



SUPPORTING DOCUMENTATION REPORT

including

DELINEATION OF WATERS OF THE UNITED STATES

and

PERMITTING REQUIREMENTS

for the

GATEWAY BOULEVARD EXTENSION PROJECT

in the

CITY OF MONROE, WARREN COUNTY, OHIO

AUGUST 2015

PREPARED FOR:

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SECTION ONE

INTRODUCTION AND PROJECT SUMMARY

1.1 INTRODUCTION

Park North Land, LLC owns an industrial park (Park North) in the City of Monroe, Warren County, Ohio. Industrial Developments International, LLC (IDI LLC) manages this industrial park. Gateway Boulevard is the primary access road into the industrial park. Gateway Boulevard now provides access to the property only from Ohio Highway 63 / Hamilton Lebanon Road.

Gateway Boulevard currently dead-ends in the park, about 650 ft east of the industrial park's western property line; resulting in only one roadway entrance and exit from the park property.

IDI LLC is being required by the City of Monroe to extend the currently-existing Gateway Boulevard onto an adjacent property to the west of the industrial park to provide a secondary access to the industrial park from Butler-Warren Road (Figures 1-13). IDI LLC will be responsible for construction of the roadway extension on the industrial park property and across a stream (Millers Creek) that runs along the industrial park's west property line. A separate party will be responsible for connecting the extended Gateway Boulevard to Butler-Warren Road.

The project area for the Gateway Boulevard Extension Project will cover approximately 2.8 acres of land between the existing western end of Gateway Boulevard and Millers Creek, which is located approximately 800 ft to the west of Gateway Boulevard. The development project will include the roadway extension and the construction of the road crossing over Millers Creek.

One wetland (Wetland 1) and one perennial stream (Millers Creek) are located in the project area. Wetland 1 is located in a FEMA peak flow storage basin that was constructed in 2008 during an earlier phase of construction in Park North. Approximately 1.11 acre of Wetland 1 will be impacted by the road extension.

A cast-in-place concrete 3-sided bottomless culvert will be placed over Millers Creek for the road crossing structure. The culvert structure will impact only a small amount of stream channel (970 square ft = 0.022 acre) along an approximate 121 linear ft length of the stream. The crossing over Millers Creek also will include temporary impacts associated with a construction equipment crossing and dewatering the active construction area.

This Supporting Documentation Report presents information about the Gateway Boulevard Extension Project Area, including a delineation of on-site aquatic resources, details of the project, resulting impacts to Waters of the United States and Waters of the State, and the details of the permitting requirements associated with the construction of the crossing over Millers Creek.

1.2 SUMMARY OF IMPACTS AND PERMITTING REQUIREMENTS

The FEMA storage basin, in which Wetland 1 is located, was constructed in 2008 in order to provide floodwater/stormwater storage, such that other areas of the Park North Industrial Park could be removed from the 100-year FEMA floodplain. Portions of this recently-constructed

basin naturally developed into a wetland due to local seed sources and hydrology from the peak flow waters from Millers Creek periodically entering the basin. This basin was constructed by excavating an upland area in the agricultural fields that were previously present on the property on which the industrial park is located. No streams or wetlands were previously located in the area where the basin was excavated.

Wetland 1, which is located in the FEMA storage basin, is believed to not be a jurisdictional water of the United States or a water of the State of Ohio, based on the revised definition of a Water of the United States under the Clean Water Act, as released on June 29, 2015, by the Army Corps of Engineers and the U. S. Environmental Protection Agency (Federal Register Vol. 80, No. 124)

33 CFR, Part 328.3, paragraph (b) of this Federal Register document states:

“The following are not ‘waters of the United States’ even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.”

(...)

(4)(ii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(...)

(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

IDI, LLC requests that the Corps of Engineers and the Ohio EPA use this new definition of waters of the United States for Wetland 1 when making a jurisdictional determination of the wetlands in the FEMA storage basin.

Construction of the Millers Creek crossing will also involve temporary impacts. These temporary impacts will include a construction crossing(s) and diversion of flow in the stream channel away from the active construction areas. These impacts are discussed in detail in Section 3.3 of this report

Please note: impacts to Wetland 1 are discussed in this report, although it is not a jurisdictional water of the United States under the revised definition of a Water of the United States.

IDI LLC believes that the Gateway Boulevard Extension Project will qualify for Nationwide Permit 14. Nationwide Permit 14 authorizes activities required for the construction, expansion, modification, or improvement of linear transportation projects, if the discharge does not cause the loss of greater than one-half acre of non-tidal waters of the United States.

IDI LLC also believes that this project qualifies for the Ohio EPA Nationwide 14 Requirements for a Section 401 Water Quality Certification.

As Wetland 1 is not a jurisdictional water of the United States, according to the revised definition, total permanent impacts associated with the Gateway Boulevard Extension Project will be approximately 970 square ft (0.022 acre) of one side of the Millers Creek stream channel.

The permitting requirements are further discussed in Section 3.4 of this report.

IDI LLC proposes to offset the 0.022 acre loss of the Millers Creek channel with the creation of 0.025 acre of new channel on the opposite side of the culvert structure. The creation of new channel area will involve cutting down the area under the culvert that is not within the ordinary high water mark (OHWM), to match the elevation of the stream bed within the OHWM.

IDI LLC will also remove the remnants of a former Millers Creek farm road crossing, which is located approximately 175 ft upstream from the location of the new crossing. This old crossing consists of several culvert pipes, and covers approximately 20 linear ft (0.014 acre) of the Millers Creek stream channel.

IDI LLC does not propose to mitigate for the loss of the 1.11 acre of Wetland 1, as Wetland 1 is not a jurisdictional water of the United States according to the new revised definition. However, IDI LLC is required to replace the loss in floodwater storage capacity due to filling a portion of the existing FEMA basin. IDI LLC will excavate a new one-acre FEMA floodwater basin in another upland portion of the industrial park property. As with the existing FEMA basin, IDI LLC will allow the interior of this new basin to naturally develop into a wetland; such that no net loss of nonjurisdictional wetlands result from this project.

SECTION TWO

SITE INFORMATION

This section of the Supporting Documentation Report provides a description of the Gateway Boulevard Extension Project Area.

2.1 LOCATION

2.1.1 U.S.G.S. Topographic Quadrangle

The Gateway Boulevard Extension Project Area is located on the Monroe, Ohio 7.5 minute U.S.G.S topographic quadrangle. See Figures 3 and 4 of this report for the section of this quadrangle map that includes this property.

2.1.2 Latitude and Longitude

The location of the current end of Gateway Boulevard is at the following coordinates:

- Latitude = 39.4300° N Longitude = 84.3338° W

2.1.3 Directions

The Gateway Boulevard Extension Project Area is situated on a larger tract of industrially-zoned land, called the Park North Industrial Park, located on the south side of Ohio Highway 63 / Hamilton Lebanon Road, the west side of Union Road, and the north side of Liberty Road in the City of Monroe, in western Warren County, Ohio (Figures 1-6). Directions to the Gateway Boulevard Extension Project Area, from either I-75 South or I-75 North, are as follows.

- Drive north or south on I-75 to Exit 29 for Ohio Highway 63, Monroe/Lebanon.
- Exit from I-75 onto Exit 29 and turn left (from I-75 South), or right (from I-75 North) onto eastbound Ohio Highway 63 / Hamilton Lebanon Road.
- Drive east on Hamilton Lebanon Road for approximately 0.5 miles to the Gateway Boulevard junction.
- Turn right onto Gateway Boulevard. Gateway Boulevard will bear right/west after about 2/3 mile and continue for about another 0.5 mile.
- The Gateway Boulevard Extension location is east and north of the current end of Gateway Boulevard

2.2 EXISTING CONDITIONS

2.2.1 Current On-Site Land Use

The Gateway Boulevard Extension Property is located in the western portion of the Park North Industrial Park (Figures 5-6). The land immediately to the south and east of the extension area is part of the industrial park. The land immediately to the north of the extension area consists of the FEMA floodwater basin that contains the on-site nonjurisdictional wetland. The land in the western portion of the extension area consists of Millers Creek, which flows along the western edge of the industrial park.

2.2.2 Former On-Site Land Use

The industrial park on which the Gateway Boulevard Extension Project Area is located historically has been used for row crop agriculture. Initial development on the property began in 2008, although the land immediately surrounding the extension area, including the east-to-west portion of Gateway Boulevard, remained as an inactive construction area until 2013. The current east to west running portion of Gateway Boulevard was constructed in 2013-2014. The FEMA floodwater basin, in which the nonjurisdictional wetland is located, was constructed in 2008.

2.2.3 Surrounding Land Use

The Gateway Boulevard Extension Property is located in the City of Monroe, in western Warren County, Ohio, where the majority of the land is a mixture of residential, rural residential, commercial, and agricultural use (Figures 5-6). The Gateway Boulevard Extension project area is located within the limits of the City of Monroe. The land surrounding the Gateway Boulevard Extension Property has the following uses.

- East –Bordered by the larger industrial park on which the extension area is located.
- West –Bordered by Millers Creek and active agricultural fields.
- North – Bordered by FEMA floodwater basin along Millers Creek
- South – Bordered by the industrial park on which the extension area is located.

2.2.4 FEMA Floodzone

The Gateway Boulevard Extension Property is located on FEMA Flood Insurance Rate Map No. 39017C0240E, effective date March 1, 2011. This FEMA map was revised in 2011 after several FEMA floodwater basins were constructed on the industrial park property, including the basin within the Gateway Boulevard Extension area, in order to remove portions of the industrial park containing buildings and roadways from the 100-year floodzone. This revised FEMA map is presented as Figure 8 of this report.

2.2.5 On-Site Soils

Two soil series are mapped as being present on the Gateway Boulevard Extension Property. This property is located on Sheet 14 of the Warren County Soil Survey, published by the U.S. Department of Agriculture. See Figure 7 for the soil map of this property and the surrounding area. The property is underlain with mostly Patton soils, with a small amount of Xenia soils in the eastern portion of the property.

Most of the Gateway Boulevard Extension Property, including the interior of the FEMA basin, previously has been disturbed by the construction of the FEMA floodwater basin and the construction activities in the surrounding areas, such that the majority of the on-site soils no longer exhibit the natural characteristics typical of the below-described soils.

Patton Silty Clay Loam (Pb): This soil formed in glacial lake sediments in low-lying areas on the glacial plains. This soil does not normally flood, but does have a shallow seasonal water table that is from 0 to 2 ft below ground surface, between March and June. Bedrock typically is

at least 5 ft below ground surface.

Xenia Silt Loam (XeB, XeB2): This soil formed in a thin layer of glacial loess that overlies a thin layer of glacial till, resting on bedrock. This soil does not flood and has a shallow water table that is between 2 and 6 ft below ground surface, usually in March and April. Bedrock typically is at least 5 ft below ground surface.

2.2.6 On-Site Geology

The Gateway Boulevard Extension Project Area is directly underlain with Ordovician limestone and shale bedrock. This bedrock is overlain with varying thicknesses of glacial-based sediments, consisting mostly of glacial tills overlain with glacial loess.

2.2.7 On-Site Vegetation Systems

The following vegetation systems are dominant on the Gateway Boulevard Extension Property.

- **Millers Creek Riparian Zone:** The western edge of the Gateway Boulevard Extension area consists of Millers Creek and its wooded riparian zone. Dominant species in this area include *Populus deltoides*, *Platanus occidentalis*, *Acer negundo*, *Lonicera maackii*, and *Alliaria petiolata*.
- **Wetland Area:** A wetland is located in the FEMA floodwater basin that is located within the Gateway Boulevard Expansion area. This wetland comprises most of the basin (4.31 acres) and consists of a mixture of both hydrophytic and upland species. Dominant species include *Bidens spp.*, *Carex spp.*, *Juncus spp.*, *Polygonum spp.*, *Dipsacus spp.*, *Solidago spp.*, and *Ambrosia spp.*
- **Upland Area:** The small remainder of the Gateway Boulevard Extension Property that does not include the wetland or the Millers Creek riparian zone consists of typical old-field type herbaceous vegetation, including goldenrod, teasel, thistle, ragweed, Queen Anne's lace, fescue, and cocklebur.

2.2.8 Threatened and Endangered Species

Otte Enterprises evaluated the Gateway Boulevard Extension Project Area for the potential presence of habitat suitable for the three federally endangered land-based species that are typically assessed for a Corps of Engineers permit in Warren County, Ohio: the Indiana bat (*Myotis sodalis*), the northern long-eared bat (*Myotis septentrionalis*), and running buffalo clover (*Trifolium stoloniferum*).

Indiana Bat and Northern Long-Eared Bat: One forested area is present on the Gateway Boulevard Extension Property, along the western property line. This area consists of mostly healthy trees, including eastern cottonwood, sycamore, green ash, and boxelder. Several of the ash trees are dead or dying with some amount of peeling bark. No shagbark hickory trees or mature white oak trees were observed on the Gateway Boulevard Extension Property. This area would be considered potential roosting habitat for the Indiana bat and the northern long-eared bat. Approximately 0.86 acre of these trees will be cut as part of the construction of the Gateway Boulevard Extension, for the road crossing over Millers Creek.

IDI LLC has submitted a letter to the Ohio Field Office of the U.S. Fish and Wildlife Service

(USFWS), asking that this field office conduct an evaluation of the Gateway Boulevard Extension Property, relative to the potential presence of Indiana bat and northern long-eared bat habitat on the property. Any correspondence from the USFWS regarding this matter will be forwarded to the Corps of Engineers.

Running Buffalo Clover: The following statements summarize our understanding of where running buffalo clover would be expected to be found in Warren County, Ohio.

Running buffalo clover habitat includes localized disturbed sites along stream banks, bars, and terraces, old footpaths, old dirt roads, and grazed bottomlands; with mesic soils and filtered light. Running buffalo clover is found in older woodlots where grazing keeps the herbaceous growth down, but not where overgrazing removes everything and the ground is trampled by livestock. Running buffalo clover is found where an open forest floor has minimal ground cover. Running buffalo clover is found in wooded areas with a good leaf litter cover, where tree throws, mole hills, and other localized disturbances expose the topsoil. Running buffalo clover is found in wooded areas with filtered light, where such items as fallen trees or old logging roads have opened the canopy.

The Gateway Boulevard Extension Property consists mostly of an open herbaceous wetland in a floodwater basin, which is not potential habitat for running buffalo clover. Most of the wooded riparian zone for Millers Creek has a fairly dense growth of bush honeysuckle and garlic mustard. This area, including stream banks and any other open or disturbed area inside the project area was walked by Otte Enterprises on multiple occasions in 2013 and 2014 and no running buffalo clover plants were found in the area.

2.2.9 Cultural Resources

The majority of the Gateway Boulevard Extension project area has been disturbed during the prior construction of the FEMA storage basin. The only location in the project area that has not been previously disturbed by construction activities is a small area immediately adjacent to the far side (left-descending bank) of Miller Creek, where the road extension will end after crossing Millers Creek.

IDI LLC requests that the development of the Gateway Boulevard Extension Property not require a cultural resources literature review or an archaeological field survey, since the majority of the project area has been previously disturbed by the construction of the existing FEMA floodwater basin.

2.3 ON-SITE AQUATIC RESOURCES

This section presents information about the aquatic resources present on the Gateway Boulevard Extension Project Area, and the property's overall hydrologic setting.

2.3.1 Topography and Drainage Patterns

The land within the Gateway Boulevard Extension Project Area drains either directly into Millers Creek via the stream's floodplain, or first into the FEMA floodwater basin, which then overflows to Millers Creek via an outlet structure in the northeast corner of the basin. The FEMA basin also receives floodwater from Millers Creek via a structured/constructed break in the berm surrounding the basin at the basin's southwest corner.

Millers Creek flows northward to Shaker Creek. Shaker Creek flows westward into Dicks Creek, which flows westward into the Great Miami River.

High Elevation on the Gateway Boulevard Extension Property: On-site high elevation is about 685 ft above MSL, along the tree line in the southwestern corner of the property.

Low Elevation on the Gateway Boulevard Extension Property: On-site low elevation is about 675 ft above MSL, the elevation of the Millers Creek stream bed.

Maximum Elevation Change on the Gateway Boulevard Extension Property: The maximum elevation change on the property is about 10 ft.

2.3.2 Watershed Information

The Gateway Boulevard Extension Project Area is located in the following watershed:

- Ohio River Watershed
- Lower Great Miami River Watershed: HUC No. 05080002
- Dicks Creek
- Shaker Creek
- Millers Creek

Millers Creek is listed in the Ohio Administrative Code, Rule 3745-1-21, as having the following Use Designations:

- WWH: Warm Water Habitat
- AWS: Agricultural Water Supply
- IWS: Industrial Water Supply
- PCR: Primary Contact Recreation

2.3.3 Delineation of Aquatic Resources

A delineation was conducted of the hydrological features within the Gateway Boulevard Extension Project Area. This delineation was conducted in July of 2013. This delineation included an evaluation of any streams that either originate on the property or that flow into and/or through the property. The delineation also included any ponds, lakes, or wetlands found on the property.

Millers Creek: Millers Creek flows from south to north along the western edge of the Gateway Boulevard Extension Property. Millers Creek is a named perennial stream on the U.S.G.S. topographic map (Monroe, Ohio, 7.5 minute quadrangle). Millers Creek flows northward along the western edge of the industrial park, and is in the Lower Great Miami watershed.

Millers Creek has an established floodplain that is within the 100-year floodzone, and a wooded riparian corridor that is about 150 ft wide. Millers Creek has a stream bed of mostly cobbles, gravel, and sand, and a channel width that ranges from 15 to 20 ft. No in-situ bedrock is present in the stream channel. The stream is directly underlain with glacial-based sediments.

Wetland 1: Wetland 1 is located in a FEMA floodwater basin that was constructed on the property in 2008 (Figure 10). This basin was designed to capture and hold flood overflow from the adjacent Millers Creek during high water events. Water enters this basin at the southwest

corner and exits at the northeast corner, via riprap-lined overflow structures than have been installed into the berm that separates Wetland 1 from the Millers Creek floodplain.

Wetland 1 is a Category 2 wetland (ORAM Score of 38) and is about 4.31 acres in size, with about 1.11 acres located in the Gateway Boulevard Extension project area. Wetland 1 consists mostly of herbaceous species and some small saplings. Dominant species in Wetland 1 include *Carex spp.*, *Juncus spp.*, *Bidens spp.*, *Polygonum spp.*, *Solidago spp.*, and *Ambrosia spp.*

A small area of ponded water is present in the northeast corner of Wetland 1. This portion of the basin was excavated to a lower elevation to provide an area for water to collect and then flow back into Millers Creek via the overflow structure adjacent to the pond. In high water events, this pond extends into the more shallow areas of Wetland 1.

A delineation of Wetland 1 was conducted by Otte Enterprises of Erlanger, Kentucky and Unaka Environmental, of Asheville, North Carolina. The area delineated as a wetland within the area of the FEMA basin is marked on Figure 10. A copy of the delineation report is not included with this submittal to the Corps of Engineers and the Ohio EPA, assuming that this wetland is not a jurisdictional Water of the United States, based on the updated June 29, 2015, definition. A copy of the delineation report will be provided, if requested by these agencies.

The Army Corps of Engineers and the U. S. Environmental Protection Agency released a revised definition of waters of the United States under the Clean Water Act on June 29, 2015 (Federal Register Vol. 80, No. 124). This definition lists the hydrological features that are to be considered Waters of the United States, as well as features that are not to be considered waters of the United States.

We believe that the FEMA basin located within the area of the Gateway Boulevard Extension project fits into one or both of two hydrological features that are listed as not being Waters of the United States, as follows.

33 CFR, Part 328.3, paragraph (b), as listed in this Federal Register document, states the following:

“The following are not ‘waters of the United States’ even where they otherwise meet the terms of paragraphs (a)(4) through (8) of this section.”

(...)

(4)(ii) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

(...)

(6) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

The terms of Paragraphs (a)(4) through (8) include impoundments, tributaries, waters adjacent to a water of the United States, waters determined to have a significant nexus, and waters located within the 100-year floodplain). The FEMA basin is located adjacent to a water of the United States, may have a significant nexus, and is within a 100-year floodplain. Based on the above-listed statement, however, these conditions that typically would make a hydrological feature a water of the United States or of the State of Ohio, are not to be taken into consideration due to the circumstances of the formation/creation of the FEMA basin.

The FEMA basin, in which Wetland 1 is located, was constructed in 2008 in order to provide floodwater/stormwater storage, such that other areas of the Park North Industrial Park could be removed from the 100-year floodplain. Portions of this basin naturally developed into a wetland due to local seed sources and hydrology from the floodwaters from Millers Creek periodically entering the basin.

This basin was constructed by excavating an upland area of the agricultural fields that were previously present on the property on which the industrial park is located. These dry fields were used to grow corn and soybeans and did not contain any wetlands, ponds, streams, or other waters, and were at least 10 ft in elevation higher than Millers Creek. Multiple historic aerial photographs taken before the FEMA basin was constructed verify the prior land use of the FEMA basin (Figures 7, 12, 13, and 14) and document that no part of the FEMA basin was a prior wetland nor had a stream flowing into, through, or out of the FEMA basin area..

Although Wetland 1 is located adjacent to a water of the United States (Millers Creek), is within the 100-year floodplain, and has wetland vegetation, hydrology, and soils, the FEMA basin which contains the wetland was constructed by excavating an upland area to function as a stormwater/floodwater storage feature. We believe, under these listed criteria in the Federal Register, that Wetland 1 is not a jurisdictional Water of the United States or a Water of the State of Ohio.

SECTION THREE

PROJECT DETAILS

This section presents the details of the development plan for the Gateway Boulevard Extension Project.

3.1 RESPONSIBLE PARTIES

3.1.1 Owner / Developer

The Gateway Boulevard Extension Project Area is owned by Park North Land, LLC, and managed by Industrial Developments International LLC (IDI LLC), of Crestview Hills, Kentucky. The mailing address for IDI LLC is

740 Centre View Boulevard
Crestview Hills, KY 41017

3.1.2 Civil Engineer

The civil engineering design work for the Gateway Boulevard Extension Project Area is being provided by the following organization.

Kleingers Group
6305 Centre Park Drive
West Chester, OH 45069

3.1.3 Environmental Consultant

The following environmental consulting firm is assisting with the delineation and permitting work for the on-site Waters of the United States.

Otte Enterprises
505 Stevenson Road
Erlanger, Kentucky 41018-2437
859-342-8777

3.2 PROJECT DESCRIPTION

Park North Land, LLC owns an industrial park in the City of Monroe, Warren County, Ohio. IDI LLC is required to extend Gateway Boulevard to the adjacent off-site property to the west to provide access to the industrial park from Butler-Warren Road (Figures 1-13). Gateway Boulevard currently provides access to the property only from Ohio Highway 63 / Hamilton Lebanon Road. Gateway Boulevard currently ends about 650 ft east of the industrial park's western property line. A separate party will be responsible for connecting the extended Gateway Boulevard to Butler-Warren Road.

The development project will include the roadway extension and the construction of a replacement for the portion of the FEMA basin that will be partially filled for this project.

3.3 PROPOSED PERMANENT IMPACTS

A 32-ft wide cast-in-place concrete 3-sided bottomless culvert structure will be used to construct the Gateway Boulevard crossing over Millers Creek. The flowpath of the Millers Creek channel is such that the culvert, even though bottomless, will impact a small portion of the channel. Approximately 970 square ft (0.022 acre) of the edge of the stream channel along a 121 ft length of the stream will be impacted along the right descending bank of the stream.

A similar 3-sided structure recently was used to reconstruct a road crossing over Millers Creek about 3,000 ft upstream of the Gateway Boulevard Extension Project. This crossing is not associated with the Park North industrial park property. The construction of this road crossing used the same dewatering methods (Section 3.4.2) and the same culvert design as is being proposed for the Gateway Boulevard crossing. See Figure 14 for photographs of this existing crossing as an example of how the crossing will look when finished.

Otte Enterprises staked and flagged the location of the Ordinary High Water Mark (OHWM) along both sides of Millers Creek, inside the project area and both immediately upstream and downstream of the project area. These staked and flagged locations were surveyed by a licensed surveyor from the Kleingers Group. The surveyed locations of the OHWMs along both sides of the stream were used to position the location of the 3-sided bottomless culvert to minimize the impact to the stream and to determine the area of impact and the area outside of the OHWM that will be excavated to create new stream channel.

The average depth of fill to be placed within the area of the Millers Creek stream channel for the new road crossing is 15 ft.

- Average depth of fill to be placed within the area of the ordinary high water mark in Millers Creek will be 3 ft. With an area of 0.022 acre (970 square ft), the estimated fill volume to be placed within the area of the ordinary high water mark is 108 cubic yards.
- Average depth of fill to be placed above the area of the ordinary high water mark in Millers Creek will be 12 ft. With an area of 0.022 acre (970 square ft), estimated fill volume to be placed above the area of the ordinary high water mark is 431 cubic yards.

A total combined volume of 539 cubic yards of fill material will be placed within and above the area of the ordinary high water mark of Millers Creek.

3.4 PROPOSED TEMPORARY IMPACTS

The construction of the Gateway Boulevard Extension across Millers Creek will include several short-term temporary impacts to Millers Creek, in addition to the permanent impacts incurred by the bottomless culvert structure.

3.4.1 Temporary Construction Crossing: One or more temporary equipment crossings across Millers Creek will be constructed, if found to be necessary, to access the work areas for the construction of the bottomless cast-in-place culvert. A safe stream crossing should be at least 15 ft wide to be able to accommodate the equipment crossing the stream. The temporary crossing(s) will be constructed in one of two ways, based on site conditions at the time a crossing is found to be needed.

- **Filled Crossing:** A temporary filled crossing would include the placement of corrugated

pipes in the stream channel and suitable fill material placed over the pipes to allow construction vehicles to cross the stream during construction.

- **Excavated Crossing:** A temporary excavated crossing would be located in the stream to allow the equipment to cross the stream. The equipment would cross the stream by driving across the stream bottom. The crossing would be “constructed” by cutting the stream banks down to stream bottom level and then the equipment will drive across the stream bottom. Suitable fill material would be placed in the stream channel for this type of stream crossing, if found to be necessary.

The crossing location(s) will be restored to predisturbance conditions after the construction activity is completed. The temporary crossing location(s) will be located either immediately upstream and/or downstream from the actual road crossing location.

3.4.2 Dewatering Operations: To the maximum extent possible, the work in Millers Creek will be conducted during low flow. However, since Millers Creek is a perennial stream, some amount of water will flow through the work area in the stream channel. The construction contractor will not work in the stream during high flow conditions.

- The footers and wing walls for the 3-sided bottomless culvert will be constructed one side at a time, such that at any given time, construction activities will only be located on one side of Millers Creek.
- During construction, stream flow will be diverted to the opposite side of Millers Creek from where the construction activities are taking place; i.e., as the footer and wing walls on the right descending bank are being constructed, water will be diverted toward the left descending bank, and vice versa.
- Water will be diverted by building a berm in the stream channel using rock/gravel/sand from the Millers Creek stream bed and/or suitable materials such as sand bags, riprap with a suitable nonpermeable covering, etc.
- Once one side of the culvert structure is completed, the stream flow will be diverted to the completed side of the stream by moving the berm to the opposite side of the stream; afterwhich the opposite side of the crossing will be constructed.

All stream bed materials and sediments will be returned to their pre-construction condition once all in-stream work is completed. All nonstream bed materials will be removed once the in-stream work is completed. The excavation of the 0.025-acre new stream channel area will be completed during this phase of the project.

3.5 PROCEDURAL INFORMATION

3.5.1 Stormwater Pollution Prevention Plan

A Stormwater Pollution Prevention Plan will be prepared when IDI LLC applies for the required construction permits to begin the Gateway Boulevard Extension Project. The SWPPP will follow all applicable local, state, and federal guidelines.

3.5.2 Equipment

Equipment used for preparing the property for development and construction will consist of typical heavy earth-moving equipment including excavators, bulldozers, track hoes, etc.

3.5.3 Construction Sequence and Techniques

The Gateway Boulevard Extension will be constructed according to the following sequence.

- The new FEMA floodwater basin will be excavated in the southern portion of the project area
- Material excavated from the new FEMA basin will be used to fill the 1.11 acre portion of Wetland 1 in preparation for Gateway Boulevard extension
- The remainder of development activities, including construction of the road bed and bridge crossing over Millers Creek, will be relatively concurrent.

3.5.4 Protective Barriers

Construction and silt fencing will be placed between the work area and Millers Creek throughout construction and until the site is stabilized.

Temporary sediment control features will be installed throughout the project area to keep sediment from entering Millers Creek. These sediment controls will include silt fencing, hay bales, berms, etc., and will be described in detail in the Stormwater Pollution Prevention Plan.

3.5.5 Soil Removal

The site has been balanced such that all soil that will be moved will be kept on-site. The soil excavated to construct the new FEMA floodwater basin will be used to fill the portion of Wetland 1 in preparation for the Gateway Boulevard Extension. A description of the soils in the Gateway Boulevard Extension Project Area can be found in Section 2.2.5 of this report.

3.5.6 Hydrology Control

The construction of the Gateway Boulevard extension, including the Millers Creek crossing, will be done in the warmer summer months, when Millers Creek has minimal flow.

Some equipment will be placed in the Millers Creek bed during construction of the Millers Creek crossing. The section of Millers Creek in which the work will take place will be dewatered according to the methods described in Section 3.3 of this report. This work will take approximately one month to six weeks, and will be done in late summer when water levels are low.

3.6 TIMING OF PROJECT

The specific timing of this project is dependent on when IDI LLC is issued their Corps of Engineers permit for the work associated with the Gateway Boulevard Extension Project. IDI LLC plans to begin construction of the Gateway Boulevard Extension as early in 2016 as possible.

SECTION FOUR

PERMITTING INFORMATION

4.1 CORPS OF ENGINEERS PERMIT

IDI LLC understands that impacts to Millers Creek will require a Section 404 Permit from the Corps of Engineers. IDI LLC believes that the Gateway Boulevard Extension Project qualifies for Nationwide Permit 14 since this project addresses only the road construction that is being required by the City of Monroe and is not directly related to any of the industrial development associated with the Park North industrial property.

Nationwide Permit 14 authorizes activities required for the construction, expansion, modification, or improvement of linear transportation projects, if discharge does not cause the loss of greater than one-half acre of non-tidal waters of the United States. Nationwide Permit 14 also authorizes temporary structures, fills, and work necessary to construct the linear transportation project.

It is IDI LLC's understanding that a preconstruction notification is not required for Nationwide Permit 14 if the loss of waters does not exceed one-tenth acre.

However, due to the scale of the Gateway Boulevard Extension Project and the project being located on a perennial stream (Millers Creek), IDI LLC decided to notify the Corps of Engineers and the Ohio EPA about this project. IDI LLC also is submitting this documentation in order for the Corps of Engineers to verify that the wetland located in the FEMA storage basin is not a jurisdictional Water of the United States.

This notification accompanies this Supporting Documentation Report.

4.2 OHIO EPA WATER QUALITY CERTIFICATION

The Ohio Environmental Protection Agency issued its authorization for discharges of dredged or fill materials to Waters of the State, pursuant to Ohio State Water Quality Certification associated with Corps of Engineers Nationwide Permits, on March 30, 2012. The Ohio EPA states the following, as applicable to the Gateway Boulevard Extension Project:

2. *Individual state water quality certification is required for use of this nationwide permit when temporary or permanent impacts are proposed on or in the following waters:*
 - (...)
 - b. category 1 and category 2 wetlands when impacts exceed one-half acre;*
 - c. streams with the aquatic life use designation of exceptional warm water habitat, cold water habitat, seasonal salmonid, or any equivalent designation or performance;*
 - d. streams with an antidegradation category of superior high quality water, outstanding national resource water, or outstanding state water;*
 - (...)
 - h. all other streams and lake shores when impacts exceed 300 linear ft*

IDI LLC believes that the Gateway Boulevard Extension Project also meets these Nationwide Permit 14 requirements for a Section 401 Water Quality Certification.

Wetland 1 is not a jurisdictional water of the United States under the new revised definition, because the basin in which the wetland is located is a stormwater facility / pond built on a previous upland area. Millers Creek does not have an aquatic life use designation of exceptional warm water habitat, cold water habitat, seasonal salmonid, or any other equivalent designation, and is not a superior high quality water, outstanding national resource water, or outstanding state water. The Gateway Boulevard Extension Project will impact approximately 0.022 acre (970 square ft) along 121 linear ft of one stream bank of the Millers Creek stream channel.

IDI LLC will submit a request to the Ohio EPA to verify that the wetland in the FEMA basin is not a jurisdictional Water of the State of Ohio and to verify that the project qualifies for a Nationwide Permit 14 Water Quality Certification for impacts Millers Creek.

SECTION FIVE

PROPOSED EFFORTS TO OFF-SET IMPACTS

5.1 REASONS FOR IMPACTS

The City of Monroe has determined that the Millers Creek road crossing must be constructed at the location presented in the design plans (Figure 12), in order for Gateway Boulevard to line up with the intersection of Mason Road and Butler-Warren Road to the east of the Park North property (see Figures 1 – 15).

The shape and size of the section of Millers Creek where the crossing has to be located is situated such that a bottomless structure designed for absolutely no impact to the stream channel would have to be at least 50 ft wide. A bottomless structure of this size is not economically practical for IDI LLC for a road crossing of this size.

Instead of the no-impact crossing, IDI LLC proposes to construct a 32-ft wide cast-in-place 3-sided bottomless culvert for the Millers Creek crossing. This smaller-sized structure will impact only 970 square ft (0.022 acre) of the stream channel (see Figures 15 – 17).

This crossing will be constructed over a slight bend in the stream channel, such that the impacted length of channel will be along the outside of the bend (along the right descending bank). An area of the adjacent riparian corridor, that is above the OHWM and that is located on the inside of the bend (left-descending bank) will be located under the area of the culvert. This riparian corridor area under the culvert structure will be cut down along the inside of the bend to match the elevation of the existing stream channel within the area of the OHWM. See Figures 15 and 16 for a design plan depicting the bottomless culvert crossing, the impact to Millers Creek, and the area where the new channel area will be located.

This activity will create 0.025 of new stream channel to offset the 0.022 of stream channel lost during the construction of the Millers Creek crossing, resulting in a net gain of stream channel. This effort also will allow the Millers Creek channel to flow straight through the bottomless culvert, instead of being deflected by the existing inside of the bend (LDB), to the opposite side of the bottomless culvert (RDB), probably preventing future damage to the crossing.

In addition to this effort to offset the loss of the stream channel area, IDI LLC will also remove the remnants of a former farm road crossing over Millers Creek. This crossing is approximately 175 ft upstream of the location of the new crossing, and is about 20 ft wide (see photographs in Attachment A).

IDI LLC believes that the above-described work in Millers Creek is an adequate effort to offset the impacts to Millers Creek associated with the construction of the road crossing.

Wetland 1 is not a jurisdictional water of the United States according to the new revised definition of a Water of the United States. IDI LLC, therefore, will not formally mitigate for the loss of 1.11 acres of Wetland 1. However, since IDI LLC is required to replace the loss in the floodwater storage capacity due to filling a portion of the existing FEMA basin. IDI LLC will excavate a new one-acre FEMA floodwater basin in another portion of the industrial park property. As with the existing basin, IDI LLC will allow the floor of this new basin to naturally develop into a wetland.

5.2 SITE WORK TO OFFSET IMPACTS

IDI LLC proposes to perform the following work to compensate for the impacts to Miller Creek and to replace the nonjurisdictional wetlands in the FEMA basin within the Gateway Boulevard Extension Project area.

- **Stream Impacts:** The loss of 970 square ft (0.022 acre) of stream channel for a Nationwide Permit 14 project typically would not have a mitigation requirement as part of the Corps of Engineers or Ohio EPA permits. IDI LLC, however, proposes to offset the loss of 0.022 acre of the Millers Creek stream channel with the creation of 0.025 acre of new stream channel along the length of the culvert structure, by cutting down an area along the right-descending stream bank that is above the OHWM to match the elevation of the stream channel within the OHWM. This excavated area will become part of the Millers Creek channel. With the creation of the 0.025 acre of new stream channel, this project ends up with no net loss of stream channel.
- **Non-jurisdictional Wetland Impacts:** The loss of 1.11 acres of non-jurisdictional wetlands also would not have a mitigation requirement as part of the Corps of Engineers and Ohio EPA permits. IDI LLC, however, proposes to offset the loss of 1.11 acres of nonjurisdictional wetlands in the FEMA storage basin by allowing the to-be-constructed new FEMA storage basin to naturally re-establish a wetland on the floor of the new basin.

5.3 FUTURE SUSTAINABILITY

The Gateway Boulevard Extension Project Area and immediately surrounding land will remain part of the Park North Industrial Park for the foreseeable future.

The proposed impacts to Millers Creek are relatively minimal (0.022 acre), and will be replaced with 0.025 acre of stream channel on the opposite site of the crossing structure, such that no net loss in stream channel area results from this project. The newly created area of stream channel below the structure will be naturally sustained by Millers Creek.

LIST OF FIGURES

| | |
|----|---|
| 1 | Highway Map showing the location of the Gateway Boulevard Extension Project Area |
| 2 | Enlarged highway map showing the location of the Gateway Boulevard Extension Project Area |
| 3 | U.S.G.S. Monroe, Ohio, 7.5 minute topographic quadrangle maps showing the area in and around the Gateway Boulevard Extension Project Area |
| 4 | Enlarged section of U.S.G.S. Monroe, Ohio, 7.5 minute topographic quadrangle map showing Gateway Boulevard Extension Project Area |
| 5 | 2014 aerial photograph of the area around the Gateway Boulevard Extension Project Area |
| 6 | 2014 aerial photograph of the Gateway Boulevard Extension Project Area |
| 7 | Soil map for the Gateway Boulevard Extension Project Area |
| 8 | FEMA Flood Insurance Rate Map showing floodzones on the Gateway Boulevard Extension Project Area |
| 9 | U.S. Fish and Wildlife Service National Wetlands Inventory Map showing the Gateway Boulevard Extension Project Area |
| 10 | Existing conditions topographic map of the Gateway Boulevard Extension Project Area |
| 11 | Existing conditions aerial photograph of the Gateway Boulevard Extension Project Area |
| 12 | 2006 aerial photograph of the Gateway Boulevard Extension Project Area, showing that the existing FEMA floodwater basin was previously an upland area |
| 13 | 2000 aerial photograph of the Gateway Boulevard Extension Project Area, showing that the existing FEMA floodwater basin was previously an upland area |
| 14 | 1994 aerial photograph of the Gateway Boulevard Extension Project Area, showing that the existing FEMA floodwater basin was previously an upland area |
| 15 | Design plan for the Gateway Boulevard Extension |
| 16 | Cross section of the 3-side culvert to be used for the Millers Creek crossing |
| 17 | Photographs of existing 3-sided culvert crossing upstream from proposed Gateway Boulevard crossing |

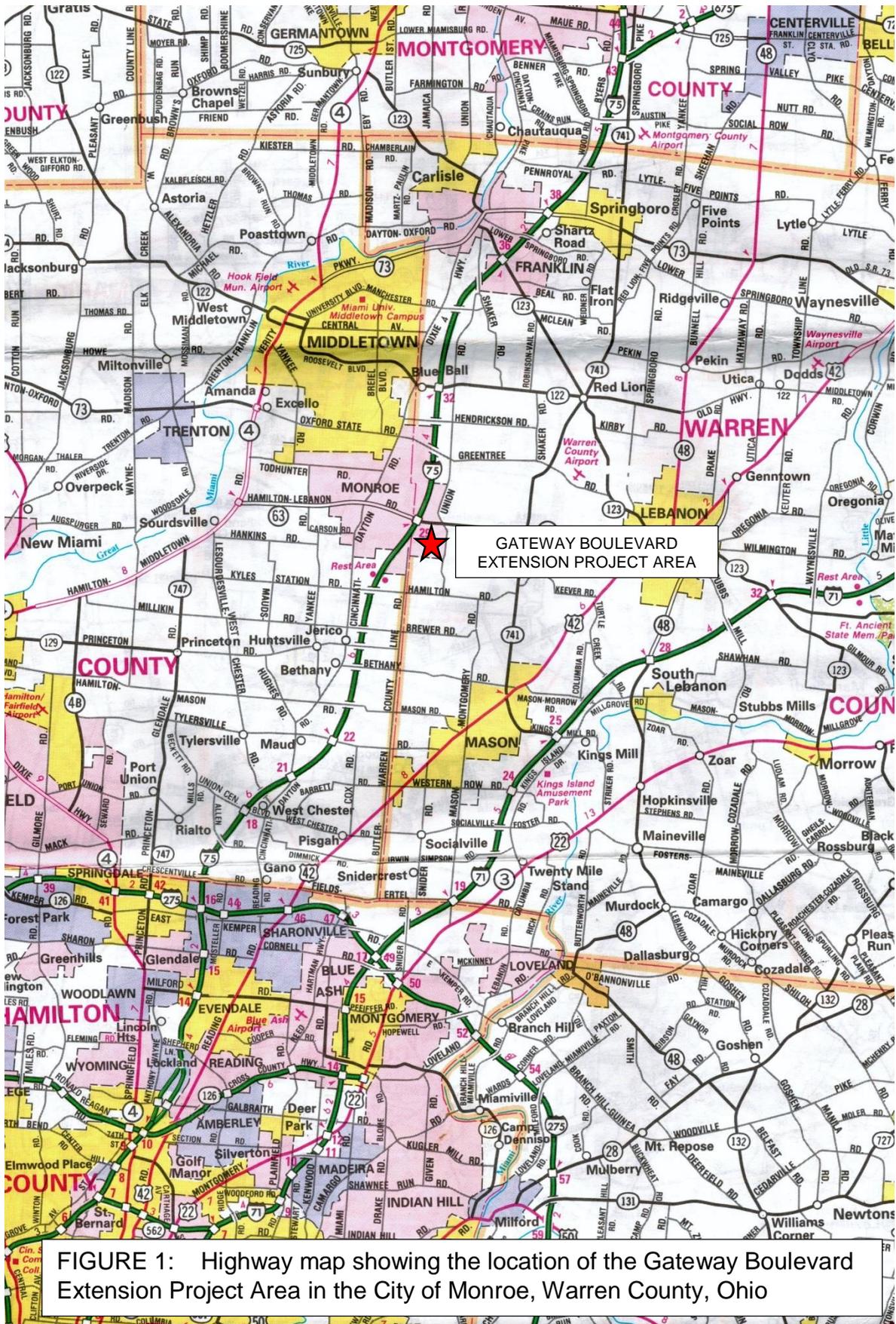


FIGURE 1: Highway map showing the location of the Gateway Boulevard Extension Project Area in the City of Monroe, Warren County, Ohio

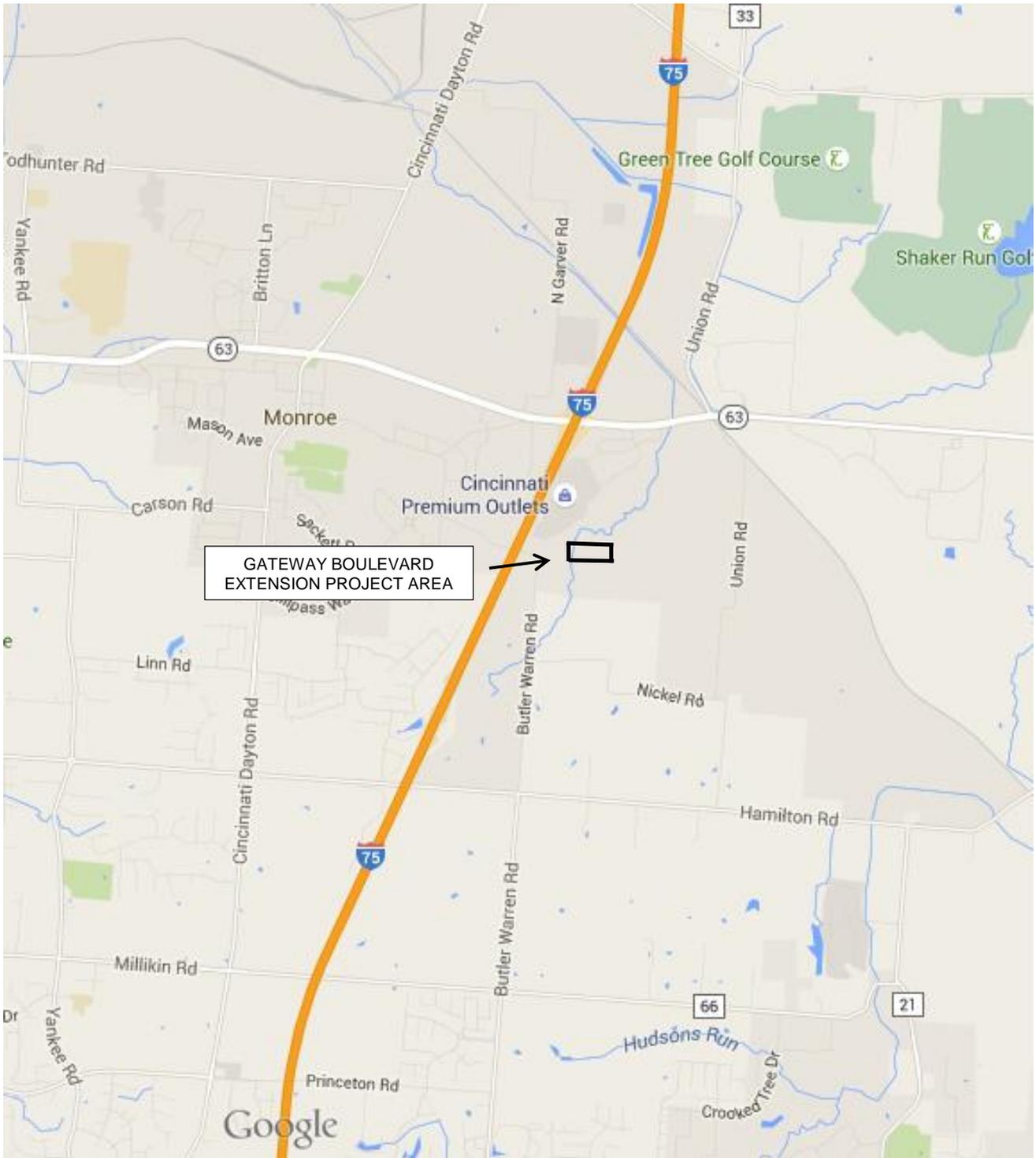


FIGURE 2: Enlarged highway map showing the location of the Gateway Boulevard Extension Project Area in the City of Monroe, Warren County, Ohio



GATEWAY BOULEVARD
EXTENSION PROJECT AREA

FIGURE 3: U.S.G.S. Monroe, Ohio 7.5 minute topographic quadrangle map showing the area in and around the Gateway Boulevard Extension Project Area

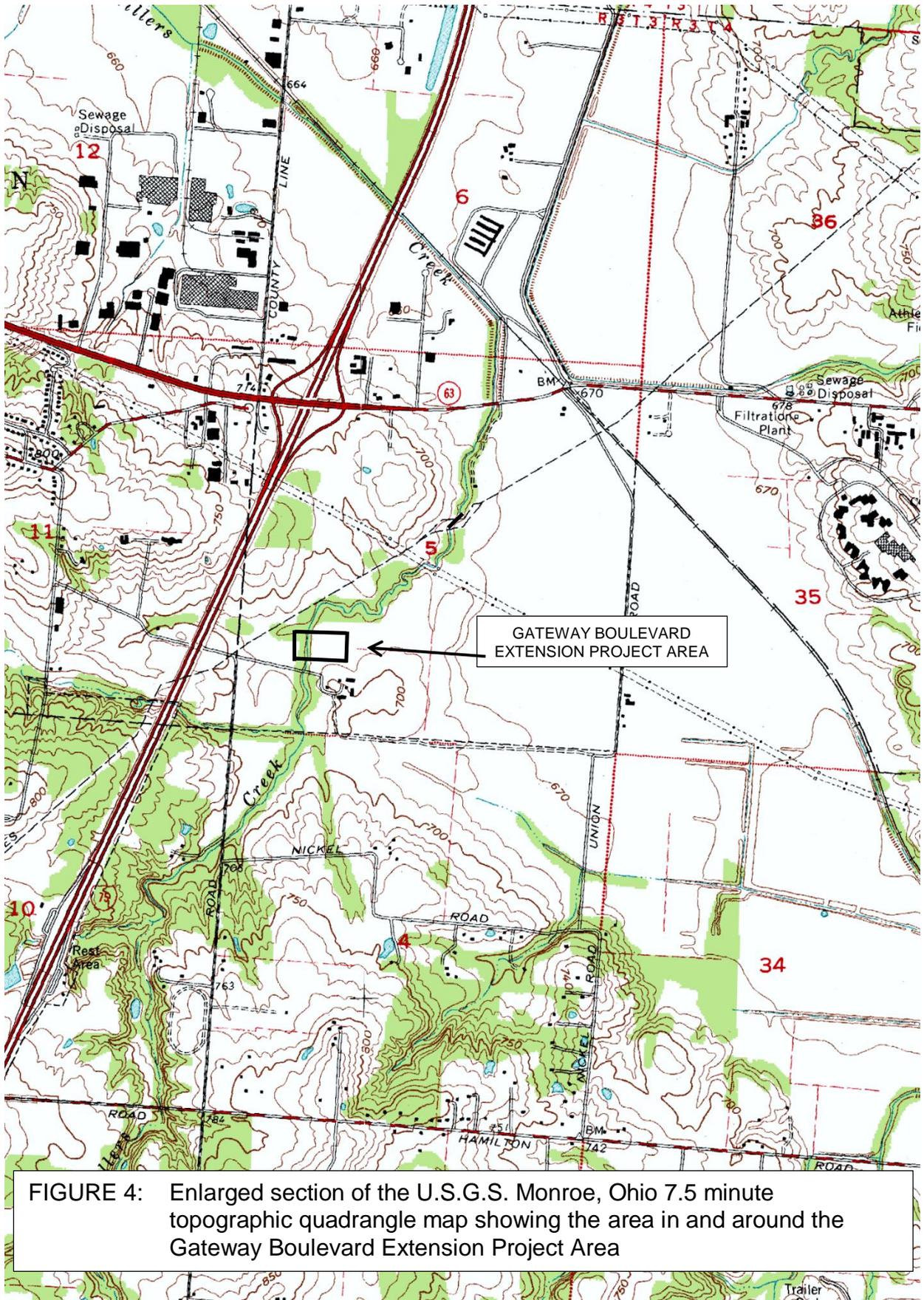


FIGURE 4: Enlarged section of the U.S.G.S. Monroe, Ohio 7.5 minute topographic quadrangle map showing the area in and around the Gateway Boulevard Extension Project Area

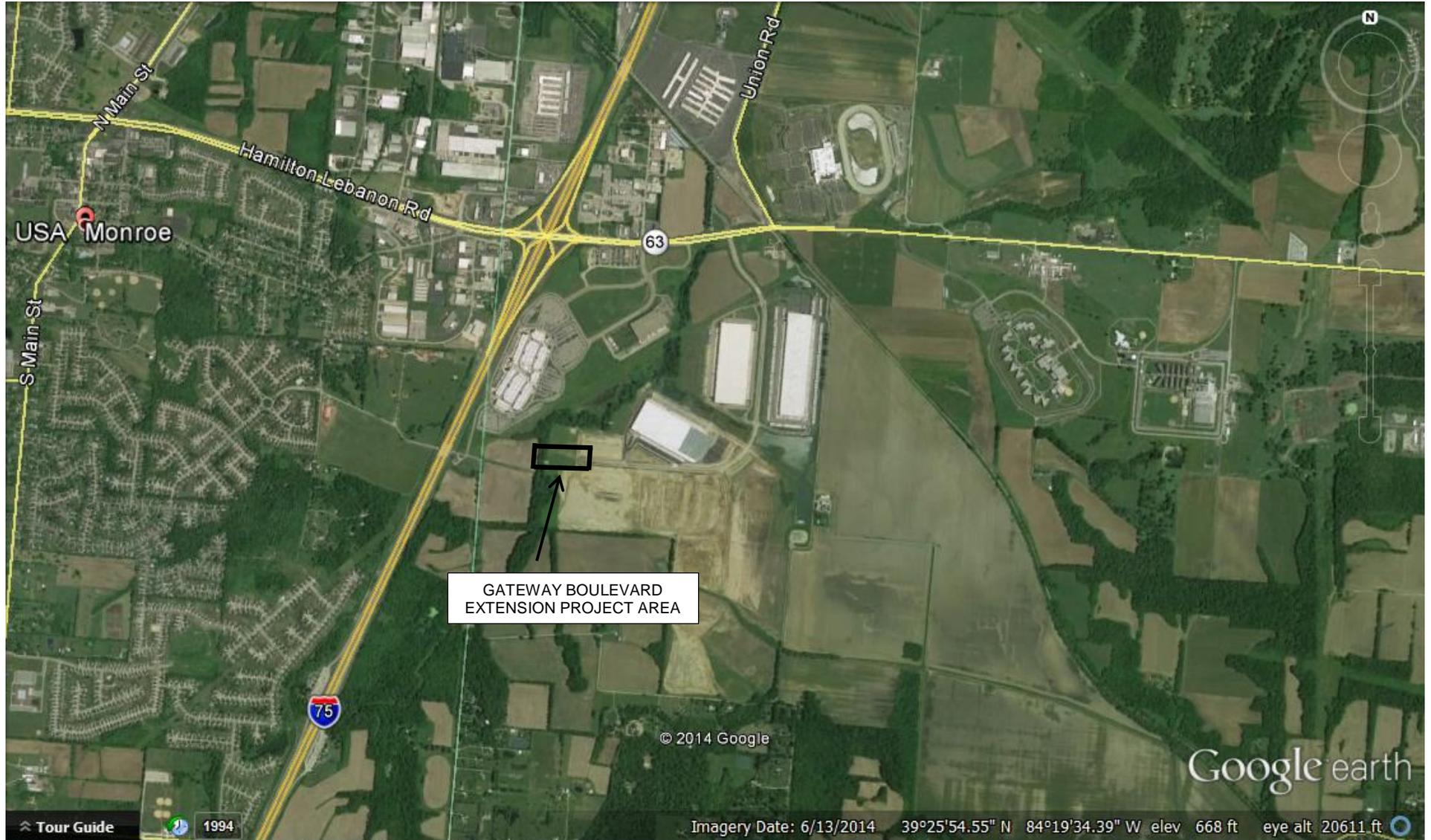


FIGURE 5: 2014 aerial photograph showing the area around the Gateway Boulevard Extension Project Area

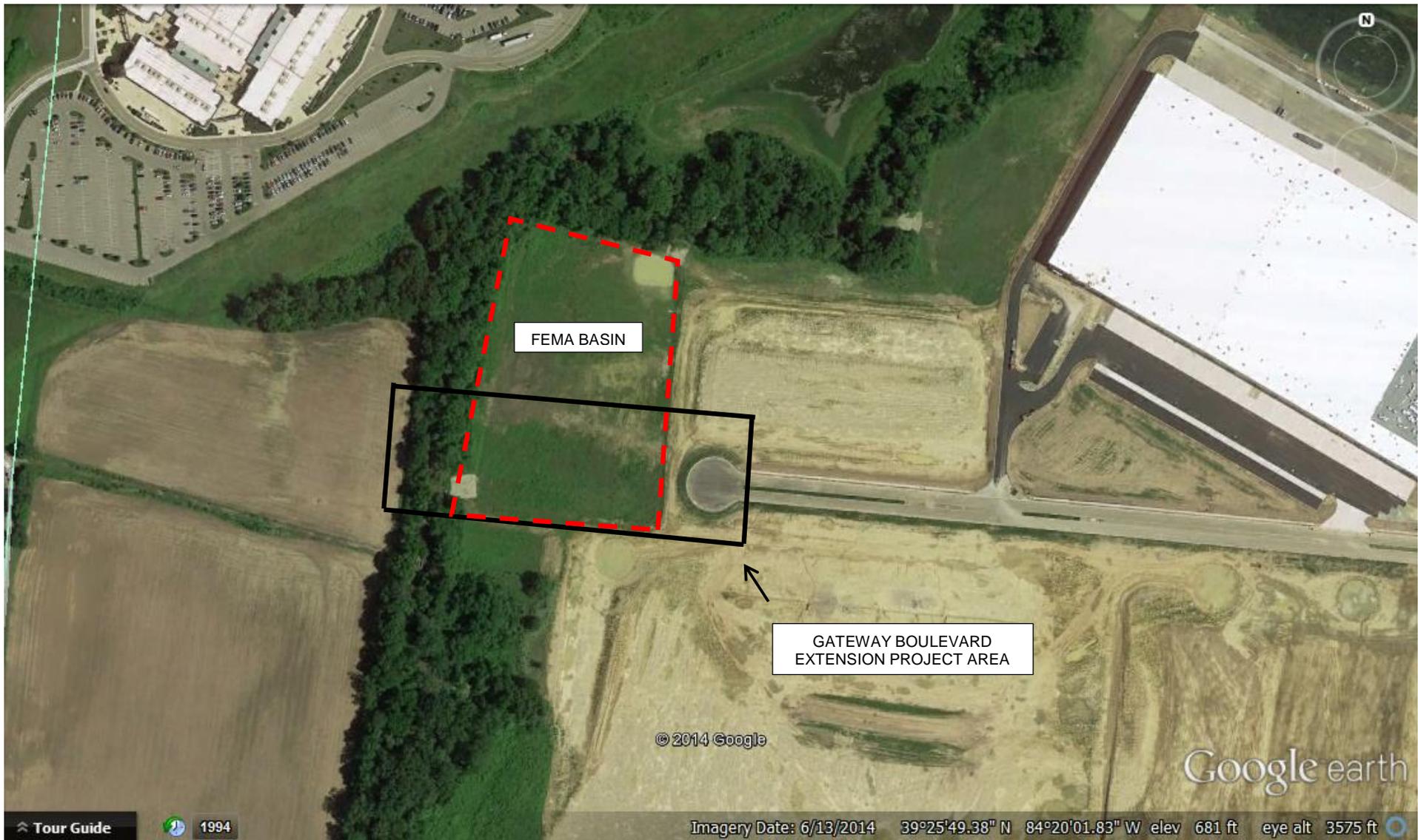


FIGURE 6: Enlarged 2014 aerial photograph showing the area on and around the Gateway Boulevard Extension Project Area

SOILS IN THE GATEWAY BOULEVARD EXTENSION PROJECT AREA:

Patton Silty Clay Loam (Pb)
Xenia Silt Loam (XeB2)

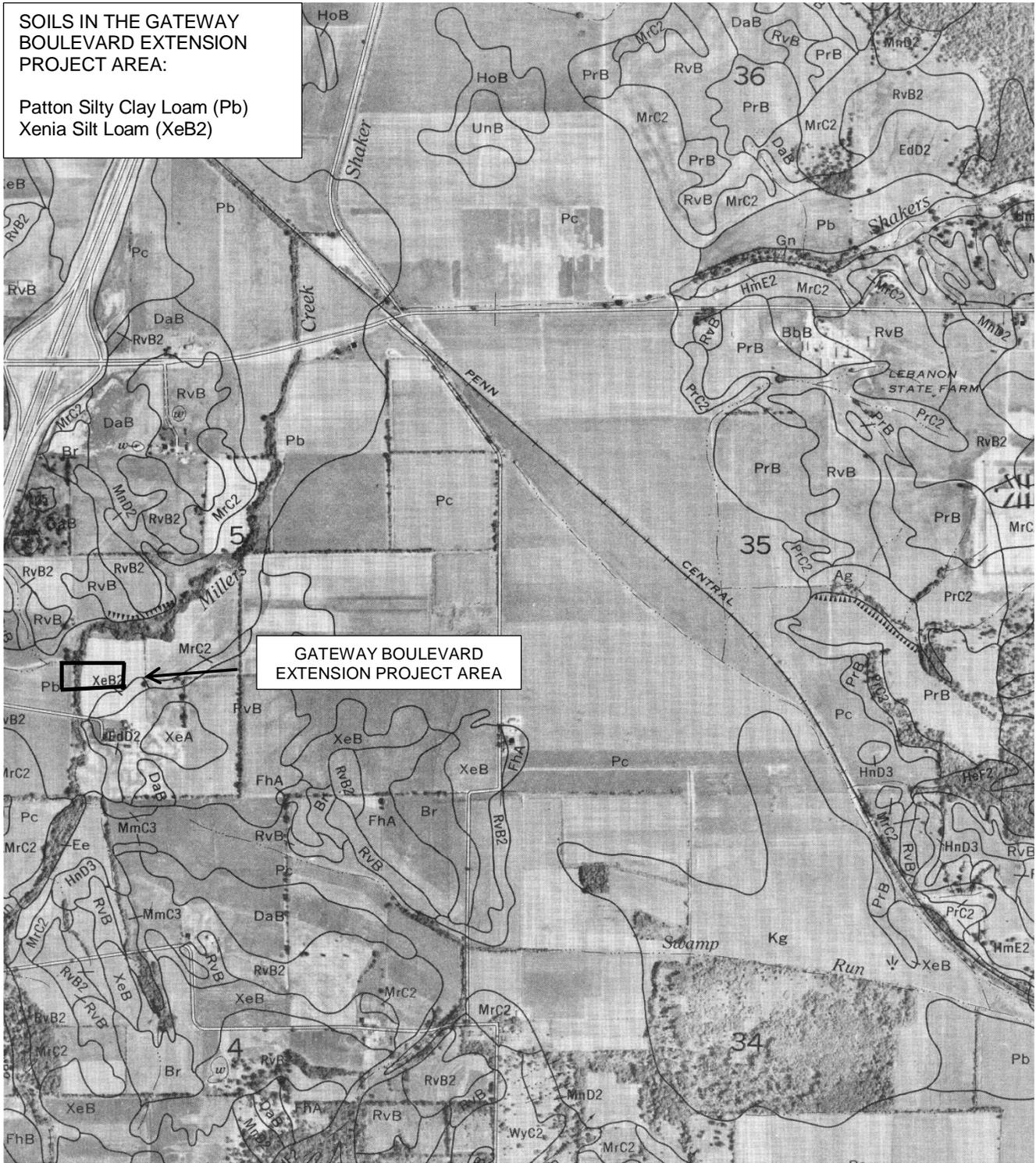


FIGURE 7: Soil map for the Gateway Boulevard Extension Project Area, taken from the USDA Soil Survey of Warren County, Ohio.

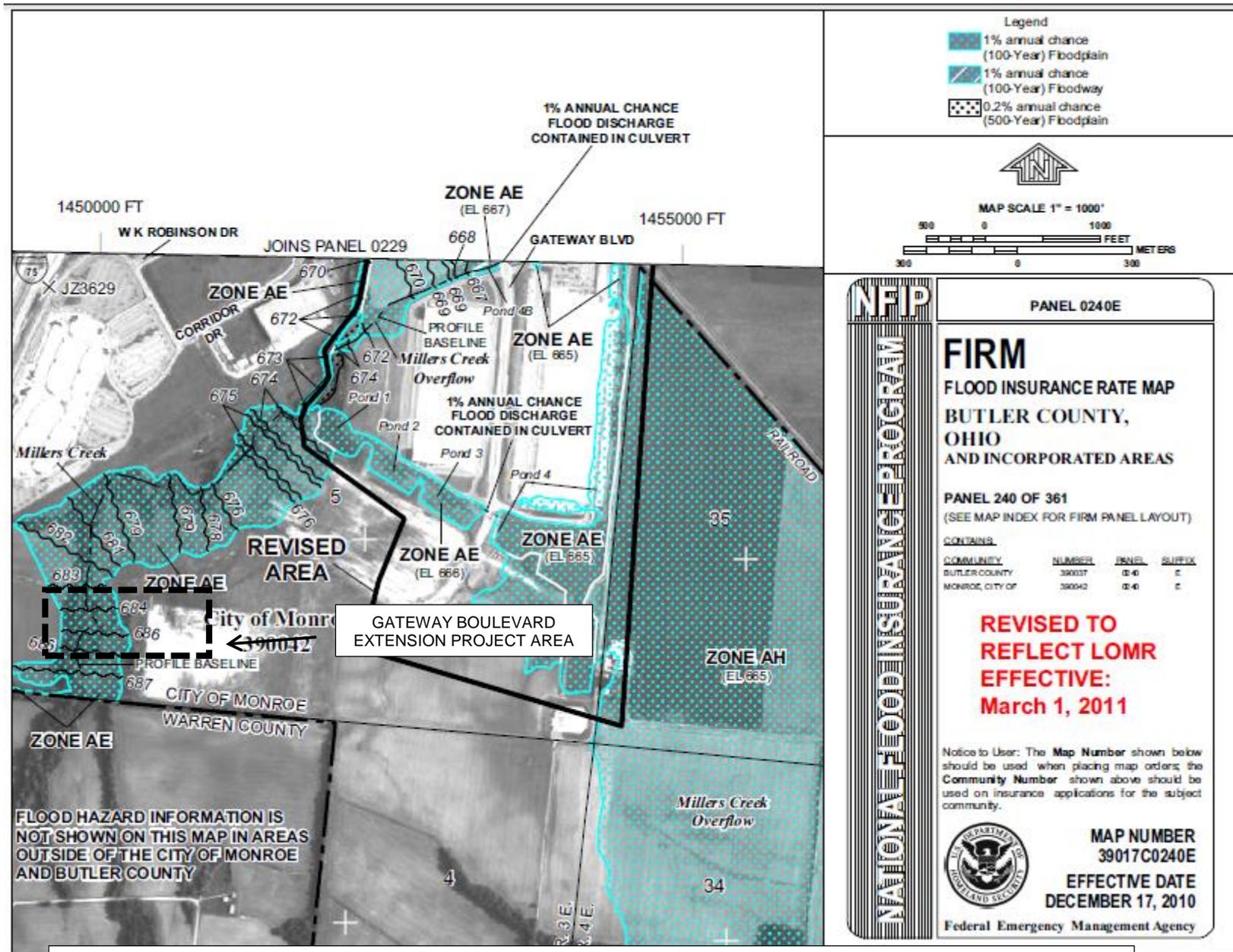


FIGURE 8: Revised FEMA Flood Insurance Rate Map No. 39017C0240E, effective date March 1, 2011, showing the flood zones on and around the Gateway Blvd. Expansion Project Area

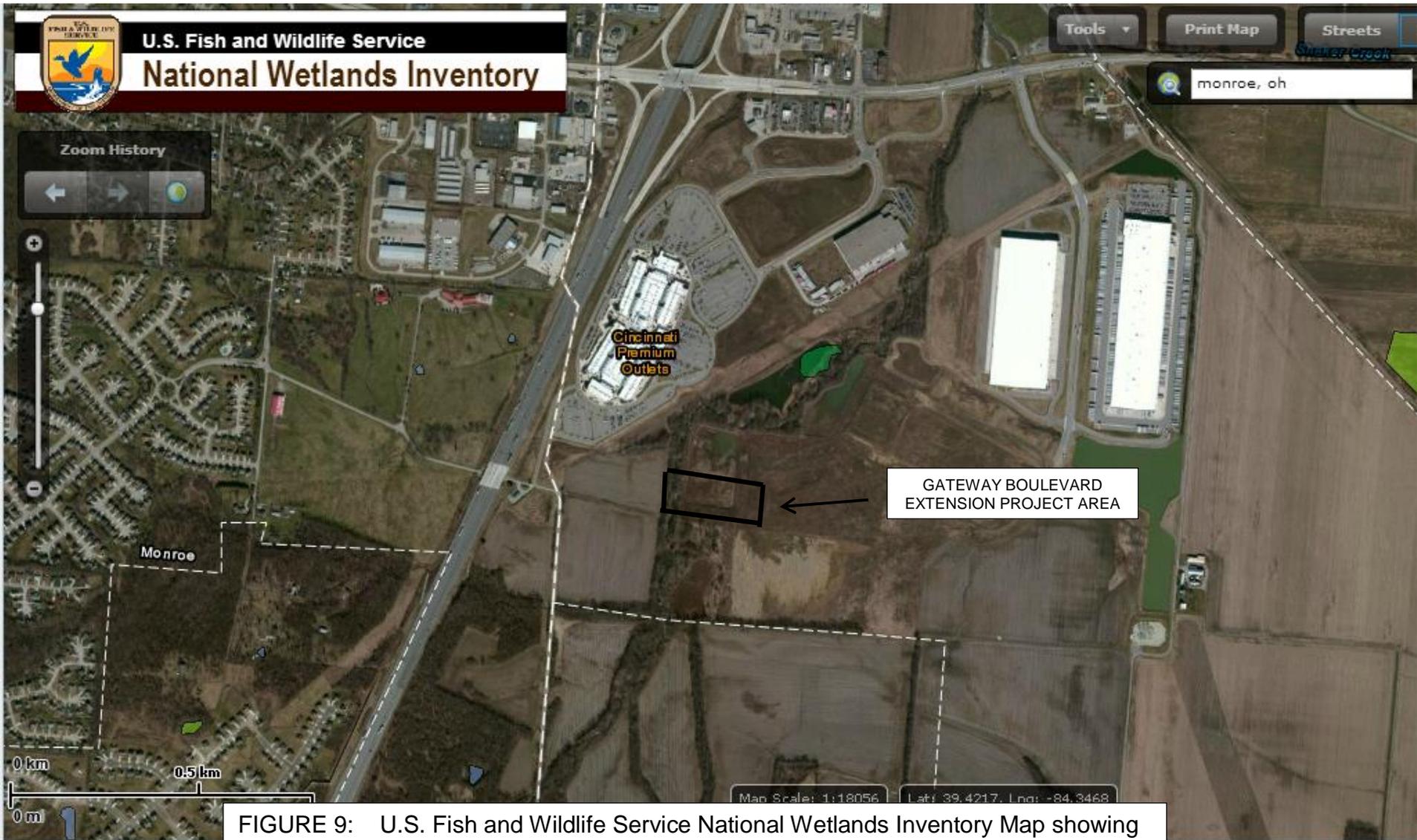


FIGURE 9: U.S. Fish and Wildlife Service National Wetlands Inventory Map showing no documented wetlands located in the Gateway Blvd. Extension Project Area

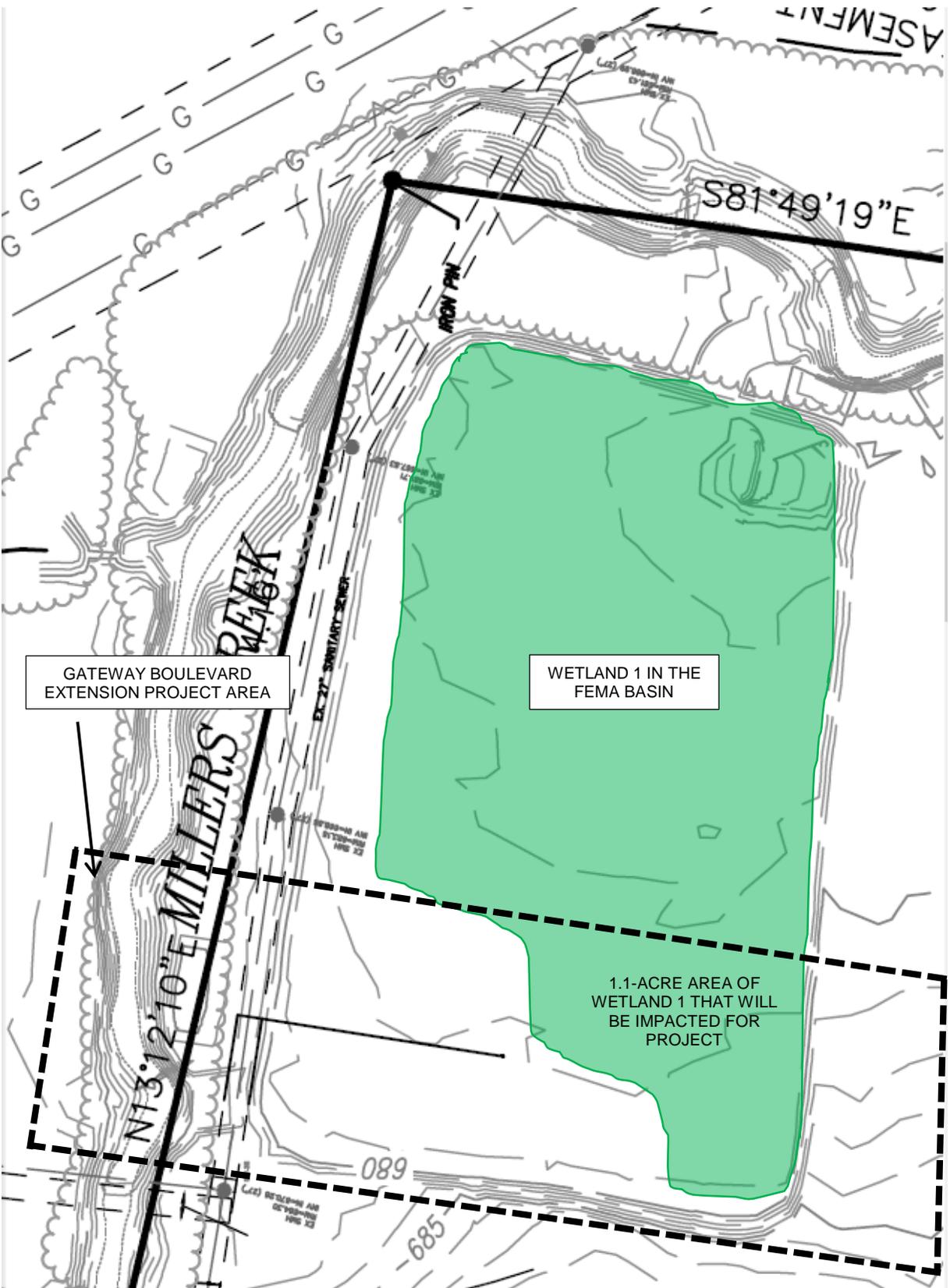


FIGURE 10: Existing conditions topographic map, showing the features located in and around the Gateway Boulevard Extension Project Area.

Please note: this map does not show the existing end of Gateway Boulevard, which is located approximately 50 ft east from the southeast corner of Wetland 1, at the eastern end of the project area.

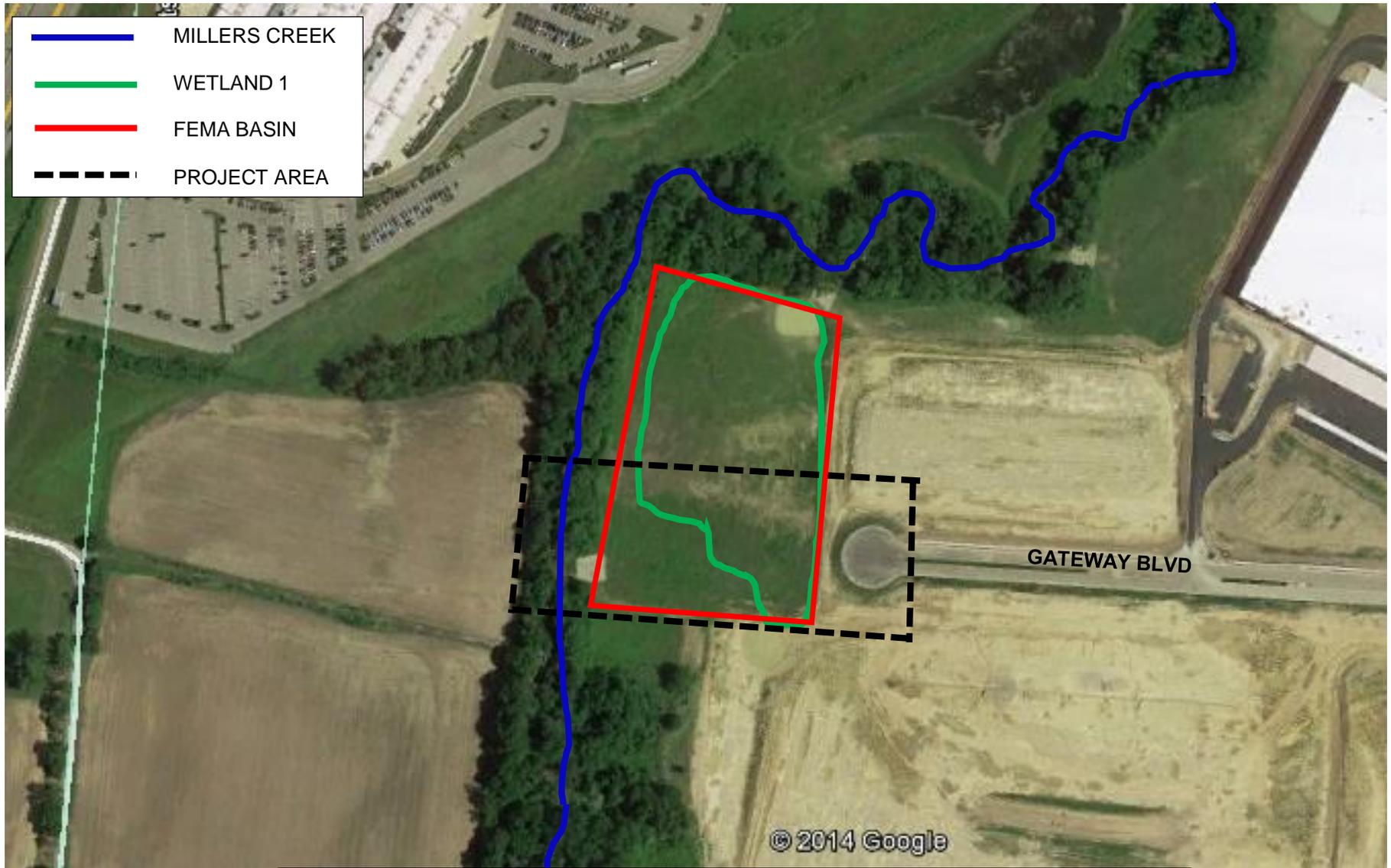


FIGURE 11: 2014 aerial photograph showing the features located in and around the Gateway Boulevard Extension Project Area



FIGURE 12: 2006 aerial photograph of the Gateway Boulevard Extension Project Area, showing the area that is now the FEMA floodwater basin was an upland area used for agriculture.



FIGURE 13: 2000 aerial photograph of the Gateway Boulevard Extension Project Area, showing the area that is now the FEMA floodwater basin was an upland area used for agriculture.



FIGURE 14: 1994 aerial photograph of the Gateway Boulevard Extension Project Area, showing the area that is now the FEMA floodwater basin was an upland area used for agriculture.

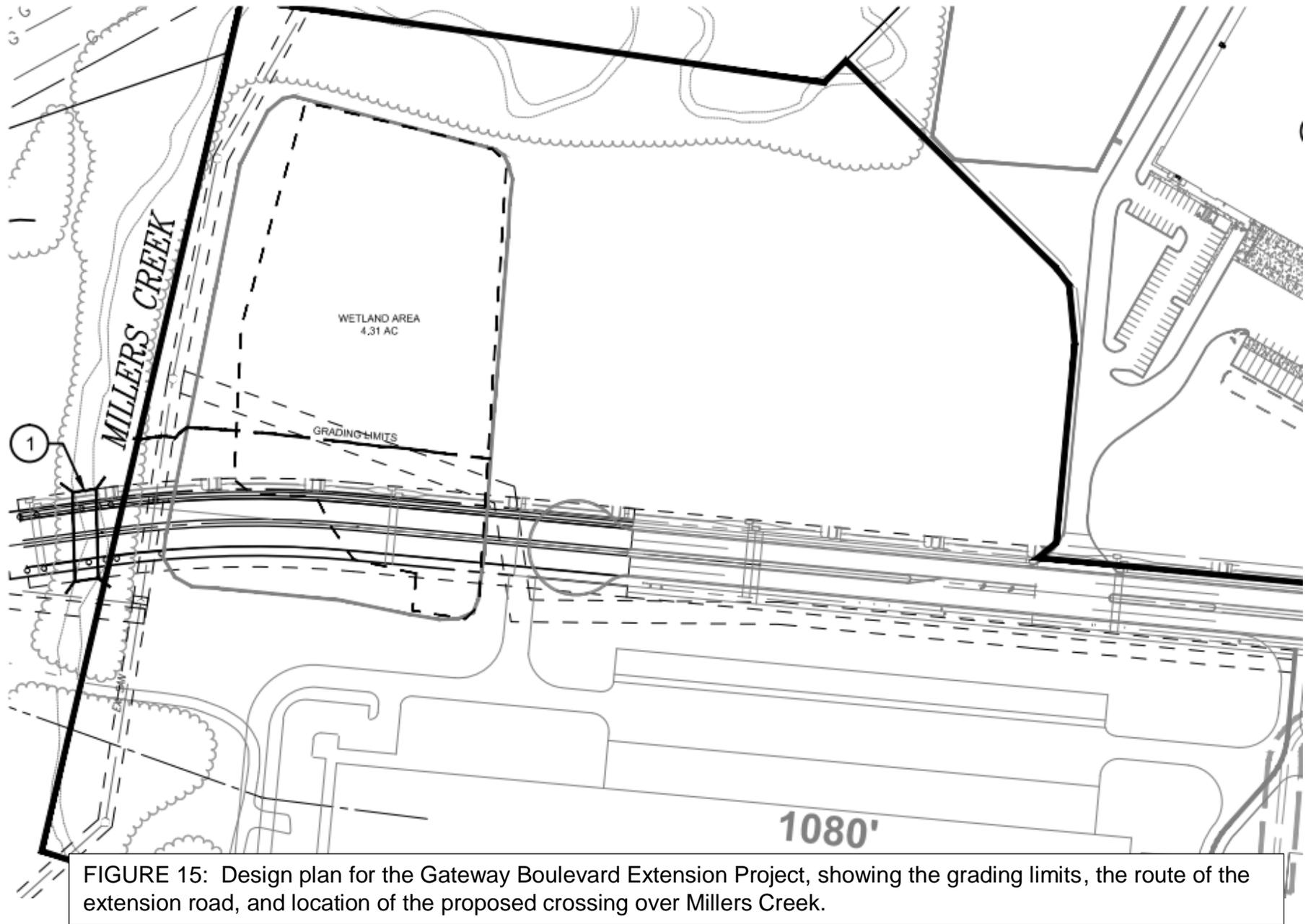
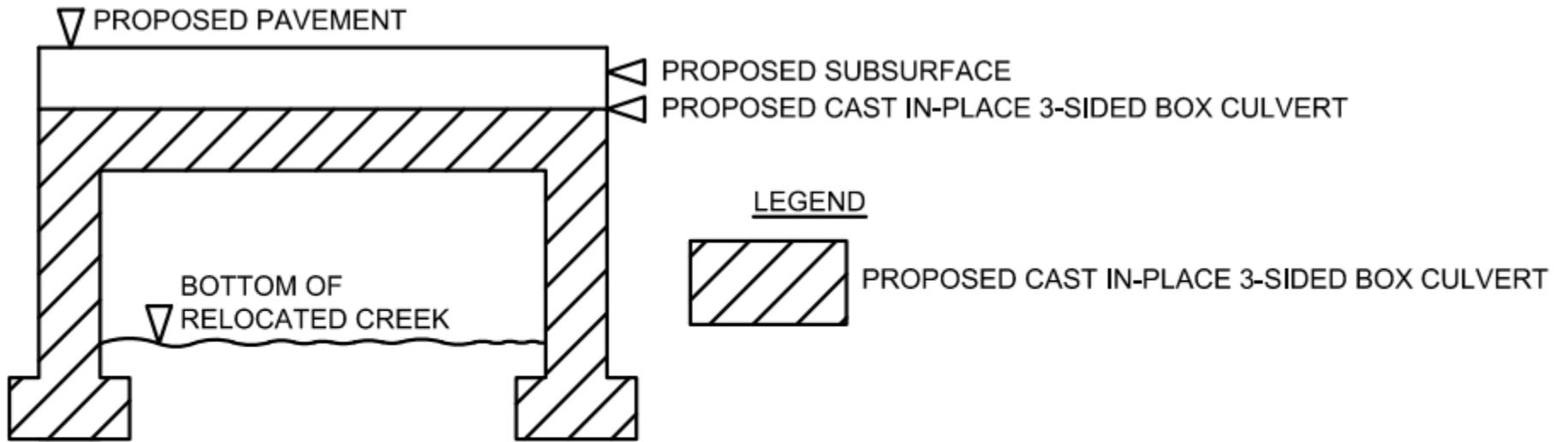


FIGURE 15: Design plan for the Gateway Boulevard Extension Project, showing the grading limits, the route of the extension road, and location of the proposed crossing over Millers Creek.



SCHEMATIC CROSS SECTION

FIGURE 16: Cross section of the proposed cast-in-place 3-sided box culvert that will be used for the crossing over Millers Creek.



FIGURE 17: Example of cast-in-place 3-sided box culvert which will be used for Gateway Boulevard crossing over Millers Creek. This existing crossing was constructed over Millers Creek about 3,000 ft upstream of Gateway Boulevard Project.

ATTACHMENT A

PHOTOGRAPHS

OF THE

GATEWAY BOULEVARD

PROJECT AREA



PHOTO 1: Representative view of Millers Creek, along the western edge of the Gateway Blvd. Expansion Property where the new road crossing will be located



PHOTO 2: Representative view of Millers Creek along the western edge of the Gateway Blvd. Expansion Property where the new road crossing will be located



PHOTO 3: Representative view of Millers Creek riparian zone



PHOTO 4: Representative view of Millers Creek riparian zone



PHOTO 5: Overview of Wetland 1 in the FEMA basin, looking northward



PHOTO 6: Overview of southern end of Wetland 1 in the FEMA basin (impact area), looking southward



PHOTO 7: Old farm road crossing in Millers Creek just upstream from the new crossing location that will be removed as part of the Gateway Boulevard Expansion project.

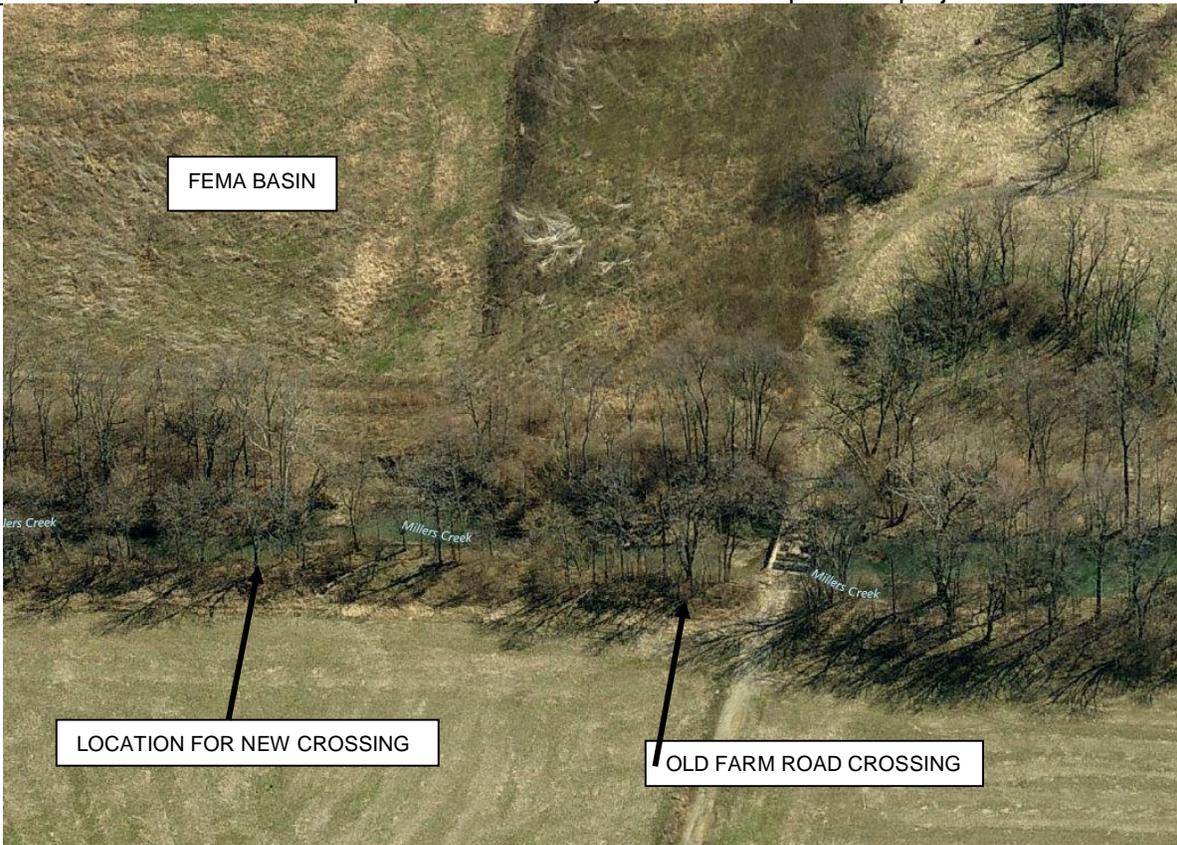


PHOTO 8: Aerial photograph showing the old farm road crossing in Millers Creek that will be removed as part of the Gateway Boulevard Expansion project.