

# APPENDIX F

## Environmental Overview Supporting Documentation

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# Aquatic / Terrestrial Overview



## EXECUTIVE SUMMARY – VIA EMAIL

**DATE:** September 6, 2017

**TO:** Annette Coffey, P.E. – Qk4  
acoffey@qk4.com

**FROM:** Neil Guthrie and Daniel Douglas  
Redwing Ecological Services, Inc.

**SUBJECT:** Terrestrial and Aquatic Assessment  
Outer Loop Corridor Study  
Jefferson County, Kentucky  
Redwing Project: 17-103

Redwing Ecological Services, Inc. (Redwing) is pleased to provide this summary of the terrestrial and aquatic assessment performed in support of the Outer Loop Corridor Study project. The project extends from Third Street Road (KY 907) to National Turnpike (KY 1020) in Jefferson County, Kentucky (Figure 1). Southern Ditch flows along the south side of Outer Loop through a majority study corridor. The purpose of the assessment is to identify major ecological resources within the study corridor for use in the project planning process and in completion of National Environmental Policy Act (NEPA) documentation.

The study corridor is located in a highly developed area of Jefferson County. It is dominated by roads, utility line corridors, and a major drainage ditch serving the county. Residential and commercial development is prevalent with areas of maintained lawn, young woods habitat, and mature woods habitat. The assessment is summarized below in terms of study methodology, results, and potential impacts.

### METHODOLOGY

Occurrence records maintained by the U.S. Fish and Wildlife Service - Kentucky Field Office (USFWS KFO), Kentucky Department of Fish and Wildlife Resources (KDFWR), and the Kentucky State Nature Preserves Commission (KSNPC) were reviewed as part of this assessment. The USFWS's Information for Planning and Conservation (IPaC) website, the KDFWR website, and the KSNPC website were used to obtain a list of threatened/endangered (T/E) species that may occur within the study corridor (Appendix). During the in-house review, USGS topographic quadrangle maps, geologic maps, the Jefferson County soil survey, karst potential maps, and available mine maps were reviewed to identify caves, mine portals, sinkholes, and other underground features within the study corridor. The U.S. Army Corps of Engineers (USACE), KDFWR, Kentucky Speleological Society (KSS), the Natural Resources Conservation Service (NRCS), and the Louisville/Jefferson County Metropolitan Sewer Department (MSD) were contacted regarding the study corridor and information was requested regarding any potential concerns.

Following in-house review, Redwing conducted a vehicular reconnaissance of the study corridor to identify the approximate location and extent of waters/wetlands and to identify potential T/E species habitat. During the reconnaissance, the presence of streams and open water bodies was evaluated on the basis of ordinary high water mark (OHWM), defined bed and bank features, and flow regimes. Potential wetland areas were investigated following the Routine On-Site Determination Method as defined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern*

*Mountains and Piedmont – Version 2.0* (April 2012). The locations and extent of jurisdictional features and T/E species habitat presented in this summary have only been approximated and have not been formally delineated or verified by the USACE, which holds final authority over jurisdictional determinations.

## RESULTS

Redwing performed a reconnaissance of the study corridor on August 28, 2017. The results of the assessment are presented below in terms of federally-listed species, waters of the U.S., and conservation areas.

Federally-listed Species: The status of species listed by the USFWS KFO, KDFWR, and KSNPC as occurring or having the potential to occur in the vicinity of the study corridor and the presence/absence of suitable habitat in the study corridor are summarized in the following table. Correspondence from the resource agencies and/or web database information is provided in the Appendix.

Group	Scientific Name	Common Name	Federal Status	Habitat Present
Mammals	<i>Myotis grisescens</i>	gray bat	Endangered	No
	<i>Myotis septentrionalis</i>	northern long-eared bat	Threatened	Potential Summer
	<i>Myotis sodalis</i>	Indiana bat	Endangered	Potential Summer
Mussels	<i>Cyprogenia stegaria</i>	fanshell	Endangered	No
	<i>Cumberlandia monodonta</i>	spectaclecase	Endangered	No
	<i>Epioblasma triquetra</i>	snuffbox	Endangered	No
	<i>Hemistena lata</i>	Cracking pearlymussel	Endangered	No*
	<i>Lampsilis abrupta</i>	pink mucket	Endangered	No
	<i>Obovaria retusa</i>	ring pink	Endangered	No
	<i>Plethobasus cooperianus</i>	orangefoot pimpleback	Endangered	No
	<i>Plethobasus cyphus</i>	sheepnose	Endangered	No
	<i>Pleurobema clava</i>	clubshell	Endangered	No
	<i>Pleurobema plenum</i>	rough pigtoe	Endangered	No
	<i>Potamilus capax</i>	fat pocketbook	Endangered	No
	<i>Quadrula cylindrica cylindrica</i>	rabbitsfoot	Threatened	No
Plants	<i>Leavenworthia exigua laciniata</i>	Kentucky glade cress	Threatened	No
	<i>Solidago shortii</i>	Short's goldenrod	Endangered	No*
	<i>Trifolium stoloniferum</i>	running buffalo clover	Endangered	No
Birds	<i>Charadrius melodus</i>	piping plover	Endangered	No
	<i>Sternula antillarum athalassos</i>	interior least tern	Endangered	No
Insects	<i>Nicrophorus americanus</i>	American burying beetle	Endangered	No*

\*considered extirpated by KSNPC

A review of mine maps, topographic quadrangle maps, and geologic maps did not identify any underground or surface mines within the vicinity of the study corridor and the entire study corridor is classified as non-karst. No caves, sinkholes, rockshelters, or other underground features were observed within study corridor during the reconnaissance. The KSS was contacted regarding caves within three miles of the project. No response has been received by KSS and any correspondence will be provided at a later date.

The mature woods habitat in the study corridor were identified as suitable summer roosting, foraging, and commuting habitat for the Indiana and northern long-eared bats. This habitat totals 33.0 acres (Figure 2). The project is located in Known Summer 1 habitat for the northern long-eared bats (Figure 3). Due to the lack of wooded habitat along the perennial streams within the study corridor, these features are not considered foraging and commuting habitat for the gray bat.

Potential habitat for the federally-listed mussel species includes streams and small rivers with moderate to fast-flowing current and substrate consisting of sand, gravel, cobble, and boulders. Two perennial streams are located within the study corridor; however, these features (Northern Ditch and Southern Ditch) are located in a highly urbanized area, have been extensively channelized, exhibit heavy sediment deposition, and are not considered habitat for the identified mussel species. Furthermore, no live mussels or relic shells were observed during the reconnaissance. Therefore, these federally-listed mussel species are considered absent from the proposed corridor.

Preferred habitat for Kentucky glade cress consists of shallow or rocky soil near dolomite formations. The study corridor is underlain by alluvium and loess geology. No areas of shallow or rocky soils suitable for this species were observed in the study corridor. Based on the lack of habitat, this species is considered absent from the study corridor.

Suitable habitat for running buffalo clover includes rich, mesic forests with partial to filtered sunlight that have periodic occurrences of moderate disturbance. The wooded areas within the study corridor generally have either closed canopies or dense understories; therefore, these areas do not provide the required filtered light or moderate disturbance conditions. Therefore, this species is likely not present within the study corridor.

Preferred habitat for piping plover and interior least tern consists of large sandbars, such as those found in and along large rivers. This habitat is not present in the study corridor; therefore, these species are presumed absent from the study corridor.

Waters of the U.S.: The following table summarizes potential streams and wetlands identified within the study corridor. The identified features are presented on Figure 2.

Feature	Stream Length (feet)	Area (acre)	Status
Southern Ditch	10,505	1.0	Jurisdictional
Northern Ditch	615	0.3	Jurisdictional
Wilson Creek	170	0.1	Jurisdictional
<b>Perennial Stream Total</b>	<b>11,290</b>	<b>1.4</b>	
Intermittent Stream 1	215	0.02	Jurisdictional
Intermittent Stream 2	610	0.06	Jurisdictional
Intermittent Stream 3	615	0.06	Jurisdictional
Intermittent Stream 4	250	0.03	Jurisdictional
<b>Intermittent Stream Total</b>	<b>1,690</b>	<b>0.17</b>	
Wetland 1	---	2.2	Jurisdictional
Wetland 2	---	2.1	Jurisdictional
Wetland 3	---	1.1	Jurisdictional
Wetland 4	---	6.1	Jurisdictional
Wetland 5	---	1.3	Jurisdictional
Wetland 6	---	1.4	Jurisdictional
Wetland 7	---	3.8	Jurisdictional
<b>Wetland Total</b>	<b>---</b>	<b>18.0</b>	

Several man-made ditches are located within the study corridor, including ditches that are dominated by wetland vegetation. Drainage features were determined to be streams if they: exhibit a defined bed and bank; are located in the area of a previously mapped stream based on review of USGS mapping and soil survey mapping; or receive flows from a stream. If a feature does not meet these criteria and is constructed in an upland area, it is considered a non-jurisdictional ditch.

Conservation Areas: Three conservation areas were identified within the study area. These areas are identified on Figure 2 and include: Water Resources, LLC Wetland and Stormwater Compensation Basin site, Waste Management Wetland Mitigation site, and the Wal-Mart Wetland Mitigation site. The USACE, MSD, and NRCS were contacted regarding conservation areas within the study corridor. The NRCS replied in an email dated August 31, 2017 (Appendix) stating the Wal-Mart Mitigation site is located in the study corridor and they had no other conservation or farmland concerns within the study corridor. No response has been received from the USACE or MSD and any correspondence will be provided at a later date.

The Louisville/Jefferson County Information Consortium (LOJIC) mapping identifies Northern Ditch, Southern Ditch, and Wilson Creek as protected waterways.

## POTENTIAL IMPACTS

Federally-listed Species: The study corridor is partially located in a Known Summer 1 habitat for the northern long-eared bat, as well as potential summer habitat for the Indiana bat and northern long-eared bat. It appears that impacts to the Indiana and northern long-eared bat from this project can be addressed following guidance provided in the *Revised Conservation Strategy for Forest-Dwelling Bats in the Commonwealth of Kentucky* (2016) and a contribution to the Imperiled Bat Conservation Fund (IBCF). Additionally, the 4(d) Rule can be used to address impacts to the northern long-eared bat. Incidental take is not prohibited under the 4(d) Rule since the project is not located within 0.25 mile of a known hibernacula or 150 feet of a known maternity roost tree. Adverse effects to other federally-listed threatened/endangered species are not anticipated as a result of the project.

Jurisdictional Waters: Impacts to less than 500 feet of stream or 0.5 acre of Waters of the U.S. for each single and complete project are permissible under Nationwide Permit (NWP) 14 for linear transportation projects under Section 404 of the Clean Water Act. An Individual Water Quality Certification under Section 401 of the Clean Water Act is required if impacts to each intermittent or perennial stream are greater than 300 feet, the overall project impacts greater than 500 feet of intermittent and perennial stream, or the project results in impacts greater than 0.5 acre of wetland.

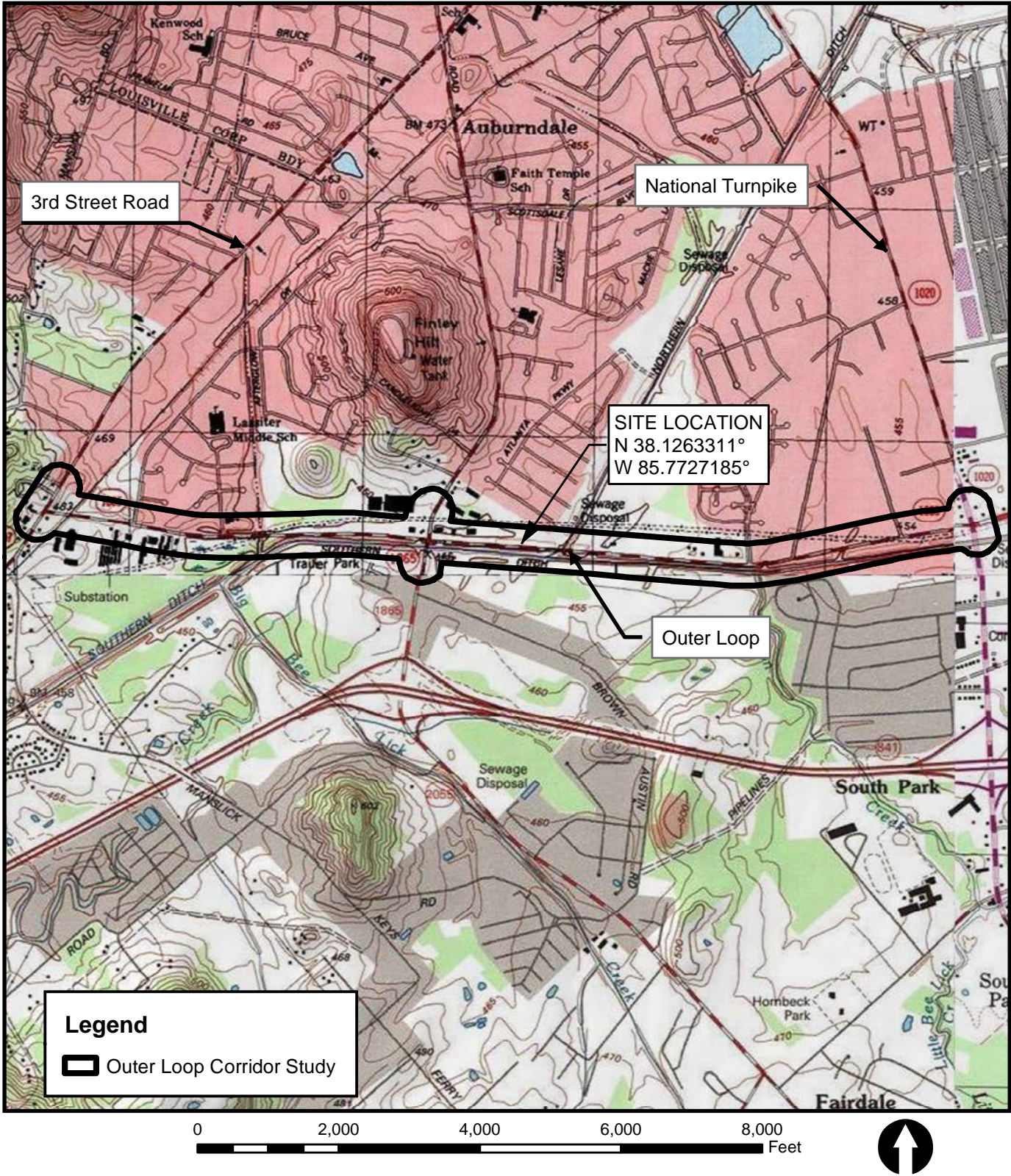
We appreciate the opportunity to assist with this important project. Please contact Neil Guthals or Daniel Douglas at (502) 625-3009 with questions regarding this report.

Attachments: Figures  
Appendix – Resource Agency Correspondence

File: P:\2017 Projects\17-103-Outer Loop Corridor Study\Report\Executive Summary-Outer Loop Corridor Study.docx

## FIGURES

Source: USA Topographic Map - Louisville East, Louisville West, And Valley Station Quadrangles.



OUTER LOOP CORRIDOR STUDY  
JEFFERSON COUNTY, KENTUCKY



KENTUCKY  
TRANSPORTATION  
CABINET

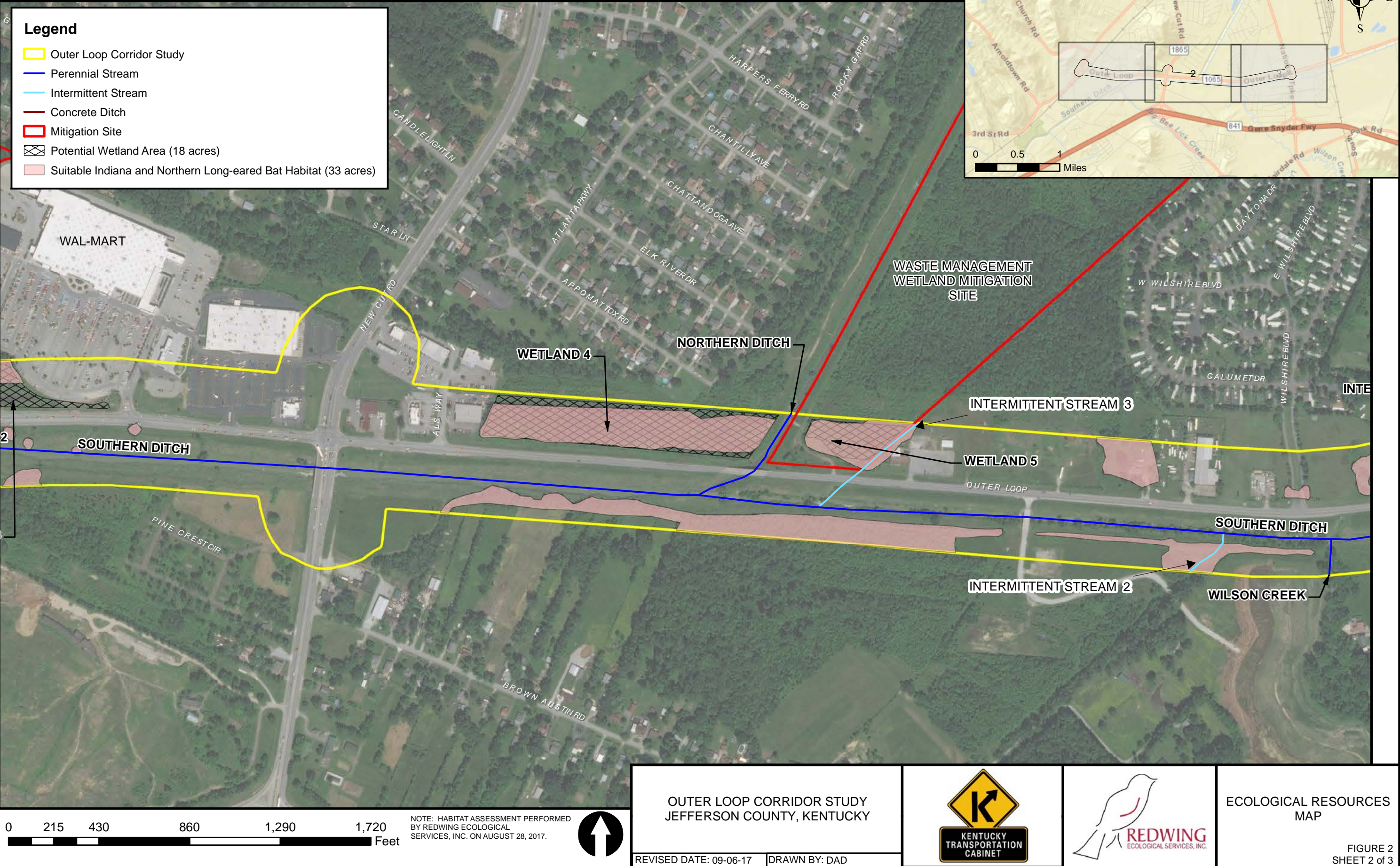


SITE LOCATION MAP

FIGURE 1



Source: World Imagery - Esri and the GIS User Community (2016).



P:\2017 Projects\17-103-Outer Loop Corridor Study\Figures\Ecological Resources Map.mxd, 09-6-2017, temp

Source: World Imagery - Esri and the GIS User Community (2016).

**Legend**

Outer Loop Corridor Study

Perennial Stream

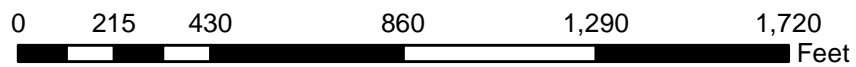
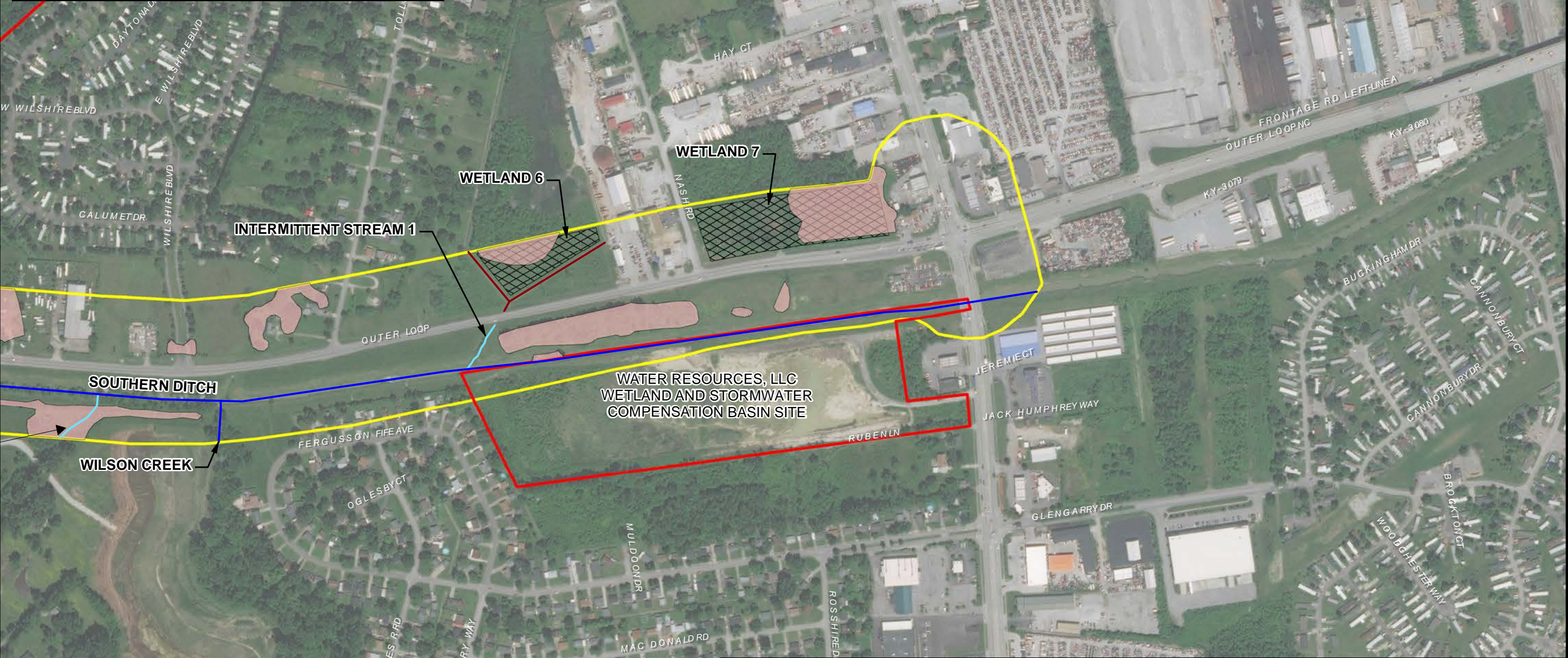
Intermittent Stream

Concrete Ditch

Mitigation Site

Potential Wetland Area (18 acres)

Suitable Indiana and Northern Long-eared Bat Habitat (33 acres)



NOTE: HABITAT ASSESSMENT PERFORMED BY REDWING ECOLOGICAL SERVICES, INC. ON AUGUST 28, 2017.



OUTER LOOP CORRIDOR STUDY  
JEFFERSON COUNTY, KENTUCKY

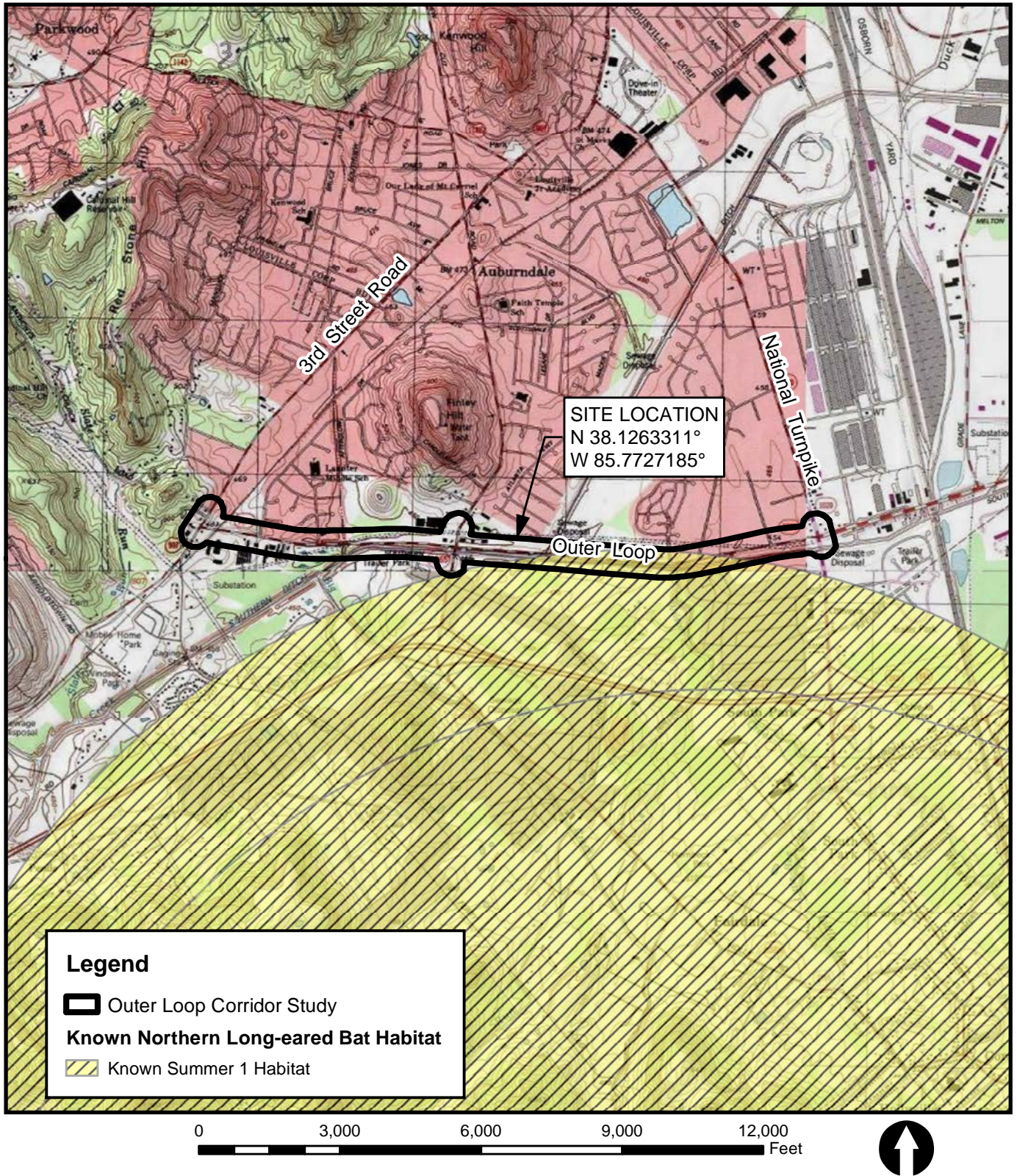
REVISED DATE: 09-06-17 | DRAWN BY: DAD



ECOLOGICAL RESOURCES  
MAP

FIGURE 2  
SHEET 3 of 3

Source: USA Topographic Map - Louisville East, Louisville West, And Valley Station Quadrangles; USFWS Kentucky Field Office - Indiana and Northern Long-eared Bat Habitat (2016).



OUTER LOOP CORRIDOR STUDY  
JEFFERSON COUNTY, KENTUCKY



KNOWN INDIANA  
AND NORTHERN  
LONG-EARED BAT  
HABITAT MAP

REVISED DATE: 09-05-17 | DRAWN BY: EDB

FIGURE 3

## **APPENDIX**

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**From:** Mason, Kurt - NRCS, Louisville, KY <kurt.mason@ky.usda.gov>  
**Sent:** Thursday, August 31, 2017 2:48 PM  
**To:** Neil Guthals  
**Subject:** RE: Outer Loop Corridor Study

Neil, other than the conservation easement at the Wal-Mart site, there are no other conservation easement or farmland concerns in that section of the corridor.

**Kurt D. Mason, CPESC**  
**USDA-NRCS**  
**4233 Bardstown Road Ste 100-A**  
**Louisville, KY 40218-3240**  
**Office (502) 499-1900**  
**Cell (859) 490-0113**

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**From:** Neil Guthals [mailto:nguthals@redwingeco.com]  
**Sent:** Thursday, August 31, 2017 10:29 AM  
**To:** Mason, Kurt - NRCS, Louisville, KY <kurt.mason@ky.usda.gov>  
**Subject:** Outer Loop Corridor Study

Kurt,

Good talking with you again today. Attached is the study corridor map. Again, we just wanted to see if you had any farm / conservation easement related concerns. We do have the Wal-Mart Mitigation site identified on our other mapping.

Thanks again,

Neil

**Neil A. Guthals**  
Senior Ecologist

**Redwing Ecological Services, Inc.**  
1139 South Fourth Street  
Louisville, Kentucky 40203  
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## United States Department of the Interior



### FISH AND WILDLIFE SERVICE

Kentucky Ecological Services Field Office

J C Watts Federal Building, Room 265

330 West Broadway

Frankfort, KY 40601-8670

Phone: (502) 695-0468 Fax: (502) 695-1024

<http://www.fws.gov/frankfort/>

In Reply Refer To:

August 28, 2017

Consultation Code: 04EK1000-2017-SLI-0857

Event Code: 04EK1000-2017-E-02508

Project Name: Outer Loop Corridor Study

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

Your concern for the protection of endangered and threatened species is greatly appreciated. The purpose of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.) (ESA) is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. The species list attached to this letter fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA to provide information as to whether any proposed or listed species may be present in the area of a proposed action. This is not a concurrence letter; additional consultation with the Service may be required.

### **The Information in Your Species List:**

The enclosed species list identifies federal trust species that may occur within the boundary that you entered into IPaC. For this list to most accurately represent the species that may potentially be affected by the proposed project, the boundary that you input into IPaC should represent the entire "action area" of the proposed project by considering all the potential "effects of the action," including potential direct, indirect, and cumulative effects, to federally-listed species or their critical habitat as defined in 50 CFR 402.02. This includes effects of any "interrelated actions" that are part of a larger action and depend on the larger action for their justification and "interdependent actions" that have no independent utility apart from the action under consideration (e.g.; utilities, access roads, etc.) and future actions that are reasonably certain to occur as a result of the proposed project (e.g.; development in response to a new road). If your project is likely to have indirect effects that extend well beyond the project footprint (e.g.;

substantial impacts to water quality), we highly recommend that you coordinate with the Service early to appropriately define your action area and ensure that you are evaluating all the species that could potentially be affected.

We must advise you that our database is a compilation of collection records made available by various individuals and resource agencies available to the Service and may not be all-inclusive. This information is seldom based on comprehensive surveys of all potential habitats and, thus, does not necessarily provide conclusive evidence that species are present or absent at a specific locality. New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list.

Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and associated information. To re-access your project in IPaC, go to the IPaC web site (<https://ecos.fws.gov/ipac/>), select "Need an updated species list?", and enter the consultation code on this letter.

### **ESA Obligations for Federal Projects:**

Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

If a Federal project (a project authorized, funded, or carried out by a federal agency) may affect federally-listed species or critical habitat, the Federal agency is required to consult with the Service under section 7 of the ESA, pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). Recommended contents of a Biological Assessment are described at 50 CFR 402.12. For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat.

### **ESA Obligations for Non-federal Projects:**

Proposed projects that do not have a federal nexus (non-federal projects) are not subject to the

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obligation to consult under section 7 of the ESA. However, section 9 of the ESA prohibits certain activities that directly or indirectly affect federally-listed species. These prohibitions apply to all individuals subject to the jurisdiction of the United States. Non-federal project proponents can request technical assistance from the Service regarding recommendations on how to avoid and/or minimize impacts to listed species. The project proponent can choose to implement avoidance, minimization, and mitigation measures in a proposed project design to avoid ESA violations.

**Additional Species-specific Information:**

In addition to the species list, IPaC also provides general species-specific technical assistance that may be helpful when designing a project and evaluating potential impacts to species. To access this information from the IPaC site (<https://ecos.fws.gov/ipac/>), click on the text “My Projects” on the left of the black bar at the top of the screen (you will need to be logged into your account to do this). Click on the project name in the list of projects; then, click on the “Project Home” button that appears. Next, click on the “See Resources” button under the “Resources” heading. A list of species will appear on the screen. Directly above this list, on the right side, is a link that will take you to pdfs of the “Species Guidelines” available for species in your list. Alternatively, these documents and a link to the “ECOS species profile” can be accessed by clicking on an individual species in the online resource list.

**Next Steps:**

Requests for additional technical assistance or consultation from the Kentucky Field Office should be submitted following guidance on the following page <http://www.fws.gov/frankfort/PreDevelopment.html> and the document retrieved by clicking the “outline” link at that page. When submitting correspondence about your project to our office, please include the Consultation Tracking Number in the header of this letter. (There is no need to provide us with a copy of the IPaC-generated letter and species list.)

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Kentucky Ecological Services Field Office**

J C Watts Federal Building, Room 265

330 West Broadway

Frankfort, KY 40601-8670

(502) 695-0468

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## Project Summary

Consultation Code: 04EK1000-2017-SLI-0857

Event Code: 04EK1000-2017-E-02508

Project Name: Outer Loop Corridor Study

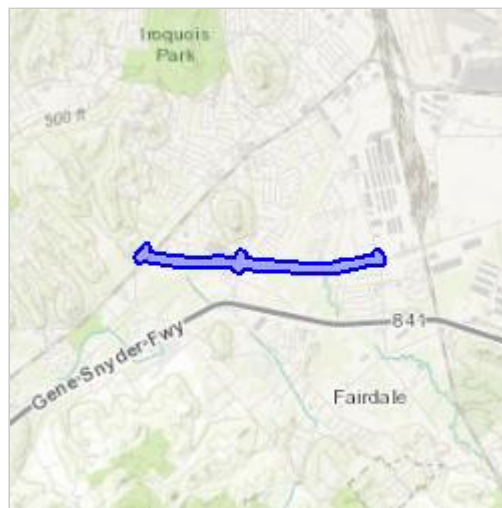
Project Type: TRANSPORTATION

Project Description: The purpose of these proposed services is to provide a terrestrial and aquatic assessment of the Outer Loop Corridor from Third Street Road (KY 907) to National Turnpike (KY 1020) in Jefferson County, Kentucky. The study corridor extends 300 feet north and south of the roadway centerline. Located within the study corridor is Southern Ditch, Northern Ditch, and four other cross ditches draining into Southern Ditch.

### Project Location:

Approximate location of the project can be viewed in Google Maps:

<https://www.google.com/maps/place/38.12696697700005N85.78413718786018W>



Counties: Jefferson, KY

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## Endangered Species Act Species

There is a total of 15 threatened, endangered, or candidate species on this species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions. See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

### Mammals

NAME	STATUS
Gray Bat <i>Myotis grisescens</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6329">https://ecos.fws.gov/ecp/species/6329</a>	Endangered
Indiana Bat <i>Myotis sodalis</i> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>Incidental take of the northern long-eared bat at this location is excepted by the 4(d) rule and is, therefore, not prohibited under the ESA.</li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

### Birds

NAME	STATUS
Least Tern <i>Sterna antillarum</i> Population: interior pop. No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/8505">https://ecos.fws.gov/ecp/species/8505</a>	Endangered

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## Clams

NAME	STATUS
<b>Clubshell <i>Pleurobema clava</i></b> Population: Wherever found; Except where listed as Experimental Populations No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/3789">https://ecos.fws.gov/ecp/species/3789</a>	Endangered
<b>Fanshell <i>Cyprogenia stegaria</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4822">https://ecos.fws.gov/ecp/species/4822</a>	Endangered
<b>Fat Pocketbook <i>Potamilus capax</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/2780">https://ecos.fws.gov/ecp/species/2780</a>	Endangered
<b>Orangefoot Pimpleback (pearlymussel) <i>Plethobasus cooperianus</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/1132">https://ecos.fws.gov/ecp/species/1132</a>	Endangered
<b>Pink Mucket (pearlymussel) <i>Lampsilis abrupta</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7829">https://ecos.fws.gov/ecp/species/7829</a>	Endangered
<b>Rabbitsfoot <i>Quadrula cylindrica cylindrica</i></b> There is a <b>final critical habitat</b> designated for this species. Your location is outside the designated critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5165">https://ecos.fws.gov/ecp/species/5165</a>	Threatened
<b>Ring Pink (mussel) <i>Obovaria retusa</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/4128">https://ecos.fws.gov/ecp/species/4128</a>	Endangered
<b>Rough Pigtoe <i>Pleurobema plenum</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6894">https://ecos.fws.gov/ecp/species/6894</a>	Endangered
<b>Sheepnose Mussel <i>Plethobasus cyphus</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/6903">https://ecos.fws.gov/ecp/species/6903</a>	Endangered
<b>Spectaclecase (mussel) <i>Cumberlandia monodonta</i></b> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/7867">https://ecos.fws.gov/ecp/species/7867</a>	Endangered

## Flowering Plants

NAME

STATUS

Running Buffalo Clover *Trifolium stoloniferum*

Endangered

No critical habitat has been designated for this species.

Species profile: <https://ecos.fws.gov/ecp/species/2529>

## Critical habitats

There are no critical habitats within your project area under this office's jurisdiction.



## Species Information

### Federal Threatened, Endangered, and Candidate Species observations for selected quads

Linked life history provided courtesy of [NatureServe Explorer](#).

**Records may include both recent and historical observations.**

[US Status Definitions](#)   [Kentucky Status Definitions](#)

List Federal Threatened, Endangered, and Candidate Species observations in 1 selected quad.

Selected quad is: Louisville West.

Scientific Name and Life History	Common Name and Pictures	Class	Quad	US Status	KY Status	WAP	Reference
<i>Pleurobema clava</i>	Clubshell	Bivalvia	Louisville West	E	E	Yes	Reference
<i>Cyprogenia stegaria</i>	Fanshell	Bivalvia	Louisville West	E	E	Yes	Reference
<i>Sternula antillarum athalassos</i>	Interior Least Tern	Aves	Louisville West	E	E	Yes	Reference
<i>Lampsilis abrupta</i>	Pink Mucket	Bivalvia	Louisville West	E	E	Yes	Reference
<i>Charadrius melodus</i>	Piping Plover	Aves	Louisville West	T	N	Yes	Reference
<i>Obovaria retusa</i>	Ring Pink	Bivalvia	Louisville West	E	E	Yes	Reference

6 species are listed.



## Species Information

### Federal Threatened, Endangered, and Candidate Species observations for selected quads

Linked life history provided courtesy of [NatureServe Explorer](#).

**Records may include both recent and historical observations.**

[US Status Definitions](#)   [Kentucky Status Definitions](#)

List Federal Threatened, Endangered, and Candidate Species observations in 1 selected quad.

Selected quad is: Valley Station.

Scientific Name and Life History	Common Name and Pictures	Class	Quad	US Status	KY Status	WAP	Reference
<i>Myotis septentrionalis</i>	Northern Myotis	Mammalia	Valley Station	T	E		Reference

1 species is listed.

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jackson	Communities	<i>Appalachian sub-xeric forest</i>		N /	GNR / S5	10.00		0	0	0
Jackson	Communities	<i>Cumberland Plateau gravel/cobble bar</i>		E /	GNR / S1S2	40.00		0	0	0
Jackson	Communities	<i>Cumberland Plateau sandstone glade</i>		E /	GNR / S1	30.00		0	0	0
Jackson	Communities	<i>Hemlock-mixed forest</i>		N /	GNR / S4S5	40.00		0	0	0
Jackson	Communities	<i>Xeric Virginia pine forest/woodland</i>		N /	GNR / S5	10.00		0	0	0
<b>Jackson County Total:</b>						<b>209</b>	<b>10</b>	<b>19</b>	<b>8</b>	<b>1</b>
Jefferson	Vascular Plants	<i>Aristida ramosissima</i>	Branched Three-awn Grass	H /	G5 / SH	01.00		0	0	0
Jefferson	Vascular Plants	<i>Cabomba caroliniana</i>	Carolina Fanwort	T /	G3G5 / S2	00.00		0	1	0
Jefferson	Vascular Plants	<i>Castanea pumila</i>	Allegheny Chinkapin	T /	G5 / S2	01.00		0	0	0
Jefferson	Vascular Plants	<i>Dryopteris carthusiana</i>	Spinulose Wood Fern	S /	G5 / S3	00.00		1	0	0
Jefferson	Vascular Plants	<i>Heteranthera dubia</i>	Grassleaf Mud-plantain	S /	G5 / S3	01.00		0	0	0
Jefferson	Vascular Plants	<i>Leavenworthia exigua var. laciniata</i>	Kentucky Gladecress	E / LT	G4T1T2 / S1S2	110.00		2	0	0
Jefferson	Vascular Plants	<i>Podostemum ceratophyllum</i>	Threadfoot	S /	G5 / S3	01.00		0	0	0
Jefferson	Vascular Plants	<i>Pontederia cordata</i>	Pickereel-weed	T /	G5 / S1S2	01.00		0	0	0
Jefferson	Vascular Plants	<i>Potamogeton illinoensis</i>	Illinois Pondweed	S /	G5 / S2	01.00		0	0	0
Jefferson	Vascular Plants	<i>Sagittaria graminea</i>	Grassleaf Arrowhead	T /	G5 / S1S2	01.00		0	0	0
Jefferson	Vascular Plants	<i>Solidago shortii</i>	Short's Goldenrod	E / LE	G1 / S1	00.00		0	1	0
Jefferson	Vascular Plants	<i>Stellaria longifolia</i>	Longleaf Stitchwort	S /	G5 / S2S3	10.00		0	0	0
Jefferson	Vascular Plants	<i>Trichostema setaceum</i>	Narrowleaved Bluecurls	E /	G5 / S1	10.00		0	0	0
Jefferson	Vascular Plants	<i>Trifolium stoloniferum</i>	Running Buffalo Clover	T / LE	G3 / S2S3	20.00		0	1	0
Jefferson	Vascular Plants	<i>Vallisneria americana</i>	Eelgrass	S /	G5 / S2S3	20.00		0	0	0
Jefferson	Vascular Plants	<i>Veratrum woodii</i>	Wood's Bunchflower	T /	G5 / S2	01.00		0	0	0
Jefferson	Vascular Plants	<i>Viola septemloba var. egglestonii</i>	Eggleston's Violet	S /	G4 / S3	50.00		0	0	0
Jefferson	Vascular Plants	<i>Vitis labrusca</i>	Northern Fox Grape	T /	G5 / S2S3	01.00		0	0	0
Jefferson	Aquatic Snails	<i>Leptoxis praerosa</i>	Onyx Rocksnail	S / SOMC	G5 / S3S4	01.00		0	0	0
Jefferson	Aquatic Snails	<i>Lithasia verrucosa</i>	Varicose Rocksnail	S / SOMC	G4Q / S3S4	10.00		0	0	0
Jefferson	Terrestrial Snails	<i>Webbhelix multilineata</i>	Striped Whitelip	T /	G5 / S1S2	10.00		0	0	0
Jefferson	Freshwater Mussels	<i>Alasmidonta marginata</i>	Elktoe	T / SOMC	G4 / S2	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Cumberlandia monodonta</i>	Spectaclecase	E / LE	G3 / S1	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Cyprogenia stegaria</i>	Fanshell	E / LE	G1Q / S1	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Epioblasma triquetra</i>	Snuffbox	E / LE	G3 / S1	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Fusconaia subrotunda</i>	Longsolid	S /	G3 / S3S4	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Hemistena lata</i>	Cracking Peartymussel	X / LE	G1 / SX	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Lampsilis abrupta</i>	Pink Mucket	E / LE	G2 / S1	01.00		0	0	0
Jefferson	Freshwater Mussels	<i>Obovaria retusa</i>	Ring Pink	E / LE	G1 / S1	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Plethobasus cooperianus</i>	Orangefoot Pimpleback	E / LE	G1 / S1	00.00		0	1	0
Jefferson	Freshwater Mussels	<i>Plethobasus cyphus</i>	Sheepnose	E / LE	G3 / S1	11.00		0	0	0
Jefferson	Freshwater Mussels	<i>Pleurobema clava</i>	Clubshell	E / LE	G1G2 / S1	01.00		0	0	0

County Report of Endangered, Threatened, and Special Concern Plants, Animals, and Natural Communities of Kentucky  
Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Freshwater Mussels	<i>Pleurobema rubrum</i>	Pyramid Pigtoe	E / SOMC	G2G3 / S1	00.00	0	1	0	0
Jefferson	Freshwater Mussels	<i>Potamilus capax</i>	Fat Pocketbook	E / LE	G2 / S1	01.00	0	0	0	0
Jefferson	Freshwater Mussels	<i>Quadrula cylindrica cylindrica</i>	Rabbitsfoot	T / LT	G3G4T3 / S2	00.00	0	1	0	0
Jefferson	Freshwater Mussels	<i>Simpsonaias ambigua</i>	Salamander Mussel	T / SOMC	G3 / S2S3	11.00	0	0	0	0
Jefferson	Freshwater Mussels	<i>Villosa ilenosa</i>	Little Spectaclecase	S /	G5 / S3S4	01.00	0	0	0	0
Jefferson	Crustaceans	<i>Gammarus bousfieldi</i>	Bousfield's Amphipod	E / SOMC	G1 / S1	01.00	0	0	0	0
Jefferson	Crustaceans	<i>Orconectes jeffersoni</i>	Louisville Crayfish	E / SOMC	G1 / S1	121.00	0	0	0	0
Jefferson	Insects	<i>Calephelis borealis</i>	Northern Metalmark	T /	G3G4 / S2	01.00	0	0	0	0
Jefferson	Insects	<i>Nicrophorus americanus</i>	American Burying Beetle	X / LE	G2G3 / SX	00.00	0	1	0	0
Jefferson	Insects	<i>Pseudanophthalmus troglodytes</i>	Louisville Cave Beetle	T / C	G1 / S1	11.00	0	0	0	0
Jefferson	Insects	<i>Satyrium favonius ontario</i>	Northern Oak Hairstreak	S /	G4T4 / S2	00.00	1	0	0	0
Jefferson	Insects	<i>Speyeria idalia</i>	Regal Fritillary	H / SOMC	G3 / SH	00.00	0	1	0	0
Jefferson	Fishes	<i>Acipenser fulvescens</i>	Lake Sturgeon	E / SOMC	G3G4 / S1	01.00	0	0	0	0
Jefferson	Fishes	<i>Alosa alabamae</i>	Alabama Shad	E / SOMC	G2G3 / S1	01.00	0	0	0	0
Jefferson	Fishes	<i>Atractosteus spatula</i>	Alligator Gar	E / SOMC	G3G4 / S1	01.00	0	0	0	0
Jefferson	Fishes	<i>Ictiobus niger</i>	Black Buffalo	S /	G5 / S3	01.00	0	0	0	0
Jefferson	Fishes	<i>Lota lota</i>	Burbot	S /	G5 / S2	10.00	0	0	0	0
Jefferson	Fishes	<i>Noturus stigmosus</i>	Northern Madtom	S / SOMC	G3 / S2S3	10.00	0	0	0	0
Jefferson	Fishes	<i>Percopsis omiscomaycus</i>	Trout-perch	S / SOMC	G5 / S3	01.00	0	0	0	0
Jefferson	Reptiles	<i>Apalone mutica mutica</i>	Midland Smooth Softshell	S /	G5T5 / S3	10.00	0	0	0	0
Jefferson	Reptiles	<i>Clonophis kirtlandii</i>	Kirtland's Snake	T / SOMC	G2 / S2	190.00	0	0	1	0
Jefferson	Reptiles	<i>Ophisaurus attenuatus longicaudus</i>	Eastern Slender Glass Lizard	T /	G5T5 / S2	01.00	0	0	0	0
Jefferson	Breeding Birds	<i>Accipiter striatus</i>	Sharp-shinned Hawk	S /	G5 / S3B,S4N	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Actitis macularius</i>	Spotted Sandpiper	E /	G5 / S1B	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Aimophila aestivalis</i>	Bachman's Sparrow	E / SOMC	G3 / S1B	00.00	0	3	0	0
Jefferson	Breeding Birds	<i>Ammodramus henslowii</i>	Henslow's Sparrow	S / SOMC	G4 / S3B	20.00	0	0	0	0
Jefferson	Breeding Birds	<i>Anas discors</i>	Blue-winged Teal	T /	G5 / S1S2B	01.00	0	1	0	0
Jefferson	Breeding Birds	<i>Ardea alba</i>	Great Egret	T /	G5 / S2B	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Botaurus lentiginosus</i>	American Bittern	H /	G4 / SHB	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Bubulcus ibis</i>	Cattle Egret	S /	G5 / S1S2B	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Chondestes grammacus</i>	Lark Sparrow	T /	G5 / S2S3B	01.00	0	0	0	0
Jefferson	Breeding Birds	<i>Cistothorus platensis</i>	Sedge Wren	S /	G5 / S3B	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Egretta caerulea</i>	Little Blue Heron	E /	G5 / S1B	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Falco peregrinus</i>	Peregrine Falcon	E / SOMC	G4 / S1B	30.00	0	0	0	0
Jefferson	Breeding Birds	<i>Haliaeetus leucocephalus</i>	Bald Eagle	T / Delisted	G5 / S2B,S2S3N	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Ixobrychus exilis</i>	Least Bittern	T /	G5 / S1S2B	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Lophodytes cucullatus</i>	Hooded Merganser	T /	G5 / S1S2B,S3S4N	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Nyctanassa violacea</i>	Yellow-crowned Night-heron	T /	G5 / S2B	20.00	0	3	0	0

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Kentucky State Nature Preserves Commission

County	Taxonomic Group	Scientific name	Common name	Statuses	Ranks	# of Occurrences				
						E	H	F	X	U
Jefferson	Breeding Birds	<i>Nycticorax nycticorax</i>	Black-crowned Night-heron	T /	G5 / S1S2B	10.00	0	4	0	0
Jefferson	Breeding Birds	<i>Pandion haliaetus</i>	Osprey	S /	G5 / S2S3B	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Passerculus sandwichensis</i>	Savannah Sparrow	S /	G5 / S2S3B, S2S3N	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Phalacrocorax auritus</i>	Double-crested Cormorant	T /	G5 / S2B	10.00	0	0	0	0
Jefferson	Breeding Birds	<i>Podilymbus podiceps</i>	Pied-billed Grebe	E /	G5 / S1B, S4N	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Rallus elegans</i>	King Rail	E /	G4 / S1B	01.00	0	1	0	0
Jefferson	Breeding Birds	<i>Riparia riparia</i>	Bank Swallow	S /	G5 / S3B	00.00	0	1	0	0
Jefferson	Breeding Birds	<i>Sternula antillarum athalassos</i>	Interior Least Tern	E / LE	G4T2Q / S2B	01.00	0	0	0	0
Jefferson	Breeding Birds	<i>Thryomanes bewickii</i>	Bewick's Wren	S / SOMC	G5 / S3B	01.00	0	0	0	0
Jefferson	Breeding Birds	<i>Tyto alba</i>	Barn Owl	S /	G5 / S3	21.00	0	0	0	0
Jefferson	Mammals	<i>Myotis grisescens</i>	Gray Myotis	T / LE	G3 / S2	20.00	0	0	0	0
Jefferson	Mammals	<i>Myotis septentrionalis</i>	Northern Long-Eared Bat	E / LT	G2G3 / S3	00.00	0	1	0	0
Jefferson	Mammals	<i>Myotis sodalis</i>	Indiana Bat	E / LE	G2 / S1S2	30.00	0	0	0	0
Jefferson	Mammals	<i>Nycticeius humeralis</i>	Evening Bat	S /	G5 / S3	10.00	0	0	0	0
Jefferson	Communities	<i>Deep soil mesophytic forest</i>		N /	GNR / S3S4	10.00	0	0	0	0
<b>Jefferson County Total:</b>						<b>87</b>	<b>57</b>	<b>4</b>	<b>34</b>	<b>1</b>
Jessamine	Vascular Plants	<i>Deschampsia cespitosa</i>	Tufted Hairgrass	E /	G5 / S1S2	20.00	0	0	0	0
Jessamine	Vascular Plants	<i>Elymus svensonii</i>	Svenson's Wildrye	T / SOMC	G3 / S2S3	70.00	0	0	0	0
Jessamine	Vascular Plants	<i>Malvastrum hispidum</i>	Hispid Falsemallow	T /	G3G5 / S2?	01.00	0	0	0	0
Jessamine	Vascular Plants	<i>Onosmodium hispidissimum</i>	Hairy False Gromwell	E /	G4G5T4 / S1	01.00	0	0	0	0
Jessamine	Vascular Plants	<i>Paxistima canbyi</i>	Canby's Mountain-lover	T / SOMC	G2 / S2	10.00	0	0	0	0
Jessamine	Vascular Plants	<i>Perideridia americana</i>	Eastern Yampah	T /	G4 / S2	10.00	1	0	0	0
Jessamine	Vascular Plants	<i>Phlox bifida ssp. stellaria</i>	Starry-cleft Phlox	E / SOMC	G5?T3 / S1	50.00	0	0	0	0
Jessamine	Vascular Plants	<i>Physaria globosa</i>	Globe Bladderpod	E / LE	G2 / S1	00.00	2	2	0	0
Jessamine	Vascular Plants	<i>Prenanthes crepidinea</i>	Nodding Rattlesnake-root	S /	G4 / S3	10.00	0	0	0	0
Jessamine	Vascular Plants	<i>Sagina fontinalis</i>	Water Stitchwort	E /	G3 / S1S2	11.00	2	0	0	0
Jessamine	Vascular Plants	<i>Schizachne purpurascens</i>	Purple Oat	T /	G5 / S2	50.00	0	0	0	0
Jessamine	Vascular Plants	<i>Trifolium stoloniferum</i>	Running Buffalo Clover	T / LE	G3 / S2S3	10.00	0	0	0	0
Jessamine	Vascular Plants	<i>Trillium nivale</i>	Snow Trillium	E /	G4 / S1	10.00	1	0	0	0
Jessamine	Vascular Plants	<i>Viburnum molle</i>	Softleaf Arrowwood	S /	G5 / S3?	30.00	0	0	0	0
Jessamine	Vascular Plants	<i>Viburnum rafinesquianum</i> var. <i>rafinquianum</i>	Downy Arrowwood	T /	G5T4T5 / S2	01.00	0	0	0	0
Jessamine	Vascular Plants	<i>Viola septemloba</i> var. <i>egglesonii</i>	Eggleson's Violet	S /	G4 / S3	01.00	0	0	0	0
Jessamine	Vascular Plants	<i>Viola walteri</i>	Walter's Violet	T /	G4G5 / S2	20.00	0	0	0	0
Jessamine	Freshwater Mussels	<i>Fusconaia subrotunda</i>	Longsolid	S /	G3 / S3S4	10.00	0	0	0	0
Jessamine	Freshwater Mussels	<i>Hemistena lata</i>	Cracking Pearlmussel	X / LE	G1 / SX	00.00	0	1	0	0
Jessamine	Freshwater Mussels	<i>Plethobasus cyphus</i>	Sheepnose	E / LE	G3 / S1	10.00	0	0	0	0
Jessamine	Insects	<i>Callophrys irus</i>	Frosted Elfyn	E /	G3 / S1	01.00	0	0	0	0
Jessamine	Insects	<i>Pseudanophthalmus abditus</i>	Concealed Cave Beetle	T /	G3 / S2	01.00	0	0	0	0

# Cultural Historic Overview

**Cultural Historic Literature Review and  
Reconnaissance for the  
Outer Loop Corridor Study  
Between 3rd Street Road (KY 907) to National Turnpike (KY 1020)  
Jefferson County, Kentucky**

KYTC Item:  
N/A

Prepared For:

Qk4, Inc.  
and the  
The Kentucky Transportation Cabinet

Prepared By:

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September 7, 2017

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## 1.0 INTRODUCTION

In August 2017 the Kentucky Transportation Cabinet (KYTC) through Qk4, Inc. contracted with Brockington and Associates, Inc. (Brockington) to conduct a Cultural Historic Analysis for roadway improvements along Outer Loop (KY 1065) between its intersections with 3rd Street Road (KY 907) and National Turnpike (KY 1020) in Jefferson County, Kentucky (Figure 1.1). This Cultural Historic Analysis included a literature review and reconnaissance of the project Study Area, which is approximately 2.5 miles in length and varies between 0.12 miles wide along the roadway to 0.25 miles wide at the intersections.

This summary report presents the results of the contracted scope of work for historic architecture, including a literature review of known aboveground resources identified in Kentucky Heritage Council (KHC) files, resources identified through local research, and resources identified through a windshield reconnaissance of the study area. A separate report has been provided for the archaeological results (Mills 2017). There are two previously recorded architectural resources within the Study Area (JF-869 [bridge] and JF-931 [house]); both have been demolished.

Following the archival research, Brockington conducted a windshield reconnaissance to identify other architectural resources within the study area that may be potentially eligible for the NRHP. During the field reconnaissance of the Study Area, we identified fifteen (15) previously unrecorded architectural resources that meet the 50-year age criteria. These include eleven (11) individual houses, two (2) commercial buildings, one (1) subdivision, and one (1) circa 1940s metal truss bridge. None of the architectural resources identified within the Study Area appear to meet the criteria for listing in the National Register of Historic Places (NRHP).

This project was conducted to support the planning phase of proposed improvements to Outer Loop and was not designed to fulfill the reporting standards for comprehensive National Historic Preservation Act (NHPA) Section 106 investigations. All NRHP eligibility assessments presented in this study are based on a reconnaissance level archival and field effort to ascertain historical associations and integrity, and should be considered *preliminary* until a more formal survey under Section 106 can be completed.

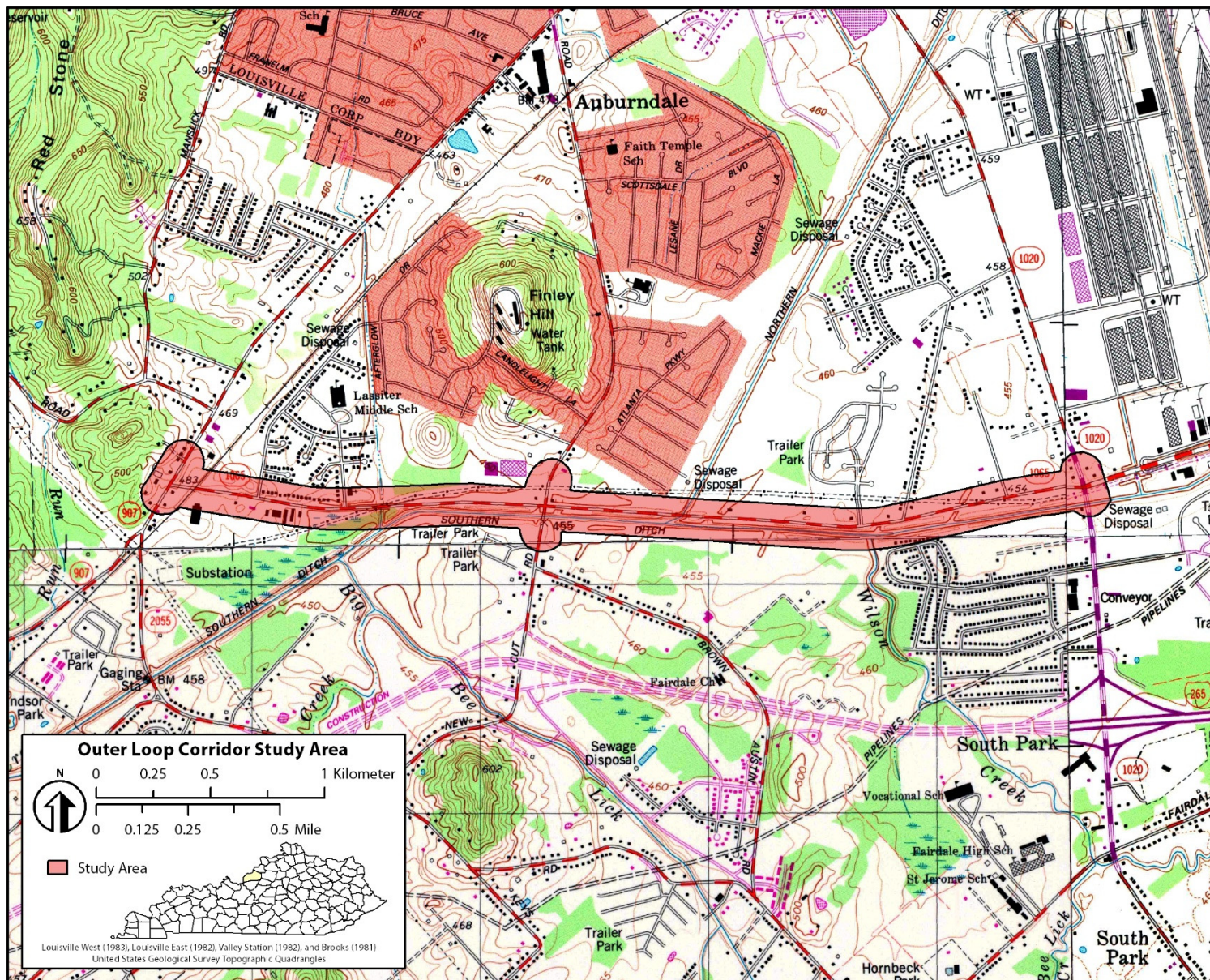
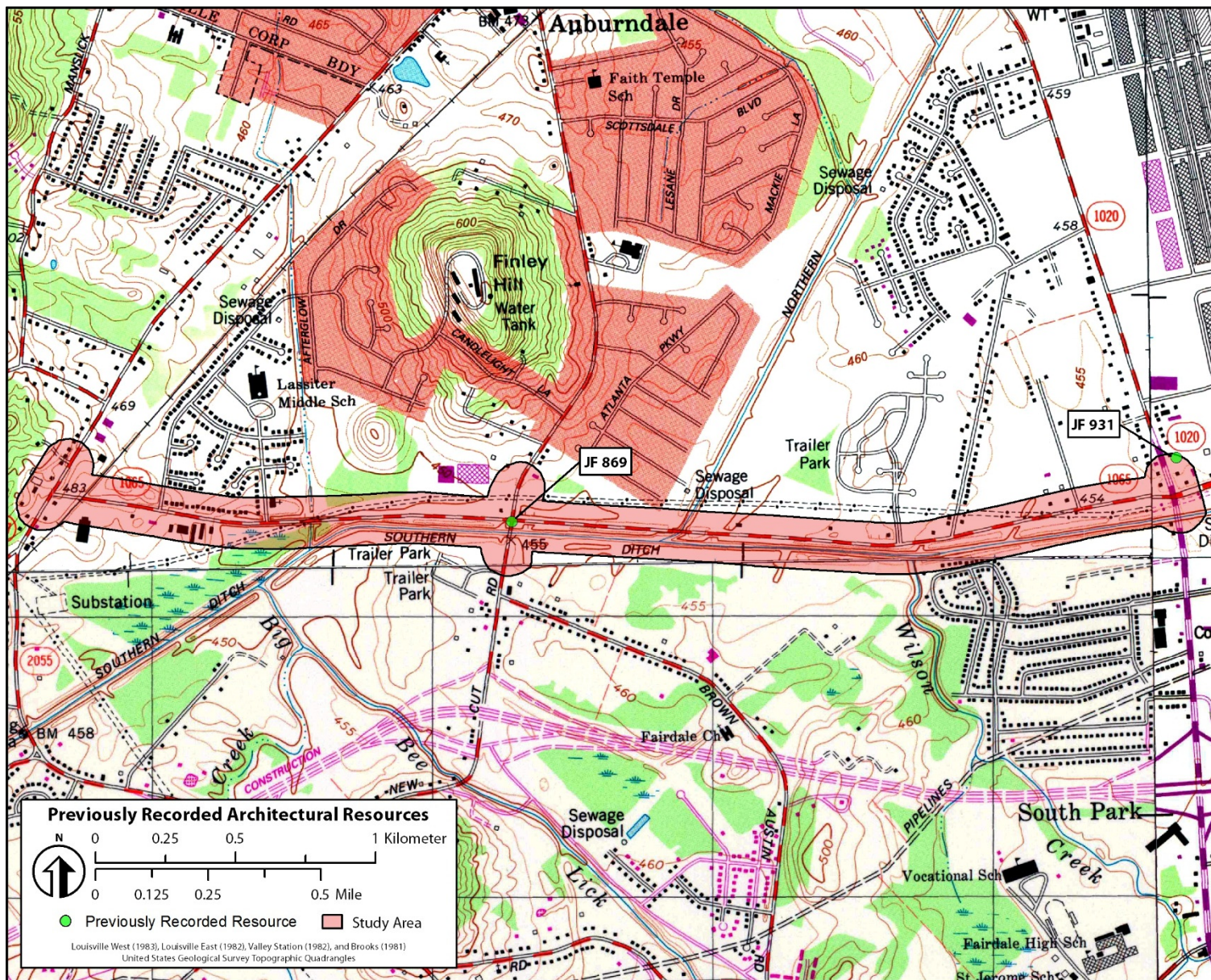


Figure 1.1 Location of the Outer Loop Study Area.

## **2.0 LITERATURE REVIEW**

Prior to the windshield reconnaissance, Brockington performed a literature review of available materials. The object of this research was to (1) collect information on previously recorded architectural resources that could be within the Study Area, (2) identify types of aboveground resources that might be encountered during the survey, and (3) develop a context in which to evaluate resources assessed during the fieldwork. Specific materials sought during this phase of work included historical maps, aerial photography, plats, newspaper articles, published documents, cultural resources management reports, and other relevant data.

The archival research included a review of materials at several repositories. At the KHC, copies of material related to previously recorded properties in the study area and the one-half mile buffer were obtained. This included data from county-wide KHC surveys as well as NRHP nominations and the National Park Service (NPS) multiple property listings. As needed, we also reviewed historic maps, newspaper and journal articles, city data, and county developmental histories at the Jefferson County Library as well as online. All year built data for the properties in the study area was collected from the Jefferson County Property Valuation Administrator (PVA). A review of files at the KHC identified two previously recorded architectural resources (JF-869 and JF-931) within the Study Area. Both of those previously recorded resources have been demolished.



### 3.0 HISTORICAL SUMMARY OF THE PROJECT AREA

Jefferson County was one of the three original counties in Kentucky and is located south of the Ohio River. The county was formed by the Virginia General Assembly in May 1780 and Louisville was designated the county seat. Originally, the county covered more than 7,800 square miles, but subdivisions during the past two centuries have reduced the size to its current 386 square miles. The county's early population was concentrated along the Ohio River, its tributaries, and the salt springs to the south of Louisville. Initial settlers came from Virginia, North Carolina, and northeastern states, and many were of Scotch-Irish or German descent (Kleber 1992).

Located on the Falls of the Ohio River, Louisville emerged as an important hub for commerce and Jefferson County itself became one of Kentucky's leading agricultural regions. In the immediate project area, settlement was sporadic until the mid-nineteenth century due to the presence of poorly drained soils. In fact, west of the project area near the present-day Louisville International Airport, was an area called the Wetwoods. In 1838, the Kentucky legislature incorporated the Jefferson Pond Drainage Company, authorized to drain the area. This was primarily accomplished through the channelization of Pond and Fern Creeks, identified on modern maps as the Southern Ditch and Northern Ditch, respectfully. However, based on an analysis of historic maps, DiBlasi and Kohl note that the drainage plans may not have been fully realized until the late nineteenth century, as "Big Ditch" only first appears on Beers and Lanagan's 1879 map (DiBlasi and Kohl 1994: 16).

Agriculture was the primary driver of development in the project area until the early to mid-twentieth century. The majority of suburban development stemmed from the city's rail and streetcar systems inside what is today the Henry Watterson Expressway (I-264). In the immediate vicinity of the project Study Area, suburban development began as early as 1907 with a planned neighborhood called Drewville near the intersection of 3rd Street Road and New Cut Road, north of the Study Area (DiBlasi 1994:16-17). The economic depression of the 1930s suppressed further development, but World War II, along with a new automobile economy and highway system, reignited the need for housing in the Louisville metropolitan area. From the mid-twentieth century onward, the county experienced a marked increase in development towards its outermost communities located along or near existing thoroughfares. Near the Study Area, this included Confederate Acres and Glengarry, north and south of Outer Loop, respectively.

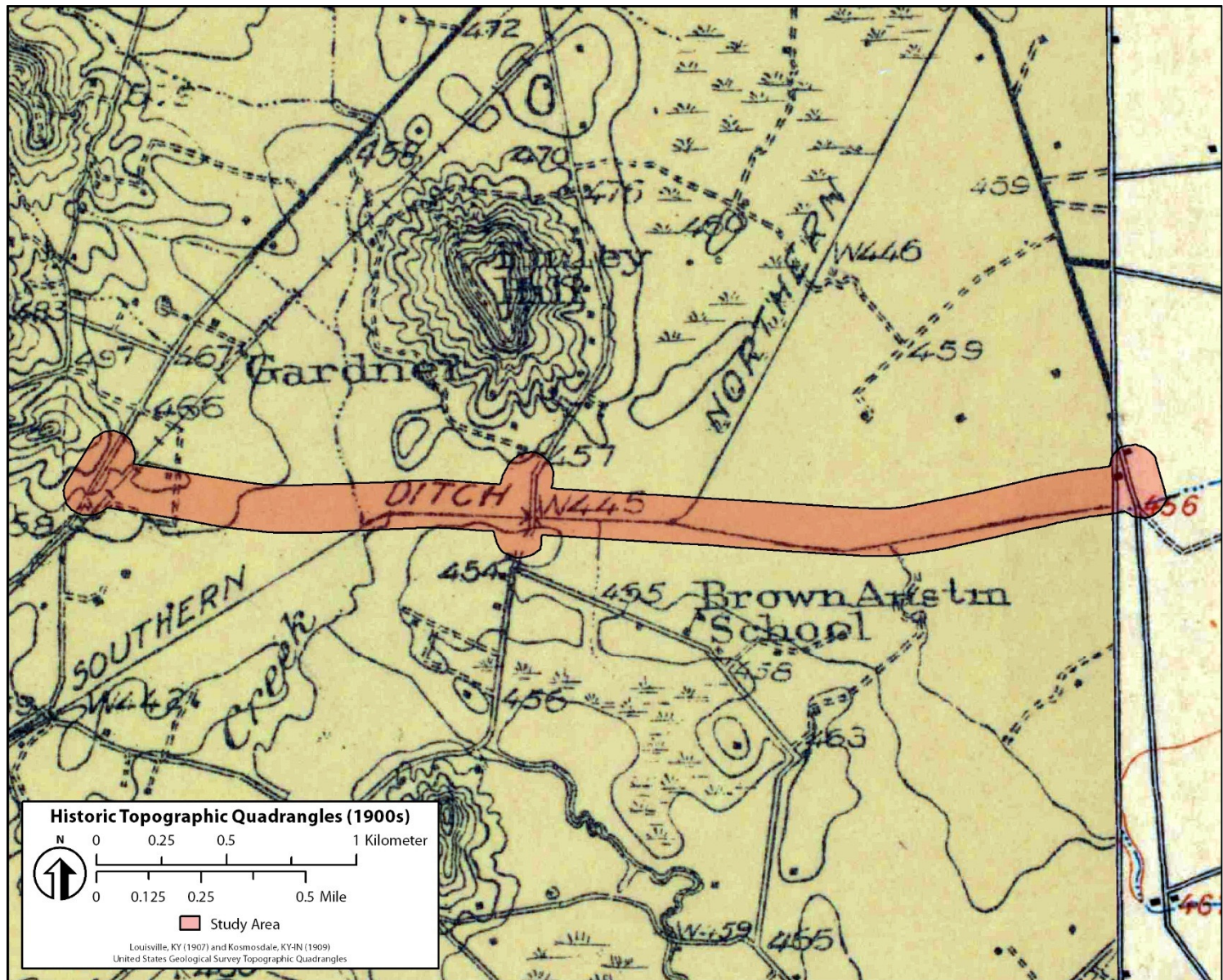


Figure 3.1 Project Study Area as shown on early-twentieth century quadrangles (Louisville, KY [1907]; Kosmodale, KY-IN [1909]).

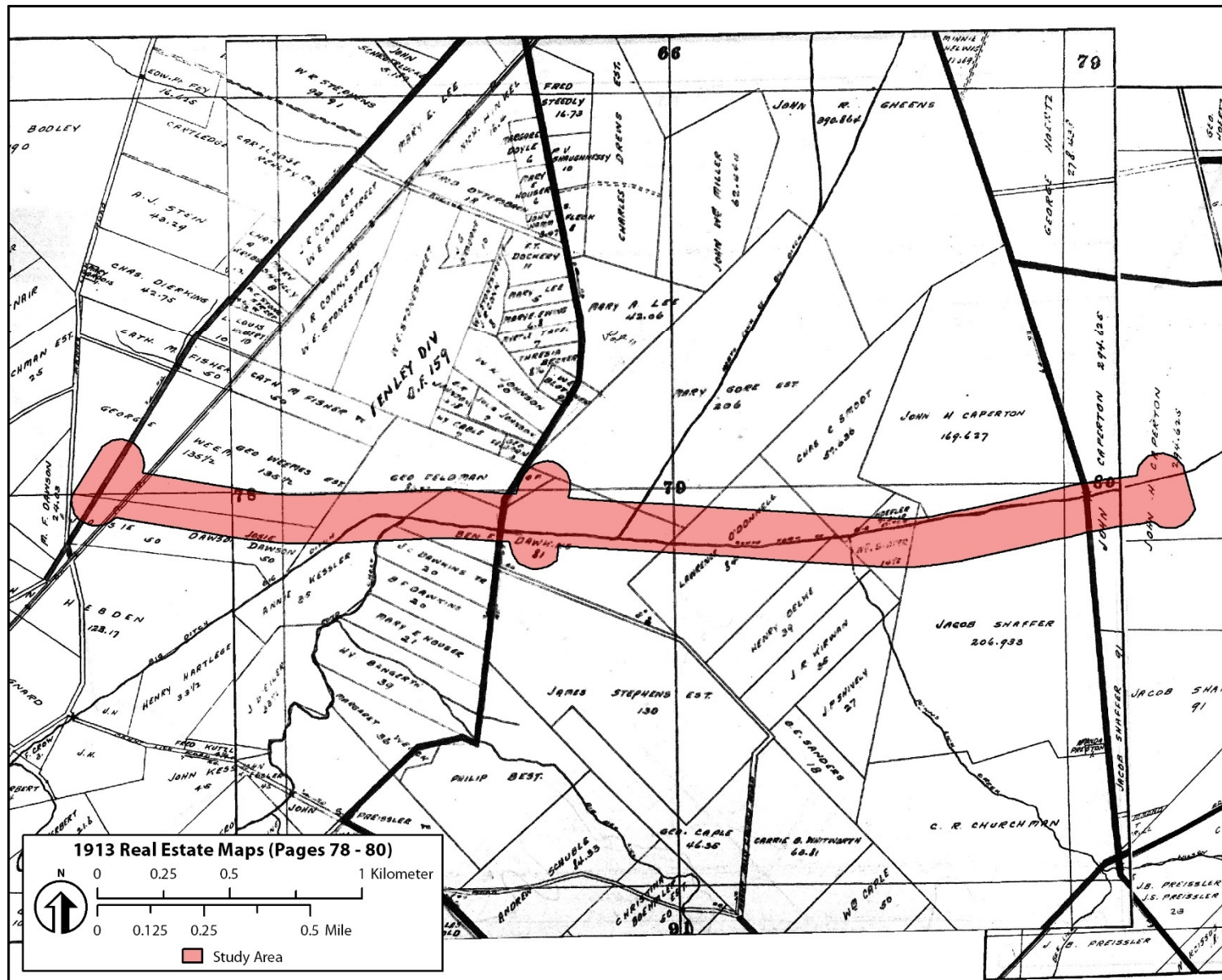


Figure 3.2 Project Study Area as shown on 1913 Jefferson County real estate maps (Louisville Metropolitan Archives).

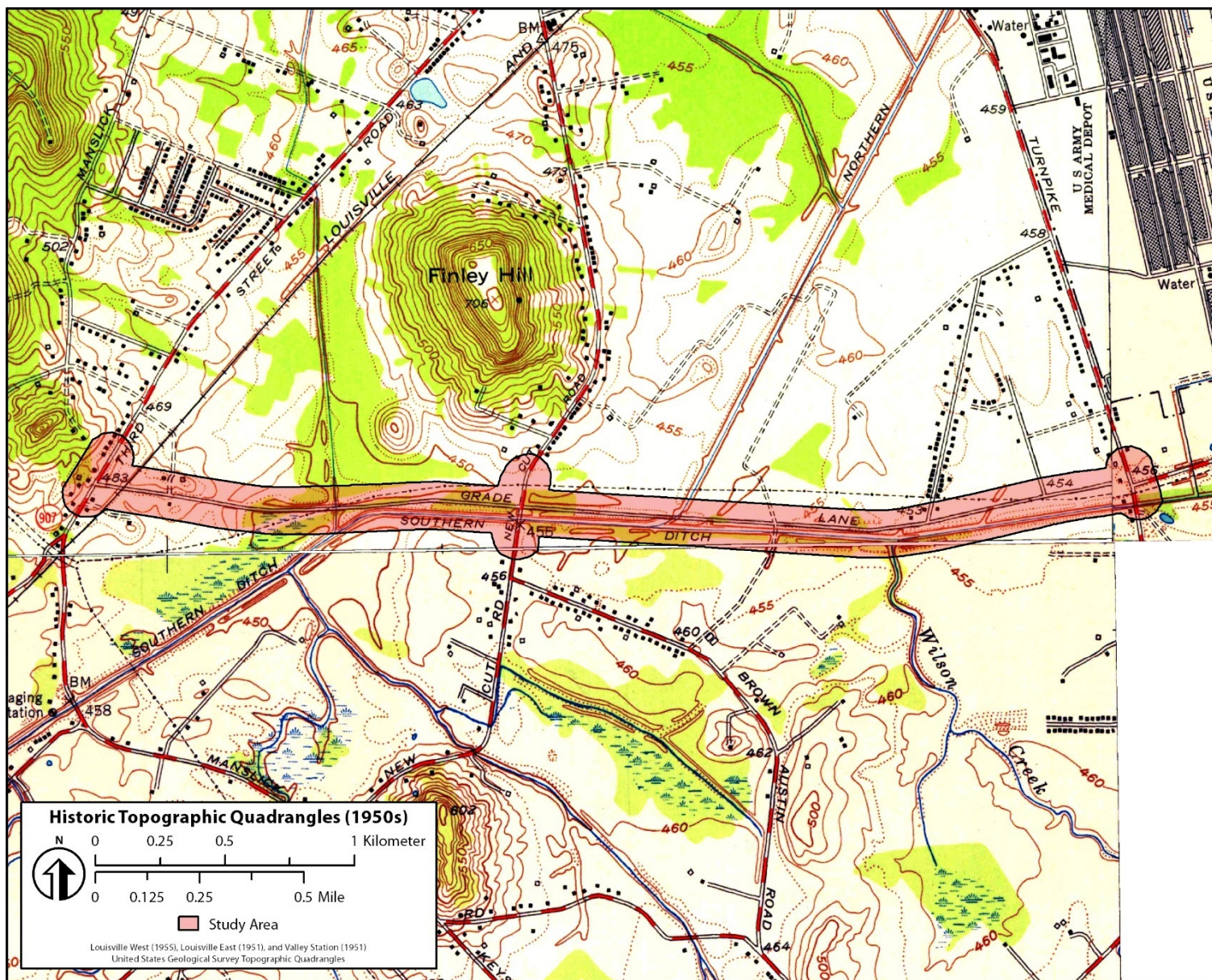


Figure 3.3 Study Area on 1950s quadrangle maps (Louisville West, KY [1955]; Louisville East, KY [1951]; Valley Station, KY [1951]).

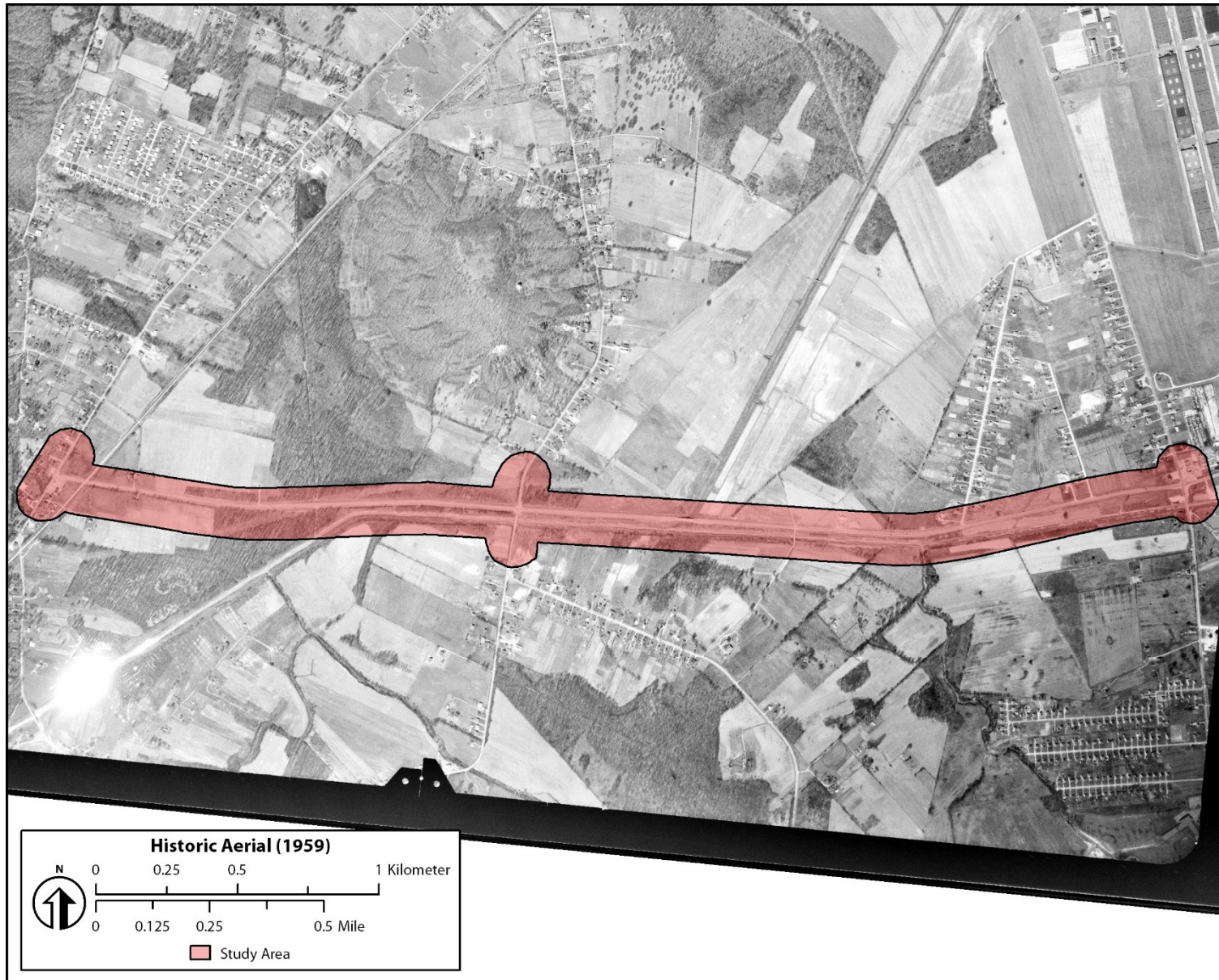


Figure 3.4 Project Study Area as shown on 1959 aerial photograph (Earth Explorer).

## 4.0 RESULTS OF THE RECONNAISSANCE

During the week of August 21, 2017, Brockington conducted a reconnaissance of the Study Area. As outlined in National Register Bulletin #24, a windshield reconnaissance-level survey is useful in ascertaining “a general picture of the distribution of different types and styles [of architectural resources], and of the character of different neighborhoods” (Parker 1985:35-36). Reconnaissance surveys are also useful for making preliminary assessments of eligibility based on the architectural integrity of properties, but not in conducting a complete evaluation. For this Cultural Historic Analysis, we first reviewed county PVA data to determine which buildings within the Study Area were at least 50 years of age. Within the Study Area, the reconnaissance survey included a windshield and pedestrian walk-by/inspection of individual properties and one or more photographs of each aboveground potentially eligible resource, where access was possible. Several resources were located in residential neighborhoods. In such cases, we took representative photographs of buildings as well as streetscape views to glean further information in regard to district integrity and design, architectural composition, the presence and type of any infill development, and the general landscape aesthetic of roads, sidewalks, or other defining features.

The Study Area (Figures 4.1-4.2) is located south and west of the Louisville International Airport. The area is best described as transitional, as it contains a mixture of industrial, commercial, and residential buildings (Figures 4.3-4.11). Based on current land clearings in the vicinity, it appears this area is increasingly commercial. Outer Loop is a two-lane highway that intersects to I-65 to the east and 3rd Street Road to the west. It is also bisected by New Cut Road, which connects with Gene Snyder Freeway to the south. Generally, the built environment of the Study Area and its immediate vicinity dates to the late twentieth-century, although there are a few mid-twentieth century buildings present, primarily along 3rd Street Road. Houses along Tolls Lane, extending northward from the Study Area, dates to the 1930s and 1940s. Outer Loop itself wasn't constructed until the mid-1950s and even after its construction, development was generally limited to its western terminus at 3rd Street Road and other primary intersections eastward toward the Louisville Airport. The eastern portion of the Study Area is more heavily commercial with light industrial. Those subdivisions that do exist adjacent to the Study Area are Confederate Acres (circa 1970) to the north and Glengarry (circa early 1960s) to the south.

During the field reconnaissance, we reviewed the locations of the two previously recorded resources, however both have been demolished. Resource JF-931 (see Figure 2.1) was a house located at 8401 National Turnpike (demolished for commercial development) and JF-869 is an abandoned circa 1930s bridge carrying New Cut Road over the Southern Ditch.

Fifteen (15) previously unrecorded architectural resources were identified within the Study Area (see Table 4.1; Figures 4.12-4.25). These include eleven (11) individual houses, two (2) commercial buildings, one (1) subdivision, and one (1) circa 1940s metal truss bridge. The houses range in date between 1930 and 1959 and include several types or styles of architecture, including Ranch, English Vernacular Revival, Minimal Traditional, and other vernacular type designs common to the mid-twentieth century. All have had some form of architectural feature modification, the most common being the use of vinyl replacement windows or a pane configuration incompatible to the original design. Others have had door replacements or physical additions or enclosures visible from public rights-of-way. The houses identified along Outer Loop are intermingled with more modern commercial buildings and, thus, do not represent a particular pattern of development. Similarly, while those near at the western end of the Study

Area along 3rd Street Road are clustered closer together, they were constructed at different times and were not part of a designed developmental pattern or subdivision. None of the residential resources retain sufficient integrity to be considered individually eligible for listing in the NRHP, nor did the background research identify any significant historical or personal associations for any of the buildings.

The one identified neighborhood meeting the 50-year age criteria within the Study Area is located south of Outer Loop near its eastern end. The Glengarry Subdivision, constructed by owner-developer Wilben Corporation, dates to the early 1960s. The houses along Ferguson Fife Avenue (see Figures 4.2 And 4.4) fall along the edge of the Study Area and were all built in 1963 except for the western most house, which dates to 1993. The houses within the Study Area and, more broadly across the associated subdivision to the south, lack significant character-defining features other than their simplicity and uniformity of design. All are small Ranch type houses utilizing three or four replicated designs and were typical of those used for middle to lower-income class residents. All of the houses are also located south of Southern Ditch in an area of the Study Area that is likely to be visual effects only. Those houses that fall within the Study Area lack individual distinction and typically have a combination of architectural modifications such as window and door replacements. Further, the subdivision as a whole appears to have a significant number of individual buildings with similar physical alterations. This has diminished the neighborhood's integrity as a whole and it does not appear to be eligible for the NRHP.

There are two commercial buildings within the Study Area that date to the late 1960s (see Table 4.1) and neither possesses distinctive characteristics. In fact, one, located at 201 Outer Loop, has a modified façade with a gable-front brick addition. The final resource is an abandoned single-lane metal truss bridge that, based on historic mapping, appears to date to the late 1940s (see Figure 4.2 and 4.25). This particular crossing/roadway of the Southern Ditch does not appear on historic quads dating to 1935, 1938, or 1942. In fact, those quads do not show even a farm lane in this area. The mapped crossing first appears on a 1957 quad, although it is visible on a 1955 aerial photograph for a lane connecting New Cut Road and Brown Austin Road. It is possible that the bridge may have been moved to this location during the late 1940s or early 1950s, but the literature review found no supporting information. The bridge is a simple metal truss structure; it has no deck materials and is overgrown with vegetation. There is a new adjacent concrete deck bridge to the east that leads into a property cleared for development. Given the lack of architectural integrity and historical associations, the bridge does not appear to qualify for the NRHP.

**Table 4.1. Newly identified architectural resources within the Study Area (for photographs, see Figures 4.12-4.25).**

Property Address	Description	Date	NRHP Assessment
110 Outer Loop (Figure 4.12)	Ranch House; incompatible addition and replacement windows; lacks architectural integrity	1956	Not eligible
201 Outer Loop (Figure 4.13)	Commercial building; incompatible façade addition with gable; lacks architectural integrity	1968	Not eligible
215 Outer Loop (Figure 4.14)	Ranch House; incompatible east side addition; incompatible window replacements; lacks architectural integrity	1959	Not eligible

Ferguson Fife Avenue/Glengarry Subdivision (Figure 4.4)	10 total houses over 50 years (#s 509, 511, 513, 515, 517, 519, 521, 523, 525, 527) within Study Area; remainder of district outside Study Area; early 1960s vernacular architecture	1963	Buildings within Study Area not eligible; subdivision does not appear to be eligible.
7920 3rd Street Rd (Figure 4.15)	Minimal traditional; incompatible replacement windows; lacks architectural integrity	1939	Not eligible
7922 3rd Street Rd (Figure 4.16)	Vernacular side-gable; incompatible window and door replacements; lacks architectural integrity	1950	Not eligible
7926 3rd Street Rd (Figure 4.17)	Minimal traditional; vinyl window replacements; lacks architectural integrity	1940	Not eligible
7928 3rd Street Rd (Figure 4.18)	Ranch; vinyl window replacements; south side enclosure/incompatible door	1955	Not eligible
7932 3rd Street Rd (Figure 4.19)	English vernacular revival; incompatible window replacements; south side porch enclosure; lacks architectural integrity	1938	Not eligible
8000 3rd Street Rd (Figure 4.20)	Commercial building; few alterations but is not expressive of a particular type or style	1967	Not eligible
8015 3rd Street Rd (Figure 4.21)	Side-gable vernacular; porch enclosure; incompatible window replacements and shed dormer addition; lacks architectural integrity	1930	Not eligible
8503 Tolls Ln (Figure 4.22)	Side-gable vernacular; vinyl windows; application of brick veneer; removal of front door; lacks architectural integrity	1946	Not eligible
8510 Tolls Ln (Figure 4.23)	Hipped roof bungalow; vinyl windows; incompatible door replacement; foundation rebuild; vinyl siding; lacks architectural integrity	1939	Not eligible
8512 Tolls Ln (Figure 4.24)	Vernacular bungalow; replacement windows, door, and siding; incompatible addition and roofline alterations	1953	Not eligible
Over Southern Ditch (Figure 4.25)	Iron Truss Bridge; only frame remains; lack of historical association and materials	ca 1940s	Not eligible

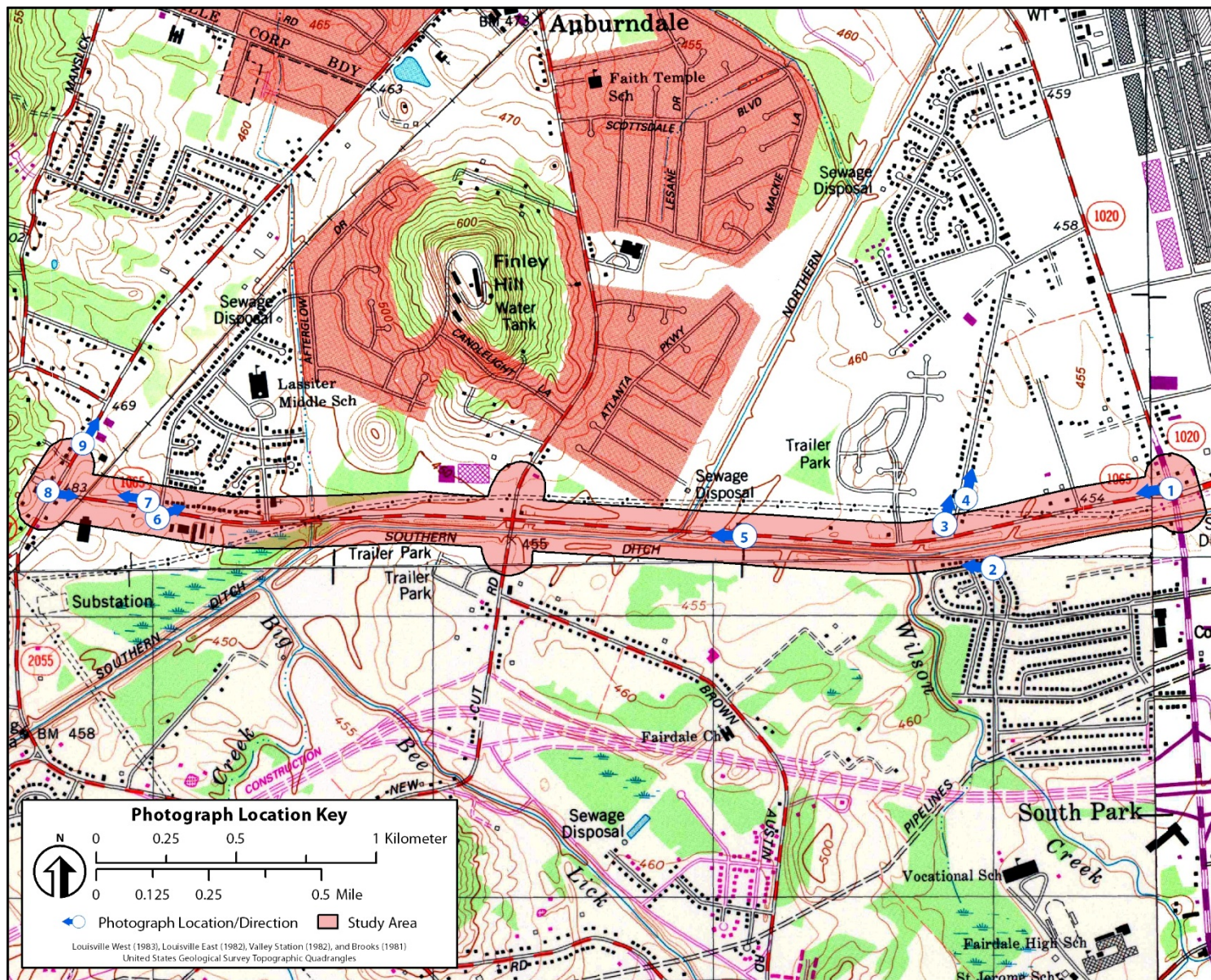
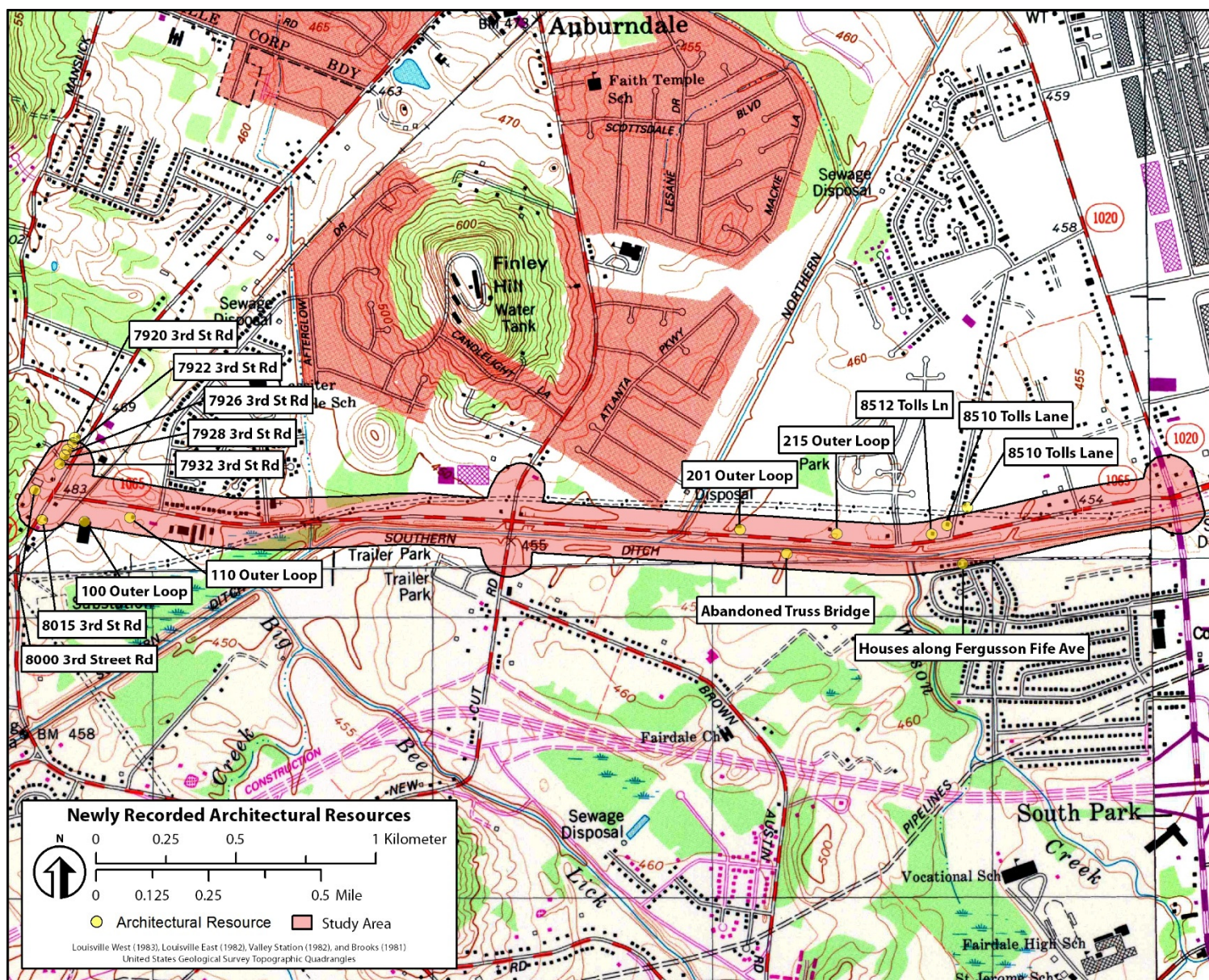


Figure 4.1 Outer Loop Study Area showing viewpoint photograph locations for Figures 4.3-4.11.





**Figure 4.3 Viewpoint #1, Outer Loop Study Area, eastern terminus, facing west.**



**Figure 4.4 Viewpoint #2, houses within Glengarry Subdivision along Ferguson Fife Avenue, facing west.**



**Figure 4.5 Viewpoint #3, facing north along Tolls Lane at edge of Study Area.**



**Figure 4.6 Viewpoint #4, facing south along Tolls Lane towards Study Area.**



**Figure 4.7 Viewpoint #5, facing west along Outer Loop near property at 201 Outer Loop.**



**Figure 4.8 Viewpoint #6, facing north-northeast near intersection with Afterglow Drive.**



**Figure 4.9 Viewpoint #7, facing west along Outer Loop at Afterglow Drive.**



**Figure 4.10 Viewpoint #8, facing east to Outer Loop at 3rd Street Road intersection.**



**Figure 4.11 Viewpoint #9, facing north along 3rd Street Road.**

## Individual Architectural Resource Photographs



**Figure 4.12 110 Outer Loop, Ranch House, facing south (not eligible)**



**Figure 4.13 201 Outer Loop, commercial building, facing northwest (not eligible)**



**Figure 4.14 215 Outer Loop, Ranch House, facing north (not eligible)**



**Figure 4.15 7920 3rd Street Road, Minimal Traditional, facing northwest (not eligible)**



**Figure 4.16 7922 3rd Street Road, Vernacular, facing west (not eligible)**



**Figure 4.17 7926 3rd Street Road, Minimal Traditional, facing northwest (not eligible)**



**Figure 4.18 7928 3rd Street Road, Ranch, facing northwest (not eligible)**



**Figure 4.19 7932 3rd Street Road, English Vernacular Revival, facing northwest (not eligible)**



**Figure 4.20 8000 3rd Street Road, Commercial, facing west (not eligible)**



**Figure 4.21 8015 3rd Street Road, Vernacular, facing southwest (not eligible)**



**Figure 4.22 8503 Tolls Lane, Vernacular, facing northeast (not eligible)**



**Figure 4.23 8510 Tolls Lane, Vernacular, facing northwest (not eligible)**



**Figure 4.24 8512 Tolls Lane, Vernacular, facing west (not eligible)**



**Figure 4.25 Iron truss bridge over Southern Ditch, facing southwest (not eligible)**

## 5.0 BIBLIOGRAPHY

DiBlasi, P.J. and Rhonda Marie Kohl

1994 *An Archaeological Reconnaissance of the Proposed New Cut Road Widening, From Southside Drive/Third Street Road to the Gene Snyder Freeway, Jefferson County, Kentucky*. Prepared for Presnell Associates, Louisville, Kentucky.

Kleber, John E. (editor)

1992 *The Kentucky Encyclopedia*. The University Press of Kentucky, Lexington.

Mills, E. Nichole

2017 *Archaeological Overview: Outer Loop Corridor Study Between 3<sup>rd</sup> Street Road and National Turnpike, Jefferson County, Kentucky*. Prepared for QK4, Inc. and the Kentucky Transportation Cabinet.

# Land and Water Conservation Grants

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type
973 - XXX	LONG RUN PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$15,769.82	1986	1988	Development
967 - XXX	HIGHVIEW PARK IMPROVEMENTS	JEFFERSON COUNTY	JEFFERSON	KY	\$32,346.00	1986	1988	Development
917 - XXX	COX PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$32,346.00	1985	1987	Development
863 - XXX	MCNEELY PARK DEVELOPMENT	JEFFERSON COUNTY	JEFFERSON	KY	\$33,409.20	1984	1986	Development
84 - XXX	CROSBY PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$73,750.00	1970	1971	Acquisition
827 - XXX	RIVERVIEW PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$24,864.62	1983	1988	Development
819 - XXX	HAYS KENNEDY PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$19,930.27	1983	1988	Development
818 - XXX	JEFFERSON CO. PICNIC AREAS	JEFFERSON COUNTY	JEFFERSON	KY	\$16,949.38	1983	1988	Development
657 - XXX	EASTERN HIGH SCHOOL TENNIS COURTS	JEFFERSON COUNTY	JEFFERSON	KY	\$26,129.73	1980	1985	Development
580 - XXX	LONG RUN GOLF COURSE	JEFFERSON COUNTY	JEFFERSON	KY	\$160,931.89	1979	1984	Development
574 - XXX	SUN VALLEY TENNIS COURTS	JEFFERSON COUNTY	JEFFERSON	KY	\$85,289.50	1979	1984	Development
534 - XXX	JEFFERSON COUNTY MEMORIAL FOREST	JEFFERSON COUNTY	JEFFERSON	KY	\$381,500.12	1978	1984	Acquisition
533 - XXX	BLUE LICK PARK DEVELOPMENT	JEFFERSON COUNTY	JEFFERSON	KY	\$75,543.31	1978	1981	Development
527 - XXX	HIGHVIEW PARK IMPROVEMENTS	JEFFERSON COUNTY	JEFFERSON	KY	\$154,984.24	1978	1983	Development
518 - XXX	VALLEY HIGH SCHOOL BALLFIELD LIGHTIN	JEFFERSON COUNTY	JEFFERSON	KY	\$18,234.00	1978	1980	Development
467 - XXX	JEFFERSON COUNTY PARKS ACQ. & DEV.	JEFFERSON COUNTY	JEFFERSON	KY	\$108,944.13	1977	1979	Combination
39 - XXX	CHARLIE VETTINER GOLF COURSE	JEFFERSON COUNTY	JEFFERSON	KY	\$23,625.00	1969	1971	Acquisition
385 - XXX	JEFFERSON COUNTY PARKS DEVELOPMENT	JEFFERSON COUNTY	JEFFERSON	KY	\$140,151.78	1976	1979	Development
38 - XXX	MCNEELY LAKE ADDITION	JEFFERSON COUNTY	JEFFERSON	KY	\$46,400.00	1969	1971	Acquisition
37 - XXX	REMOVE	JEFFERSON COUNTY	JEFFERSON	KY	\$57,500.00	1969	1971	Acquisition
36 - XXX	DES PRES PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$61,042.50	1969	1970	Acquisition
330 - XXX	JEFFERSON COUNTY PARKS- TENNIS COURTS	JEFFERSON COUNTY	JEFFERSON	KY	\$135,740.50	1975	1978	Development
324 - XXX	PICNIC AREAS ON FIVE COUNTY PARKS	JEFFERSON COUNTY	JEFFERSON	KY	\$72,297.89	1975	1977	Development
31 - XXX	BERRYTOWN PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$27,000.00	1969	1970	Acquisition
276 - XXX	HIGHVIEW PARK ADDITION	JEFFERSON COUNTY	JEFFERSON	KY	\$94,105.15	1974	1977	Combination
16 - XXX	HAYS KENNEDY PARK	JEFFERSON COUNTY	JEFFERSON	KY	\$23,050.00	1968	1970	Acquisition
134 - XXX	RIVERFIELDS	JEFFERSON COUNTY	JEFFERSON	KY	\$266,719.26	1972	1982	Combination
1259 - XXX	FAIRMOUNT FALLS	JEFFERSON COUNTY FISCAL COURT	JEFFERSON	KY	\$61,950.00	2002	2007	Acquisition

Grant ID & Element	Grant Name	Sponsor	County	State	Grant Amount	Year Approved	Year Completed	Type
119 - XXX	JEFFERSON FOREST ADDITION	JEFFERSON COUNTY	JEFFERSON	KY	\$11,358.40	1971	1972	Acquisition
1125 - XXX	FARNSLEY-MOREMEN LANDING	JEFERSON COUNTY	JEFFERSON	KY	\$15,392.72	1992	1994	Development
1046 - XXX	JEFFERSON COUNTY MEMORIAL FOREST	JEFFERSON COUNTY	JEFFERSON	KY	\$24,259.50	1988	1989	Acquisition