamy alluvium on flood plains. Slopes are 0 to 2 percent. Gessie silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Miami-Urban land complex (YmcD2):** very deep, moderately well drained soils that are moderately deep to dense till. Miami soils formed in as much as 46 cm (18 inches) of loess or silty material and in the underlying loamy till. They are on till plains. Slopes are 12 to 18 percent. Miami-Urban land complex is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Martinsville silt loam-Urban land complex (YmlA):** very deep, well drained soils that formed in as much as 51 cm (20 inches) of loess and in the underlying loamy outwash. The soils are on stream terraces, outwash plains, outwash terraces, and till plains. Slopes are 0 to 2 percent. Martinsville silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Martinsville silt loam-Urban land complex (YmlB2):** very deep, well drained soils that formed in as much as 51 cm (20 inches) of loess and in the underlying loamy outwash. The soils are on stream terraces, outwash plains, outwash terraces, and till plains. Slopes are 2 to 6 percent. Martinsville silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Ockley silt loam-Urban land complex (YoxA):** very deep, well drained soils that are deep or very deep to calcareous, stratified sandy and gravelly outwash. Ockley soils formed in as much as 51 cm (20 inches) of loess or silty material and in the underlying loamy outwash. They are commonly on stream terraces and outwash plains, and less commonly on kame moraines and eskers. Slopes are 0 to 2 percent. Ockley silt loam is not considered a hydric soil. This soil type has a hydric rating of 0%.

- **Rensselaer clay loam-Urban land complex (YrcA):** very deep, poorly drained or very poorly drained soils formed in loamy sediments on till plains, stream terraces, outwash terraces, outwash plains, glacial drainage channels, and lake plains. Slopes are 0 to 2 percent. Rensselaer clay loam is considered a hydric soil. This soil type has a hydric rating of 70%.

- **Whitaker-Urban land complex (YwtA):** very deep, somewhat poorly drained soils formed in stratified silty and loamy outwash on outwash plains, lake plains, till plains, valley trains, and stream terraces. Slopes are 0 to 2 percent. Whitaker-Urban land complex is not considered a hydric soil but hydric inclusions of Rensselaer are known in glacial drainage channels, drainageways, flats, and outwash plains. This soil type has a hydric rating of 5%.

2.2 National Wetlands Inventory

Based on the U.S. Fish and Wildlife National Wetlands Inventory (NWI) data (www.fws.gov/wetlands/Data/State-Downloads.html), three wetland polygons are mapped within the investigated area. Two polygons represent the channels

of Pleasant Run Creek and Buffalo Creek which are both noted as a riverine, lower perennial, unconsolidated bottom, permanently flooded wetlands (R2UBH). The other wetland polygon represents a man-made ornamental pond adjacent to the survey area to the southwest. This freshwater pond is a palustrine, unconsolidated bottom, intermittently exposed, and excavated wetland (PUBGx).

2.3 HYDROLOGY

The 12-digit Hydrologic Unit Code (HUC) for the entirety of the project area is # 051202011206 which identifies the Pleasant Run – White River Watershed. According to the Indiana Floodplain Information Portal, the project is within a 100-year floodplain or regulatory floodway (http://dnrmaps.dnr.in.gov/appsphp/fdms/). The investigated area is within the 100-year floodplain and regulatory floodway of Pleasant Run Creek and has a base floodplain elevation of 677.7 feet (NAVD88) at the crossing of County Line Road at Pleasant Run Creek. The investigated area is also within the 100-year floodplain and regulatory floodway of Buffalo Creek and has a base floodplain elevation of 702.7 feet (NAVD88) at the crossing of County Line Road at Buffalo Creek.

3. FIELD RECONNAISSANCE

HNTB Indiana staff performed a field review of the investigated area on October 7, 2020. The purpose was to determine the presence of water resources within the investigated area. HNTB Indiana staff collected data during the field review to appropriately characterize the investigated area and determine the presence or absence of jurisdictional waters. The field investigation area encompassed the area required for construction access and completion of the proposed roadway expansion work. HNTB staff photographed select features and areas of interest throughout the investigated area. A photo location map and selected photographs are included as Attachments 31-89.

The proposed investigated area was analyzed using the methods outlined in the Routine Determination, On-site Inspection Necessary procedure in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual Midwest Region* (US Army corps of Engineers, 2010). Identification indicator status of plant species utilized the 2018 Midwest Region National Wetland Plant List. Field GIS data was collected using a Trimble R1 GNSS GPS with sub-meter accuracy.

4. WATERS

The October 2020 field reconnaissance for the County Line Road Added Travel Lanes project revealed one wetland, Wetland A, two perennial streams, and four ephemeral streams.

4.1 WETLANDS

WETLAND A

Wetland A is a palustrine, emergent, persistent, temporarily flooded and a palustrine, forested, persistent, temporarily flooded (PEM1/FO1A) wetland according to the classifications defined by Cowardin *et al*. (1979). Wetland A is 0.05 acre in size. This wetland developed due to ponding in a roadside ditch within a floodplain. This wetland is not mapped as an NWI wetland. Wetland A is bounded on the south side by the roadside slope to County Line Road and on the north by a small topographic rise to an old field. Wetland A is not a water of the U.S. because it is isolated from Buffalo Creek due to

its connectivity via an ephemeral waterway. Based on a qualitative analysis of Wetland A, this wetland is of poor quality based on its position within a roadside ditch.

Data Point AW1

This data point was taken in a low spot in a constructed roadside ditch within a floodplain. The area was relatively homogeneous, with little variation in topography and vegetative cover. Therefore, data point AW1 is thought to be representative of the entire wetland. Dominant vegetation consisted of common reed *(Phragmites australis* FACW), spotted touch-me-not (*Impatiens capensis* FACW), and white panicled American-aster (*Symphyotrichum lanceolatum* FAC), as well as silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*), and grey dogwood (*Cornus racemosa*). One hundred percent of the dominant species within this plot were FAC or wetter, therefore the vegetation passes the dominance test for hydrophytic vegetation. Hydrology indicators observed saturation to the surface (A3) and the FAC-neutral test (D5). Soils within a pit excavated to a depth of 20 inches consisted of 8 inches of 10YR 2/2 of mucky loam. From 8-20 inches the soil was 10YR 4/1 of mucky loam. This point exhibits a loamy mucky mineral (F1) hydric soil indicator. This point is located within Wetland A as it exhibits hydric soil, hydrophytic vegetation, and wetland hydrology characteristics. The data form for this point is included as Attachment pages 90-91.

Data Point AD1

This data point was taken above the boundary of Wetland A where a change in dominant herbaceous vegetation occurred, and a lack of wetland hydrology was noted. Dominant vegetation consisted of Japanese honeysuckle (*Lonicera japonica* FACU), tall goldenrod (*Solidago altissima* FACU), red fescue (*Festuca rubra* FACU), and Kentucky blue grass (*Poa pratensis* FAC), as well as silver maple (*Acer saccharinum*), green ash (*Fraxinus pennsylvanica*), and grey dogwood (*Cornus racemosa*). One hundred percent of the dominant species within this plot were FAC or wetter, therefore the vegetation passes the dominance test for hydrophytic vegetation. No wetland hydrology indicators were observed at this datapoint. Soils within a pit excavated to a depth of 20 inches consisted of 20 inches of 10YR 3/2 of silty clay loam. This point is not within Wetland A, as hydric soil and wetland hydrology were not observed. The data form for this point is included as attachment pages 93-94.

Table 1: Wetland summary table

Wetland	Photo	Lat/Long	Cowardin Classification	Areas (Acre)	Quality	Water of the U.S?
A	89-90	39.635091, -86.167315	PEM1A	0.05	Poor	No

Table 2: Wetland Data Point Summary Table

Data Point-ID	Vegetation	Soils	Hydrology	Within a Wetland?
AW1	Y	Y	Y	Yes, Wetland A
AD1	Y	N	N	No

4.2 STREAMS

The field investigation resulted in the identification of two likely jurisdictional streams, Pleasant Run Creek and Buffalo Creek, and four ephemeral streams which are likely not jurisdictional. A total of approximately 1,843 linear feet of stream lies within the investigated area. Characteristics of each stream are summarized in Table 3. The ordinary high-water mark (OHWM) was measured on the ground using a measuring tape, outside of the influence of the existing structures for each waterway.

PLEASANT RUN CREEK

The OHWM of Pleasant Run Creek is 30 feet wide by 1 foot deep. According to the classification codes developed by Cowardin *et al.* (1979), this stream feature would be classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland (R2UBH) resource. Pleasant Run Creek is mapped as a USGS Blueline stream. This likely jurisdictional feature is hydrologically connected to the White River, a traditionally navigable waterway (TNW). According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), Pleasant Run Creek drains 20.55 square miles at the crossing of County Line Road. This steam has a cobble and gravel substrate and well-developed riffle-run-pool complexes. The riparian corridor is well developed and forested, although invasive bush honeysuckle is prevalent. A total of approximately 1155.84 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation of Pleasant Run Creek, it is a good quality resource due to the dominant vegetation, streambed quality, and well developed riparian corridor.

UNT 1 TO PLEASANT RUN CREEK

The OHWM of UNT to Pleasant Run Creek is 18 inches wide by 14 inches deep. According to the classification codes developed by Cowardin *et al.* (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. The resource originates on the north side of County Line Road at a stormwater pipe outfall and drains north to Pleasant Run Creek. UNT 1 to Pleasant Run Creek is not mapped as a USGS Blueline stream. This feature is an ephemeral stream and therefore is not likely a jurisdictional feature. According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), this feature is not mapped. This steam has silt/mud stream substrate and with no riffles. This channel crosses the floodway of Pleasant Run Creek. A total of approximately 110.07 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation, UNT 1 to Pleasant Run Creek is a poor quality resource due to its substrate quality, streambed type, and lack of flow.

BUFFALO CREEK

The OHWM of Buffalo Creek is 19 feet wide x 36 inches deep. According to the classification codes developed by Cowardin *et al.* (1979), this stream feature would be classified as a riverine, lower perennial, unconsolidated bottom, permanently flooded wetland (R2UBH) resource. Buffalo Creek is mapped as a USGS Blueline stream. This likely jurisdictional feature is hydrologically connected to Pleasant Run Creek and the White River, a TNW. According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), Buffalo Creek drains 3.776 square miles at the crossing of County Line Road. This steam has a silt, cobble and gravel substrate and well-developed glide complexes. Upstream and downstream of the existing structure the stream bed has been armored with riprap. The riparian area is poorly developed within the investigated area and consists of a very narrow wooded area that is bordered by several residential subdivisions. A total of approximately 500 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation, Buffalo Creek is a good quality resource due to the streambed type, flow, and surrounding vegetation.

UNT 1 to Buffalo Creek

The OHWM of UNT 1 to Buffalo Creek is 3 feet wide by 12 inches deep. According to the classification codes developed by Cowardin et al. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. The resource originates on the north side of County Line Road in a roadside ditch and drains northwest to Buffalo Creek. UNT 1 to Buffalo Creek is not mapped as a USGS Blueline stream. This feature is an ephemeral stream and therefore is not likely a jurisdictional feature. According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), this feature is not mapped. This steam has silt/mud stream substrate and with no riffles. This channel crosses the floodway of Buffalo Creek and passes through Wetland A. A total of approximately 201.43 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation, UNT 1 to Buffalo Creek is a poor quality resource due to its substrate quality, streambed type, and lack of flow.

UNT 2 to Buffalo Creek

The OHWM of UNT 2 to Buffalo Creek is a 4.17 feet wide x 16 inches deep. According to the classification codes developed by Cowardin *et al.* (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. UNT 2 to Buffalo Creek is not mapped as a USGS Blueline stream. The resource originates on the north side of County Line Road in a roadside ditch at a stormwater outfall and drains northwest to Buffalo Creek. This feature is an ephemeral stream and therefore is not likely a jurisdictional feature. According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), this feature is not mapped. This steam has silt/mud stream substrate and with no riffles. A total of approximately 223.83 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation, UNT 2 to Buffalo Creek is a poor quality resource due to its substrate quality, streambed type, and lack of flow.

UNT 3 to Buffalo Creek

The OHWM of UNT 3 to Buffalo Creek is 6 feet wide by 18 inches deep. According to the classification codes developed by Cowardin *et al*. (1979), this stream feature would be classified as a riverine, ephemeral (R6) resource. UNT 3 to Buffalo Creek is not mapped as a USGS Blueline stream. The resource originates north of County Line Road at the outfall from Pond 2 and drains northwest to Buffalo Creek. This feature is an ephemeral stream and therefore is not likely a jurisdictional feature. According to the USGS StreamStats website, (https://water.usgs.gov/osw/streamstats/indiana.html), this feature is not mapped. This steam has a riprap substrate and no riffles. A total of approximately 79.52 linear feet of stream length lies within the investigated area. Based on a qualitative evaluation, UNT 3 to Buffalo Creek is a poor quality resource due to its substrate quality, streambed type, and lack of flow.

4.3 Roadside Drainage

Site investigation identified one concrete lined roadside drainage feature, RSD 1. RSD 1 is 3.5 feet wide and 287.22 feet long within the investigated area. RSD 1 receives drainage from the roadside to the west and the north via a culvert under County Line Road. RSD 1 is a constructed channel which is lined with concrete or armored with riprap through portions of the channel.

TABLE 3: STREAM AND WATERWAY SUMMARY TABLE

Stream Name	Photo #	Lat/Long	OHWM	Quality	Substrate	USGS Blue Line	Riffles/Pools	Waters of U.S.
Pleasant Run Creek	24, 26-28, 30, 33-37, 49-60	39.634882, -86.195323	30’ wide x 12’’ deep	Good	Cobble/ gravel	Yes	Yes	Yes
UNT 1 to Pleasant Run Creek	38-39	39.634672, -86.196027	18” wide x 14” deep	Poor	Silt/sand	No	No	No
Buffalo Creek	75, 80-81, 83-87	39.635129, -86.168455	19’ wide x 36” deep	Good	Silt/cobble/ gravel	Yes	Yes	Yes
UNT 1 to Buffalo Creek	87	39.635158, -86.167493	3’ wide x 12” deep	Poor	Silt/sand	No	No	No
UNT 2 to Buffalo Creek	94-95	39.635232, -86.165266	4.17’ wide x 16’’ deep	Poor	Silt/sand	No	No	No
UNT 3 to Buffalo Creek	-	39.635578, -86.164248	6’wide x 18” deep	Poor	Riprap	No	No	No
RSD 1	72-74	39.634764, -86.196590	3.5’ wide x 12” deep (constructed channel)	Poor	Riprap/ concrete	No	No	No

4.4 OPEN WATERS

Site investigations identified two open water features within the investigated area, Pond 1 and Pond 2. Both ponds are constructed stormwater retention ponds and according to the classification codes developed by Cowardin *et al.* (1979), would be classified as a palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx) resources. These resources would be regulated under Section 402 of the Clean Water Act and would not be classified as waters of the U.S.

Pond 1 is newly constructed and receives stormwater from the Pleasant Valley residential subdivision. The pond is surrounded by mowed and maintained grassed area. The floodway between this pond and Pleasant Run Creek has recently been planted with woody vegetation. This pond drains northeast via a pipe to Pleasant Run Creek. The pipe outfall is located just south of County Line Road, and is visible in Photo 47 (Attachment page 61)

Pond 2 is also a constructed stormwater retention pond that receives stormwater from the Classic View residential subdivision. This pond is noted on the National Wetland Inventory as a palustrine, unconsolidated bottom, intermittently exposed, excavated (PUBGx) resource. This pond is surrounded by residential homes and mowed and maintained grassed

area on the north and east, by the County Line Road right-of-way on the south, and by a forested area to the west. This pond drains northwest to Buffalo Creek via UNT 3 to Buffalo Creek.

TABLE 4: OPEN WATER SUMMARY TABLE

Open Water Name	Photo	Lat/Long	Cowardin Classification	Area (Acre)	Water of the U.S?
Pond 1	41, 46	39.633803, -86.195154	PUBGx	0.53	No
Pond 2	95? 96, 99	39.635373, --86.195154	PUGbx	0.28	No

5. CONCLUSION

The October 2020 field review for the County Line Road Added Travel Lanes project did not identify likely jurisdictional wetlands or roadside ditches with OHWMs within the survey area. Both USGS Blueline streams evaluated as part of this project are likely jurisdictional features due to direct hydrological connectivity to a TNW as well as their perennial regime.

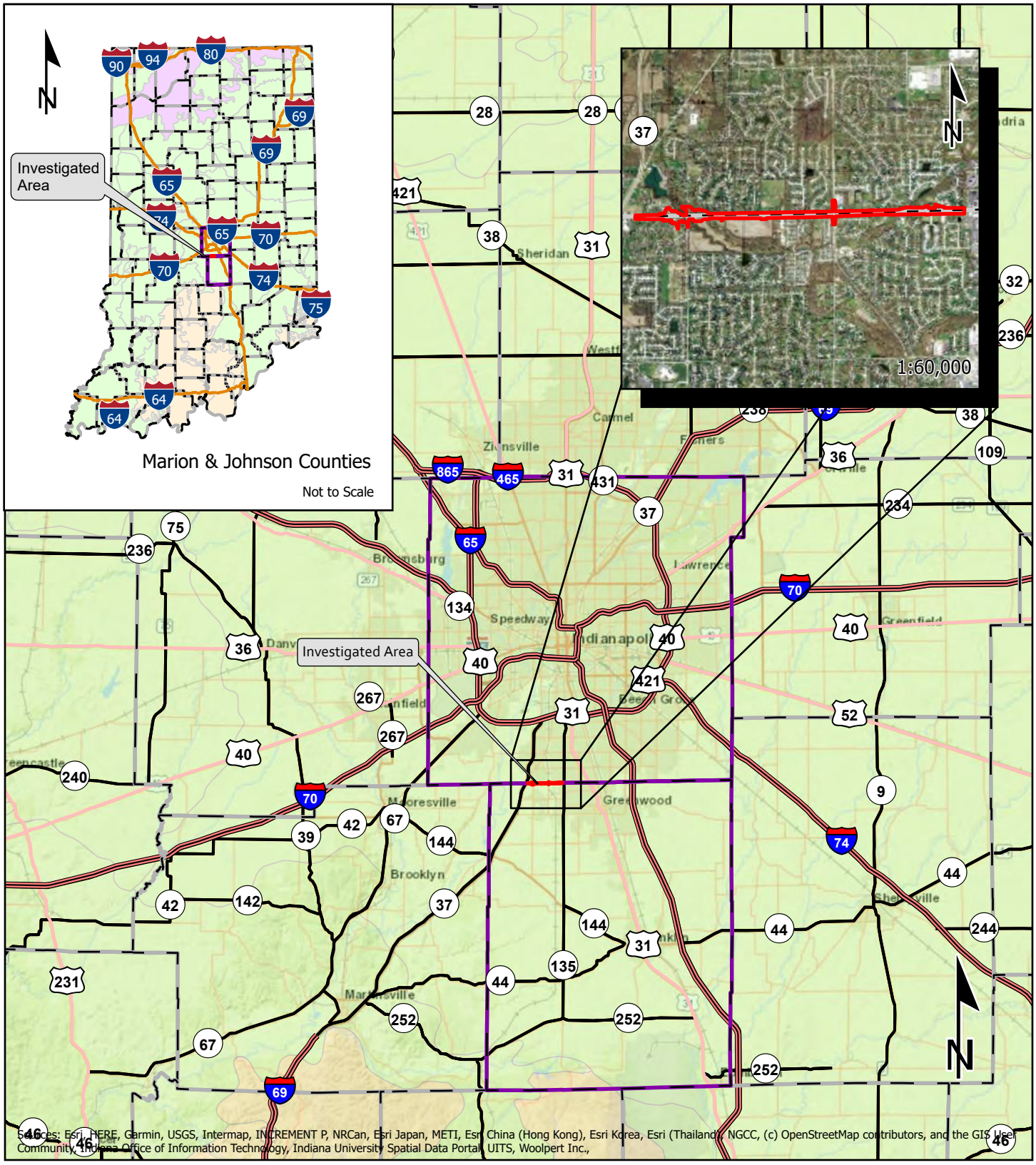
Every effort should be taken to avoid and minimize the impacts to the water resources listed above. Disturbance of a wetland or stream could result in a mitigation requirement to secure the required permits for the County Line Road Added Travel Lanes project. If construction exceeds the limits of the survey review area illustrated in this document, further field investigation will be needed. This report is this office's best judgment of water resources that are likely to be under federal jurisdiction, based on the guidelines set forth by the U.S. Army Corps of Engineers (USACE). The final determination of jurisdictional waters is ultimately the responsibility of the USACE. The INDOT Office of Environmental Services should be contacted immediately if impacts occur.

This waters determination has been prepared based on the best available information, interpreted in the light of the investigator's training, experience and professional judgement in conformance with the 1987 *Corps of Engineers Wetlands Delineation Manual*, the appropriate regional supplement, the USACE *Jurisdictional Determination Form Instructional Guidebook*, and other appropriate agency guidelines.

Christine Meador, Senior Project Manager

PREPARERS:

HNTB Inc., Staff	Position	Contributing Effort
Christine Meador	Senior Project Manager	Project Management Field Data Collection
Sharon Anton	Scientist I	Field Data Collection Report Preparation
Shampaygne Jeffries	Intern	Field Data Collection Report Preparation



Investigated Area

Marion & Johnson Counties

County Boundaries

NRCS Land Resource Regions

Northeast and Northcentral

Midwest

Eastern Mountains and Piedmont

0 4.5 9 Miles

Project Location Map

County Line Road Expansion

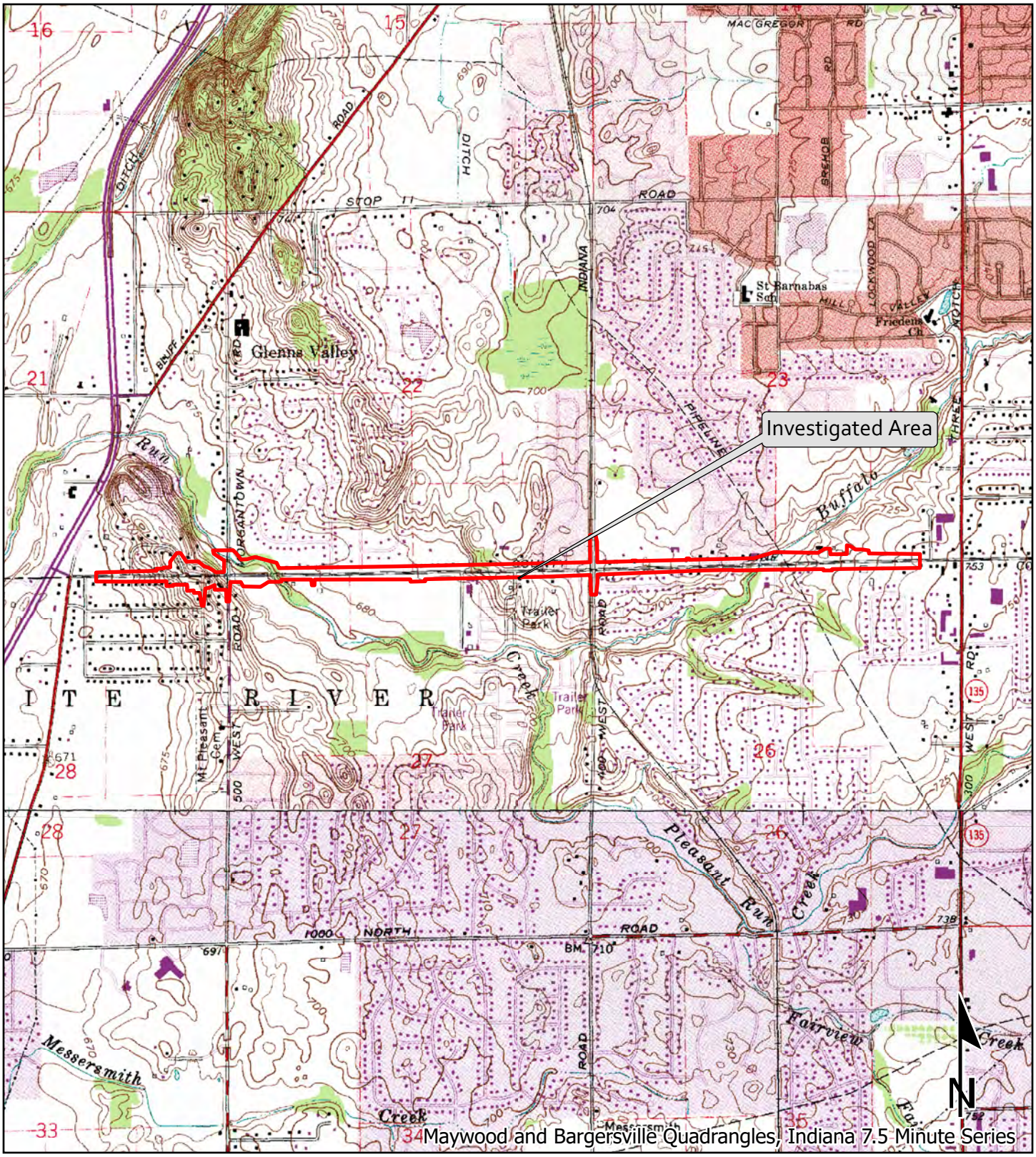
Marion & Johnson Counties, Indiana

2 2

1 inch = 9 miles

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area

0 2,000 Feet

USGS (1:24,000 scale) Topographic Map

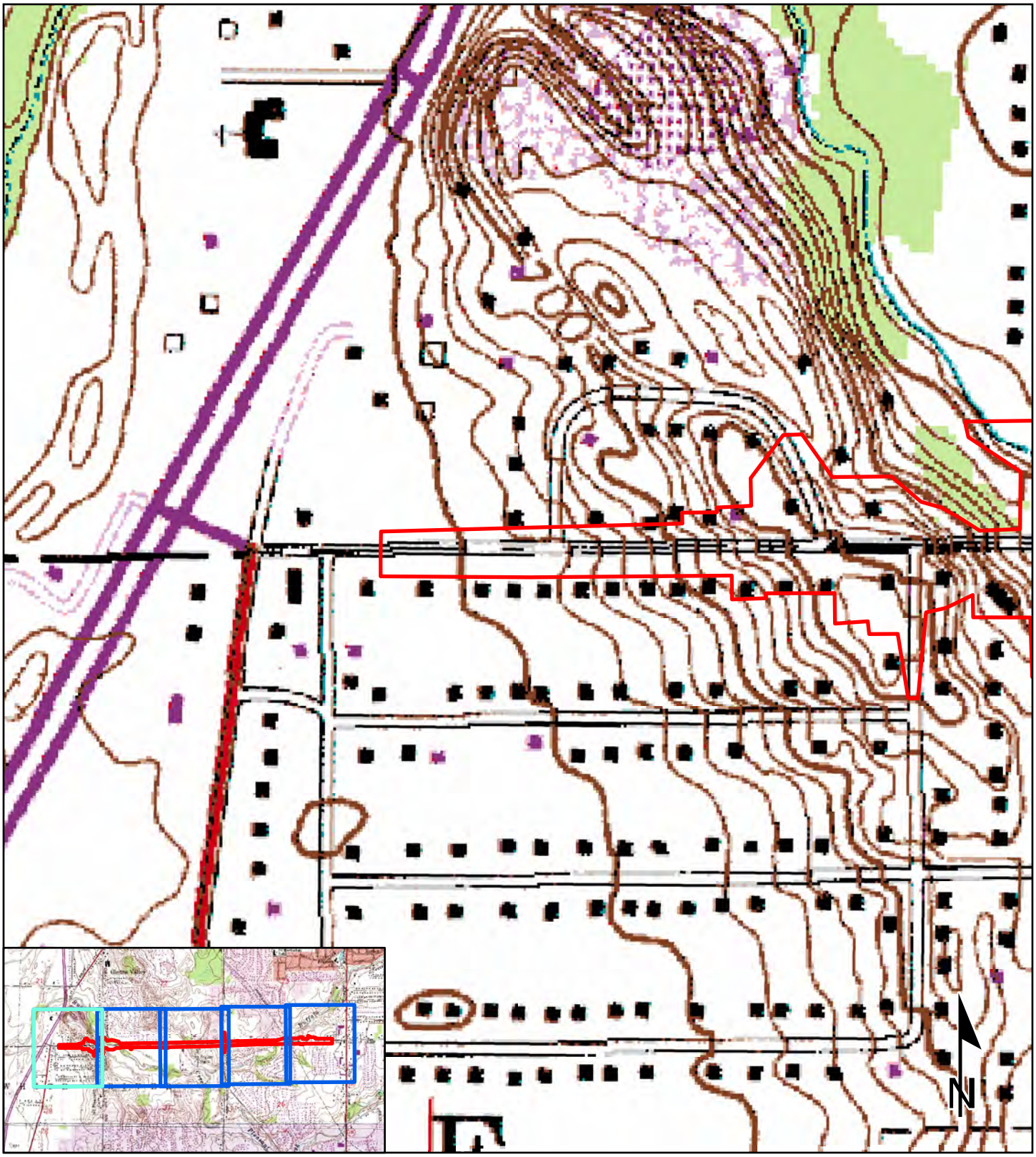
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =2,000 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Map Index Page
Current Extent

0 400 Feet

USGS (1:4,800 scale) Topographic Map

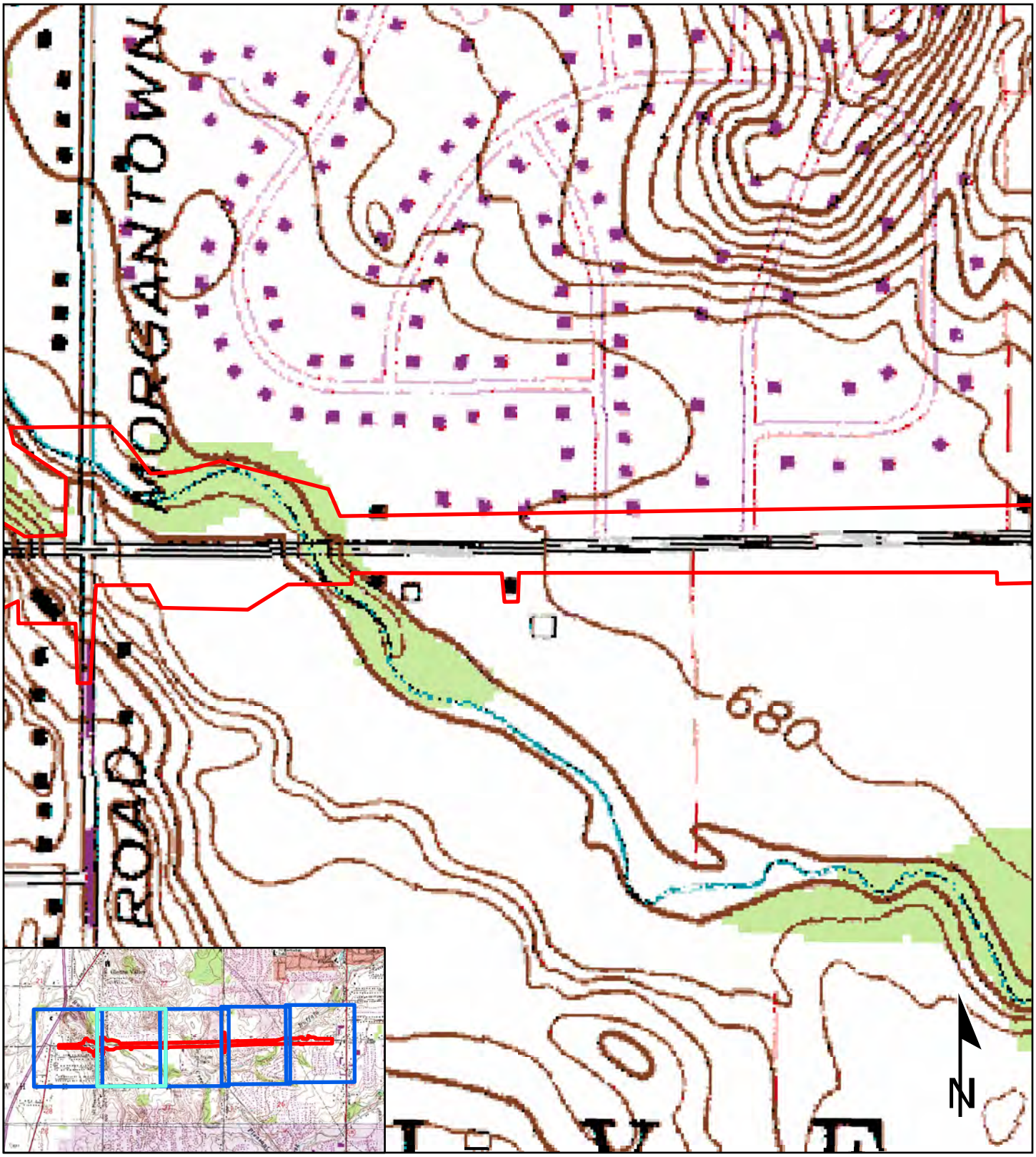
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =400 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Map Index Page
Current Extent

0 400 Feet

USGS (1:4,800 scale) Topographic Map

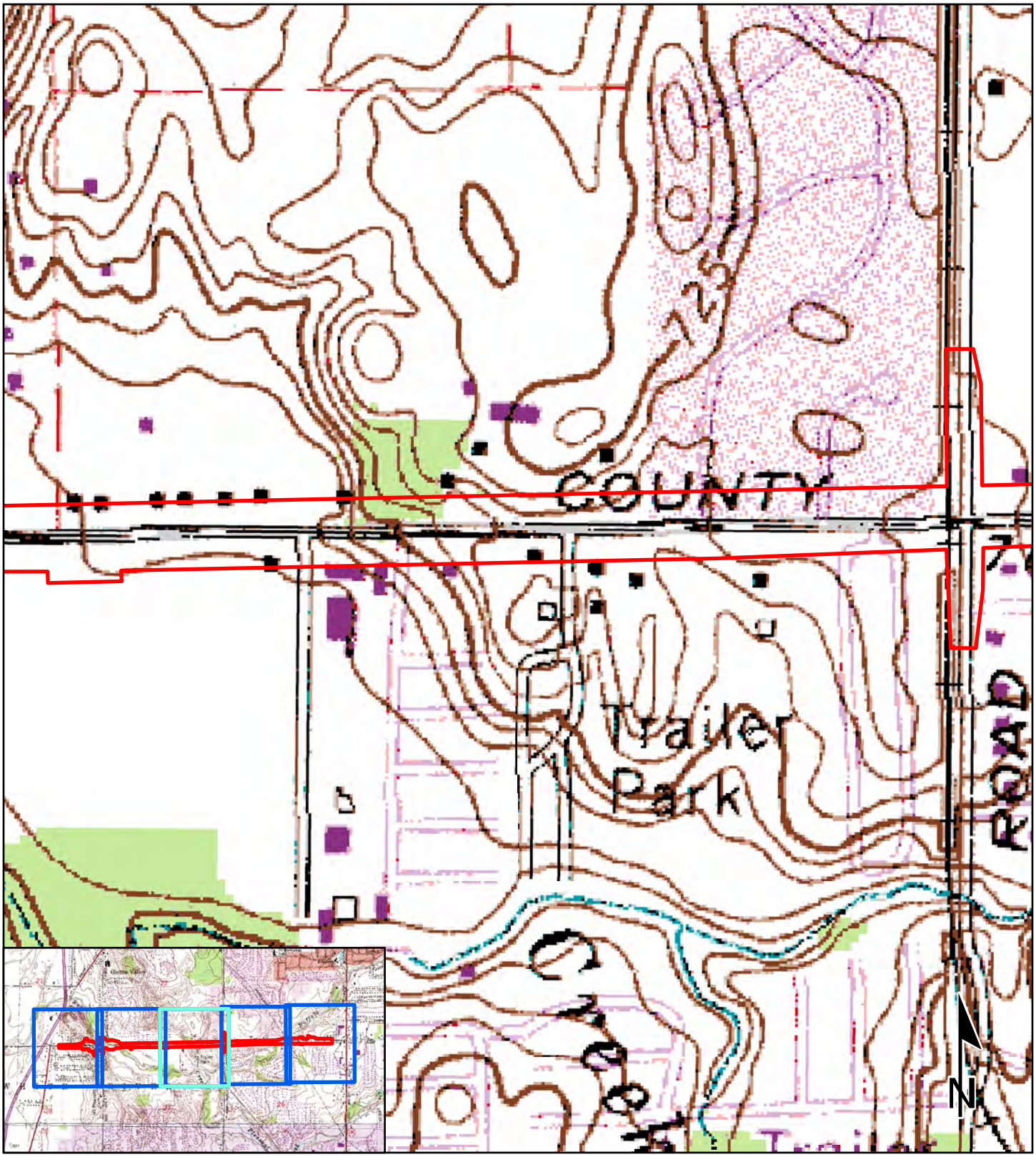
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =400 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Map Index Page
Current Extent

0 400 Feet

USGS (1:4,800 scale) Topographic Map

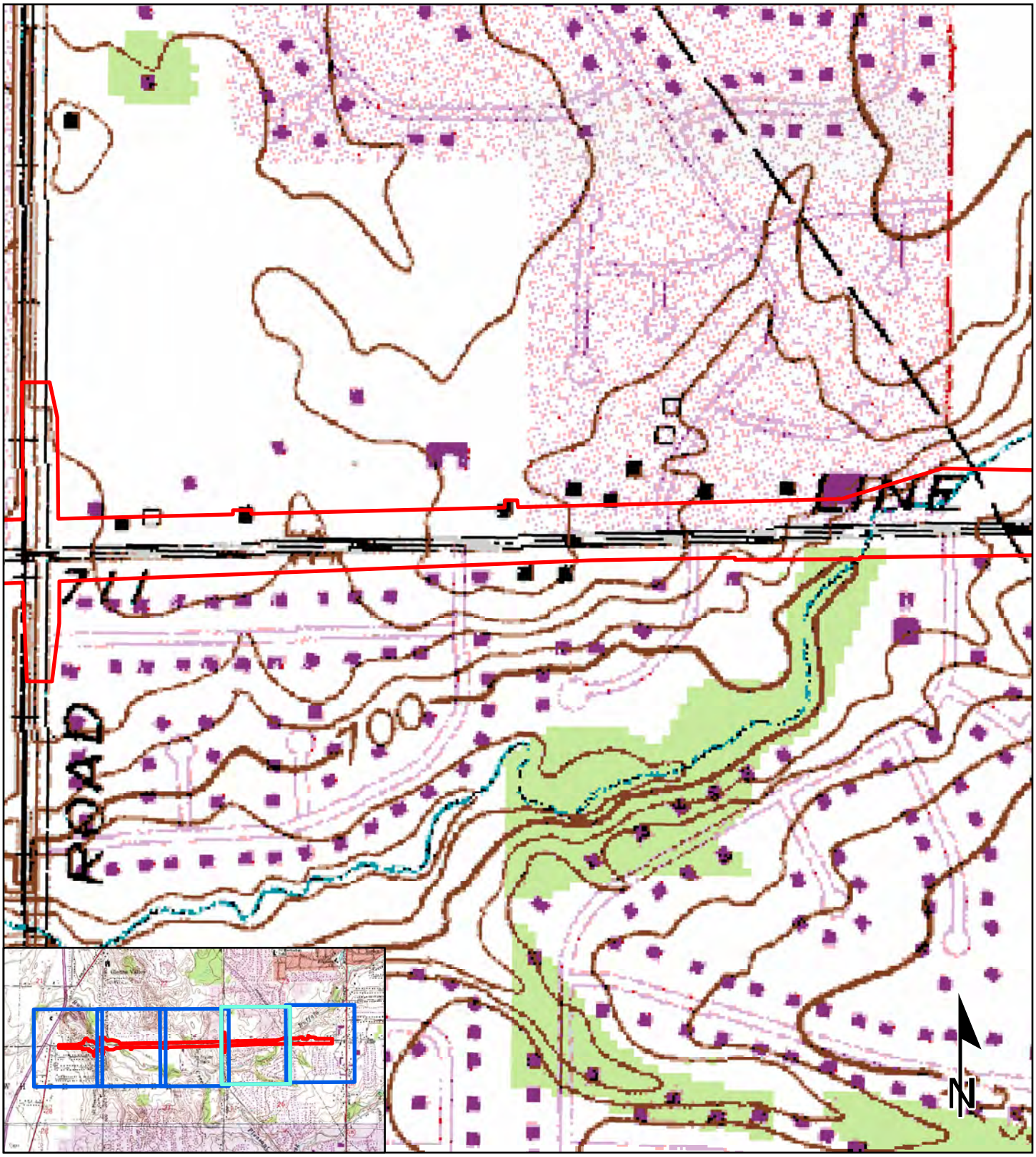
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =400 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Map Index Page
Current Extent

0 400 Feet

USGS (1:4,800 scale) Topographic Map

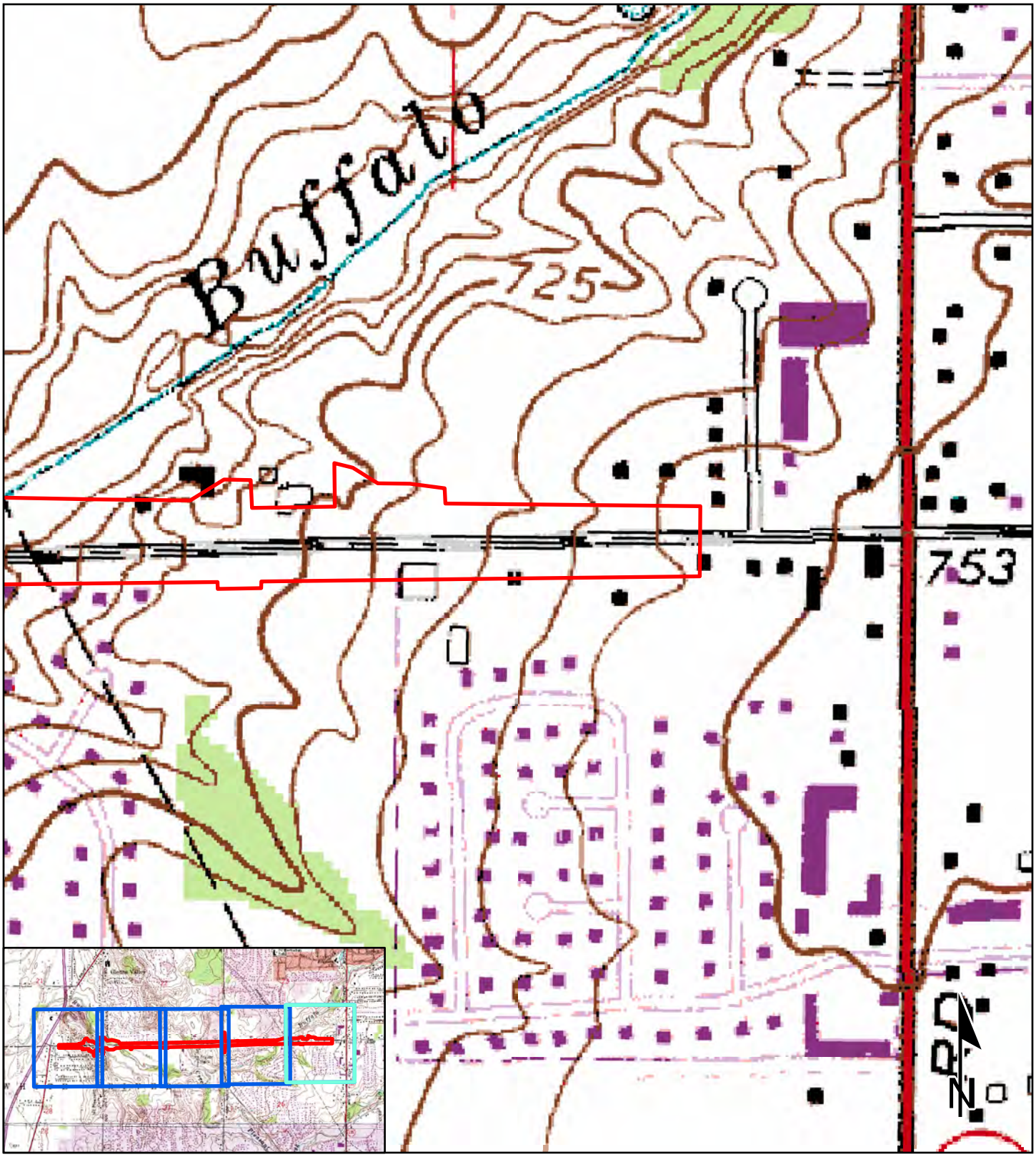
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =400 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Map Index Page
Current Extent

0 400 Feet

USGS (1:4,800 scale) Topographic Map

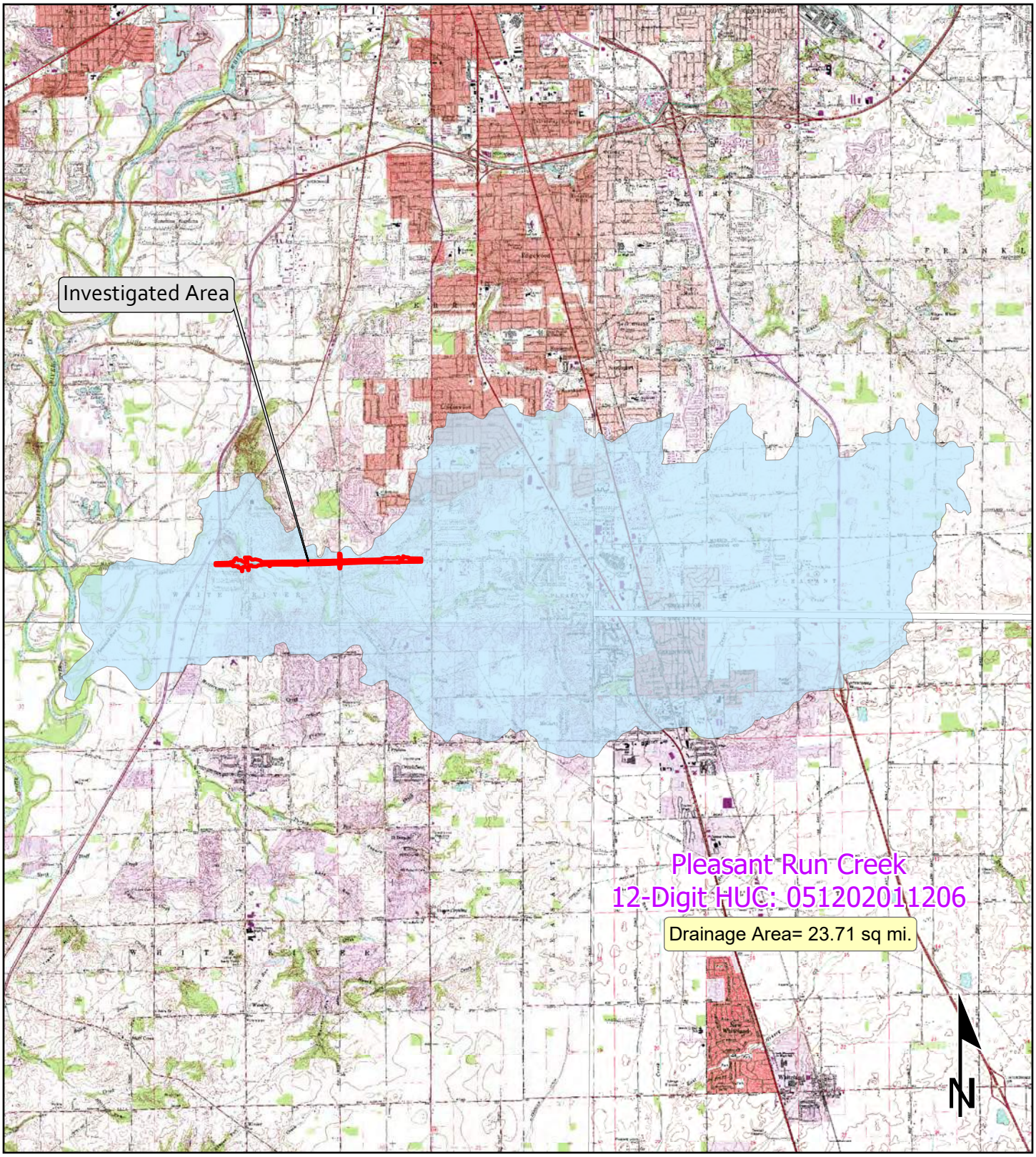
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch =400 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area

Watershed

0 8,500 Feet

Watershed Map

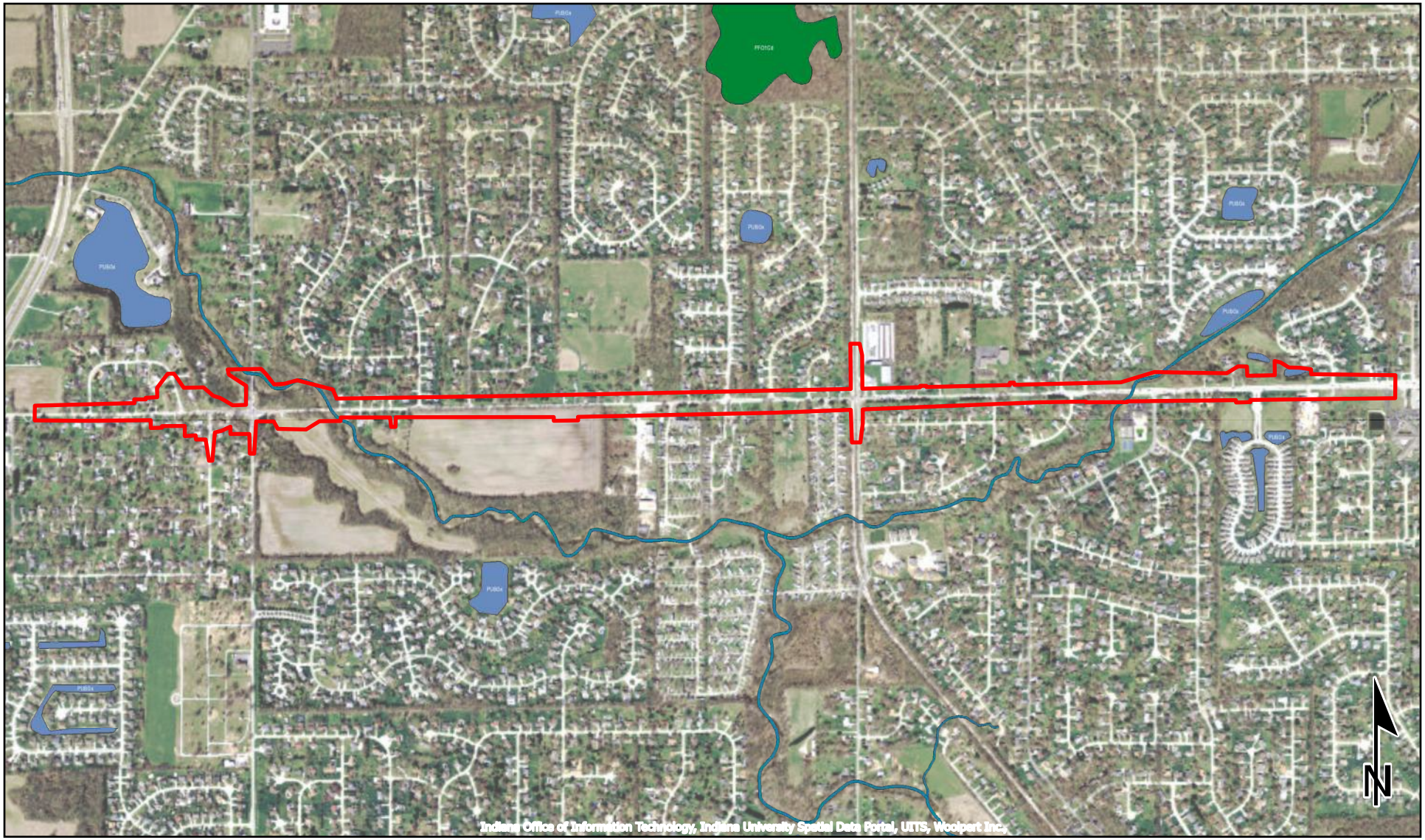
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch = 8,000 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area

0 625 1,250
Feet

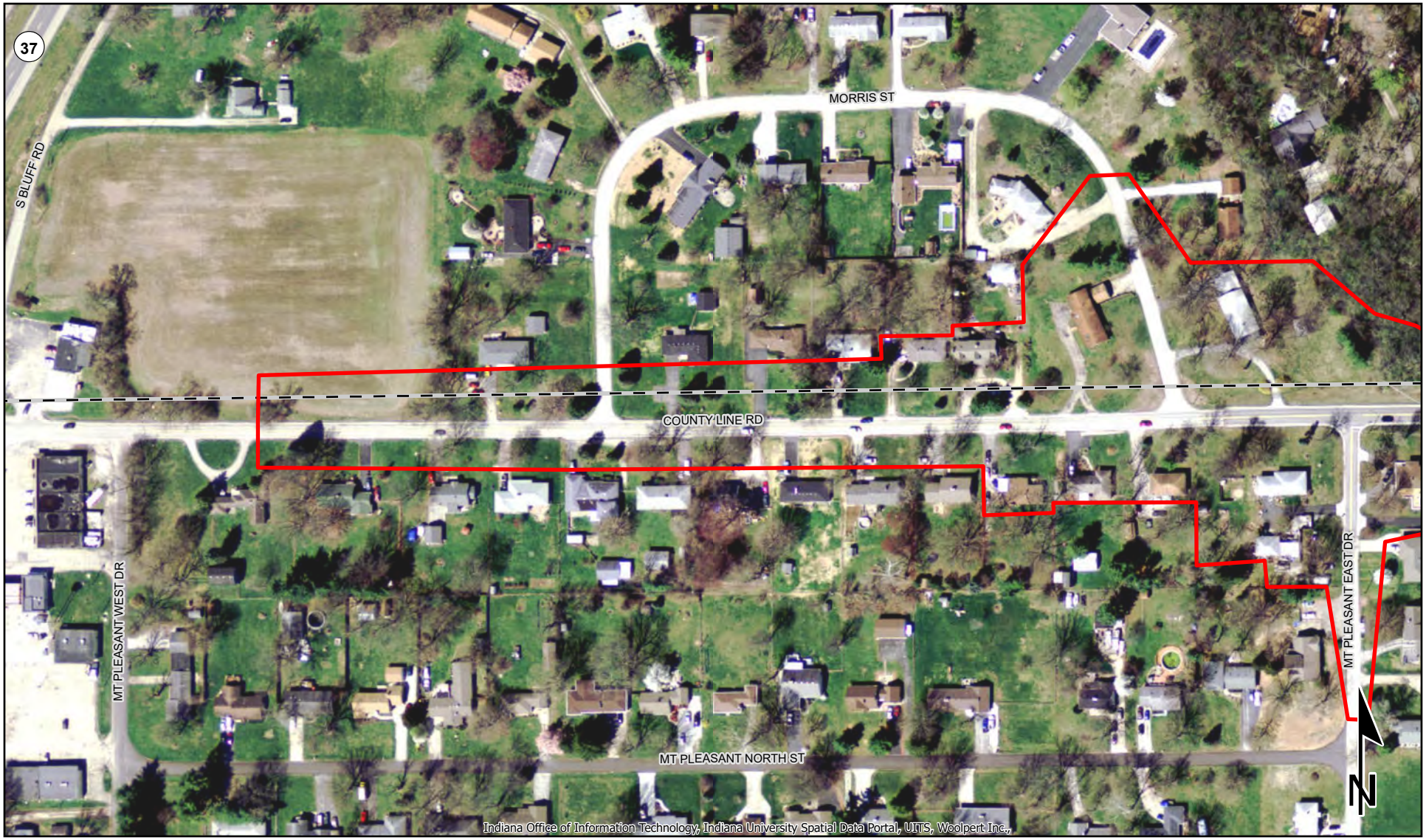
National Wetlands Inventory Map

2 2

2

HNTB

2 2



Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

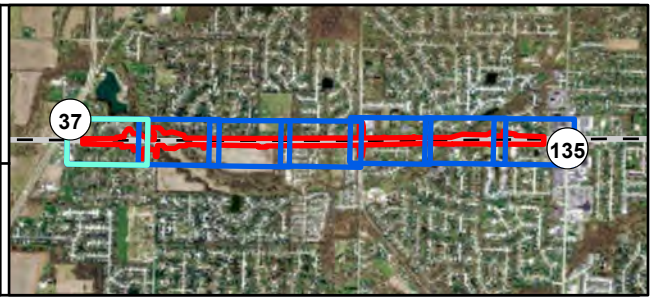
County Line Road Expansion
Marion & Johnson Counties, Indiana

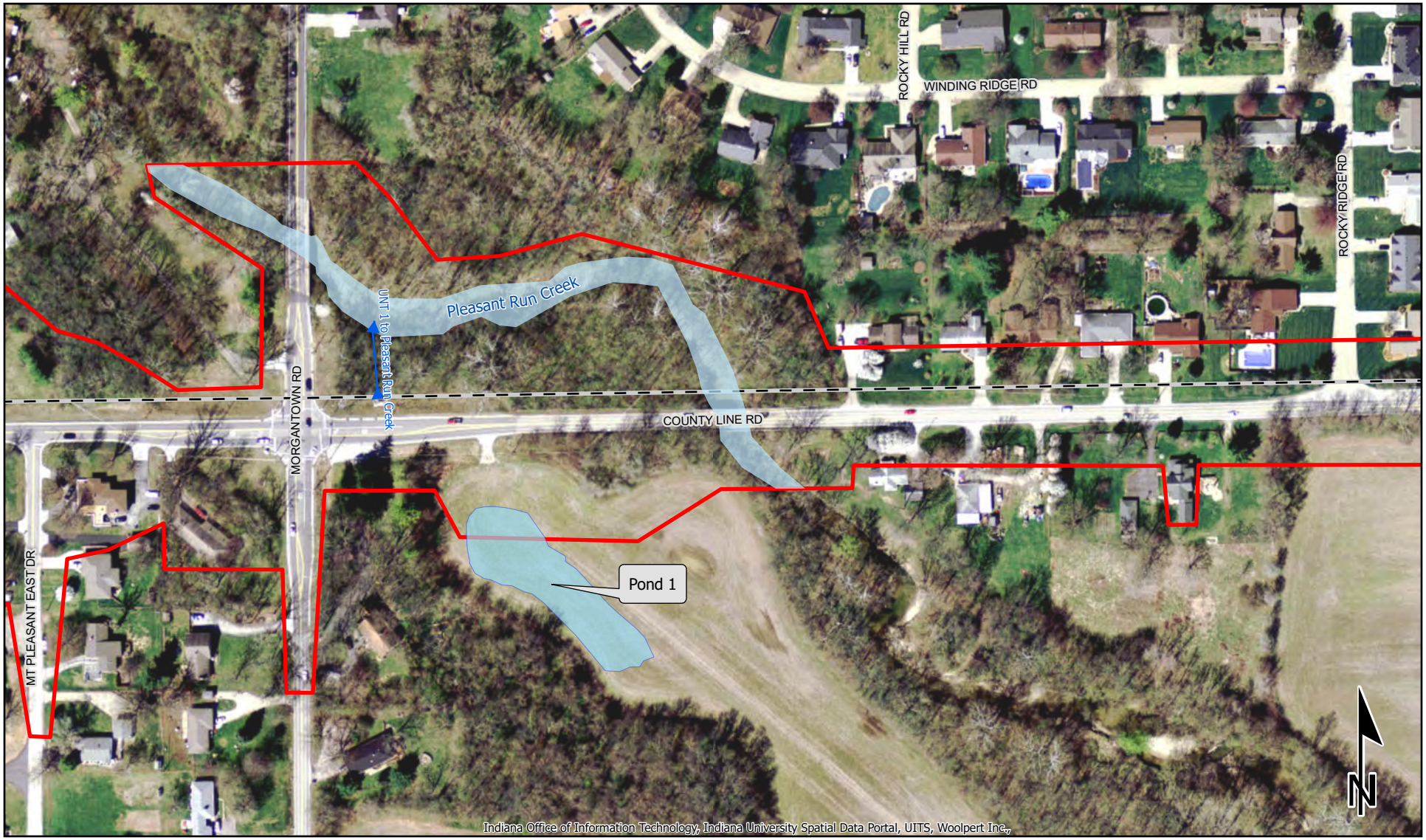
2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)





Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

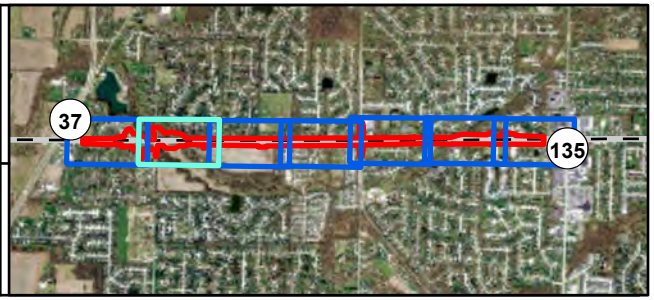
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

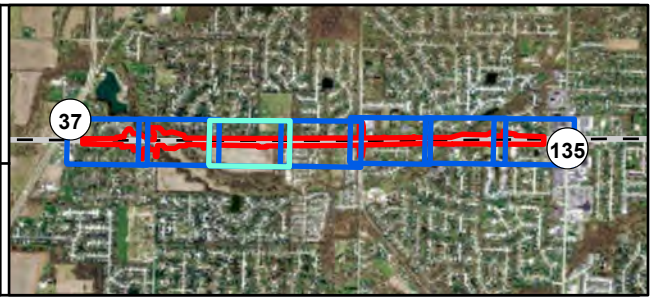
County Line Road Expansion
Marion & Johnson Counties, Indiana

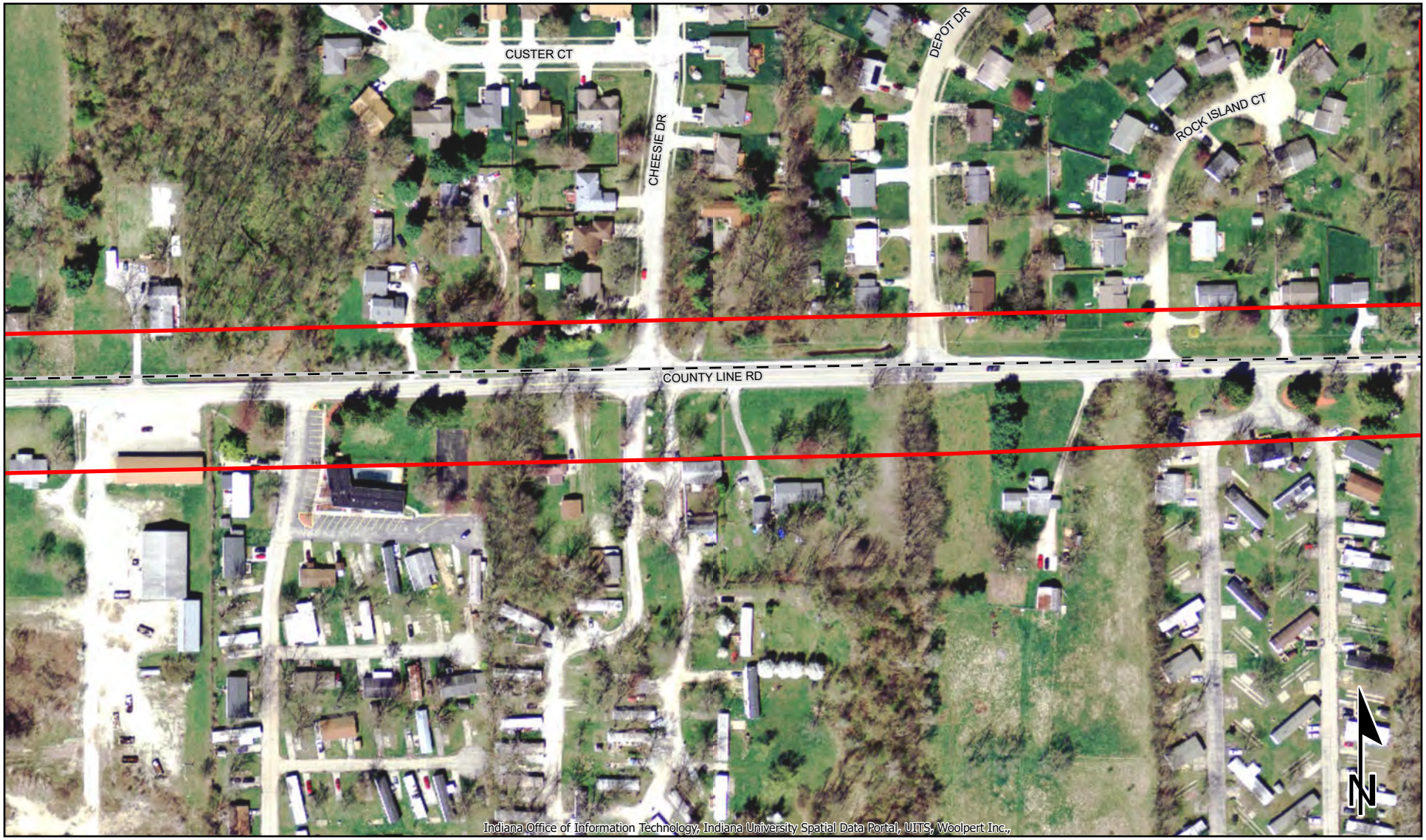
2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)





Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

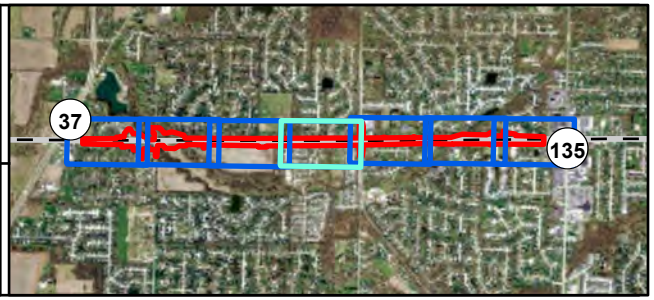
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)



Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

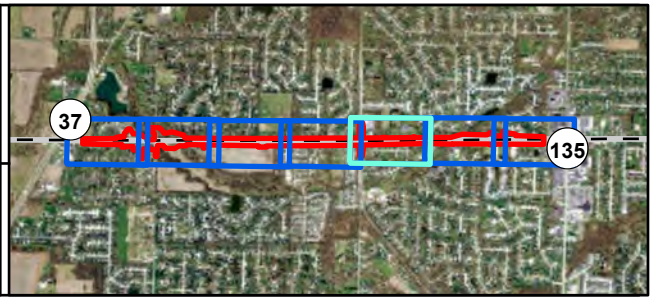
County Line Road Expansion
Marion & Johnson Counties, Indiana

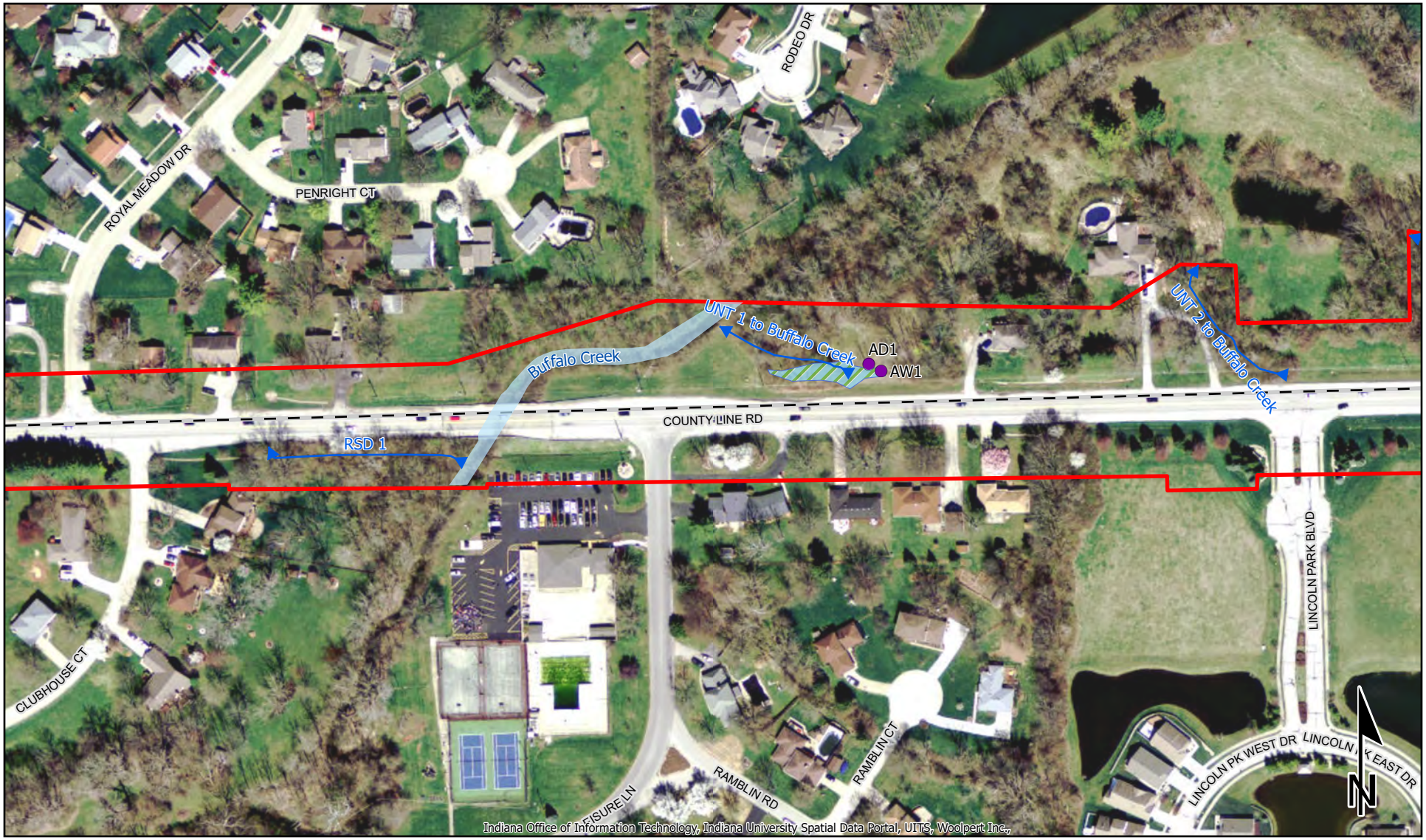
2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)





Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Water Resources Map

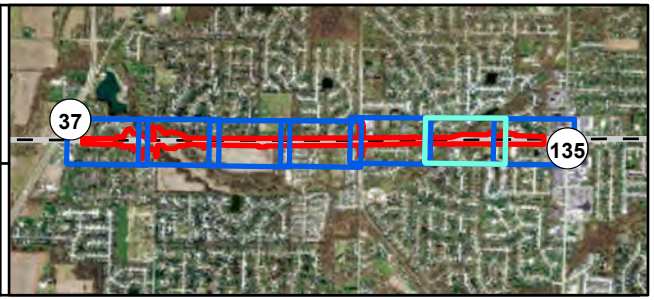
County Line Road Expansion
Marion & Johnson Counties, Indiana

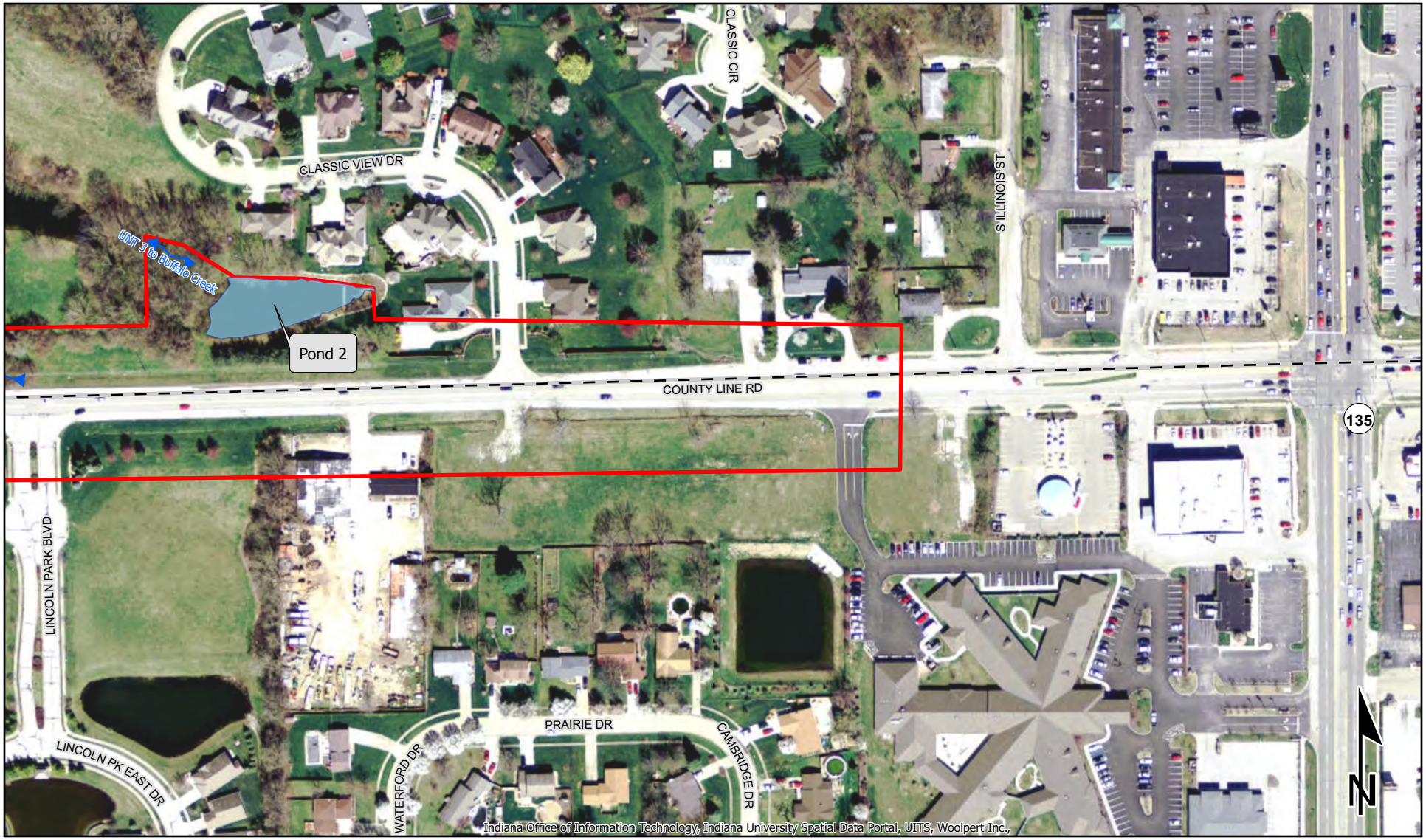
2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)





Investigated Area
Delineated Wetlands
Delineated Stream
Data Points
Open Waters
NWI Streams

0 100 200
Feet

Water Resources Map

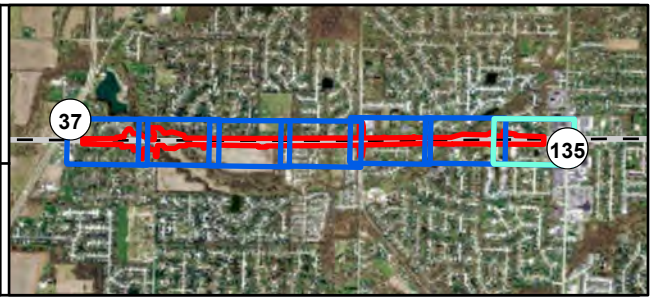
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

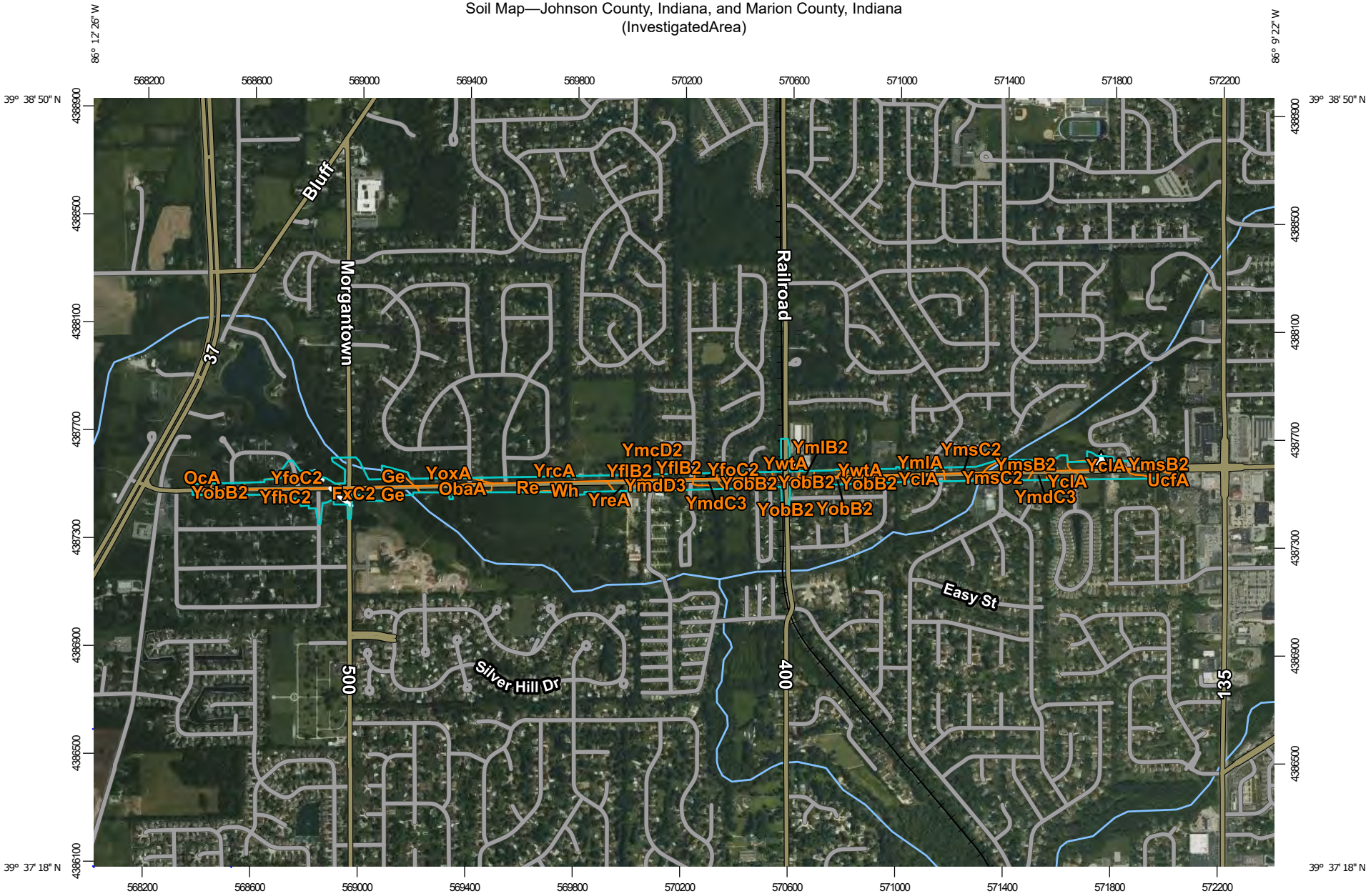
1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)



Soil Map—Johnson County, Indiana, and Marion County, Indiana
(InvestigatedArea)



Map Scale: 1:20,100 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Johnson County, Indiana
Survey Area Data: Version 28, Jun 4, 2020

Soil Survey Area: Marion County, Indiana
Survey Area Data: Version 25, Jun 8, 2020

Your area of interest (AOI) includes more than one soil survey area. These survey areas may have been mapped at different scales, with a different land use in mind, at different times, or at different levels of detail. This may result in map unit symbols, soil properties, and interpretations that do not completely agree across soil survey area boundaries.

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 27, 2019—Sep 26, 2019

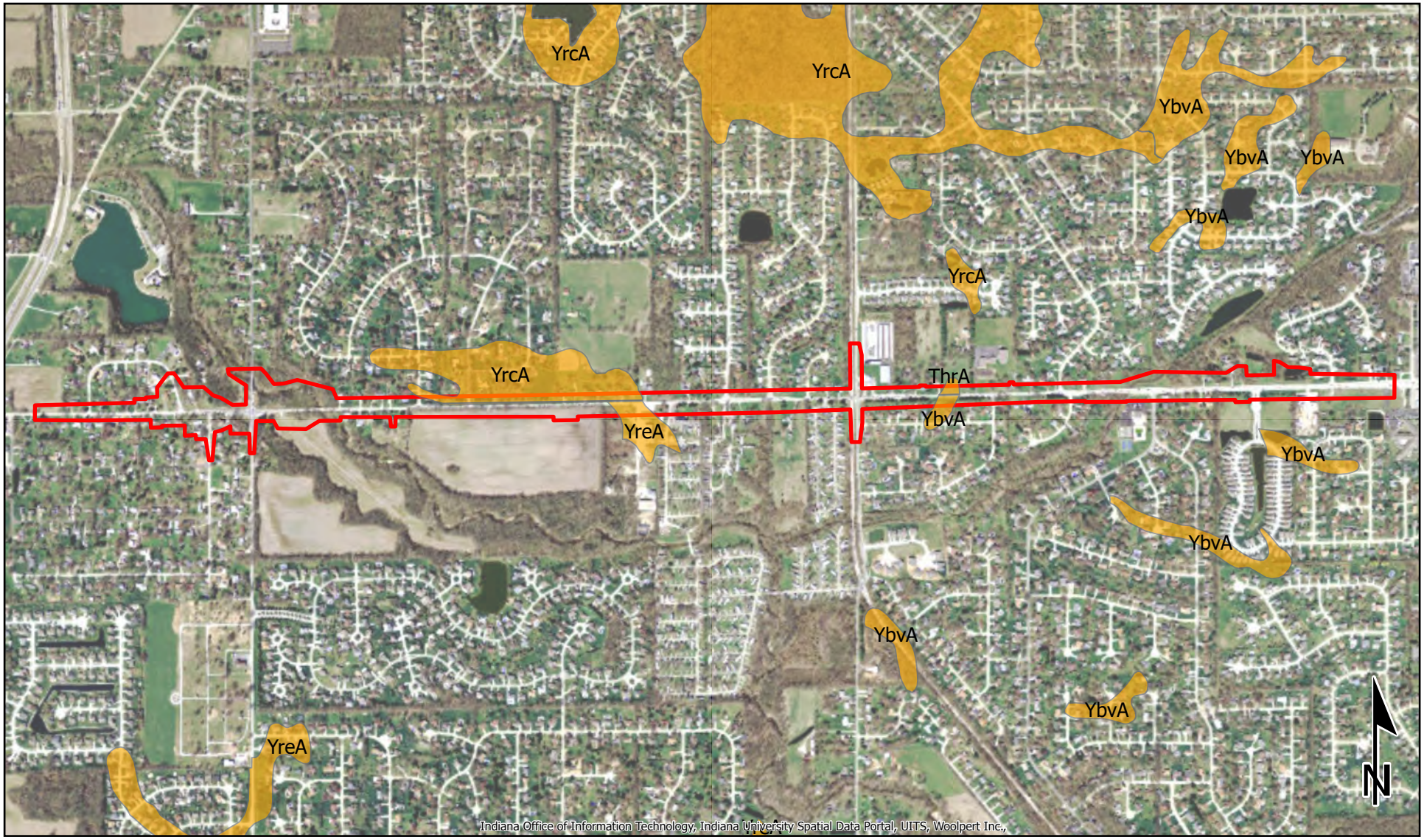
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
FxC2	Fox complex, 6 to 12 percent slopes, eroded	0.1	0.2%
Ge	Genesee loam	2.3	3.7%
ObaA	Ockley loam, 0 to 2 percent slopes	2.0	3.2%
Re	Rensselaer silty clay loam	4.0	6.4%
UcfA	Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	0.2	0.4%
Wh	Whitaker silt loam, 0 to 2 percent slopes	0.3	0.4%
YbvA	Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	0.4	0.6%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	5.3	8.5%
YfhC2	Fox-Urban land complex, 6 to 12 percent slopes, eroded	4.7	7.7%
YflB2	Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	2.2	3.5%
YgcAH	Genesee loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	1.5	2.5%
YmdC3	Miami clay loam-Urban land complex, 6 to 12 percent slopes, severely eroded	1.2	1.9%
YmdD3	Miami clay loam-Urban land complex, 12 to 18 percent slopes, severely eroded	0.7	1.1%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	2.2	3.6%
YmsC2	Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	0.8	1.3%
YobA	Ockley loam-Urban land complex, 0 to 2 percent slopes	0.3	0.5%
YobB2	Ockley loam-Urban land complex, 2 to 6 percent slopes, eroded	3.2	5.2%
YreA	Rensselaer silty clay loam-Urban land complex, 0 to 2 percent slopes	0.9	1.5%
Subtotals for Soil Survey Area		**32.3**	**52.2%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Totals for Area of Interest		**61.9**	**100.0%**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ge	Gessie silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	4.4	7.0%
OcA	Ockley silt loam, 0 to 2 percent slopes	0.4	0.6%
ThrA	Treaty silty clay loam, 0 to 1 percent slopes	0.3	0.5%
UcfA	Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	0.1	0.2%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	1.8	2.9%
YflB2	Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	1.4	2.3%
YfoC2	Fox-Urban land complex, 6 to 15 percent slopes, eroded	4.8	7.7%
YgbAH	Gessie silt loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	1.9	3.0%
YmcD2	Miami-Urban land complex, 12 to 18 percent slopes, severely eroded	0.4	0.7%
YmlA	Martinsville silt loam-Urban land complex, 0 to 2 percent slopes	1.8	3.0%
YmlB2	Martinsville silt loam-Urban land complex, 2 to 6 percent slopes, eroded	2.4	3.8%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	2.3	3.7%
YmsC2	Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	1.5	2.5%
YoxA	Ockley silt loam-Urban land complex, 0 to 2 percent slopes	1.8	2.8%
YrcA	Rensselaer clay loam-Urban land complex, 0 to 2 percent slopes	2.9	4.7%
YwtA	Whitaker-Urban land complex, 0 to 2 percent slopes	1.5	2.4%
Subtotals for Soil Survey Area		**29.6**	**47.8%**
Totals for Area of Interest		**61.9**	**100.0%**



Investigated Area

Hydric Soil

0 625 1,250

Feet

Hydric Soils Map

County Line Road Expansion

Marion & Johnson County, Indiana

2 2

1 inch = 1,250 ft

HNTB

Graphics created by HNTB Corporation (2020)

Table—Hydric Rating by Map Unit (County Line Road)

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FxC2	Fox complex, 6 to 12 percent slopes, eroded	0	0.1	0.2%
Ge	Genesee loam	0	2.3	3.7%
ObaA	Ockley loam, 0 to 2 percent slopes	0	2.0	3.2%
Re	Rensselaer silty clay loam	100	4.0	6.4%
UcfA	Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	5	0.2	0.4%
Wh	Whitaker silt loam, 0 to 2 percent slopes	5	0.3	0.4%
YbvA	Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	65	0.4	0.6%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	5	5.3	8.5%
YfhC2	Fox-Urban land complex, 6 to 12 percent slopes, eroded	0	4.7	7.7%
YflB2	Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	3	2.2	3.5%
YgcAH	Genesee loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	0	1.5	2.5%
YmdC3	Miami clay loam-Urban land complex, 6 to 12 percent slopes, severely eroded	0	1.2	1.9%
YmdD3	Miami clay loam-Urban land complex, 12 to 18 percent slopes, severely eroded	0	0.7	1.1%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	5	2.2	3.6%
YmsC2	Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	5	0.8	1.3%
YobA	Ockley loam-Urban land complex, 0 to 2 percent slopes	0	0.3	0.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
YobB2	Ockley loam-Urban land complex, 2 to 6 percent slopes, eroded	0	3.2	5.2%
YreA	Rensselaer silty clay loam-Urban land complex, 0 to 2 percent slopes	70	0.9	1.5%
Subtotals for Soil Survey Area			**32.3**	**52.2%**
Totals for Area of Interest			**61.9**	**100.0%**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ge	Gessie silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	0	4.4	7.0%
OcA	Ockley silt loam, 0 to 2 percent slopes	0	0.4	0.6%
ThrA	Treaty silty clay loam, 0 to 1 percent slopes	95	0.3	0.5%
UcfA	Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	5	0.1	0.2%
YclA	Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	5	1.8	2.9%
YflB2	Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	3	1.4	2.3%
YfoC2	Fox-Urban land complex, 6 to 15 percent slopes, eroded	0	4.8	7.7%
YgbAH	Gessie silt loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	0	1.9	3.0%
YmcD2	Miami-Urban land complex, 12 to 18 percent slopes, severely eroded	0	0.4	0.7%
YmlA	Martinsville silt loam-Urban land complex, 0 to 2 percent slopes	0	1.8	3.0%
YmlB2	Martinsville silt loam-Urban land complex, 2 to 6 percent slopes, eroded	0	2.4	3.8%
YmsB2	Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	5	2.3	3.7%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
YmsC2	Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	5	1.5	2.5%
YoxA	Ockley silt loam-Urban land complex, 0 to 2 percent slopes	0	1.8	2.8%
YrcA	Rensselaer clay loam-Urban land complex, 0 to 2 percent slopes	70	2.9	4.7%
YwtA	Whitaker-Urban land complex, 0 to 2 percent slopes	5	1.5	2.4%
Subtotals for Soil Survey Area			**29.6**	**47.8%**
Totals for Area of Interest			**61.9**	**100.0%**

Rating Options—Hydric Rating by Map Unit (County Line Road)

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Report—Hydric Soil List - All Components (County Line Road)

Hydric Soil List - All Components–IN081-Johnson County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
FxC2: Fox complex, 6 to 12 percent slopes, eroded	Fox	50	Outwash plains,stream terraces	No	—
	Fox-Severely eroded	45	Outwash plains,stream terraces	No	—
Ge: Genesee loam	Genesee	100	Flood plains	No	—
ObaA: Ockley loam, 0 to 2 percent slopes	Ockley	75-90	Stream terraces	No	—
	Sleeth	5-15	Stream terraces,channels on stream terraces	No	—
	Fox	5-10	Stream terraces	No	—
Re: Rensselaer silty clay loam	Rensselaer	100	Depressions on outwash plains	Yes	2
UcfA: Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	Urban land	50-75	—	Unranked	—
	Crosby	25-40	Water-lain moraines,ground moraines,recessional moraines	No	—
	Treaty-Drained	0-10	Depressions,water-lain moraines,swales	Yes	2,3
Wh: Whitaker silt loam, 0 to 2 percent slopes	Whitaker	85-95	Outwash plains	No	—
	Rensselaer	0-10	Flats,drainageways,outwash plains,glacial drainage channels	Yes	2,3
	Sleeth	0-3	Stream terraces	No	—
	Martinsville-Till substratum	0-2	Outwash plains	No	—
YbvA: Brookston silty clay loam-Urban land complex, 0 to 2 percent slopes	Brookston	50-85	Till plains,depressions	Yes	2,3
	Urban land	10-50	—	Unranked	—
	Crosby	0-10	Till plains	No	—
YclA: Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	Crosby	50-70	Water-lain moraines,ground moraines,recessional moraines	No	—
	Urban land	10-50	—	Unranked	—

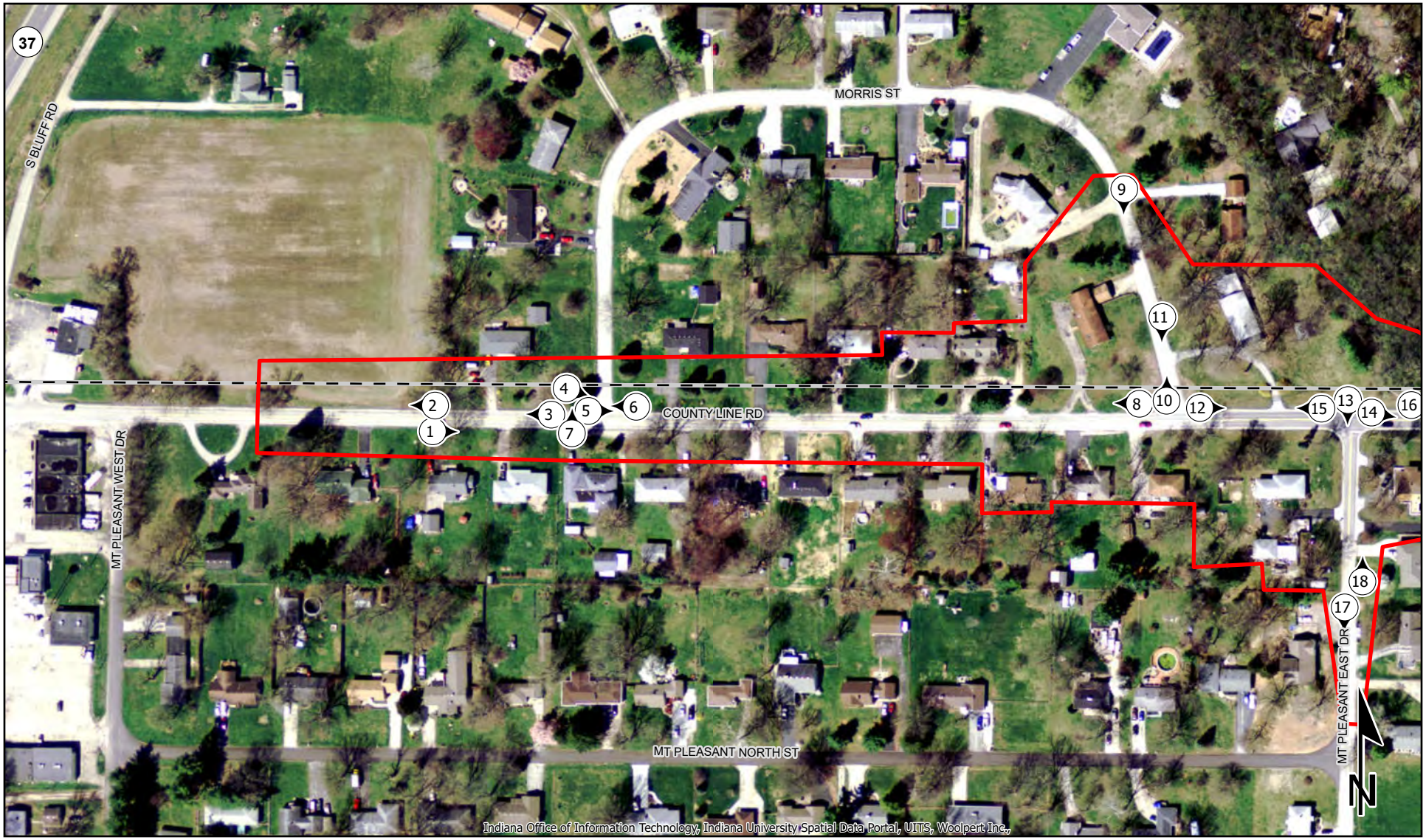
Hydric Soil List - All Components–IN081-Johnson County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
	Williamstown-Eroded	0-10	Recessionial moraines,water-lain moraines,ground moraines	No	—
	Treaty-Drained	0-10	Swales,depressions,water-lain moraines	Yes	2
YfhC2: Fox-Urban land complex, 6 to 12 percent slopes, eroded	Fox-Eroded	50-85	Outwash plains,stream terraces	No	—
	Urban land	10-45	—	Unranked	—
	Fox-Severely eroded	5-10	Outwash plains,stream terraces	No	—
YflB2: Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	Fox-Eroded	50-70	Till plains,stream terraces	No	—
	Urban land	10-50	—	Unranked	—
	Ockley	0-10	Stream terraces	No	—
	Westland-Drained	0-5	Swales on stream terraces,depressions on stream terraces	Yes	2
	Fox-Till substratum	0-5	Stream terraces on till plains	No	—
YgcAH: Genesee loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	Genesee-Frequent, brief	50-90	Flood plains	No	—
	Urban land	10-50	—	Unranked	—
YmdC3: Miami clay loam-Urban land complex, 6 to 12 percent slopes, severely eroded	Miami-Severely eroded	50-85	Till plains	No	—
	Urban land	10-50	—	Unranked	—
	Crosby	0-5	Till plains	No	—
YmdD3: Miami clay loam-Urban land complex, 12 to 18 percent slopes, severely eroded	Miami-Severely eroded	50-80	Till plains,moraines	No	—
	Urban land	10-50	—	Unranked	—
	Crosby	0-5	Moraines,till plains	No	—
	Hennepin-Eroded	0-5	Moraines,till plains	No	—
YmsB2: Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	Miami-Eroded	45-60	Till plains	No	—
	Urban land	0-40	—	Unranked	—
	Williamstown	5-10	Till plains	No	—
	Treaty	5-15	Till plains	Yes	2,3
	Crosby	5-15	Till plains	No	—

Hydric Soil List - All Components–IN081-Johnson County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
YmsC2: Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	Miami-Eroded	50-90	Till plains	No	—
	Urban land	5-35	—	Unranked	—
	Rainsville-Eroded	0-10	Till plains	No	—
	Treaty	0-5	Till plains	Yes	2,3
YobA: Ockley loam-Urban land complex, 0 to 2 percent slopes	Ockley	40-75	Stream terraces	No	—
	Urban land	5-40	—	Unranked	—
	Sleeth	5-10	Stream terraces,channels on stream terraces	No	—
	Fox	5-10	Stream terraces	No	—
YobB2: Ockley loam-Urban land complex, 2 to 6 percent slopes, eroded	Ockley-Eroded	50-90	Stream terraces,outwash plains	No	—
	Urban land	10-50	—	Unranked	—
YreA: Rensselaer silty clay loam-Urban land complex, 0 to 2 percent slopes	Rensselaer-Drained	50-90	Depressions on outwash plains	Yes	2
	Urban land	10-50	—	Unranked	—

Hydric Soil List - All Components–IN097-Marion County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
Ge: Gessie silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Gessie-Frequent, brief	85-95	Flood plains,natural levees,flood-plain steps	No	—
	Shoals-Frequent, brief	0-5	Flood plains	No	—
	Eel-Occasional, brief	0-4	Flood-plain steps	No	—
	Fox	0-3	Stream terraces	No	—
	Stonelick-Frequent, brief	0-3	Flood plains	No	—
OcA: Ockley silt loam, 0 to 2 percent slopes	Ockley	70-90	Stream terraces	No	—
	Wawaka	0-10	Till plains on outwash plains	No	—
	Fox	0-10	Outwash terraces	No	—
	Digby	0-5	Glacial drainage channels,outwash plains	No	—
	Haney	0-5	Glacial drainage channels,outwash plains	No	—
ThrA: Treaty silty clay loam, 0 to 1 percent slopes	Treaty-Frequently ponded, drained	70-95	Swales,water-lain moraines,ground moraines,depressions	Yes	2,3
	Pella-Frequently ponded, drained	0-10	Ground moraines,lake plains,till plains,outwash plains	Yes	2,3
	Rensselaer-Frequently ponded, drained	0-10	Glacial drainage channels,ground moraines,depressions	Yes	2,3
	Crosby	0-10	Water-lain moraines,ground moraines,recessional moraines	No	—
	Southwest-Frequently ponded, drained	0-5	Drainageways,ground moraines,depressions	Yes	2,3
UcfA: Urban land-Crosby silt loam complex, fine-loamy subsoil, 0 to 2 percent slopes	Urban land	50-75	—	Unranked	—
	Crosby	25-40	Water-lain moraines,ground moraines,recessional moraines	No	—
	Treaty-Drained	0-10	Depressions,water-lain moraines,swales	Yes	2,3

Hydric Soil List - All Components–IN097-Marion County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
YclA: Crosby silt loam, fine-loamy subsoil-Urban land complex, 0 to 2 percent slopes	Crosby	50-70	Water-lain moraines,ground moraines,recessional moraines	No	—
	Urban land	10-50	—	Unranked	—
	Williamstown-Eroded	0-10	Water-lain moraines,ground moraines,recessional moraines	No	—
	Treaty-Drained	0-10	Depressions,water-lain moraines,swales	Yes	2
YflB2: Fox loam-Urban land complex, 2 to 6 percent slopes, eroded	Fox-Eroded	50-70	Till plains,stream terraces	No	—
	Urban land	10-50	—	Unranked	—
	Ockley	0-10	Stream terraces	No	—
	Westland-Drained	0-5	Swales on stream terraces,depressions on stream terraces	Yes	2
	Fox-Till substratum	0-5	Stream terraces on till plains	No	—
YfoC2: Fox-Urban land complex, 6 to 15 percent slopes, eroded	Fox-Eroded	50-85	Outwash plains,till plains,terraces	No	—
	Urban land	10-45	—	Unranked	—
	Fox-Shallow, eroded	5-10	Till plains,terraces,outwash plains	No	—
YgbAH: Gessie silt loam-Urban land complex, 0 to 2 percent slopes, frequently flooded, brief duration	Gessie-Frequent, brief	50-70	Flood plains,natural levees,flood-plain steps	No	—
	Urban land	10-50	—	Unranked	—
	Eel-Occasional, brief	0-5	Flood-plain steps	No	—
	Shoals-Frequent, brief	0-5	Flood plains	No	—
	Stonelick-Frequent, brief	0-5	Flood plains	No	—
	Fox	0-5	Stream terraces	No	—
YmcD2: Miami-Urban land complex, 12 to 18 percent slopes, severely eroded	Miami-Severely eroded	40-60	Till plains,moraines	No	—
	Urban land	0-30	—	Unranked	—
	Miami-Shallow, severely eroded	30-40	Till plains,moraines	No	—
YmlA: Martinsville silt loam-Urban land complex, 0 to 2 percent slopes	Martinsville	50-90	Terraces,outwash plains	No	—
	Urban land	10-50	—	Unranked	—

Hydric Soil List - All Components–IN097-Marion County, Indiana					
Map symbol and map unit name	**Component/Local Phase**	**Comp. pct.**	**Landform**	**Hydric status**	**Hydric criteria met (code)**
YmlB2: Martinsville silt loam-Urban land complex, 2 to 6 percent slopes, eroded	Martinsville-Eroded	50-90	Outwash plains,terraces	No	—
	Urban land	10-50	—	Unranked	—
YmsB2: Miami silt loam-Urban land complex, 2 to 6 percent slopes, eroded	Miami-Eroded	45-60	Till plains	No	—
	Urban land	0-40	—	Unranked	—
	Williamstown	5-10	Till plains	No	—
	Treaty	5-15	Till plains	Yes	2,3
	Crosby	5-15	Till plains	No	—
YmsC2: Miami silt loam-Urban land complex, 6 to 12 percent slopes, eroded	Miami-Eroded	50-90	Till plains	No	—
	Urban land	5-35	—	Unranked	—
	Rainsville-Eroded	0-10	Till plains	No	—
	Treaty	0-5	Till plains	Yes	2,3
YoxA: Ockley silt loam-Urban land complex, 0 to 2 percent slopes	Ockley	50-70	Stream terraces	No	—
	Urban land	10-50	—	Unranked	—
	Wawaka	0-5	Till plains on outwash plains	No	—
	Digby	0-5	Glacial drainage channels,outwash plains	No	—
	Fox	0-5	Outwash terraces	No	—
	Haney	0-5	Outwash plains,glacial drainage channels	No	—
YrcA: Rensselaer clay loam-Urban land complex, 0 to 2 percent slopes	Rensselaer-Drained	50-90	Glacial drainage channels	Yes	2,3
	Urban land	10-50	—	Unranked	—
YwtA: Whitaker-Urban land complex, 0 to 2 percent slopes	Whitaker	50-75	Outwash plains	No	—
	Urban land	25-35	—	Unranked	—
	Rensselaer	0-10	Glacial drainage channels,drainageways,flats,outwash plains	Yes	2,3
	Sleeth	0-3	Stream terraces	No	—
	Martinsville-Till substratum	0-2	Outwash plains	No	—



Investigated Area
Delineated Wetlands
Delineated Stream
Photo Location
Data Points
Open Waters
NWI Streams

0 100 200 Feet

Photo Location Map

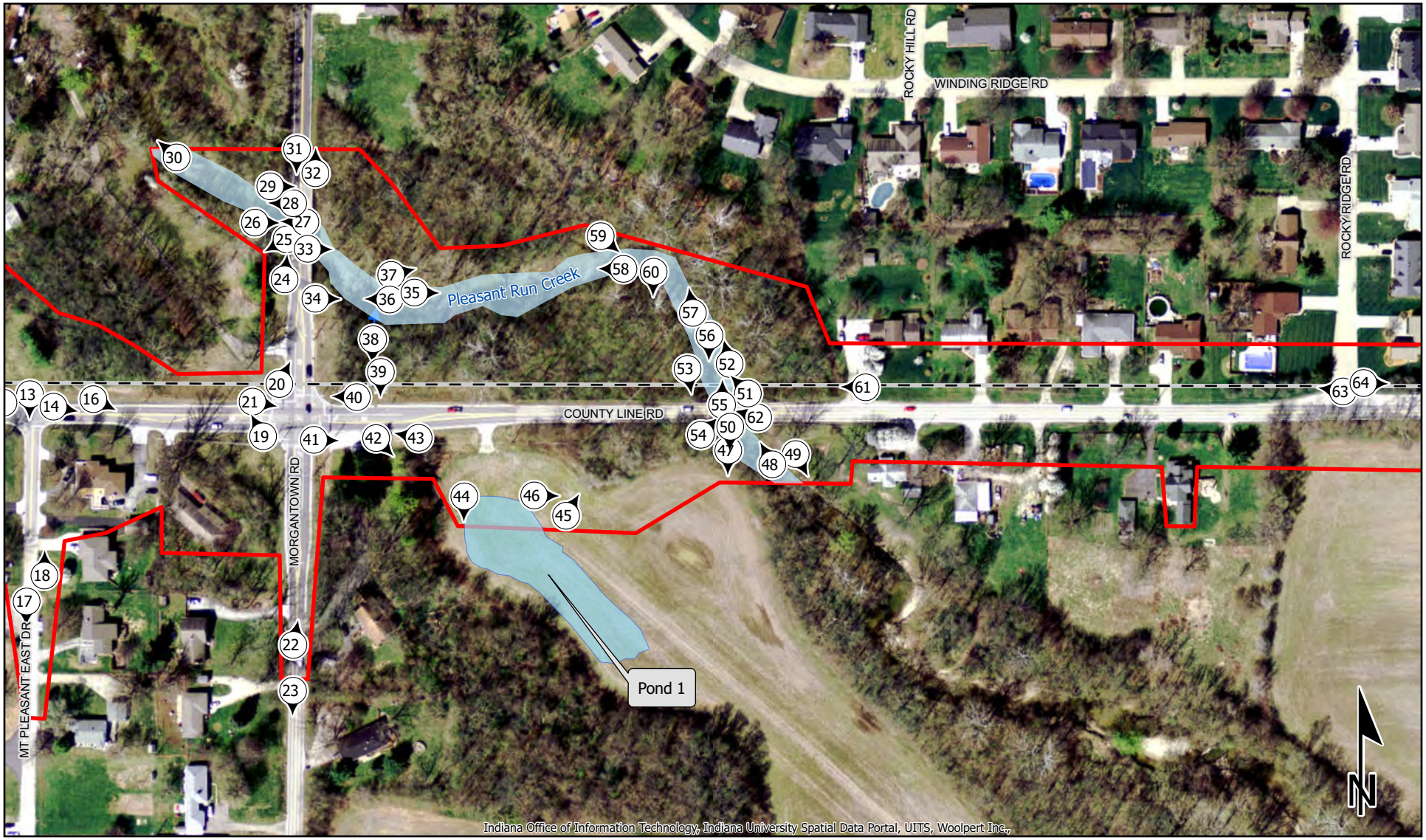
County Line Road Expansion
Marion & Johnson Counties, Indiana

2 2

1 inch = 200 ft

HNTB

Graphics created by HNTB Corporation (2020)



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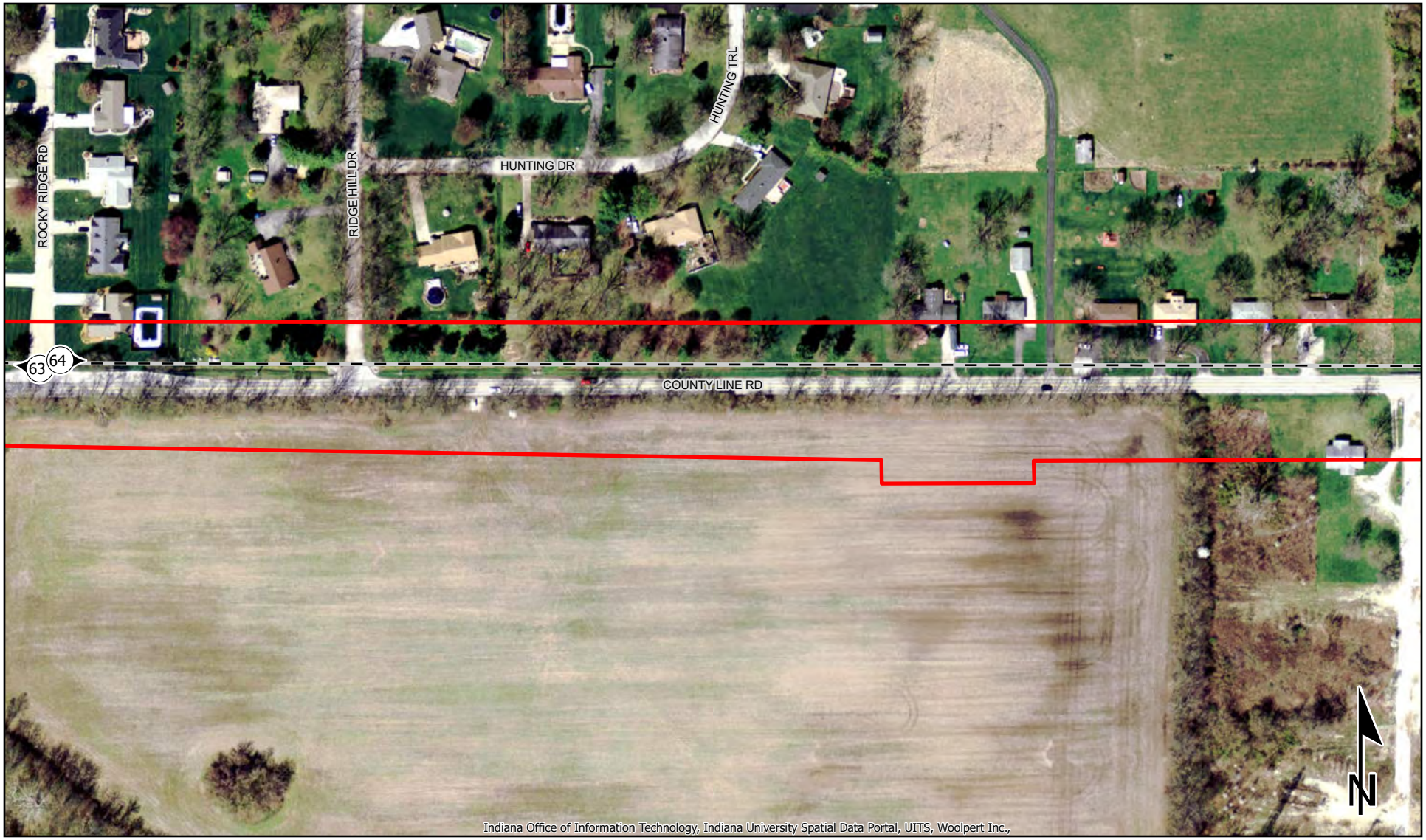

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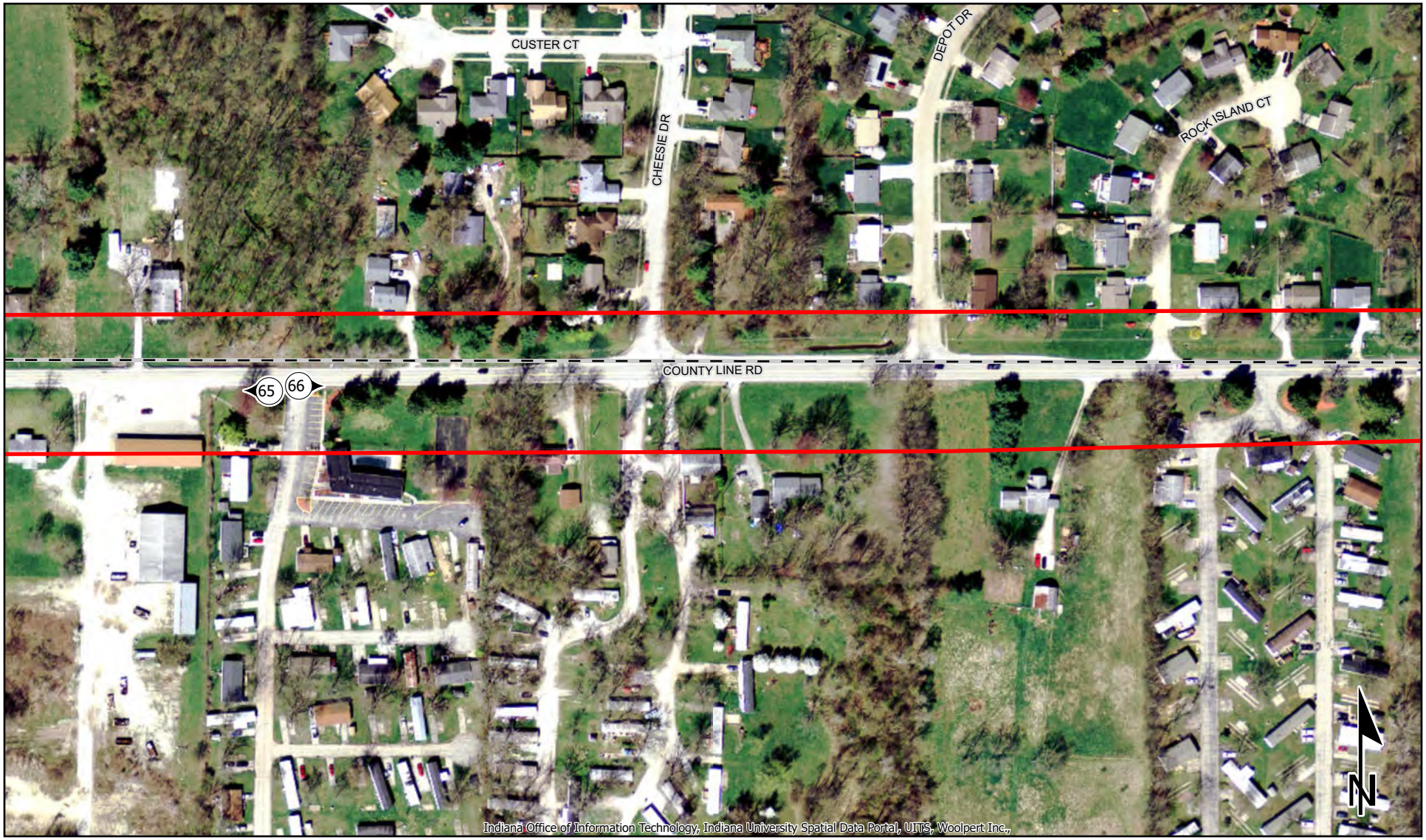

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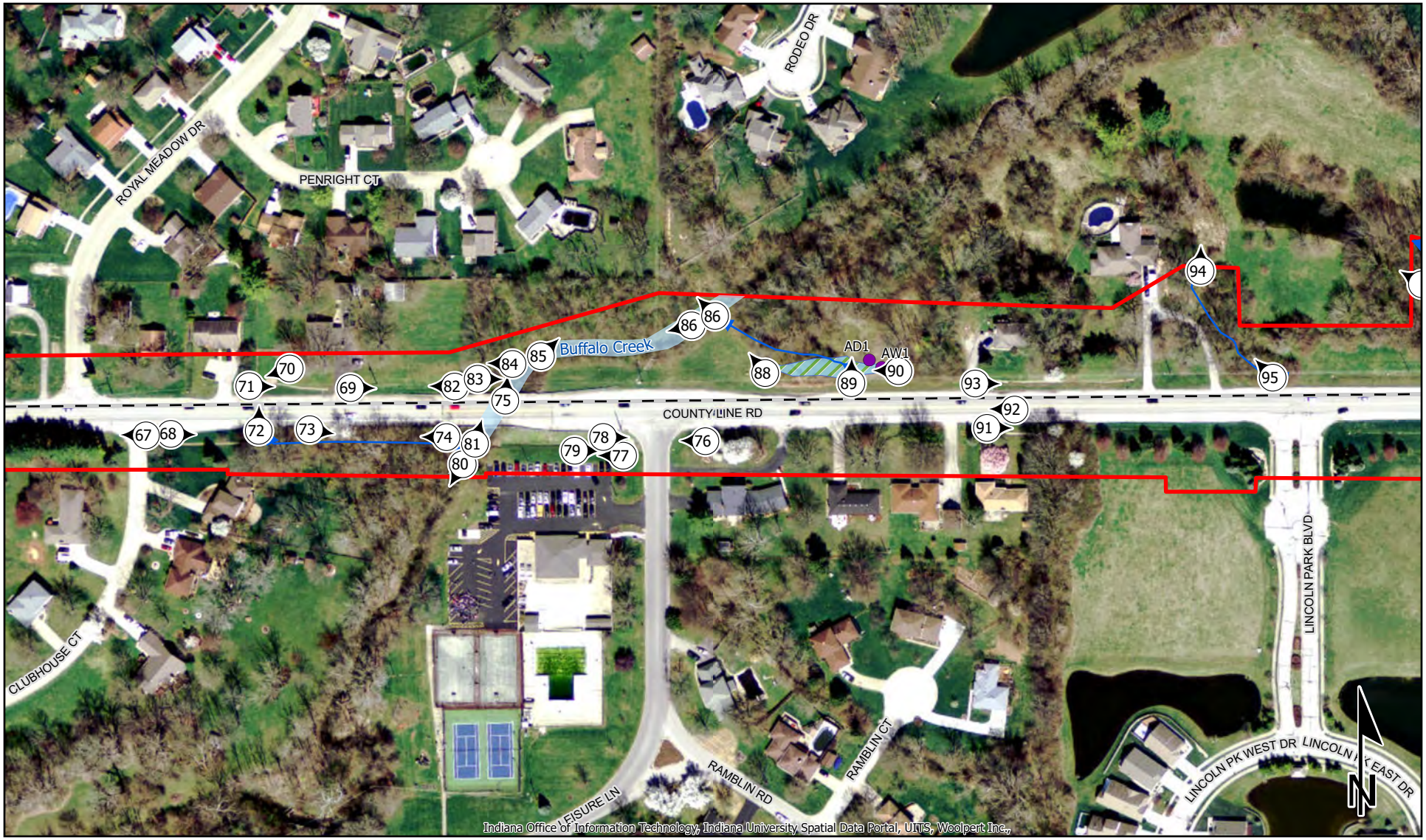

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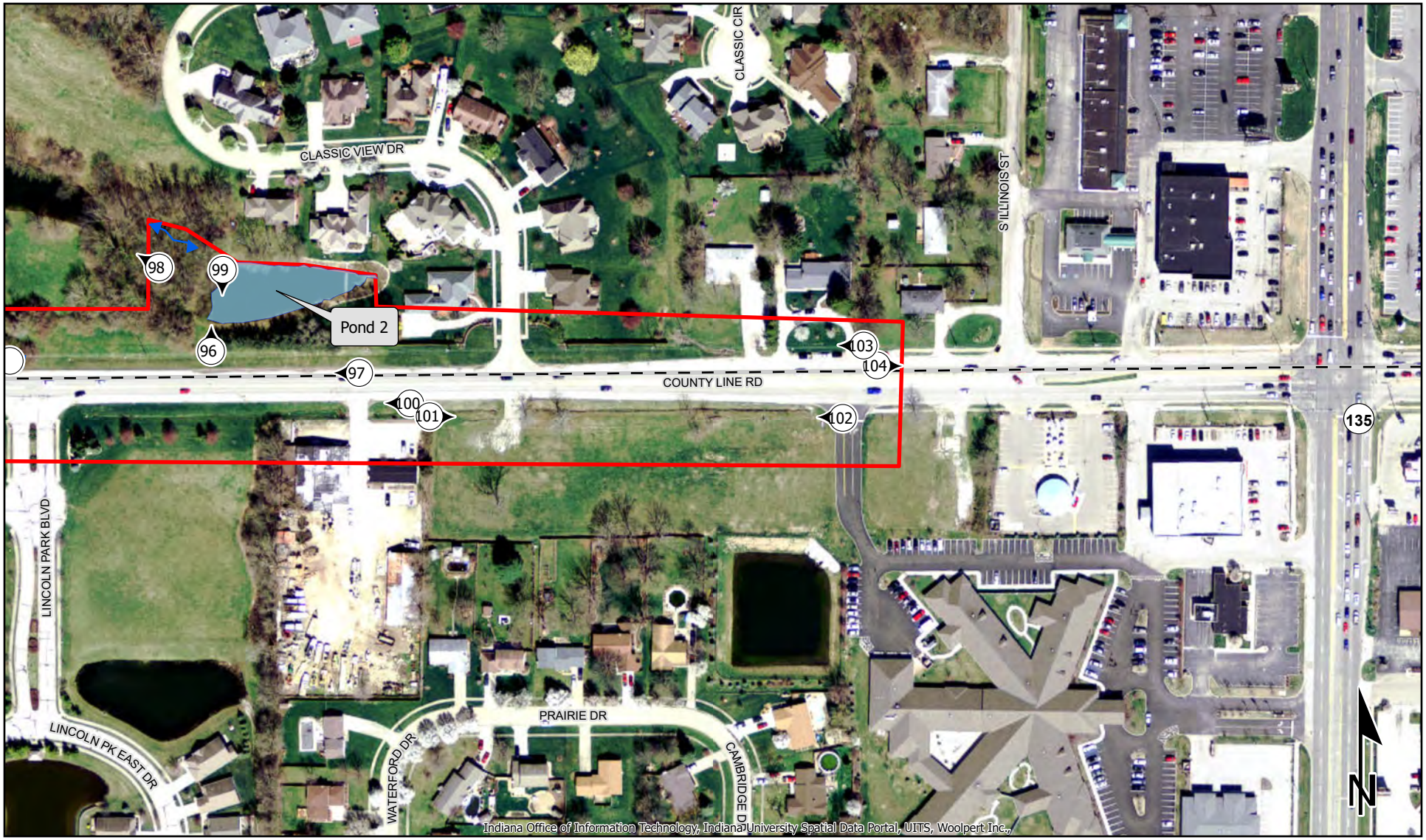

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Marion & Johnson Counties, Indiana

2 2

1 inch = 200 ft

HNTB

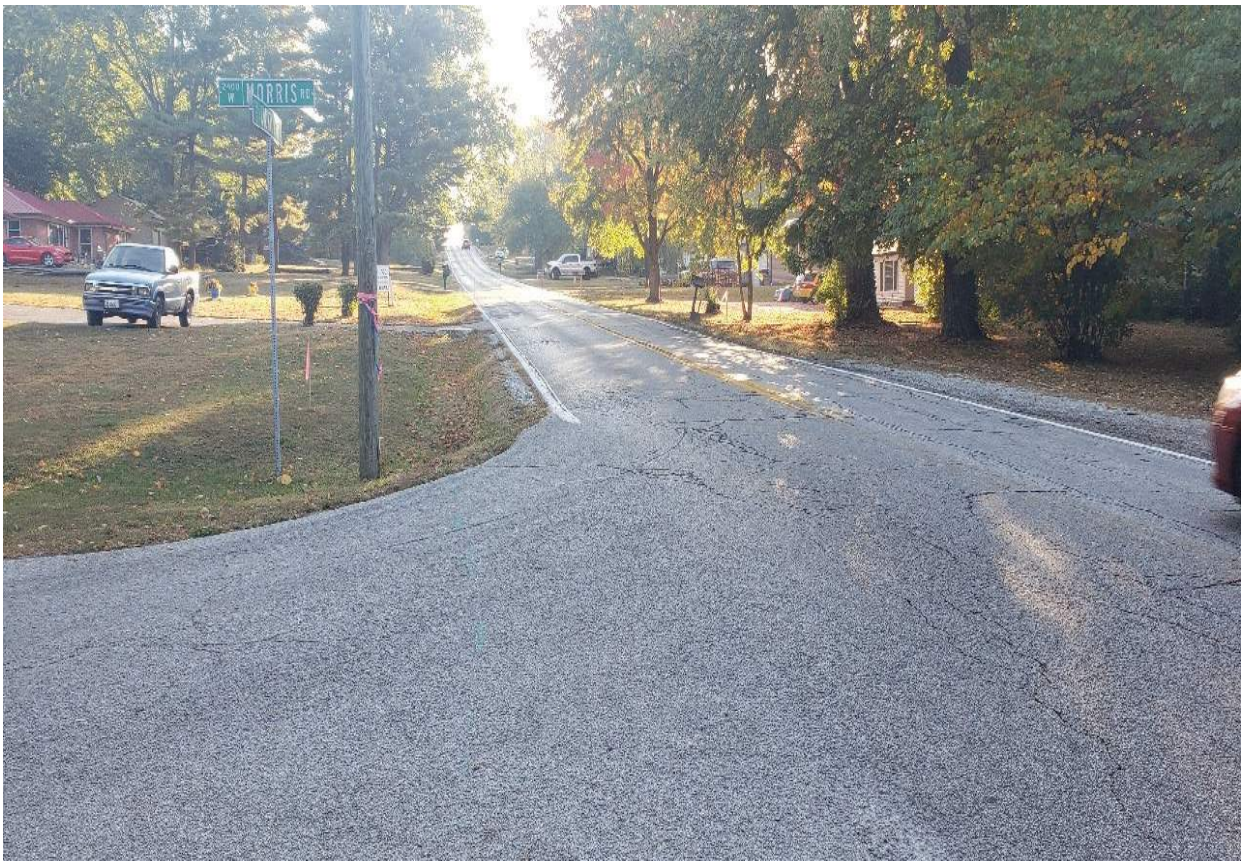
Graphics created by HNTB Corporation (2020)

1. Looking east along County Line Road from west project end point

2. Looking west along County Line Road from west end of investigated area

3. Looking west along County Line Road from Morris Road

4. Looking east at drive culvert under Morris Road



5. Looking east along County Line Road from Morris Road

6. Looking west at drive culvert under Morris Road

7. Looking north along Morris Road from County Line Road

8. Looking west from Morris Road along the north side of the road

9. Looking south along Morris Road towards County Line Road

10. Looking north along Morris Drive

11. Looking south along Morris Road towards County Line Road

12. Looking east along County Line Road from the north side of Morris Road

13. Looking south down Mount Pleasant East Street

14. Looking east towards the intersection of County Line Road and CR 500 West