



April 9, 2014

Mr. Rodney N. Barry, P.E.  
Division Administrator  
Federal Highway Administration  
Atlanta Federal Center  
61 Forsyth Street, S.W., Suite 17<sup>th</sup> Floor  
Atlanta, Georgia 30303-3104  
ATTN: Jennifer Giersch

Re: Ecology Resource Survey and Assessment of Effects Report Transmittal, Georgia Department of Transportation  
Interstate 285 Ramps at Riverside Drive, P.I. No. 0010925, Fulton County, Georgia

Dear Mr. Barry:

The Georgia Department of Transportation (GDOT) has identified the need to implement improvements to the Interstate 285 (I-285) ramps at Riverside Drive in Fulton County, Georgia. The proposed project would convert the existing signalized intersections at the eastbound and westbound ramp termini and Riverside Drive to single lane roundabouts. Total project length is approximately 0.5 mile. The approximate midpoint of the project is located at latitude 34.9159° N and longitude -84.40668° W.

Please find attached the Ecology Resource Survey and Assessment of Effects Report for the above referenced project. This report describes ecological investigations of the project study area. Surveys for jurisdictional waters of the US, waters subject to State buffer regulations, and protected species (State and Federal) were conducted throughout the project study area; and effects determinations are as follows:

- One federally jurisdictional stream was identified within the study area; however, the project would avoid this jurisdictional resource and the associated State mandated buffer. No Section 404 permit or Stream Buffer Variance will be required for this project. This project will not require compensatory mitigation.
- Six federally protected species are listed in Fulton County; however, suitable habitat was not found within the project study area. Therefore, the project would have no effect on the following federally protected species: Cherokee darter (*Etheostoma scotti*), Gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), purple bankclimber (*Elliptioideus sloatianus*), shinyrayed pocketbook (*Lampsilis subangulata*), and dwarf sumac (*Rhus michauxii*).
- The proposed federally endangered northern long-eared bat (*myotis septentrionalis*) is listed in Fulton County; however, correspondence between GDOT and US Fish and Wildlife Service (FWS) indicated the proposed project would have no effect on the northern long-eared bat; and the species will be addressed programmatically.
- No suitable habitat for the federal candidate species Georgia aster (*Symphyotrichum georgianum*) was identified within the project study area; therefore, the project would have no effect to federal candidate species.
- The following state-listed species have known occurrences within three miles of the project, but suitable habitat was not found within the survey area: Henslow's sparrow (*Ammodramus henslowii*), Chattahoochee crayfish (*Cambarus howardi*), delicate spike (*Elliptio arctata*), mountain witch alder (*Fothergilla major*), and bay star-vine (*Schisandra glabra*). The project would have no effect on the aforementioned state-listed species.
- The state-listed sweet pinesap (*Monotropis odorata*) has a known occurrence within three miles of the proposed project. Suitable habitat for the sweet pinesap was identified within the project study area and a Protected Species Survey was conducted on March 10, 2014 during which no individuals were identified. Suitable habitat is located within the project limits and will be impacted by the proposed project. Therefore, the project would have no significant adverse effect on the sweet pinesap.
- The project would have no effect on bald eagles as neither species nor foraging or nesting habitat is present within the project study area.
- Migratory bird nesting habitat was identified within the project study area at the Riverside Drive bridge over I-285; no nests or evidence of nesting was observed during survey. Rehabilitation of the Riverside Drive bridge would be scheduled to take place at a time outside the breeding season of migratory birds or exclusion measures would be taken to prevent migratory bird nesting within the structure pursuant to the terms of the GDOT's Special Provision 107.23G, which would be implemented during the construction of the project.

- The project would have no effect to bats or their suitable habitat as neither species or suitable habitat was identified within the project area.
- Invasive plant species were identified within the project study area. Seasonally appropriate measures would be taken during project construction to prevent or minimize the spread of these species.
- Critical Habitat is not present within the project study area; therefore, the project would have no effect to critical habitat.
- Essential Fish Habitat (EFH) is not present within the project study area; therefore, the project would have no effect to EFH.

The Department respectfully requests your concurrence with the listed biological determinations. If you should have any questions or need additional information, please contact Meghan Hedeem (404-631-1812 or mhedeem@dot.ga.gov) or Doug Chamblin (404-631-1447 or dchamblin@dot.ga.gov) with the GDOT Office of Environmental Services.

Sincerely,



Hiral Patel, P.E.

State Environmental Administrator

HP/HDC/jci  
Attachment

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Eugene Hopkins, GDOT ECB  
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Paul Alimia, GDOT NEPA  
Catherine Samay, EPD  
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Mark LaRue, EPA

Ecology Resource Survey and Assessment of Effects Report  
April 4, 2014

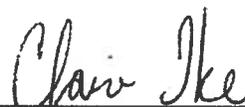
Fulton County  
P.I. No. 0010925

Interstate 285 Ramps at Riverside Drive

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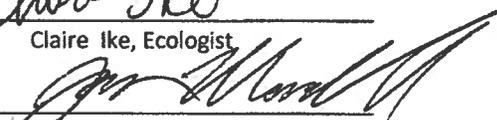
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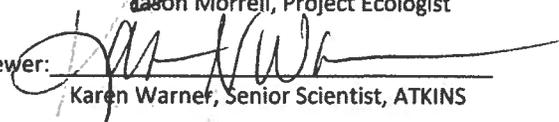
Claire Ike, Ecologist

Consultant Reviewer: \_\_\_\_\_



Jason Morrell, Project Ecologist

GDOT Reviewer: \_\_\_\_\_



Karen Warner, Senior Scientist, ATKINS

Ecology Resource Survey and Assessment of Effects Overview  
 Fulton, County  
 PI # 0010925

<b>Impacts to Federally Jurisdictional Resources</b>		
<b>Resource Type</b>	<b>Length of Impact (feet)</b>	<b>Area of Impact (acres)</b>
Perennial Stream	NA	NA
Intermittent Stream	NA	NA
Ephemeral Channel	NA	NA
TOTAL	NA	NA
Wetland	NA	NA
Open Water	NA	NA
TOTAL	NA	NA

NA=Not Applicable

<b>Present in the Project Area</b>	
Invasive Species	Y
Bald Eagle Nest, Habitat	N
Critical Habitat	N
Essential Fish Habitat	N
Bat Roosting Habitat	N
Migratory Bird Habitat	Y

N=No, Y=Yes

<b>Agency Coordination</b>	
FWCA	NR
Section 7	NR
Buffer Variance	NR
Buffer Mitigation	NR
404 Permit	NR
404 Permit Mitigation	NR

NR=Not Required

Federal and State Protected Species							
Species Name	Common Name	Federal Rank	State Rank	Habitat Present	Species Present	Special Provision	Biological Determination
<i>Myotis septentrionalis</i>	Northern long-eared bat	PE	NL	N	N	N	No Effect
<i>Ammodramus henslowii</i>	Henslow's sparrow	NL	R	N	N	N	No Effect
<i>Etheostoma scotti</i>	Cherokee darter	TR	TR	N	N	N	No Effect
<i>Medionidus penicillatus</i>	Gulf moccasinshell	E	E	N	N	N	No Effect*
<i>Pleurobema pyriforme</i>	Oval pigtoe	E	E	N	N	N	No Effect*
<i>Elliptioideus sloatianus</i>	Purple bankclimber	TR	TR	N	N	N	No Effect*
<i>Lampsilis subangulata</i>	Shinyrayed pocketbook	E	E	N	N	N	No Effect*
<i>Elliptio arcata</i>	Delicate spike	NL	E	N	N	N	No Effect
<i>Cambarus howardi</i>	Chattahoochee Crayfish	NL	TR	N	N	N	No Effect
<i>Monotropsis odorata</i>	Sweet pinesnap	NL	TR	Y	N	N	No Significant Adverse Effect
<i>Schisandra glabra</i>	Bay star-vine	NL	TR	N	N	N	No Effect
<i>Fothergilla major</i>	Mountain witch-alder	NL	TR	N	N	N	No Effect
<i>Symphyotrichum georgianum</i>	Georgia aster	C	TR	N	N	N	No Effect
<i>Rhus michauxii</i>	Dwarf sumac	E	E	N	N	N	No Effect

**LEGEND:** E = Endangered; TR = Threatened; C = Candidate; NL = Not Listed; N = No; R = Rare; Y = Yes; PE = Proposed Endangered

\*Per correspondence with U.S. Fish and Wildlife (FWS), a protected aquatic species survey would not be required for these species, as they have been extirpated from the project vicinity.

**Sources:** Georgia DNR, Wildlife Resources Division, Natural Heritage Program, Locations of Special Concern Animals, Plants, and Natural Communities in Fulton County (updated May 2010); Letter from Georgia DNR (Anna Yellin) dated November 1, 2013 documenting known occurrences of protected species within a three-mile radius of project; USFWS Information, Planning and Conservation (IPaC) System, official species list generated on October 30, 2013

## Executive Summary

The Georgia Department of Transportation (GDOT) is proposing operational improvements to the Interstate 285 (I-285) ramps at County Road (CR) 209/Riverside Drive, in Fulton County, Georgia. The project is located within the City of Sandy Springs approximately 3.0 miles west of the intersection of State Route (SR) 400 and I-285. The project area was included in the ecology report for revive285 top end (PI Nos. 0001758 & 0003534); however, this is a stand-alone project (P.I. No.0010925) and is proceeding under one environmental document. The proposed project would convert the existing eastbound (EB) and westbound (WB) signalized entry and exit intersections of I-285 from Riverside Drive to roundabouts. Utilizing a roundabout lane configuration at this interchange would decrease the number of crashes in the area as well as reduce traffic delays during times of increased traffic volumes. The total project length is approximately 0.5 miles.

Surveys for natural resources within project study area were completed October 23, 2013 and November 11, 2013. Habitats within the study area consist primarily of developed areas, maintained/landscaped right-of-way (ROW), and mixed pine – hardwood forest. Four Category One invasive species as defined by the Georgia Exotic Pest Plant Council were identified within the project area during field surveys and include English ivy (*Hedera helix*), Chinese wisteria (*Wisteria sinensis*), mimosa (*Albizia julibrissin*) and Chinese privet (*Ligustrum sinense*).

Migratory bird nesting habitat was observed at the Riverside Drive bridge over I-285; however no nests or species were observed at the time of survey. Rehabilitation of the aforementioned bridge would require implementation of GDOT Special Provision 107.23G to avoid impacts to migratory birds and/or their suitable habitat. The project study area is not designated as critical habitat or essential fish habitat and would have no effect on the bald eagle (*Haliaeetus leucocephalus*). Based on the location, design, and configuration of the aforementioned bridge's structural elements, it not suitable bat roosting habitat.

One jurisdictional stream (Intermittent Stream 1) is located within the project study area. Intermittent Stream 1 will not be impacted by the proposed project; therefore, no Section 404 permit or compensatory mitigation is required. No jurisdictional wetlands or open waters are located within the project study area. Intermittent Stream 1 is a state water and is subject to state mandated buffer requirements. However, the 25-foot buffer will be avoided and no stream buffer variance will be required from the Georgia Environmental Protection Division.

Six federally protected, one federal candidate, and one proposed federally endangered species are listed by the U.S. Fish and Wildlife Service (USFWS) and the Georgia Department of Natural Resources (GDNR) as having historic and/or current occurrence records in Fulton County, GA. According to the GDNR Natural Heritage Database, six additional state-listed species have known occurrences within a three-mile radius of the proposed project.

The following federal-listed species were identified as occurring in Fulton County by the GDNR and USFWS: gulf moccasinshell (*Medionidus penicillatus*), oval pigtoe (*Pleurobema pyriforme*), purple bankclimber (*Elliptoideus sloatianus*), shinyrayed pockbook (*Lampsilis aubangulata*), Cherokee darter (*Etheostoma scotti*), and dwarf sumac (*Rhus michauxii*). In addition the federally proposed endangered northern long-eared bat (*Myotis septentrionalis*) is listed for Fulton County. No federal-listed or federal proposed listed species were identified by GDNR to occur within a three mile radius of the project.

The federal-candidate species Georgia aster (*Symphyotrichum georgianum*) was identified in Fulton County by the GDNR. No federal-listed candidate species were identified by GDNR to occur within a three mile radius of the project.

No federal-listed or candidate species or their suitable habitats were identified within the proposed study area. Per correspondence between GDOT and USFWS, the proposed project would have no effect on the northern long-eared bat and the species will be addressed programmatically. Based on this information, the project will have no effect on federal-protected species and will not require Informal or Formal Section 7 coordination.

The following state-listed species have known occurrence records within three miles of the proposed project according to coordination with GDNR: Henslow's sparrow (*Ammodramus henslowii*), Chattahoochee crayfish (*Cambarus howardi*), delicate spike (*Elliptio arctata*), mountain witch-alder (*Fothergilla major*), sweet pinesap (*Monotropsis odorata*), and bay star-vine (*Schisandra glabra*).

Habitat for the state-protected sweet pinesap was identified within the project area. A protected species survey was completed on March 10, 2014, in which no individuals were identified. The proposed project would have no significant adverse effect on the sweet pinesap. No suitable habitat for the remaining state-listed species known to occur within three miles of the proposed project was identified within the project area. Based on this information, the proposed project will have no effect on the Henslow's sparrow, Chattahoochee crayfish, delicate spike, mountain witch-alder or bay star-vine.

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## **I. PROJECT OVERVIEW**

### **A. Project Location**

The Georgia Department of Transportation (GDOT) has proposed operational improvements to the Interstate 285 (I-285) ramps at County Road (CR) 209/Riverside Drive. The project is located along Riverside Drive approximately 236 feet south of the eastbound (EB) intersection of Riverside Drive and I-285 to approximately 364 feet north of the westbound (WB) intersection of Riverside Drive and I-285. East and westbound I-285 entry and exit ramps are also included. The proposed project lies within the Upper Chattahoochee River Watershed (HUC 03130001) in the Southern Inner Piedmont ecoregion. The Upper Chattahoochee River Watershed is a United States Environmental Protection Agency (USEPA) Region 4 Priority Watershed. The project is located within the City of Sandy Springs approximately 3.0 miles west of the intersection of State Route (SR) 400 and I-285. The approximate midpoint of the project is located at latitude 33.9159, longitude -84.4066. Please refer to Figure 1 for a project location map.

### **B. Need and Purpose**

The proposed project will enhance safety and improve operational efficiency at the intersections of Riverside Drive and the I-285 ramps in Fulton County, Georgia. Currently these intersections are signalized and the crash data from 2005-2009 indicates that 109 crashes have occurred at these two ramp intersections with I-285 resulting in 16 total injuries. Of those crashes, 39% were angle collisions accounting for 50% of the injuries. Roundabouts have been identified by the Federal Highway Administration (FHWA) as one of the proven safety countermeasures in addressing crashes at intersections. The installation of roundabouts at existing signalized intersections has resulted in reduction in crash frequency and in many instances better operational efficiency. Roundabouts are generally navigated at slower speeds which correlate with lower impact and less severe crashes. Roundabouts also present fewer conflict points than traditional intersections resulting in fewer collisions.

### **C. Project Description**

The proposed project consists of safety improvements to the existing interchange and consists of converting the two existing signalized intersections at each ramp terminal to a single lane roundabout. The project area was included in the Ecology Report for revive285 top end (PI Nos. 0001758 & 0003534); however, this is a stand-alone project (P.I. No.0010925) and is proceeding under one environmental document.

The current roadway configuration of Riverside Drive consists of one, twelve foot wide lane in each direction, a ten foot wide grassed outside shoulder on each side, and traffic signals at the I-285 on and off ramp termini. There are no left turn lanes at the intersections with the I-285 entrance ramps, resulting in left turning vehicles blocking the through movements to enter I-285. The existing bridge consists of one, twelve foot wide lane in each direction, one northbound and one southbound. The eastbound and westbound I-285 off ramps each consist of a single, sixteen foot lane. There are no

existing sidewalks approaching the bridge, however there are existing five foot sidewalks on the bridge itself (both sides). The existing right-of way (ROW) along Riverside Drive varies from 50 to 100 feet.

The proposed project would convert the two existing signalized intersections at each ramp terminal at Riverside Drive with a single lane roundabout. Each approach to the roundabout would be widened to two lanes with one lane entering the roundabout and the other serving as a right turn lane. The outside shoulders would remain 10 feet. Construction activity on Riverside Drive would extend approximately 450 feet to the north from the west bound on ramp to 285 and approximately 325 feet to the south from the east bound exit ramp. The proposed project would require approximately 1,520 square feet of additional ROW. A five foot wide sidewalk would be added to both sides of the roadway along Riverside Drive within the limits of the project. The project is approximately 0.5 mile length. The total disturbed acreage is approximately 3.1 acres.

In addition to the description above, the project would also include routine rehabilitation of the existing bridge. This work includes replacement of the joints at bent 2 and abutments 1 and 5. All construction joints will be resealed and the bridge deck would be sealed with a two-part polymer overlay. Concrete spalling would be repaired on bents 3 & 4 and abutment 5.

#### **D. Survey Methodology**

Desktop research was conducted prior to field surveys to identify potential ecological resources within the study area. Sources include U.S. Geologic Survey (USGS) topographic quadrangle maps, National Wetland Inventory (NWI) maps, and U.S. Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS) soil survey maps of Fulton County. Information concerning the occurrence of federal and state protected species within the project study area was gathered from the U.S. Fish and Wildlife Service (USFWS) Information, Planning, and Conservation (IPaC) System and the Georgia Department of Natural Resources (GDNR) Natural Heritage Program websites.

ARCADIS U.S., Inc. (ARCADIS) Ecologists Jason Morrell and Claire Ike conducted a pedestrian survey for approximately six hours along the proposed project study area (Figure 2) on October 23, 2013 to determine natural resource conditions. Weather was clear and sunny with temperatures ranging from 70 to 80 degrees Fahrenheit. The most recent rain event in the project vicinity occurred on October 19, 2013, releasing 0.05 inches of precipitation (Appendix D). A subsequent field survey was conducted on November 11, 2013. The survey was completed by Jason Morrell and Claire Ike and lasted approximately 6 hours. Weather was clear and sunny with temperatures ranging from 60 to 70 degrees Fahrenheit. The most recent rain event in the project vicinity occurred on November 7, 2013, releasing 0.13 inches of precipitation (Appendix D). Based on historical weather data, 2013 average rainfall for the months of October and November are below that of the 30 year average for each month (Appendix D). Plant communities and their associated wildlife were assessed during the field investigation. Qualification statements for the surveyors are included in Appendix D.

Jurisdictional wetland determinations were performed using the three-parameter approach (hydrophytic vegetation, hydric soils, and wetland hydrology) as described in the Regional Supplement to the (1987) Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region. Stream classifications were performed using the North Carolina Division of Water Quality (NC DWQ) Methodology for Identification of Intermittent and Perennial Streams and Their Origins, Version 4.11. State waters were delineated using the Georgia Environmental Protection Division (GA EPD) 2006 Field Guide for Determining the Presence of State Waters that Require a Buffer.

## **E. Habitats and Land Use Areas**

Habitats within the project study area consist of developed, maintained/landscaped ROW, and mixed pine – hardwood forests. Below are descriptions of each habitat type within the project study area. Please refer to Figure 3 for a map delineating each habitat type within the 22-acre project study area.

### Developed

These areas consist of impervious surfaces such as paved roadways and sidewalks, parking lots, buildings, residential structures, and adjacent landscaped areas. Vegetation typically consists of turf-type grasses and a variety of ornamental species, most of which are restricted to landscaped areas with patches of native vegetation that contains an abundance of invasive species. This habitat type is generally unusable for most species of flora and fauna, other than species adapted to urban conditions and is considered very low quality for biotic diversity. This habitat makes up approximately 12 acres (54%) of the study area. This habitat type is not suitable for any state or federally protected species.

### Maintained/Landscaped ROW

This habitat type consists of mowed and maintained herbaceous vegetation typically found along transportation ROWs, such as road shoulders and medians, and utility ROWs. Dominant vegetation found within this habitat type consists of turf type grasses, goldenrod (*Solidago* sp.), and blackberry (*Rubus* sp.). This habitat type is generally unusable for most species of flora and fauna, other than species adapted to urban conditions and is considered very low quality for biotic diversity. This habitat makes up approximately five acres (23%) of the study area. This habitat type is not suitable for any state or federally protected species.

### Mixed Pine - Hardwood

This habitat consists of fragmented areas of secondary successional mixed pine – hardwood forest with a typical understory dominated by native and non-native shrubs and vines. Dominant overstory species within this habitat type include loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), tulip poplar (*Liriodendron tulipifera*), southern magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), mockernut hickory (*Carya tomentosa*), American elm (*Ulmus americana*), water oak (*Quercus nigra*), and chestnut oak (*Quercus montana*). Understory species include muscadine (*Vitis rotundifolia*), poison ivy (*Toxicodendron radicans*), roundleaf greenbrier (*Smilax rotundifolia*), leatherleaf mahonia (*Mahonia bealei*), yellow root (*Xanthorrhiza simplicissima*), thorny olive (*Elaeagnus pungens*), Chinese privet (*Ligustrum sinense*), Christmas fern (*Polystichum acrostichoides*), and sensitive fern (*Onoclea sensibilis*).

This habitat makes up approximately five acres (23%) of the study area. This habitat type is highly fragmented with forested patches not exceeding two acres. This habitat type is not suitable for any federally protected species of flora or fauna; however, is suitable for the state-protected sweet pinesap (*Monotropis odorata*).

## **II. FEDERALLY PROTECTED RESOURCES**

### **A. Protected Species and Habitats**

Under the provisions of the Endangered Species Act (ESA) of 1973, as amended, federal law requires that actions likely to adversely affect a species classified as federally protected be subject to review by the USFWS and/or the National Marine Fisheries Service (NMFS), as appropriate. Official lists of threatened and endangered species with distributional ranges in Fulton County were obtained from the GDNR Natural Heritage Program and the USFWS IPaC website (Appendix C). In addition, an official IPaC list specific to the project area was generated (Appendix C). Neither federally-protected species individuals nor suitable habitats were observed within the project study area during field surveys.

A list of protected species known to occur within a three-mile radius of the project site was requested from GDNR on September 20, 2013. According to the response dated November 1, 2013, GDNR indicated that no federally-protected species are known to occur within three miles of the project study area (Appendix C).

Species descriptions were obtained from the GDNR Rare Species Profiles, the University of Georgia Museum of Natural History website, NatureServe Explorer, and U.S. Department of Agriculture Natural Resources Conservation Service Plants Database. Full references are located in the Reference section of this report.

#### **i. Federally Threatened and Endangered**

In compliance with Section 7 of the ESA, the Georgia Department of Transportation (GDOT) must identify the presence of threatened and endangered species, and their designated critical habitat as well as evaluating project impacts. According to the GDNR Fulton County and USFWS IPaC lists, six federally-threatened species and one proposed endangered species are known to occur within Fulton County and are described below as well as in Table 3.

##### Cherokee darter (*Etheostoma scotti*) – Federal Threatened; State Threatened

Endemic to the Etowah River system in north Georgia, the Cherokee darter is primarily restricted to streams draining the Piedmont physiographic province and, to a lesser extent, streams in the western and southwestern foothills of the Blue Ridge physiographic province. As a result of historic construction of the Allatoona Dam and Reservoir, Cherokee darter populations are fragmented and isolated. The Cherokee darter is known to occur in approximately 20 small to moderately large tributaries of the middle and upper Etowah River system. The largest populations of Cherokee darter occur in the tributaries of the Etowah River and are most prevalent upstream of Allatoona Lake, including in the

Little River in Cherokee County and northernmost Fulton County. Relic populations are restricted to two tributary systems downstream of the dam: Pumpkinvine and Raccoon Creeks in Paulding County.

Habitat for the Cherokee darter consists of small- to medium-sized warm water creeks with a moderate gradient and predominantly rocky substrates. The species is found in shallow water areas with reduced current, usually in runs above and below riffles and backwaters. It is typically associated with large gravel, cobble, and small boulder substrates and rarely found over bedrock, fine gravel, or sand. The Cherokee darter is most abundant in streams with clear water and silt-free substrates. It is intolerant to heavy siltation and impoundments.

Suitable habitat within the documented range of the Cherokee darter was not observed within the project study area as the project is located in the Upper Chattahoochee River Watershed. Based on this information, the construction of this project would have no effect on this species or its suitable habitat.

Gulf moccasinshell (*Medionidus penicillatus*) – Federal Endangered; State Endangered

The locality for the Gulf moccasinshell was originally recorded as two sites in the Apalachicola-Chattahoochee-Flint (ACF) Basin in Georgia: the Chattahoochee River near Columbus and Atlanta, and the Flint River near Albany. The Gulf moccasinshell was known historically in Alabama, Georgia, and Florida from the main stems and tributaries throughout the ACF Basin and Econfina Creek. However, subpopulation losses have been substantial, and the species is no longer found in the Chattahoochee River main stem. Generally, small subpopulations of the Gulf moccasinshell persist in the Chattahoochee River system including: Sawhatchee and Kirkland Creeks. Habitat for the Gulf moccasinshell includes channels of small- to medium-sized creeks to large rivers with sand and gravel or silty sand substrates in slow to moderate currents.

Per correspondence with the USFWS, a survey for protected aquatic mussels listed in Fulton County is not required as the species have been extirpated from that portion of the Chattahoochee River Basin encompassing the proposed project (Appendix C). Additionally, no suitable habitat for the Gulf moccasinshell was identified within the project area, as it does not contain any perennial streams. Therefore, construction of the proposed project would have no effect on this species or its suitable habitat.

Oval Pigtoe (*Pleurobema pyriforme*) – Federal Endangered; State Endangered

The locality of the oval pigtoe is endemic to the Apalachicola River basin of Alabama, Florida, and Georgia. Historically, this species was known from the Chipola, Apalachicola, Chattahoochee, and Flint Rivers and their tributaries. In Georgia, this species is currently restricted to Sawhatchee Creek in the Chattahoochee River basin, Spring Creek, and the Flint River and its tributaries upstream to Line Creek near Peachtree City, Georgia. Habitat for the oval pigtoe includes small streams to large rivers with moderate flow and sand or gravel substrates.

Per correspondence with the USFWS, a survey for protected aquatic mussels listed in Fulton County is not required as the species have been extirpated from that portion of the Chattahoochee River Basin

encompassing the proposed project (Appendix C). Additionally, no suitable habitat for the oval pigtoe was identified within the project area, as it contains no perennial streams. Therefore, construction of the proposed project would have no effect on this species or its suitable habitat.

Shinyrayed pocketbook (*Lampsilis subangulata*) – Federal Endangered; State Endangered

The locality of the shinyrayed pocketbook is endemic to the eastern Gulf Slope of Alabama, Florida, and Georgia, and was historically known from the Apalachicola and the Ochlockonee river basins. In Georgia, this species occurred in the Chattahoochee River Basin up to Atlanta and to the headwaters of the Flint River, as well as the Ochlockonee River. Currently, the Chattahoochee population appears to be restricted to Sawhatchee and Kirkland Creeks, while the species appears to occur widely throughout the Flint River and its tributaries. There have also been several recent collections of this species from the Ochlockonee River. Habitat for the shinyrayed pocketbook includes medium sized streams to large rivers in sandy to muddy substrates with slight to moderate current.

Per correspondence with the USFWS, a survey for protected aquatic mussels listed in Fulton County is not required as the species have been extirpated from that portion of the Chattahoochee River Basin encompassing the proposed project (Appendix C). Additionally, no suitable habitat for the shinyrayed pocketbook was identified within the project area, as no perennial streams were identified. Therefore, construction of the proposed project would have no effect on this species or its suitable habitat.

Purple bankclimber (*Elliptoideus sloatianus*) – Federal Threatened; State Threatened

The purple bankclimber is historically known from the ACF and Ochlockonee River basins. Fossil records indicate that the purple bankclimber historically occurred in the Suwannee River in Florida. This species is currently known from the ACF, Chattahoochee, and Ochlockonee River systems with the largest populations in Georgia likely occurring in the Flint River from Decatur County upstream to approximately Upson County. Habitat for the purple bankclimber includes small to large rivers with moderate current and sandy to silty substrates.

Per correspondence with the USFWS, a survey for protected aquatic mussels listed in Fulton County is not required as the species have been extirpated from that portion of the Chattahoochee River Basin encompassing the proposed project (Appendix C). Additionally, no suitable habitat for the purple bankclimber was identified within the project area, as no perennial streams were identified. Therefore, construction of the proposed project would have no effect on this species or its suitable habitat.

Dwarf sumac (*Rhus michauxii*) – Federal Endangered; State Endangered

Dwarf sumac is a perennial, colonial shrub that grows to three feet tall. Leaves are deciduous, alternate and compound with nine to 13 leaflets. Unlike winged sumac (*Rhus copallinum*), the rachis is winged only between the two to three uppermost pairs of leaflets. Leaflets are 1.5 to 3.5 inches (3.8 to nine centimeters) long, oblong and sharply serrated. Flowers form a dense, tightly branched cluster at the top of the stem. The entire plant is covered in dense hairs. Habitat for this species consists of openings in dry, open, rocky or sandy woodlands over mafic rock. Historically, fire maintained the natural habitat

of this species. Currently it largely persists in plantings and protected areas; however, cleared ROW is considered potential habitat for this species.

Suitable habitat for dwarf sumac was not observed within the project study area. Cleared areas along the project study area are frequently mowed or demonstrate high levels of competition from invasive woody and herbaceous species. In addition, forest canopy is largely closed with dense areas of understory growth and invasive species. No suitable habitat for this species was observed within the project study area. Based on this information, construction of the proposed project would have no effect on this species or its suitable habitat.

Northern long-eared bat (*Myotis septentrionalis*) – Federal Proposed Endangered; State Not Listed

On October 2, 2013, the USFWS proposed to list the northern long-eared bat as an endangered species in Georgia. The range of the northern long-eared bat includes much of the eastern and north central United States, and all Canadian provinces from the Atlantic Ocean west to the southern Yukon Territory and eastern British Columbia. According to the 2013 USFWS predictive range map for the northern long-eared bat in Georgia, Fulton County is included in the predictive range for this species. Winter habitat includes caves and mines with large passages and entrances; constant temperatures; and high humidity with no air currents. Summer habitat for the northern long-eared bat generally consists of mature forest (greater than 100 years) with uneven forest age, and a multi-layered vertical structure. Single and multiple tree-fall gaps, standing snags, and woody debris are ideal habitats. In addition to the species preference for mature forest, northern long-eared bats are reliant on intact, interior forests with patches no less than 160 acres.

The project area lacks suitable habitat for the northern long-eared bat, as described above, with existing forested areas being highly fragmented. Forested habitat is comprised of secondary successional mixed pine – hardwood forest stands (40-60 years of age) with few snags. In addition, no winter hibernacula (caves and mines) or large open waters for foraging are present within the project area. Per correspondence between GDOT and USFWS, the proposed project would have no effect on the northern long-eared bat and the species will be addressed programmatically (Appendix C).

**ii. Federal Candidate Species**

According to the GDNR protected species lists, one federal candidate species is known to occur within Fulton County and is described below.

Georgia Aster (*Symphotrichum georgianum*) – Federal Candidate; State Threatened

The Georgia aster is an herbaceous plant blooming in early to mid-fall. The flowers have dark purple rays up to 0.8 inch (2 centimeters) long and white disc flowers. The suitable habitat for this species consists of openings within dry, upland blackjack oak (*Quercus marilandica*)/mixed-pine dominated flatwoods in the Piedmont region. If provided with adequate light, the Georgia aster is a good competitor with other early successional species. Most remaining populations are small and survive

adjacent to roads, utility ROWs, and other openings where current land management mimics natural disturbance regimes.

Suitable habitat for Georgia aster was not observed within the project area. Roadside areas and ROW are heavily shaded in most areas and mowed/maintained regularly. In addition, forested edges/openings within the project study area are heavily populated with invasive species. Furthermore, Georgia DNR occurrence records do not indicate any known locations of this species within three miles of the project study area. Based on this information, the proposed project would have no effect on this species or its suitable habitat.

### **iii. Critical Habitat**

Critical habitat is a term defined and used in the ESA identifying specific geographic areas that include physical and biological features essential to the conservation of a federal-listed species. It is a specific geographic area(s) that is essential for the conservation of a threatened or endangered species and that may require special management and protection. All federally protected mussels listed for Fulton County have designated critical habitat; however, there is no critical habitat designated in Fulton County. The nearest location of critical habitat listed for the purple bankclimber, oval pigtoe, shinyrayed pocketbook, and gulf moccasinshell is approximately 34 miles south of the project area in Whitewater Creek. Based on this information, the proposed project will have no effect on designated critical habitat.

### **iv. Bald and Golden Eagles**

The Bald Eagle Protection Act of 1940 provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and the golden eagle (*Aquila chrysaetos*) by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds.

According to Georgia DNR (Appendix C), the closest bald eagle nest to the project study area is approximately 21.5 miles northwest on Lake Allatoona. In addition, no suitable foraging or nesting habitat is located within the project area. Based on this information, construction of the proposed project would have no effect on the bald eagle or its suitable habitat.

### **v. Migratory Birds**

The Migratory Bird Treaty Act (MBTA) of 1918 and the Executive Order on the Responsibility of Federal Agencies to Protect Migratory Birds (EO 13186), requires the protection of migratory birds and their habitats.

A habitat evaluation was conducted during field surveys to determine quality of migratory bird habitats within the project study area. The majority of habitat throughout the project study area is fragmented by clearings, roads, or land development. No areas of contiguous high-quality forested habitat are present with the project area.

The Riverside Drive bridge over I-285 is the only structure within the project area that could potentially provide migratory bird nesting habitat; however, neither migratory bird species, nor evidence of nesting

was observed during field survey. Rehabilitation of the Riverside Drive bridge would be scheduled to take place at a time outside the breeding season of migratory birds or exclusion measures would be taken to prevent migratory bird nesting within the structure pursuant to the terms of the GDOT's Special Provision 107.23G (Appendix A), which would be implemented during the construction of the project.

**vi. Essential Fish Habitat**

In compliance with the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), GDOT must identify unavoidable adverse impacts to Essential Fish Habitat. Essential fish habitat can be found in the following Georgia counties: Camden, Glynn, McIntosh, Liberty, Bryan, and Chatham. Essential fish habitat is not found in or near Fulton County; therefore, no essential fish habitat would be impacted by the construction of the proposed project.

**B. Invasive Species**

On Feb 3, 1999, Executive Order 13112 was signed establishing the National Invasive Species Council. Executive Order 13112 requires that Federal actions not contribute to the spread of invasive species. During the onsite evaluation of the proposed project, ARCADIS ecologists identified and documented invasive plant species published on the Georgia Exotic Pest Plant Council's list of targeted species as Category 1 species. Identified invasive plant species include: English Ivy (*Hedera helix*), Chinese wisteria (*Wisteria sinensis*), mimosa (*Albizia julibrissin*) and Chinese privet (*Ligustrum sinense*). English ivy, Chinese wisteria, mimosa, and Chinese privet are all known to occur throughout the southeastern U.S. Locations of these species were recorded in the Early Detection & Distribution Mapping System (EDDMaps) database (Appendix B). No colonies greater than 1,000 square feet were observed within the project area. Seasonally appropriate measures would be taken during project construction to prevent or minimize the spread of these species. These measures would include removing and disposing of vegetative parts in the soil that may reproduce by root raking prior to moving the soil, burning on site any such parts and aboveground parts that bear fruit, controlling or eradicating infestations prior to construction, and cleaning vehicles and other equipment prior to leaving the infested site. The measures used would be those that are appropriate for the particular species and the specific site conditions on the project as described in Georgia Standard Specifications Section 201, Clearing and Grubbing of ROW.

**C. Waters of the U.S.**

Jurisdictional waters of the U.S. are defined by 33 CFR Part 328.3 (b) and are protected by Section 404 of the Clean Water Act (33 USC 1344), which is administered and enforced by the U.S. Army Corps of Engineers (USACE). An assessment of jurisdictional waters of the U.S. that would be impacted by the proposed project was performed in-house using the USGS topographic quadrangle, NWI, and county soil survey maps, and then refined during the field survey on October 23, 2013 and November 11, 2013. One jurisdictional resource (an intermittent stream) was identified during field surveys and is described below. Please refer to Figures 4 and 5 for locations of state and federal waters within the study area and Figure 6 for soil types within the area. In addition, waters of the US are described in Table 1.

### **Intermittent Stream 1 (IS1)**

Intermittent Stream 1 is located directly north of I-285, approximately 575 feet east of Riverside Drive and flows through a residential area south of Coldstream Court. The stream flows north from a 36" reinforced concrete pipe (RCP) outlet structure for a culvert beneath I-285 for approximately 120 feet before exiting the project study area. The bankfull width of IS1 is approximately six to ten feet and the bankfull depth is approximately two feet. The channel is severely scoured at the I-285 culvert outlet. Observed wetted depth outside of pooled areas was approximately three inches. Flow was discontinuous at the time of survey. Water was turbid at the outfall structure but cleared downstream. Substrate consists of sand, cobble, and gravel. No rooted vegetation was present within the streambed. Under the Cowardin system, this stream is classified as a riverine intermittent stream with streambed consisting of cobble-gravel (R4SB3). Under the USACE's Compensatory Mitigation Definition of Factors (CMDf), IS1 is considered somewhat impaired due to moderate entrenchment with a channel dominated by sand, gravel, and cobble, instead of clay or silt. This feature is not a cold water stream. It does not provide habitat for any protected species. Intermittent Stream 1 is not listed on the Georgia EPD's 303(d) list and is not within one linear mile of a 303(d) listed water. However, IS1 is a tributary of and within the same watershed as the Chattahoochee River (via Heard's Creek) which is currently listed as not meeting its designated use for recreation and drinking due to increased levels of fecal coliform. Due to its morphology, flow regime, and connection to downstream jurisdictional waters, IS1 is considered jurisdictional waters of the U.S. Construction activities will avoid IS1; and no impacts are currently proposed.

## **D. Avoidance and Minimization of Federal Resource Impacts**

### **Measures During Planning**

During the planning and design phase, all potential environmental and cultural impacts were considered and attempts were made to avoid or minimize impacts to potentially sensitive areas to the greatest extent practicable. The proposed alignment was planned with environmental considerations based upon aerial photography, traffic studies, topographic maps, soil survey maps, floodplain maps, cultural/historical resource investigations, and a jurisdictional waters delineation. The proposed project has been designed in an effort to avoid impacts to all environmental resources within the project area.

The project would not be expected to produce increased siltation within wetlands during the construction phase as no wetlands were identified during the field survey. Environmental harm would be minimized by standard sedimentation, erosion, and hydrological control measures. These include the following:

### **Measures During Construction**

- 1) Preservation of roadside vegetation beyond the limits of construction, where possible;
- 2) Early re-vegetation of disturbed areas to minimize soil erosion;
- 3) The use of slope drains, detention/retention structures, or surface, subsurface, and cross drains, designed as appropriate or needed, so that discharge would occur in locations and in such a manner that surface and subsurface water quality would not be affected (the outlets may require aprons, bank protection, silt basins, and energy dissipaters);

- 4) Inclusion of construction features for the control of predicted erosion and water pollution in the plans and specifications and contract pay items (Georgia Standard Specifications, Sections 161 through 171 and 700 through 715, identify the pollution control measures that may be used);
- 5) The dumping of chemicals, fuels, lubricants, bitumens, raw sewage, and other harmful waste into or alongside of streams or impoundments, or into natural or manmade channels leading thereto, would be prohibited;
- 6) Compliance with terms of the National Pollutant Discharge Elimination System (NPDES) permit for construction activities to include preparation and submittal of project Notice of Intent and Notice of Termination. The NPDES permit also requires preparation and implementation of an Erosion, Sedimentation, and Pollution Control (ES&PC) Plan and a Comprehensive Monitoring Program. Best Management Practices (BMPs) outlined in the ES&PC Plan must be consistent with, and no less stringent than, practices set forth in the Manual for Erosion and Sedimentation Control in Georgia.

#### **E. Permit and Mitigation**

No impacts to jurisdictional waters would occur as a result of the construction of the proposed project; therefore, no Section 404 permit or compensatory mitigation would be required.

### **III. STATE PROTECTED RESOURCES**

#### **A. State Threatened, Endangered, Rare and Unusual Species**

The Georgia Endangered Wildlife Act prohibits the capture, killing, or selling of protected species and protects the habitat of these species on public lands. Georgia's Wildflower Preservation Act of 1973 provides for designation of and protection of plant species that are rare, unusual, or in danger of extinction.

Coordination with GDNR Nongame Conservation Section was initiated on September 20, 2013 and a response was received November 1, 2013, which indicated that there are known occurrence records of six state listed species within three miles of the project study area (Appendix B). These six species are described below as well as in Table 3.

Species descriptions were obtained from the GDNR Rare Species Profiles, the Georgia College & State University Crayfishes of Georgia Website, the University of Georgia Museum of Natural History website, NatureServe Explorer, and U.S. Department of Agriculture Natural Resources Conservation Service Plants Database. Full references are located in the Reference section of this report.

##### Henslow's sparrow (*Ammodramus henslowii*) – Federal Not Listed; State Rare

Henslow's sparrow is known to breed throughout much of the central and eastern Midwest, along the very northern fringe of the Southeast, and in much of New York and Pennsylvania. In Georgia, isolated breeding populations have been documented in Thomas County. In the eastern part of the U.S., breeding habitats include coastal marshes, swamps, dry fields, low wet meadows, weedy hayfields and

pastures, and clear-cut pocosins. Generally, sites are characterized by tall, dense grasses and forbs, a well-developed litter layer, standing dead vegetation, and little or no woody vegetation. In winter this species uses open, boggy pinewoods, pitcher plant bogs, power line rights-of-way with dense grassy groundcover and little woody vegetation. Sites with moist soils or with areas of damp or moist soils seem to be preferred.

Georgia DNR records indicate presence of this species approximately 2.0 miles west of the proposed project area. Suitable habitat for the Henslow's sparrow was not observed within the project study area as open areas are frequently cleared and mowed, and lack tall, dense grasses or forbs. Based on this information, the proposed project would have no effect on this species or its suitable habitat.

Chattahoochee Crayfish (*Cambarus howardi*) – Federal Not Listed; State Threatened

The Chattahoochee crayfish has a limited range within the Chattahoochee River basin in Georgia to Halawakee Creek in Lee County, Alabama. It is found in Lumpkin, Hall, Cobb, DeKalb, Douglas, Forsyth, and Fulton counties in Georgia. It is found in riffle areas of clear, rapidly flowing streams ranging from small tributaries to the Chattahoochee River. During daylight, specimens are usually found sheltered under rocks.

Georgia DNR records indicate occurrence records of this species approximately 2.5 miles northwest of the proposed project area in Sope Creek. Suitable habitat for the Chattahoochee crayfish was not observed within the project study area, as the intermittent stream identified lacks riffle areas, rocky substrate, and rapid flow preferred by the species. Therefore, the proposed project would have no effect on this species or its suitable habitat.

Delicate spike (*Elliptio arctata*) – Federal Not Listed; State Endangered

The delicate spike is a small freshwater mussel known to historically occur in the Mobile and Apalachicola River basins, above and below the fall line. The species currently appears to be extremely rare or extirpated in the Mobile River basin of Georgia. Habitat for this species consists of sand, cobble, or gravel bottoms of large creeks and rivers with moderate to strong currents. This species is sometimes found in the bottom of rivers and creeks that are only three feet deep.

Georgia DNR records indicate occurrence records of this species approximately 1.5 miles northwest of the proposed project area in the Chattahoochee River. Suitable habitat for the delicate spike was not observed within the project study area, as no perennial streams were identified. Therefore, the proposed project would have no effect on this species or its suitable habitat.

Mountain witch-alder (*Fothergilla major*) – Federal Not Listed; State Threatened

Mountain witch-alder is a colonial shrub known to occur in Georgia, South Carolina, North Carolina, Alabama, Tennessee, and Arkansas. Dry ridgetop forests of middle elevation ridges in the mountains (especially along the Blue Ridge Escarpments) and summits and upper slopes of Piedmont monadnocks (north-facing bluffs in the lower Piedmont) make up the suitable habitat of this species.

Georgia DNR records indicate occurrence records of this species approximately 2.5 miles southwest of the proposed project area. No suitable habitat for this species was observed within the project study area as no dry ridgetop forest and/or monadnocks were observed. Therefore the proposed project would have no effect on this species or its suitable habitat.

Sweet pinesap (*Monotropsis odorata*) – Federal Not Listed; State Threatened

Sweet pinesap is perennial herb in the acid-loving heath/rhododendron family that is parasitic on underground fungi associated with tree roots. It grows two to three inches (five to 7.6 centimeters) tall. The plant lacks chlorophyll and is covered with tan, scale-like, papery leaves which are triangular and measure less than 0.5 inches (1.27 centimeters) long. Flowers are arranged in nodding clusters at the top of the stems and are extremely fragrant with a sweet aroma. Suitable habitat for this species consists of mixed pine and hardwood forests or chestnut oak dominated forests with dry, acidic soils.

The GDNR indicates occurrence records of this species approximately 0.5 miles east of the proposed project area. This occurrence, previously reported by GDNR as “extirpated” in 2007, was confirmed in a ravine at a subdivision located north of I-285 along Long Island Drive in correspondence from the GDNR, dated March 2, 2012 (Appendix C). Additionally, according to the GDNR (Appendix C), the site of the former ravine in which the plants were found intact in a 2006 survey was located off of Long Island Drive NW, Atlanta. No other occurrence records indicate the presence of this species within three miles of the project study area. Patches of minimally suitable chestnut oak dominated forested habitat for this species occurs within the project area. A seasonally appropriate protected species survey for the sweet pinesap was completed on March 10, 2014 and a Protected Species Survey Report is attached (Appendix E). No individuals were found in the previously documented occurrence location that harbored few undisturbed characteristic elements of the formerly forested habitat. Marginally-suitable habitat for the sweet pinesap is located within the project limits and will be impacted by the proposed project. No species were identified within the project study area; therefore, the proposed project would have no significant adverse effect on this species.

Bay star-vine (*Schisandra glabra*) – Federal Not Listed; State Threatened

The bay star-vine is a deciduous, woody vine found twining over understory trees and shrubs in rich, forested bottomlands and adjacent lower slopes. However, older vines can occasionally occur on trunks of overstory trees or sprawl along the ground-forming patches rooted in the litter, especially near thickets of mountain laurel (*Kalmia latifolia*). The bay star-vine has been recorded from 16 counties in Georgia’s Piedmont ecoregion.

Georgia DNR records indicate occurrence records of this species approximately 2.0 miles northwest and 2.0 miles southwest of the proposed project area. No habitat for this species was observed within the project study area, as mixed pine – hardwood forest areas are limited to upland patches adjacent to I-285 and behind residential communities. Therefore, the proposed project would have no effect on this species or its suitable habitat.

## **B. Bats**

The Riverside Drive bridge over I-285 is the only bridge in the project study area and was surveyed for evidence of bats. No visual observations of bats, stains due to body oils, or guano were observed. According to the Bat Conservation International *Bats in American Bridges Manual*, bats prefer to roost in bridges not situated over busy roadways and constructed of concrete. The Riverside Drive bridge over I-285 does span a busy interstate and is constructed of concrete and steel beams. In addition, a study by A. Cleveland presented at the 2013 International Conference on Ecology and Transportation on bats under Georgia bridges found no roosts located under bridge structures that span highways greater than four lanes. Cleveland also recorded no roost bridges within the greater Atlanta area. Based on this information, the aforementioned bridge is not suitable habitat for bats. Winter habitat, including caves and mines, is not present within the project area. Forested areas within the project study area are highly fragmented (less than 2 acres) with few snags and are within an area of urban development. In addition, only one intermittent water source is present within the project area. Based on this information, forested tracts within the project area are not suitable for bats; therefore the proposed project would have no effect on bats or their suitable habitat.

## **C. State Waters**

State Waters are defined by the Official Code of Georgia 12-7-1 and protected by the Georgia Erosion and Sedimentation Control Act of 1975. In compliance with the National Pollutants Discharge Elimination System (NPDES) permit under Section 402 of the Clean Water Act, any encroachment within the designated 25-foot or 50-foot buffer of a state water will be described, and the need for a variance will be indicated.

All waters of the U.S. identified within the project study area are also considered state waters and are described in Section II. C. Construction of the proposed project would not impact state waters.

## **D. State Mandated Buffers**

A description of the state mandated buffer for IS1, a buffered state water, is described below. No additional buffers of state waters occur within the study area. Please refer to Table 2 for a state waters and buffer impacts summary.

### **Intermittent Stream 1 (IS1) Buffer**

The vegetative buffer width of IS1 is approximately 25 feet on the downstream left bank and less than 15 feet on the downstream right bank. Buffer vegetation along the downstream left bank includes: sweetgum, red maple, tulip poplar, northern red oak (*Quercus rubra*), muscle wood (*Carpinus caroliniana*), leatherleaf Mahonia, hazel alder (*Alnus serrulata*). Representative buffer vegetation along the downstream right bank includes maintained ornamental species and grasses along with an overstory of sweetgum, red maple, tulip poplar, and northern red oak. Invasive species include chinese wisteria, English ivy, monkey grass (*Ophiopogon japonicas*), and mimosa and were abundant throughout the buffer. Construction of the proposed project would not impact IS1 or its associated buffer; therefore, a buffer variance would not be required.

#### **E. Avoidance and Minimization of State Resource Impacts**

The proposed project has been designed to avoid impacts to state waters and their associated buffers. In addition, a seasonally appropriate protected species survey was completed for the state protected sweet pinesap within the areas of marginally-suitable habitat located within the study area. While suitable habitat for the species is present within the project corridor, no individuals were identified during the protected species survey (Appendix E). Any potential impacts to the species have been avoided, due to the performance of the detailed protected species survey to verify the absence of the species in the study area.

## **FIGURES**

Figure 1 – Project Vicinity Map

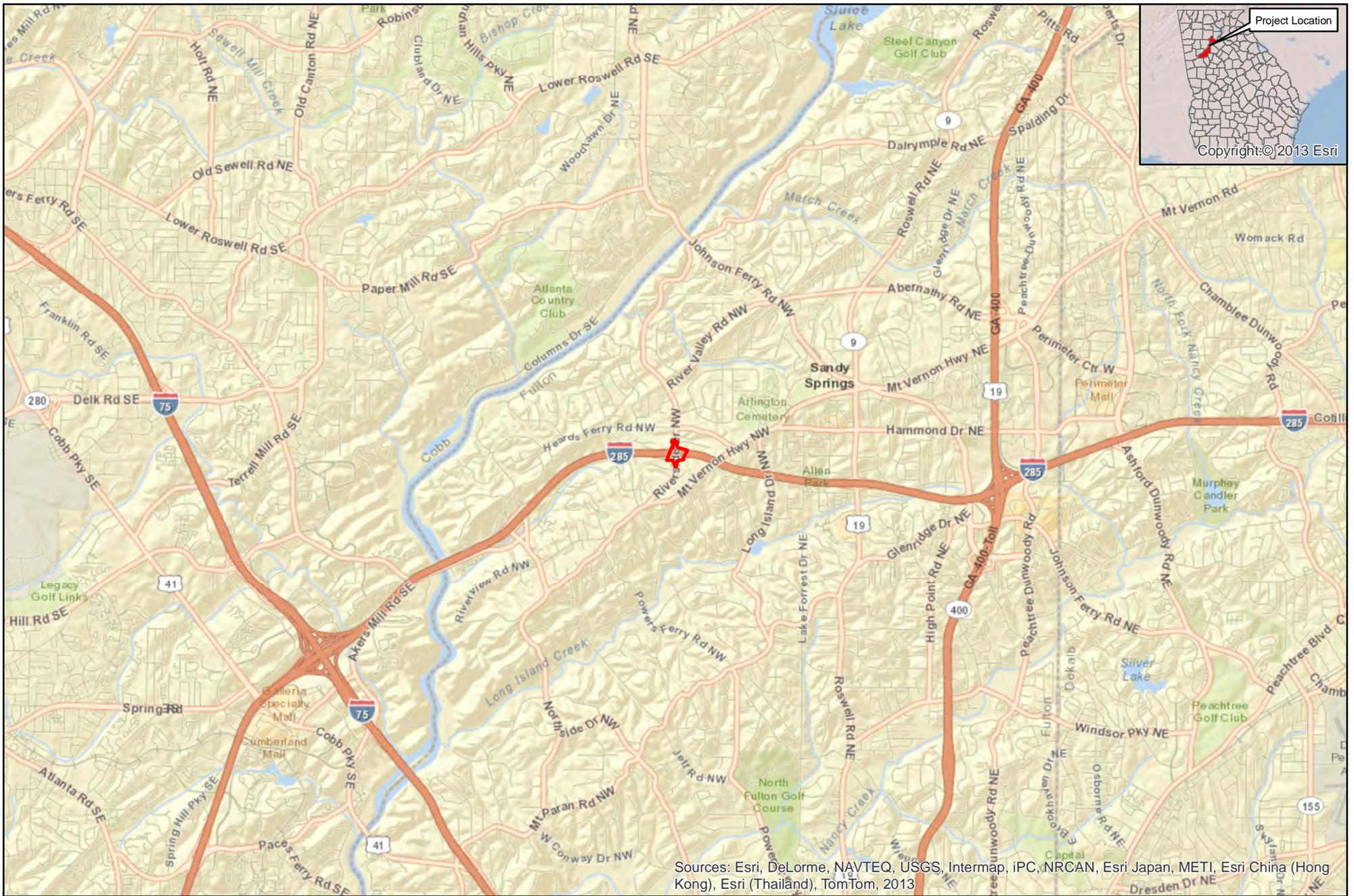
Figure 2 – Survey Area Map

Figure 3 – Habitat Map

Figure 4 – Aerial State and Federal Waters Map

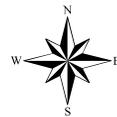
Figure 5 – Topographic State and Federal Waters Map

Figure 6 – Soils Map



Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013

Figure 1: Project Vicinity Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia

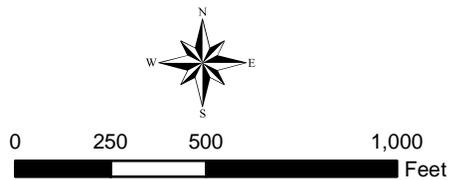


0 0.5 1 2  
 Miles

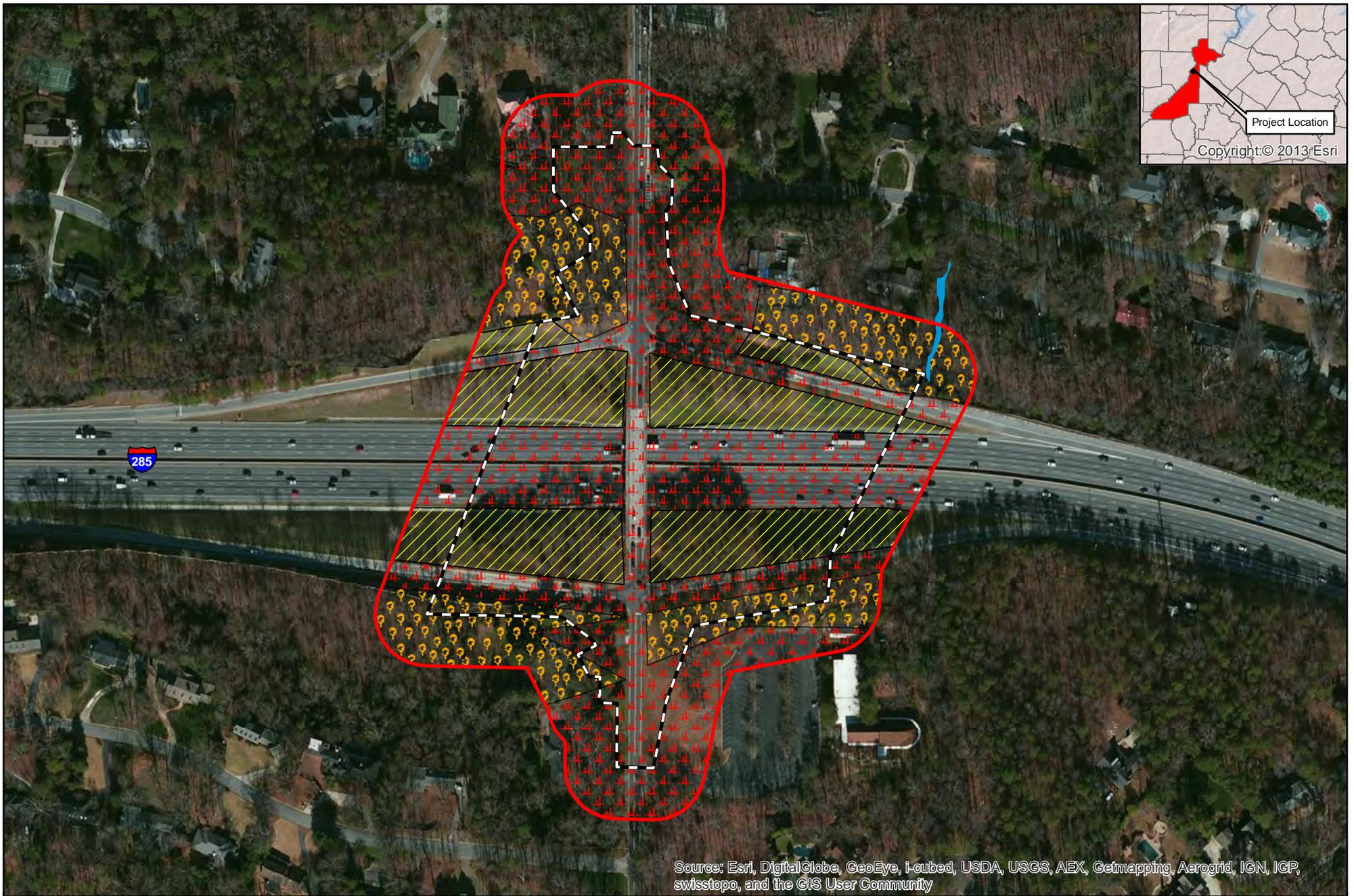
Project Study Area  
 1:72,000



Figure 2: Survey Area Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia

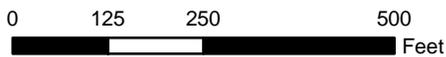


 Project Study Area  
 Project Limit  
 1:6,000



Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, ICP, swisstopo, and the GIS User Community

Figure 3: Habitat Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia



- |   |   |
|---|---|
|  Study Area    |  Maintained/Landscaped ROW |
|  Project Limit |  Developed                 |
|  Streams       |  Mixed Pine-Hardwood*      |

\*Suitable habitat for sweet pinesap (*Monotropsis odorata*)

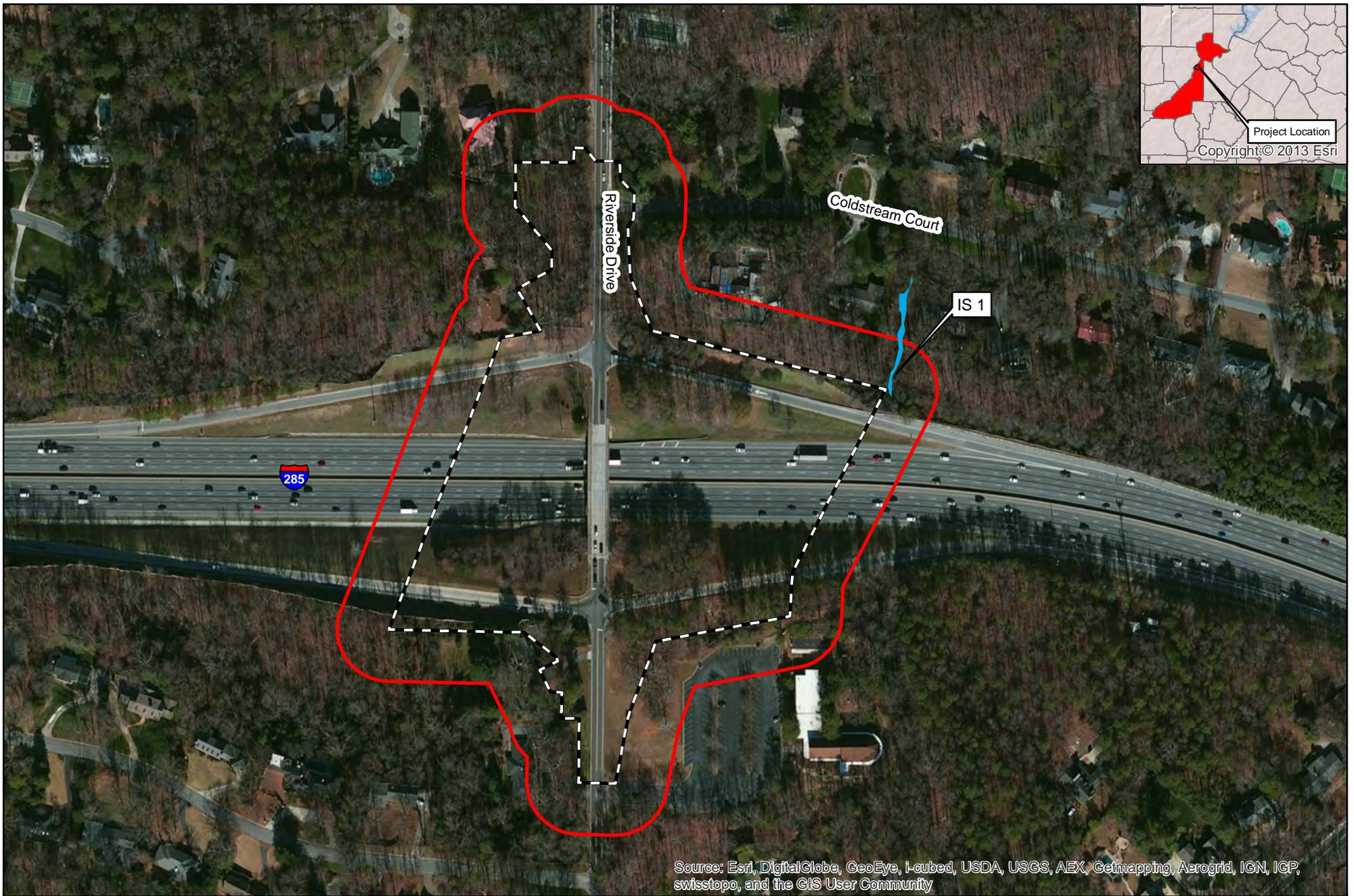
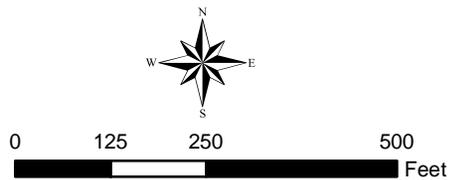


Figure 4: Aerial State and Federal Waters Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia



- Project Study Area
  - Project Limit
  - Streams
- 1:3,000

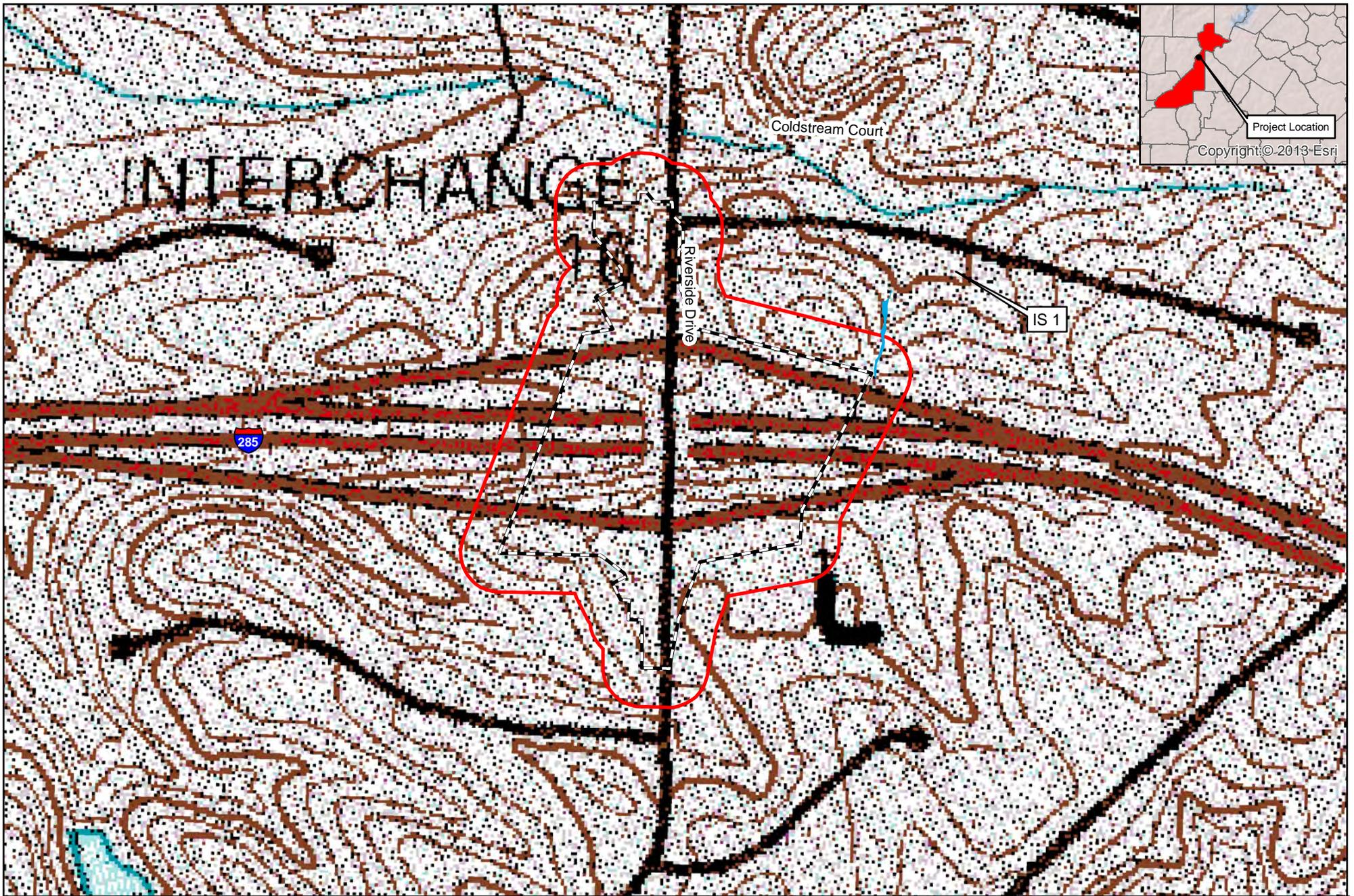
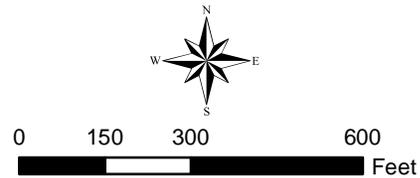


Figure 5: Topographic State and Federal Waters Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia



- Streams
  - Project Study Area
  - Project Limit
- 1:4,000

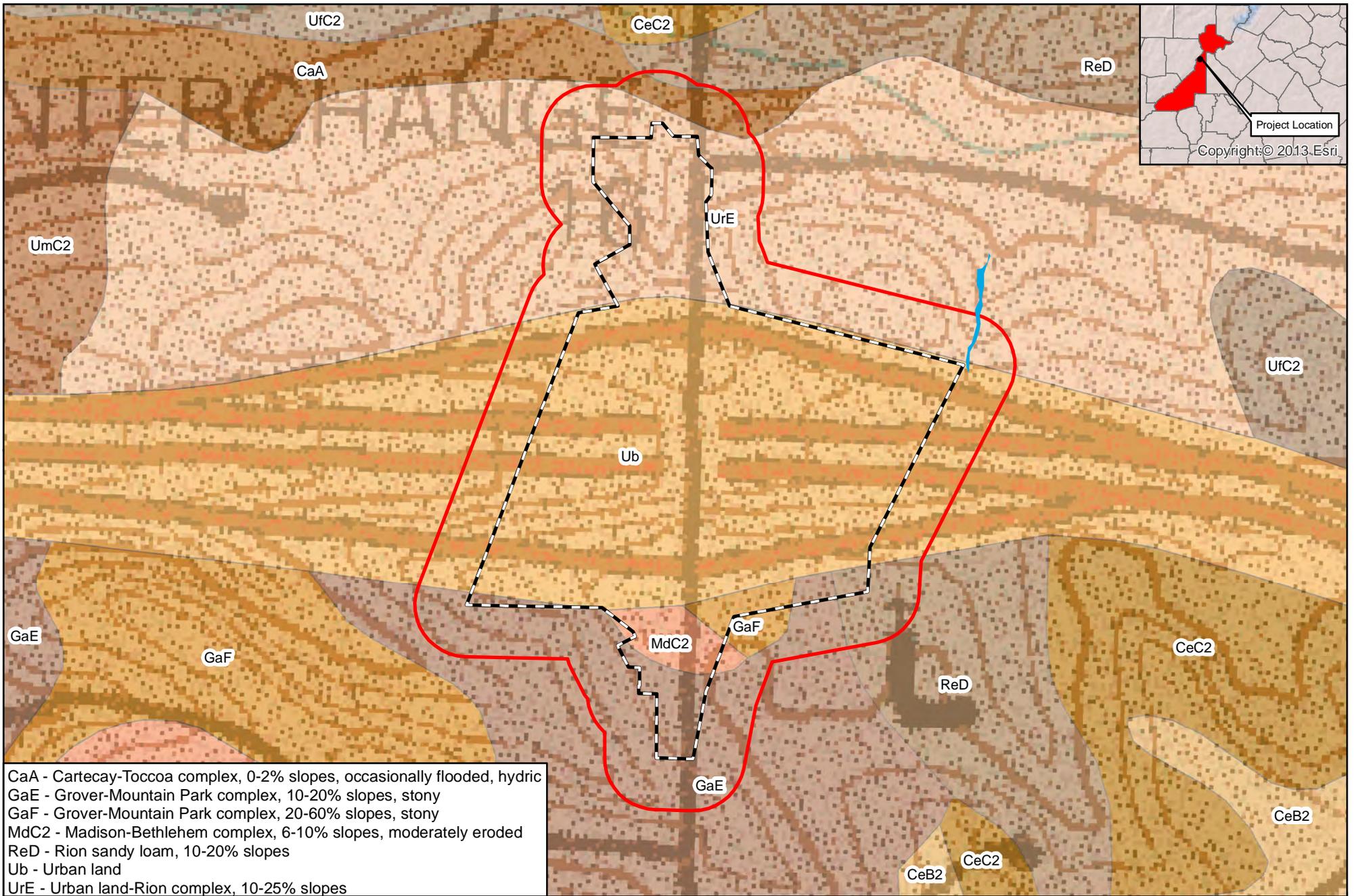
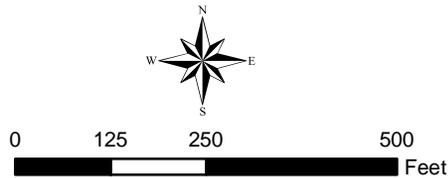


Figure 6: Soils Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia



-  Streams
  -  Project Limit
  -  Project Study Area
- 1:3,000

**IV. TABLES**

Table 1. Federal Stream, Wetland and Open Water Summary Table

Table 2. State Water and Buffer Summary Table

Table 3. Protected Species Summary Table

**Table 1: Federal Stream, Wetland, and Open Water Summary**

Resource Label	Cowardin Class	Existing Condition	Location - Station		Coordinates		Total WL/OW Area (ac)	Existing Structure		Proposed Impact			FWCA
			Begin	End	Lat (°N)	Long (°W)		Type	Length (ft)	Type	Length (ft)	Area (ac)	
IS1	R4SB3	Somewhat Impaired	45+63.22 LT	45+63.22 LT	33.917	-84.405	NA	Pipe	~236	NA	NA	NA	No

LEGEND: NA = Not Applicable, ~ = Approximately

**Table 2: State Water and Buffer Summary Table**

Resource	Begins at Station No.	Ends at Station No.	BV	Special Provision 700	Special Provision 702
IS1 Buffer	45+34.64 LT	45+89.27 LT	No	NA	NA

LEGEND: NA = Not Applicable

Table 3: Protected Species Summary Table

Common Name	Scientific Name	Federal Status	State Status	Suitable Habitat Present	Suitable Habitat Impacted	Survey Season	Survey Date	Individuals Observed	Biological Determination	Special Provision 107.23G
<b>Fauna</b>										
Northern long-eared bat	<i>Myotis septentrionalis</i>	PE	NL	No	NA	May - August	NA	NA	No Effect	No
Henslow's sparrow	<i>Ammodramus henslowii</i>	NL	R	No	NA	Oct to March	NA	NA	No Effect	No
Cherokee darter	<i>Etheostoma scotti</i>	T	T	No	NA	April -November	NA	NA	No Effect	No
Gulf moccasinshell	<i>Medionidus penicillatus</i>	E	E	No	NA	April -November	NA*	NA	No Effect	No
Oval pigtoe	<i>Pleurobema pyriforme</i>	E	E	No	NA	April -November	NA*	NA	No Effect	No
Purple bankclimber	<i>Elliptoideus sloatianus</i>	TR	TR	No	NA	April -November	NA*	NA	No Effect	No
Shinyrayed pocketbook	<i>Lampsilis subangulata</i>	E	E	No	NA	April -November	NA*	NA	No Effect	No
Delicate spike	<i>Elliptio arcata</i>	NL	E	No	NA	April -November	NA*	NA	No Effect	No
Chattahoochee crayfish	<i>Cambarus howardi</i>	NL	TR	No	NA	April -November	NA	NA	No Effect	No
<b>Flora</b>										
Mountain witch-alder	<i>Fothergilla major</i>	NL	TR	No	NA	Feb – May and Spring to early Summer	NA	NA	No Effect	No
Sweet pinesap	<i>Monotropis odorata</i>	NL	TR	Yes	Yes	Feb – April and May - June	March 10, 2014	No	No Significant Adverse Effect	No

Table 3: Protected Species Summary Table - Continued

Common Name	Scientific Name	Federal Status	State Status	Suitable Habitat Present	Suitable Habitat Impacted	Survey Season	Survey Date	Individuals Observed	Biological Determination	Special Provision 107.23G
Bay star-vine	<i>Schisandra glabra</i>	NL	TR	No	NA	May – June and July - Aug	NA	NA	No Effect	No
Georgia aster	<i>Symphotrichum georgianum</i>	C	TR	No	NA	Late Sept – Mid Nov	NA	NA	No Effect	No
Dwarf sumac	<i>Rhus michauxii</i>	E	E	No	NA	June - August	NA	NA	No Effect	No

LEGEND: E = Endangered; TR = Threatened; C = Candidate; NL = Not Listed; N = No; PE = Proposed Endangered; R = Rare; C = Candidate; Y = Yes; NA = Not Applicable

\*Per correspondence with U.S. Fish and Wildlife (FWS), a protected aquatic species survey would not be required for these species as they have been extirpated from the project vicinity.

Sources: Georgia DNR, Wildlife Resources Division, Natural Heritage Program, Locations of Special Concern Animals, Plants, and Natural Communities in Fulton County (updated May 2010); Letter from Georgia DNR (Anna Yellin) dated November 1, 2013 documenting known occurrences of protected species within a three-mile radius of project; USFWS Information, Planning and Conservation (IPaC) System, official species list generated on October 21, 2013.

**V. PHOTOGRAPHS**

Photo 1. Representative view of IS1, facing north.  
Photo taken on 10/23/13.



Photo 3. Representative view of Developed habitat within the project study area. Photo taken on 11/11/13.



Photo 2. Representative view of Maintained/Landscaped ROW along I-285 within the project study area. Photo taken on 11/11/13.



Photo 4. Representative view of Mixed Pine – Hardwood Forest habitat with abundance of English ivy (*Hedera helix*) and Chinese privet (*Ligustrum sinense*). Photo taken on 3/10/14.



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**Appendix A - Special Provision**

**DEPARTMENT OF TRANSPORTATION  
STATE OF GEORGIA**

**SPECIAL PROVISION**

**FULTON COUNTY,  
P.I. # 0010925**

**Section 107 – Legal Regulations and Responsibility to the Public**

---

*Add the following to Subsection 107.23:*

**G. Protection of Federally Protected Species**

The following conditions are intended as a minimum to protect these species and their habitat during any activities that are in close proximity to the known location(s) of these species.

1. The Contractor shall advise all Project personnel employed on this Project about the potential presence and appearance of the federally protected barn swallow (*Hirundo rustica*), cliff swallow (*Petrochelidon pyrrhonota*), and eastern phoebe (*Sayornis phoebe*). All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting these species in knowing violation of the Migratory Bird Treaty Act of 1918. The law protects adults, fledglings, nestlings, eggs, and active nests. Pictures and habitat information are attached and shall be posted in a conspicuous location in the Project field office until such time that Final Acceptance of the Project is made.
2. The rehabilitation of the existing bridge at STA 108+51.79 to 111+12.64, shall take place outside of the breeding and nesting season of phoebes and swallows, which begins April 1 and extends through August 31, unless exclusionary barriers are put in place to prevent birds from nesting. For bridges, exclusionary barriers may be netting made of plastic, canvas or other materials proposed by the Contractor and approved by the Project Engineer prior to installation. Exclusionary barriers must be installed on the bridge prior to March 1 or after August 31, but in no time in between this period. Exclusionary barriers are not a guaranteed method of preventing migratory birds from nesting beneath bridges and work schedules shall take into account the possibility that barriers will not be successful. If exclusionary barriers are to be used, these steps shall be followed:
  - a. The Project ecologist shall be notified by phone (404) 631-1100 of the decision to install exclusionary barriers and the date of the proposed installation prior to the installation of any exclusionary devices.
  - b. The structure(s) shall be checked for nests prior to the placement of exclusionary barriers. If nests are present, they shall be inspected to ensure that eggs or birds are not present. If the nests are found to be occupied, construction activities associated with the bridge shall be postponed until after August 31 when the breeding season is complete.
  - c. For bridge rehabilitation, barriers shall be installed along the full length of the bridge(s). Barriers shall be installed prior to March 1 and left in place until August 31 or until the bridge rehabilitation is complete. If the exclusionary netting fails to prevent nesting (i.e., birds are able to bypass barriers and build nests), construction activities associated with the bridge shall be postponed until after August 31.

**107.23G Protection of Federally Protected Species, PI 0010925, Fulton County**

- d. During construction activities, exclusionary barriers shall be inspected daily for holes or other defects that impair its ability to exclude migratory birds from nesting beneath the bridge. Any holes or defects shall be repaired immediately.
  - e. Entanglement and/or entrapment of barn swallows, cliff swallows, and eastern phoebes in exclusionary netting constitutes harm to migratory birds. In the event that entanglement and/or entrapment of migratory birds in the netting occurs, the Contractor shall report the incident immediately to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101.
3. In the event any incident occurs that causes harm or injury to the barn swallow, cliff swallow, and eastern phoebe along the Project corridor, the Contractor shall report the incident immediately to the Project Engineer who in turn will notify the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services at (404) 631-1101. All activity shall cease pending consultation by the Department with the U. S. Fish and Wildlife Service and the lead Federal Agency.
4. The Contractor shall keep a log detailing any incidents that cause harm or injury to barn swallows, cliff swallows, and eastern phoebes in or adjacent to the Project until such time that Final Acceptance of the Project is made. Following Project completion, the log and a report summarizing any incidents that caused harm or injury to these species shall be submitted by the Contractor to the Project Engineer and the State Environmental Administrator, Georgia Department of Transportation, Office of Environmental Services, 600 West Peachtree Street NW, Atlanta, Georgia 30308. GDOT in turn will provide copies of the report to the U.S. Fish and Wildlife Service, the Georgia Department of Natural Resources Wildlife Resources Division, and the lead Federal Agency.
5. All costs pertaining to any requirement contained herein shall be included in the overall bid submitted unless such requirement is designated as a separate Pay Item in the Proposal.

**Appendix B - Field Data**

North Carolina Stream Forms

Field Notes

EDDMapS Data

ISI

NC DWQ Stream Identification Form Version 4.11

Date: 10/23/13	Project/Site: Riverside Dr.	Latitude: 33.917
Evaluator: C. Ike / J. Morrell	County: Fulton	Longitude: -84.405
Total Points: Stream is at least intermittent if $\geq 19$ or perennial if $\geq 30^*$ 24	Stream Determination (circle one) Ephemeral <u>Intermittent</u> Perennial	Other e.g. Quad Name:

A. Geomorphology (Subtotal = 12.5)

	Absent	Weak	Moderate	Strong
1 <sup>a</sup> . Continuity of channel bed and bank	0	1	2	(3)
2. Sinuosity of channel along thalweg	0	(1)	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	(1)	2	3
4. Particle size of stream substrate	0	1	(2) →	3
5. Active/relict floodplain	0	1 ←	(2)	3
6. Depositional bars or benches	0	(1)	2	3
7. Recent alluvial deposits	(0)	1	2	3
8. Headcuts	(0)	1	2	3
9. Grade control	0	0.5	1 ←	(1.5)
10. Natural valley	0	0.5	(1)	1.5
11. Second or greater order channel	No = 0		Yes = 3	

<sup>a</sup> artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 8.5)

12. Presence of Baseflow	0	1	(2)	3
13. Iron oxidizing bacteria	0	(1)	2	3
14. Leaf litter	1.5	(1)	0.5	0
15. Sediment on plants or debris	(0)	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	(1.5)
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 3)

18. Fibrous roots in streambed	3	2	(1)	0
19. Rooted upland plants in streambed	3	(2)	1	0
20. Macrobenthos (note diversity and abundance)	(0)	1	2	3
21. Aquatic Mollusks	(0)	1	2	3
22. Fish	(0)	0.5	1	1.5
23. Crayfish	(0)	0.5	1	1.5
24. Amphibians	(0)	0.5	1	1.5
25. Algae	(0)	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 (Other = 0)			

\*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes: Little to no flow observed, some pooling, no biological assessment completed.  
C. villosa observed

Sketch:

(P) = Pool  
XX = grade control/land

A stream becomes more like perennial feature as approaches coldstream culvert.



Location Fulton Co Date 10/23/13  
Project / Client CIDOT Riverside Roundabouts  
JCI/JEM

PS2 - BUCCOPE VIEW - WATER OAK, WEEDS,  
FRUIT, MAJONVA, RED MAPLE,  
MUSCADINE, POTAE, LOG SKR, SW BURN,  
POISON IVY, NIPERAN, COUNLURE ~~DEENIP~~  
X VBS OPEN; MAISON SEAN?, WH. OAK,  
MORSENOT HICKOR, CUMBER ~~MAJONVA~~  
AM. ELM, SENSITIVE FEAN,  
VENUSFLUT, ~~ANTHUS~~ olive (THORNT)  
CREATING LAUREL CREEPER  
photos 100-374 to 377  
photos 378/379 Eng. Ivy along buffer of -  
PS1 adjacent to tennis court  
photos 751, adjacent to tennis court property  
100-380/381  
PS1 (fenced portion) looks to be somewhat  
maintained until reaching property boundary, stream  
abuts concrete wall along tennis court. Not  
able to access this feature. Only one bend  
observed in feature as it nears the fenced  
property; otherwise characterized.

Location \_\_\_\_\_ Date 10/23/13  
Project / Client \_\_\_\_\_

Stream 3 - Intermittent

\*Whiskera patch observed; GPS at taken  
photo 100-388  
Fishes of stream v buffer - 100-385 to  
100-390.  
Buffer veg - climbing mistle, horsetail, muscadine  
weed, leatherleaf, mahonia, monkey grass,  
ornamental bushes?, Sweetgum, red maple,  
tulip poplar, N red oak, english ivy, mimosa,  
~~white oak~~, chestnut oak, PI, muscadine,  
poleweed, Virginia creeper, privet,  
green briar

Habitat between noise wall & residential  
community along west portion of 285.  
Mixed pine HW / early successional  
species. Loblolly, tulip poplar, Sweetgum,  
privet, Eng. ivy, PI, sourwood,  
Mahonia, red maple, water oak, green  
OSN, Hackberry, box elder  
\* Chestnut oak more dominant as approach  
riverside dr, sourwood, dogwood, pignut hickory,  
muscadine,

Location Berrien / Atkinson Co Date 11/6/13  
 Project / Client ADDI Starnes Crosby Tract

~~Left hotel in Douglas at 7:30~~

~~Arrived at site at 8:00. Had to cut + remove +~~

~~replace lock at access gate. Necessary through~~

~~levi/road along powerline easement~~

~~Tailgate #4S performed by JCI. Weather -~~

~~55-60 °F w/ highs reaching in mid 70's~~

~~Morning cloudy w/ light fog~~

~~\* Collected plots 2, 3 + 4 from Starnes~~

~~Crosby site plots 2 + 4 in good condition~~

~~Plot 3 knocked over, bottom portion of wire~~

~~not usable. Well 4 - water present in well cap.~~

~~\* Wildlife - Whitetail deer,~~

~~Arrived at Bill Reeba at 12:00.~~

~~Successfully returned wells 13, 14, 15, 17.~~

~~Left site at 3/45~~

~~\* Creek breeding site looks to be being maintained~~

~~by surrounding land owners as a drain for~~

~~their agricultural fields~~

~~\* Wildlife - whitetail deer, Golden plover,~~

~~cedar hawk, red shoulder hawk, glaucous, king~~

~~fisher, goshawk,~~

Location

Fulton Co

Date 11/11/13

Project / Client ADDI Riverside Dr. Roundabouts

JCI / JEM

Arrived at site at 9:15. #4S tailgate

done by JCI. Weather clear + sunny

w/ temps reaching 65°F

PS4 - perennial stream begin originating

from culvert drainage I-285

Butter veg - magnolia, loblolly leaf mahonia,

monkey grass (yard mowing) english ivy, red maple,

mintaka, <sup>(removed)</sup> rhododendron, water oak, sweetgum, poplar,

Hickory so, Passon haw, sweet shrub, privet,

climbing hydrangea, painted creeper, A. Holly,

kyr alder, pokeweed, muscadine, chestnut oak

Christmas fern

\* Misc. point taken at Eng. Ivy

\* Photos: 100 - 489 - 489

invasives: english ivy, monkey grass, many

margin of stream + its ornaments in

surrounding yards

\* Ivy photo 100 490

Location Fulton Co Date 11/11/13  
 Project / Client ADU Riverside Dr. Roundabouts  
JCI / JEM

ISS - intermittent stream feeding int. PS4.

buffer veg ~~consist of~~ ~~per~~

Photos: 100-491 to 100-494

Magnolia, white oak, mockernut, red maple,  
 sweetgum, poplar, humpoetaceae, eng. Ivy,  
 monkey grass, scabgrass, alder, privet,  
 persimmon

Misc point at engine - Photo 100-494

Habitat of EIB 285 cons mixed pine hardwood

loblolly, red maple, tulio pop - approx 20-40 yrs. old

Chestnut oak, sycamore, Am. holly, pignut

hickory, N. red oak, magnolia, shortleaf pine

ISC - ~~SWAMP~~ - ~~WATER~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

PELVATE, ~~SWAMP~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

WATER OAK, ~~SWAMP~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

S. RED OAK, ~~SWAMP~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

MOCKERNUT ~~SWAMP~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

NV ~~SWAMP~~ ~~VEGETATION~~

Location Fulton Co. Date 11/11/13  
 Project / Client \_\_\_\_\_

ISC - ~~SWAMP~~ ~~VEGETATION~~ : 5-10', ~~WATER~~ 2-3'

~~SWAMP~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~

~~WATER~~ ~~VEGETATION~~ : 1-2', ~~WATER~~ 0.25-1'

~~WATER~~ ~~VEGETATION~~ ~~WATER~~ ~~VEGETATION~~ : 100-503 to 506 to

513 w/ detention basin = 100-503 to 506

Drove corridor for Georgia aster; no

habitat or species observed.

Photos: 100 525/526 - ROW of I-285

100/527 - bamboo forested area

100-522 to 524 - residential hab

100-517 to 521 - ~~WATER~~ ~~VEGETATION~~ area off

409 to 515 - five oaks manner rd east side

Went out at 3:15, arrived back at office at

3:30.

# mimosa

## *Albizia julibrissin* Durazz.



<b>Record ID:</b>	3136721
<b>Location:</b>	Fulton County, Georgia
<b>Source:</b>	Claire Ike, ARCADIS
<b>Project:</b>	Southeast Early Detection Network
<b>Habitat:</b>	Edge: Field/forest
<b>Abundance:</b>	Scattered Plants
<b>Area Infested:</b>	500 sq feet
<b>Coordinates:</b>	<a href="#">33.7796, -84.41933</a>
<b>NADatum:</b>	WGS84
<b>Ownership:</b>	Other/Unknown
<b>Canopy Cover:</b>	Moderate
<b>Status:</b>	Not Verified
<b>Observation Date</b>	October 23, 2013
<b>Date Entered</b>	March 14, 2014
<b>Date Updated:</b>	March 14, 2014

**Please cite as:**

EDDMapS. 2014. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/distribution/point.cfm?id=3136721>; last accessed March 14, 2014.

# English ivy

## *Hedera helix* L.

<b>Record ID:</b>	3136621
<b>Location:</b>	Fulton County, Georgia
<b>Source:</b>	Claire Ike, ARCADIS
<b>Project:</b>	Southeast Early Detection Network
<b>Habitat:</b>	Developed/Disturbed area
<b>Abundance:</b>	Scattered Dense Patches
<b>Area Infested:</b>	500 sq feet
<b>Coordinates:</b>	<a href="#">33.917, -84.407</a>
<b>NADatum:</b>	WGS84
<b>Ownership:</b>	Other/Unknown
<b>Canopy Cover:</b>	Moderate
<b>Status:</b>	Not Verified
<b>Observation Date</b>	March 10, 2014
<b>Date Entered</b>	March 12, 2014
<b>Date Updated:</b>	March 12, 2014
<b>Updated By:</b>	Claire Ike, ARCADIS

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**Please cite as:**

EDDMapS. 2014. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/distribution/point.cfm?id=3136621>; last accessed March 12, 2014.

# Chinese wisteria

## *Wisteria sinensis* (Sims) DC.

<b>Record ID:</b>	3101691
<b>Location:</b>	Fulton County, Georgia
<b>Source:</b>	Daniel Figueroa, ARCADIS
<b>Project:</b>	Southeast Early Detection Network
<b>Habitat:</b>	Forests: Mixed
<b>Abundance:</b>	Scattered Dense Patches
<b>Area Infested:</b>	1000 sq feet
<b>Coordinates:</b>	<a href="#">33.91665, -84.40461</a>
<b>NADatum:</b>	WGS84
<b>Ownership:</b>	Other/Unknown
<b>phenology:</b>	Mature
<b>Identified by:</b>	Jason Morrell/Claire Ike, ARCADIS
<b>Canopy Cover:</b>	High
<b>Status:</b>	Not Verified
<b>Observation Date</b>	October 23, 2013
<b>Date Entered</b>	November 21, 2013
<b>Date Updated:</b>	November 21, 2013

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**Please cite as:**

EDDMapS. 2013. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/distribution/point.cfm?id=3101691>; last accessed November 21, 2013.

# Chinese privet

*Ligustrum sinense* Lour.

<b>Record ID:</b>	3136623
<b>Location:</b>	Fulton County, Georgia
<b>Source:</b>	Claire Ike, ARCADIS
<b>Project:</b>	Southeast Early Detection Network
<b>Habitat:</b>	Forested Understory
<b>Abundance:</b>	Scattered Dense Patches
<b>Area Infested:</b>	500 sq feet
<b>Coordinates:</b>	<a href="#">33.915, -84.406</a>
<b>NADatum:</b>	WGS84
<b>Ownership:</b>	Other/Unknown
<b>Canopy Cover:</b>	Moderate
<b>Status:</b>	Not Verified
<b>Observation Date</b>	March 10, 2014
<b>Date Entered</b>	March 12, 2014
<b>Date Updated:</b>	March 12, 2014

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**Please cite as:**

EDDMapS. 2014. Early Detection & Distribution Mapping System. The University of Georgia - Center for Invasive Species and Ecosystem Health. Available online at <http://www.eddmaps.org/distribution/point.cfm?id=3136623>; last accessed March 12, 2014.

Appendix C - Agency Coordination and Correspondence



Ms. Anna Yellin  
Environmental Review Coordinator  
Georgia Department of Natural Resources  
Wildlife Resource Division  
Nongame Conservation Section  
2065 US Hwy 278 SE  
Social Circle, GA 30025-4743

**Subject: Interstate 285 Ramps at Riverside Drive, Fulton County  
P.I. Number 0010925**

Dear Ms. Yellin:

On behalf of the Georgia Department of Transportation (Georgia DOT), ARCADIS is in the early process of conducting an evaluation of potential impacts to natural resources for proposed operational improvements to the I-285 ramps at Riverside Drive NW in Fulton County Georgia. The proposed project would include I-285 eastbound and westbound entry and exit ramps and would extend along Riverside Drive from Foxridge Lane (Latitude 33.9129, Longitude -84.4068) to approximately 500 feet north of Heard's Ferry Road (Latitude 33.9200, Longitude -84.4066). The project is located on the USGS Sandy Springs, GA 7.5 minute topographic quadrangle.

I am writing to respectfully request your assistance in providing information on the known locations of federal- and state-listed species within the immediate project area, one-mile of the current roadway alignment, as well as known occurrences within three-miles of the project area. The approximate midpoint of the project corridor is located at Latitude 33.9159, Longitude -84.4066.

In providing the requested information, your assistance will facilitate careful project planning and design with respect to sensitive natural resources and would anticipate incorporation of appropriate conservation recommendations.

Sincerely,

ARCADIS US, Inc.

Jason Morrell  
Project Ecologist

Enclosure:  
Project Location Map

ARCADIS U.S. , Inc.  
2410 Paces Ferry Road  
Suite 400  
Atlanta  
Georgia 30339  
Tel 770 431 8666  
Fax 770 435 2666  
www.arcadis-us.com

TRANSPORTATION  
PRACTICE

Date:  
20 September 2013

Contact:  
Jason Morrell

Email:  
Jason.Morrell@arcadis-  
us.com

Our ref: GADT0201

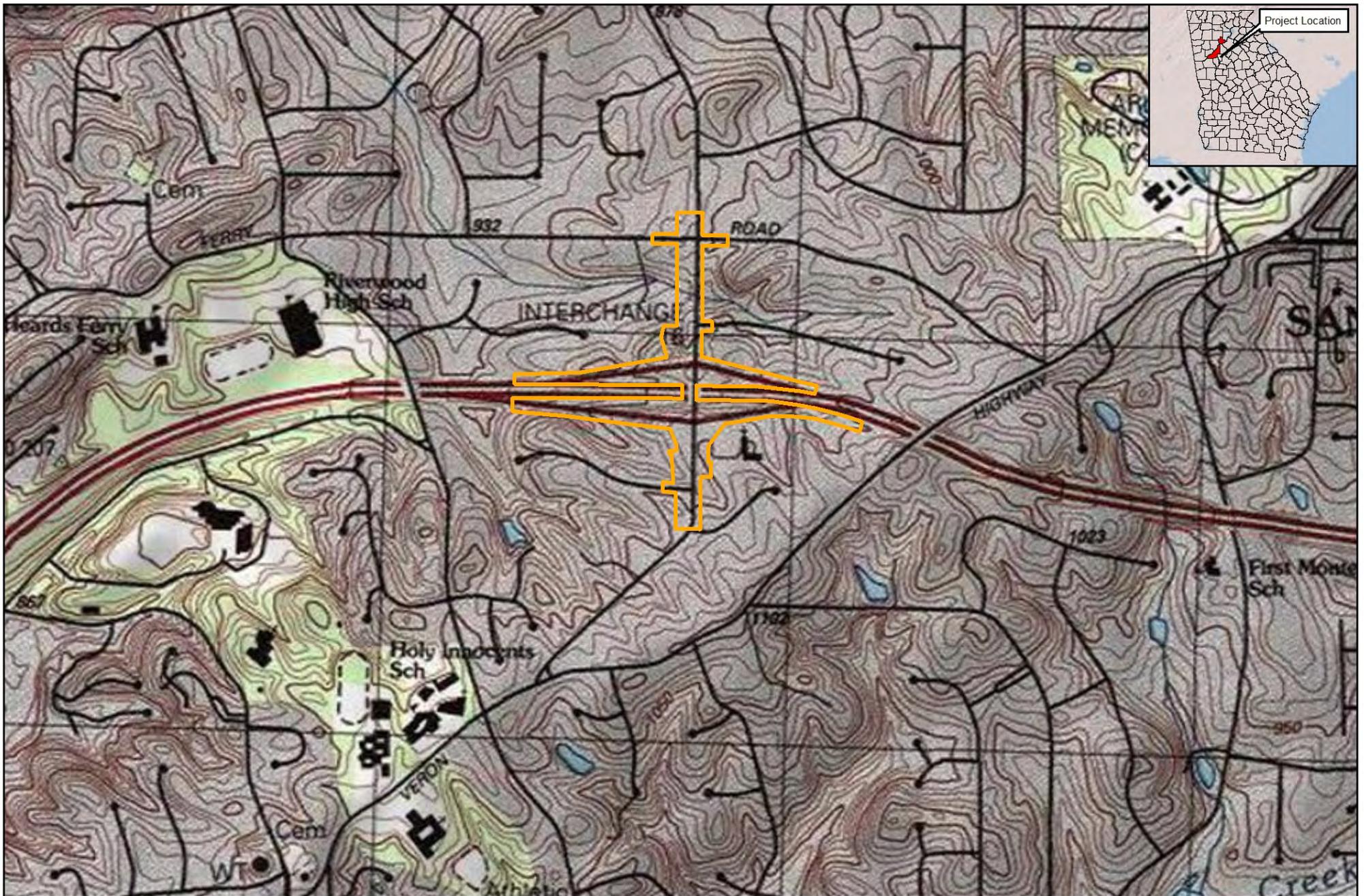
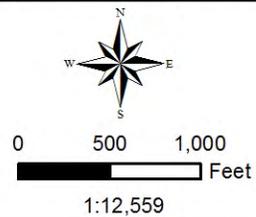


Figure 1: Project Location Map  
 I-285 at Riverside Drive - Operational Improvements  
 P.I.No. 0010925  
 Fulton County, Georgia



— Survey Area





MARK WILLIAMS  
COMMISSIONER

DAN FORSTER  
DIRECTOR

November 1, 2013

Jason Morrell  
Project Ecologist  
ARCADIS U.S., Inc.  
2410 Paces Ferry Road, Suite 400  
Atlanta, GA 30339

**Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Interstate 285 Ramps at Riverside Dr., Fulton County, Georgia**

Dear Mr. Morrell:

This is in response to your request of September 19, 2013. According to our records, within a three-mile radius of the project site, there are the following Natural Heritage Database occurrences:

- GA *Ammodramus henslowii* (Henslow's Sparrow) approx. 2.0 mi. W of site
- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 2.5 mi. NW of site in Sope Creek
- GA *Elliptio arctata* (Delicate Spike) approx. 1.5 mi. NW of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 2.5 mi. SW of site
- GA *Micropterus cataractae* (Shoal Bass) approx. 1.5 mi. N of site in the Chattahoochee River
- GA *Monotropsis odorata* (Sweet Pinesap) approx. 0.5 mi. E of site
- GA *Quadrula infucata* (Sculptured Pigtoe) approx. 1.5 mi. NW of site in the Chattahoochee River
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. NW of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SW of site
- Chattahoochee River National Recreation Area [NPS] approx. 1.0 mi. NW of site
- Greenspace [County/Local] approx. 1.5 mi. E of site
- Greenspace [County/Local] approx. 2.0 mi. N of site
- McFarlane Nature Park [County/Local] approx. 2.0 mi. N of site

\* Entries above preceded by "US" indicates species with federal status in Georgia (Protected or Candidate). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

**Recommendations:**

We have no records of high priority species or habitats within the project area. Since this project is an improvement to an existing set of roads, it is not likely to negatively impact rare species or habitats.

We are concerned about streams and other habitats that could be impacted by the proposed road improvement project. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

#### **NEW ENVIRONMENTAL REVIEW COORDINATOR**

**Please send all future correspondence to Anna Yellin, Environmental Review Coordinator. Email correspondence is preferred. I can be contacted at [anna.yellin@dnr.state.ga.us](mailto:anna.yellin@dnr.state.ga.us) or 706-557-3283.**

#### **Disclaimer:**

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



Anna Yellin  
Environmental Review Coordinator

### **Data Available on the Nongame Conservation Section Website**

- Georgia protected plant and animal profiles are available on our website. These accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.
- Rare species and natural community information can be viewed by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.
- Downloadable files of rare species and natural community data by quarter quad and county are also available. They can be downloaded from: <http://www.georgiawildlife.com/node/1370>.



## WILDLIFE RESOURCES DIVISION

Known occurrences of special concern plants, animals and natural communities  
Fulton County — Fips Code: 13121

Find details for these species at [Georgia Rare Species and Natural Community Data](#) and [NatureServe Explorer](#).

[US] indicates species with federal status (Protected or Candidate).  
Species that are federally protected in Georgia are also state protected.  
[GA] indicates Georgia protected species.

-  link to species profile on our site (not available for all species).
-  link to report for element on NatureServe Explorer (only available for animals and plants).

### Animal Occurrences

- *Aimophila aestivalis* (Bachman's Sparrow) [GA]    - bird
- *Ammodramus henslowii* (Henslow's Sparrow) [GA]    - bird
- *Cambarus howardi* (Chattahoochee Crayfish) [GA]    - crustacean
- *Cyprinella callitaenia* (Bluestripe Shiner) [GA]    - fish
- *Elliptio arcata* (Delicate Spike) [GA]    - mollusk
- *Etheostoma scotti* (Cherokee Darter) [US]    - fish
- *Falco peregrinus* (Peregrine Falcon) [GA]    - bird
- *Hamiota subangulata* (Shinyrayed Pocketbook) [US]    - mollusk
- *Hemidactylium scutatum* (Four-toed Salamander)    - amphibian
- *Medionidus penicillatus* (Gulf Moccasinshell) [US]    - mollusk
- *Notropis hypsilepis* (Highscale Shiner) [GA]    - fish
- *Nyctanassa violacea* (Yellow-crowned Night-heron)    - bird
- *Pituophis melanoleucus melanoleucus* (Northern Pine Snake)    - reptile
- *Quadrula infucata* (Sculptured Pigtoe)    - mollusk

### Plant Occurrences

- *Cypripedium acaule* (Pink Ladyslipper) [GA]   
- *Cypripedium parviflorum* (Yellow Ladyslipper) [GA]   
- *Dryopteris celsa* (Log Fern)   
- *Fothergilla major* (Mountain Witch-alder) [GA]   
- *Hexastylis shuttleworthii* var. *harperi* (Harper Wild Ginger)   
- *Listera australis* (Southern Twayblade)   
- *Melanthium latifolium* (Broadleaf Bunchflower)   
- *Monotropsis odorata* (Sweet Pinesap) [GA]   
- *Nestronia umbellula* (Indian Olive) [GA]   
- *Panax quinquefolius* (American Ginseng)   
- *Rhus michauxii* (Dwarf Sumac) [US]   
- *Schisandra glabra* (Bay Star-vine) [GA]   
- *Symphotrichum georgianum* (Georgia Aster) [US]   
- *Waldsteinia lobata* (Barren Strawberry) [GA]   

Generated from Georgia DNR's NatureServe Biotics conservation database on October 12, 2011

## Ike, Claire

---

**From:** Ozier, Jim <Jim.Ozier@dnr.state.ga.us>  
**Sent:** Friday, November 22, 2013 2:43 PM  
**To:** Ike, Claire  
**Subject:** RE: Bald Eagle Information Request PI 0010925

Claire,

The nearest known bald eagle nest is about 21.5 miles at 326 degrees on Lake Allatoona.

Jim Ozier  
Wildlife Biologist / Program Manager  
Nongame Conservation Section  
Wildlife Resources Division  
Georgia Department of Natural Resources  
116 Rum Creek Drive  
Forsyth, GA 31029  
478-994-1438 office  
404-291-8124 cell

---

**From:** Ike, Claire [<mailto:Claire.Ike@arcadis-us.com>]  
**Sent:** Friday, November 22, 2013 2:37 PM  
**To:** Ozier, Jim  
**Subject:** Bald Eagle Information Request PI 0010925

On behalf of the Georgia Department of Transportation, ARCADIS is in the beginning stages of project development for an intersection improvement at Interstate 285 and Riverside Drive in Fulton County, GA. While we've already coordinated with Anna Yellin for Element Occurrence data within 3 miles of the project corridor from the Georgia DNR Non-Game Wildlife Program, we respectfully request the approximate bearing and distance between the project midpoint (Latitude 33.9159, Longitude -84.4066) and the nearest known bald eagle nesting site(s).

In providing the requested information, your assistance will facilitate careful project planning and design with respect to sensitive natural resources and would anticipate any required resource agency coordination, as well as the incorporation of appropriate conservation recommendations into project commitments.

Thank you,

**Claire Ike** | Ecologist | [claire.ike@arcadis-us.com](mailto:claire.ike@arcadis-us.com)

ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA, 30339  
O: 770-431-8666 | D: 770-384-6596 | F: 770-435-2666  
Connect with us! [www.arcadis-us.com](http://www.arcadis-us.com) | [LinkedIn](#) | [Twitter](#) | [Facebook](#)



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ARCADIS, Imagine the result

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U.S. Fish and Wildlife Service

## Natural Resources of Concern

**This resource list is to be used for planning purposes only — it is not an official species list.**

**Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:**

**GEORGIA ECOLOGICAL SERVICES FIELD OFFICE**  
105 WESTPARK DRIVE  
WESTPARK CENTER SUITE D  
ATHENS, GA 30606  
(706) 613-9493

***Project Name:***

Riverside Dr. @ I-285

***Project Counties:***

Fulton, GA

***Project Type:***

Transportation

***Endangered Species Act Species List ([USFWS Endangered Species Program](#)).***

There are a total of 6 threatened, endangered, or candidate species, and/or designated critical habitat on your species list. Species on this list are the species that may be affected by your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Please contact the designated FWS office if you have questions.

**Species that may be affected by your project:**

Clams	Status	Species Profile	Contact
-------	--------	-----------------	---------



## Natural Resources of Concern

Gulf moccasinshell ( <i>Medionidus penicillatus</i> )	Endangered	<a href="#">species info</a>	Georgia Ecological Services Field Office
Oval pigtoe ( <i>Pleurobema pyriforme</i> )	Endangered	<a href="#">species info</a>	Georgia Ecological Services Field Office
Purple bankclimber ( <i>Elliptoides sloatianus</i> )	Threatened	<a href="#">species info</a>	Georgia Ecological Services Field Office
Shinyrayed pocketbook ( <i>Lampsilis subangulata</i> )	Endangered	<a href="#">species info</a>	Georgia Ecological Services Field Office
Fishes			
Cherokee darter ( <i>Etheostoma scotti</i> ) Population: Entire	Threatened	<a href="#">species info</a>	Georgia Ecological Services Field Office
Mammals			
northern long-eared Bat ( <i>Myotis septentrionalis</i> ) Population:	Proposed Endangered	<a href="#">species info</a>	Georgia Ecological Services Field Office

### ***FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#)).***

There are no refuges found within the vicinity of your project.

### ***FWS Migratory Birds ([USFWS Migratory Bird Program](#)).***

Most species of birds, including eagles and other raptors, are protected under the Migratory Bird Treaty Act (16 U.S.C. 703). Bald eagles and golden eagles receive additional protection under the [Bald and Golden Eagle Protection Act](#) (16 U.S.C. 668). The Service's [Birds of Conservation Concern \(2008\)](#) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).



U.S. Fish and Wildlife Service

## Natural Resources of Concern

### ***NWI Wetlands ([USFWS National Wetlands Inventory](#)).***

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).



# United States Department of the Interior



FISH AND WILDLIFE SERVICE  
Georgia Ecological Services Field Office  
105 WESTPARK DRIVE, WESTPARK CENTER SUITE D  
ATHENS, GA 30606  
PHONE: (706)613-9493 FAX: (706)613-6059

Consultation Tracking Number: 04EG1000-2014-SLI-0462

March 13, 2014

Project Name: PI 0010925

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:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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 feel free to contact us if you need assistance regarding potential impacts to federally proposed, listed, and candidate species and federally-designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. 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 information.

The Endangered Species Act prohibits "take" of a listed species of fish or wildlife, where take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed species and/or to degrade habitat such that the action kills or injures a listed species by significantly impairing essential behavioral patterns, such as breeding, feeding or sheltering.

Development activities that increase impervious surface and stormwater runoff can degrade habitat for federally-protected aquatic species by:

- Requiring culverts or other instream structures that block fish passage and reduce stream channel and bank stability;

- Increasing turbidity in stream systems during land-disturbing activities;
- Causing long term declines in water quality due to increased concentrations of herbicides, pesticides, sediment, and other pollutants in stormwater flowing from the site; and/or
- Altering downstream hydrology in stream systems due to increased stormwater runoff, with resulting downstream channel scour, reduced bank stability, and increased long-term sedimentation and turbidity.

**We recommend that proponents of urban development projects contact us early in the design process to discuss construction and maintenance best management practices that will minimize impacts of development on rare fish and other aquatic species.** In general, we recommend the following measures for post-construction stormwater management, road and utility crossings, and grading, in addition to adequate sediment and erosion control, protection of riparian buffers, and control of stormwater during construction.

### **Stormwater Runoff**

- Infiltrate excess stormwater generated by the development.
- Design and implement structural and non-structural BMPs so that all runoff from impervious surfaces is directed to on-site stormwater controls.
- Use numerous distributed stormwater BMPs located as close as possible to runoff-generating sources. A distributed stormwater management system is less prone to environmentally damaging failure than a system that relies on a single facility to serve an entire site.

### **Road Crossings** (recommendations meet Corps requirements for use of NWP 14)

- Bridge any stream with a drainage area equal to or greater than 20 sqmi.
- Cross streams with a drainage area smaller than 20 sqmi and larger than 0.2 sqmi with bridges, bottomless culverts, or embedded box or pipe culverts. Multi-barrel culverts should be designed using box culverts, preferably with a bottomless center barrel(s).
- Accommodate bank-full flows at all road crossings, and culvert floodplains, where present, to allow sheetflow of stormwaters.
- Embed all culverts (except bottomless) 25% of their diameter or rise and place them at the existing channel slope.
- Design all stream crossings to maximize infiltration of stormwater runoff generated by roadways.

### **Utility Crossings**

- Use isolation crossing methods and limit open trench work to periods outside the goldline darter spawning period

### **Grading**

- Limit the surface area of erodible material at one time to 17 acres
- Leave at least 30% of all areas of a site that contain slopes equal to or greater than 25% over a contiguous area of at least 5000 sqft ungraded.

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*). Projects affecting these species may require development of an eagle conservation plan ([http://www.fws.gov/windenergy/eagle\\_guidance.html](http://www.fws.gov/windenergy/eagle_guidance.html)).

Wind energy projects should follow the wind energy guidelines <http://www.fws.gov/windenergy/> for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior  
Fish and Wildlife Service

Project name: PI 0010925

## Official Species List

### Provided by:

Georgia Ecological Services Field Office  
105 WESTPARK DRIVE  
WESTPARK CENTER SUITE D  
ATHENS, GA 30606  
(706) 613-9493

**Consultation Tracking Number:** 04EG1000-2014-SLI-0462

**Project Type:** Transportation

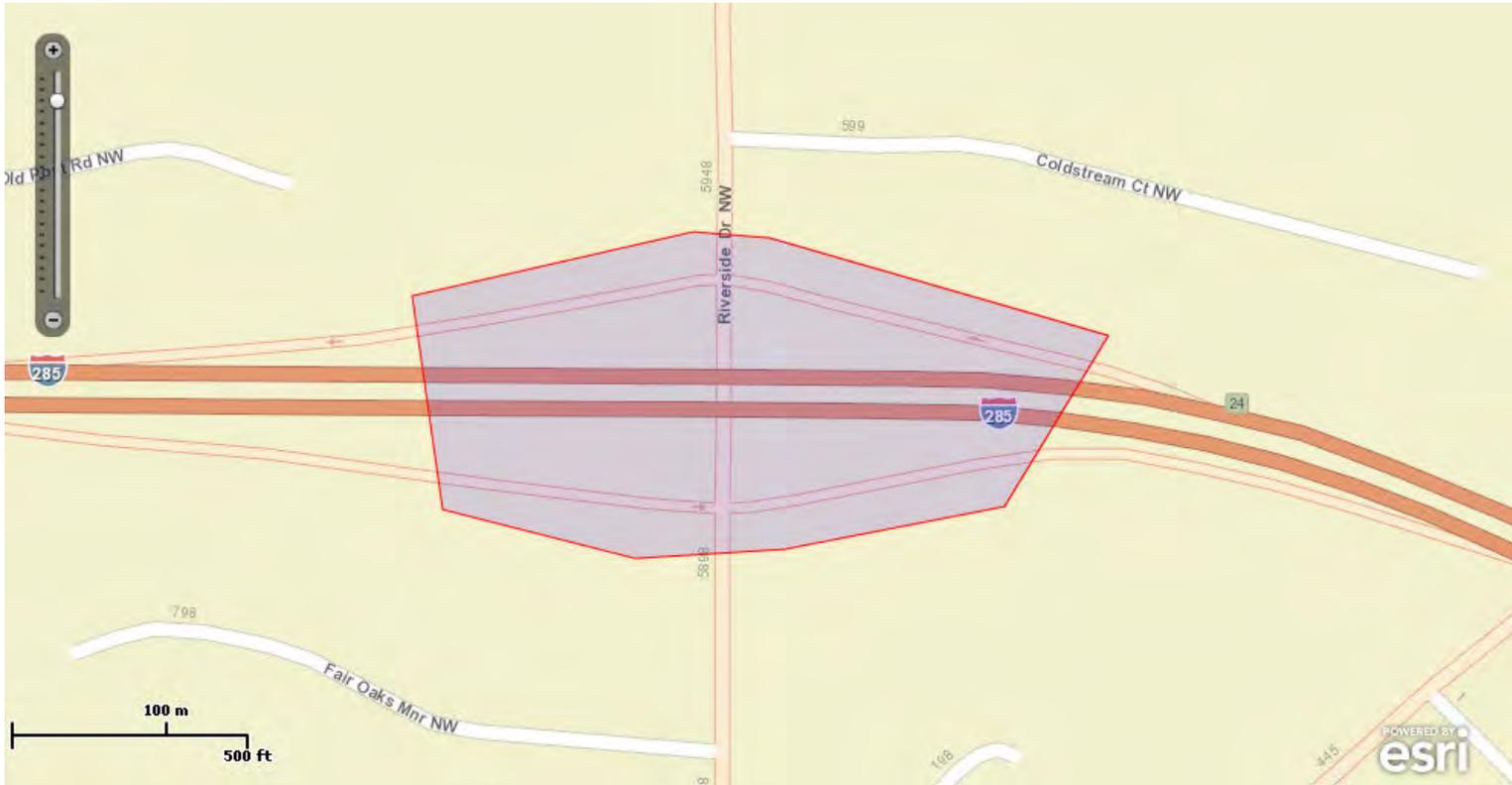
**Project Description:** Riverside Drive at I-285



United States Department of Interior  
Fish and Wildlife Service

Project name: PI 0010925

### Project Location Map:



**Project Coordinates:** MULTIPOLYGON (((-84.4088425 33.9164966, -84.4068684 33.9168706, -84.4063319 33.9168349, -84.4039501 33.9162651, -84.4046797 33.9152679, -84.4062246 33.9150187, -84.4072761 33.9149652, -84.4086279 33.9152501, -84.4088425 33.9164966)))

**Project Counties:** Fulton, GA



United States Department of Interior  
Fish and Wildlife Service

Project name: PI 0010925

## Endangered Species Act Species List

There are a total of 1 threatened, endangered, or candidate species on your 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. Critical habitats listed on the **Has Critical Habitat** lines may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

northern long-eared Bat (*Myotis septentrionalis*)

Listing Status: Proposed Endangered



United States Department of Interior  
Fish and Wildlife Service

Project name: PI 0010925

## **Critical habitats that lie within your project area**

There are no critical habitats within your project area.

**From:** [Pattavina, Pete](#)  
**To:** [Ike, Claire](#); [Morrell, Jason](#)  
**Subject:** Re: FW: Operational Improvements to I-285 at Riverside Dr, Fulton County - PI#0010925  
**Date:** Tuesday, February 04, 2014 1:22:31 PM

---

Hi, Claire. You are correct, that your project would not require aquatic surveys for the mussels indicated in IPAC. In that portion of the Chattahoochee, federally-listed mussel species are considered extirpated.

Also, please do not send work items to my personal email address. I throw them away from my personal account, typically without responding, since I don't want my personal email account to be subject to Freedom of Information Act requests.

Pete

On Tue, Feb 4, 2014 at 10:37 AM, Pete Pattavina wrote:

----- Forwarded message -----

**From:** **Ike, Claire** <[Claire.Ike@arcadis-us.com](mailto:Claire.Ike@arcadis-us.com)>

**Date:** Tue, Feb 4, 2014 at 9:25 AM

**Subject:** FW: Operational Improvements to I-285 at Riverside Dr, Fulton County - PI#0010925

**To:** "Pete Pattavina

Good morning Pete,

My name is Claire Ike, I am working on the Ecology Resource Survey Report for the subject project. As mentioned before, several mussel species are listed on the IPAC list for Fulton County; however, this project is located in Sandy Springs outside of the known range for these species based on available USFWS data (please see map attached). In addition, Heards Creek, a tributary to the Chattahoochee is the only major stream located in the project area. I would like to request your concurrence that surveys for protected aquatic species listed in Fulton County would not be required for this project. Please let me know if you needs any additional information as soon as possible, as the Ecology Resource Survey Report has already been submitted to GDOT and we would like to have this concurrence prior to the second report submittal.

Thank you,

**Claire Ike** | Ecologist | [claire.ike@arcadis-us.com](mailto:claire.ike@arcadis-us.com)

ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA, 30339

O: [770-431-8666](tel:770-431-8666) | D: [770-384-6596](tel:770-384-6596) | F: [770-435-2666](tel:770-435-2666)

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**From:** Morrell, Jason  
**Sent:** Wednesday, November 06, 2013 8:52 AM  
**To:** Pattavina, Pete ([Pete\\_Pattavina@fws.gov](mailto:Pete_Pattavina@fws.gov)) ([Pete\\_Pattavina@fws.gov](mailto:Pete_Pattavina@fws.gov))  
**Cc:** Ike, Claire  
**Subject:** Operational Improvements to I-285 at Riverside Dr, Fulton County - PI#0010925

Hello Pete,

We are preparing an Ecology Resource Survey Report for the subject project. Upon reviewing the IPAC list for Fulton County transportation projects (see attached) I noticed several mussel species listed. The project is located in Sandy Springs (see attached Vicinity Map) and is outside of the known range for these species based on available USFWS GIS data. Heards Creek, a tributary to the Chattahoochee, is the only major stream located within the project area. I would like to request your concurrence that surveys for protected aquatic species listed for Fulton County would not be required for the project. Please let me know if you have questions or need more info.

Thanks,

Jason

**Jason E. Morrell, PWS** | Project Ecologist | [jason.morrell@arcadis-us.com](mailto:jason.morrell@arcadis-us.com)

ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA 30339  
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[www.arcadis-us.com](http://www.arcadis-us.com)

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Pete Pattavina  
Fish and Wildlife Biologist  
U.S. Fish and Wildlife Service  
105 West Park Drive, Suite D  
Athens, GA 30606  
706-613-9493, ext. 236

---

**From:** Hedeem, Meghan W. [mailto:mhedeem@dot.ga.gov]

**Sent:** Wednesday, March 05, 2014 4:22 PM

**To:** Levy, Alex

**Subject:** RE: Northern long eared bat protocols

Alex,

Doug and Gail have been working with USFWS and FHWA to decide on a plan for projects, individually. Please see the attached email (with an attached spreadsheet) and see if it provides the information you need for your projects. I suppose I could have emailed this out to the consultant community.

If your projects are not in the spreadsheet, please coordinate with Pete to see what he wants us to do.

Please let me know if this does not answer your questions.

Will you be in the office tomorrow? If so, I will try to call to continue our conversation from GPTQ.

Thank you,

Meg

*Meghan Hedeem, Ecology Consultant Manager*

*GDOT Office of Environmental Services*

*[mhedeem@dot.ga.gov](mailto:mhedeem@dot.ga.gov)*

*404.631.1812*

## Ike, Claire

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**From:** Chamblin, Douglas <dchamblin@dot.ga.gov>  
**Sent:** Monday, February 10, 2014 3:56 PM  
**To:** Byrd, Rebecca E; Collazo, Jaime; Davis, James B.; Goodson, Christopher W.; Hedeem, David; Hedeem, Meghan W.; Jackson, Jeffrey; Meyers, Sharilyn; Pulver, Megan; Rich-Robertson, Ashley N; Schmidt, Christina; D'Avino, Gail  
**Subject:** Bat projects  
**Attachments:** Bat\_county\_projects\_FY2014-2015.xlsx

All,

The attached spreadsheet has info on how bats will be handled on the projects within bat counties that have approved CST or ROW funding in FY 2014 and 2015. I've filled in the ecologist.

Please take a look at your projects and the "Next Step" column. The main categories and a brief explanation of each is below:

- "No effect - to be addressed programmatically" – These are the projects for which we'll provide the agencies with a shapefile and a project description, and request that they concur that each will have "no effect" on bat species.
- "Addressed - no action needed at this time (besides reviewing reports in some cases)" – These either had a survey done in 2013, are covered under Appendix A/JCP, or have had bats addressed by a memo or ecology addendum.
- "Needs survey in 2014" – We will request that PMs initiated task orders for their project(s).

Please review your projects and let me know if you have any concerns or questions. As I mentioned this morning, HNTB will be compiling shapefiles and project descriptions for the projects that are to be handled programmatically.

Thanks,

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During inclement winter weather, Georgia DOT commits to achieve and maintain passable road conditions on two lanes of interstates first and then state routes from the most heavily traveled to the least traveled. The Department urges travelers to exercise caution, be patient, and call 511 for updated information on roadway conditions before getting on the road during a winter weather event.

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Proj ID	Primary County	Ecologist	I-bat/NLEB or NLEB	Primary Work Type	Short Description	Mgmt Dir Let Dt	Mgmt Dir Row Dt	Phase Code	Comment	Next Step
0000265	Fulton	Brian	NLEB	Multi-use Trail	CR 1330/HARDSCRABBLE RD FM KING RD TO ETRIS RD-MULTI-USE PTH	9/19/2014	10/15/2012	CST	See aerial & email; per designer, <1 ac forest being cleared; Jan 2013 - pockets of mixed hardwoods	No effect - to be addressed programmatically.
0000301	Towns	Meg	I-bat & NLEB	Bridges	SR 17- SR 75 @ HIAWASSEE RIVER 6.5 MI S OF HIAWASSEE	4/18/2014	3/15/2011	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0000302	Towns	Jaime	I-bat & NLEB	Bridges	SR 17- SR 75 @ HIAWASSEE RIVER 3.6 MI S OF HIAWASSEE	4/18/2014	6/17/2011	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0000303	Towns	Meg	I-bat & NLEB	Bridges	SR 2 @ HIGHTOWER CREEK 6.1 MI E OF HIAWASSEE	10/17/2014	10/19/2012	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0000304	Towns	Doug	I-bat & NLEB	Bridges	SR 66 @ BRASSTOWN CREEK .5 MI NW OF YOUNG HARRIS	4/15/2015	4/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0000305	Towns	Doug	I-bat & NLEB	Bridges	SR 66 @ CROOKED CREEK 3.2 MI NW OF YOUNG HARRIS	4/15/2015	4/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0000687	Murray	Doug	I-bat & NLEB	Bridges	CR 4/DENNIS MILL ROAD @ ROCK CREEK 5.6 MI SE OF CHATSWORTH		2/19/2010	ROW	see sketch; 2004 ecology report - bridge at farm	No effect - to be addressed programmatically.
0001175	Paulding	Brian	I-bat & NLEB	Minor Widen & Resurf	DABBS BRIDGE RD FM SR 61/PAULDING THRU BARTOW TO SR 3/COBB	2/15/2018	2/15/2016	ROW	Will need survey, not eligible for MOA to postpone survey until after ROW authorized; See aerial from history survey report	Needs survey in 2014
0001935	White	MAAI-TEE	I-bat & NLEB	TE-Scenic Hwy/Welcome Ctr	HARDMAN FARM VISITOR CENTER - PARKING LOTS&PEDESTRIAN TRAIL	6/20/2014		CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0002310	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	ROSWELL ROAD TRANSIT-ORIENTED STREETSCAPE	4/18/2014		CST	Sidewalks in Sandy Springs - NLEB not addressed	No effect - to be addressed programmatically.
0002377	Whitfield	MAAI-TEE	I-bat & NLEB	Bicycle/Ped. Facility	THE ATLANTA CAMPAIGN & MARCH TO THE SEA HERITAGE TRAILS	4/18/2014		CST	No ROW or easements; Interpretive markers at 36 sites	No effect - to be addressed programmatically.
0002626	Bartow	Sharilyn	I-bat & NLEB	Interchange	SR 3/US 41 AND SR 61/US 411 INTERCHANGE RECONSTRUCTION	6/20/2014	3/15/2011	CST	April 2012 - survey for suitable I-bat habitat - low to moderate quality; SP for clearing restrictions?	Addressed - no action needed at this time (besides reviewing reports in some cases)
0003081	Chattooga	Brian	I-bat & NLEB	Bridges	CR 321/TALIAFERRO SPRINGS @ CHATTOOGA RIVER 1 MI S OF LYERLY	6/15/2015	6/20/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0003626	Hall	Meg	I-bat & NLEB	Widening	SARDIS RD CONN FM SR 60 TO SARDIS RD NEAR CHESTATEE RD	7/15/2017	9/15/2014	ROW	Bat survey completed in 2012; Aug 2013 addendum - acoustic survey for I-bats & SP for clearing	Section 7 requested - MANLAA IBAT. Consultant to address NLEB.
0003948	Catoosa	Brian	I-bat & NLEB	Roundabout	SR 3 @ CR 381/GRAYSVILLE ROAD	1/15/2015	7/15/2013	ROW & CST	July 2012 - no effect to I-bat due to lack of suitable habitat	No effect - to be addressed programmatically.
0005530	Chattooga	Brian	I-bat & NLEB	Bridges	SR 48 @ EAST FORK LITTLE RIVER 3.7 MI NE OF MENLO	6/15/2015	6/15/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006026	Carroll	Rebecca	I-bat & NLEB	Intersection Improvement	SR 5 @ SR 16/US 27 ALT	1/15/2015	1/15/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006276	Gwinnett	Doug	NLEB	Roadway Project	HOSPITAL DRIVE CONNNECTOR ROAD - LCI PROJECT	8/15/2015	3/15/2014	ROW	No Effect due to fragmentation of potential habitat; will send shape file to USFWS & DNR - WRD; New location through wooded area; Clearing restrictions not needed	No effect - to be addressed programmatically.
0006416	Pickens	Dave	I-bat & NLEB	Realignment	SR 53 FM E OF CR 269/RYO MOUNTAIN RD TO W OF CR 178/DAVIS RD	9/15/2015	6/20/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006439	Gwinnett	Ashley	NLEB	Intersection Improvement	SR 10/US 78 @ SR 124; INC HENRY CLOWER BLVD	12/15/2016	6/20/2014	ROW	January 2014 no effect finding for NLEB	No effect - to be addressed programmatically.
0006612	Gilmer	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	ELLIJAY STREETSCAPE FM SR 282 TO SPRING STREET - PHASE III	9/19/2014		CST	Streetscaping in Ellijay	No effect - to be addressed programmatically.
0006644	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	UNION CITY PEDESTRIAN SYSTEM - PHASE II	12/12/2014	8/17/2012	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006658	Catoosa	Megan	I-bat & NLEB	Bridges	CR 390/THREE NOTCH ROAD @ PEAVINE CREEK 7 MI SW OF RINGGOLD	12/15/2015	4/15/2014	ROW	Dec 2013 NLEB & Ibat concurrence requested	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006823	Gwinnett	Chris	NLEB	ITS	CR 3273/PLEASANT HILL ROAD FROM SR 13 TO FULTON COUNTY LINE	6/20/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006862 731865-	Cobb	Dave	NLEB	Widening; Bridges	SR 92 FROM SR 3/US 41 TO GLADE ROAD; SR 92 @ PROCTOR CREEK/LAKE ACWORTH IN SW ACWORTH	3/15/2015	3/15/2013	ROW	Will need survey, not eligible for MOA to postpone survey until after ROW authorized; See project location map; FONSI not approved - expected late 2014; Sept 2009 BA didn't address bats	Needs survey in 2014

0006900 0006901 720970-	Douglas	Chris	NLEB	Realignment	SR 92 RELOC FM COOPER TO ELLIS RELOCS;INC UNDERPASS & RR-PH I; SR 92 RELOC FROM PINE DRIVE TO COOPER STREET RELOC - PH II; SR 92 RELOC FM ELLIS ST RELOC TO N OF MALONE RD - PHASE III	4/18/2014	6/17/2011	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0006912	Fulton	Chris	NLEB	Bicycle/Ped. Facility	SR 279 FROM N OF CR 1384/FLAT SHOALS TO CR 567/SULLIVAN RD	6/20/2014	10/21/2011	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007021	Forsyth	Jaime	I-bat & NLEB	Bridges	SR 53 @ CHESTATEE RIVER	9/19/2014	7/19/2013	ROW & CST	No acoustic survey done; clearing restriction proposed for I-bat	MANLAA for IBAT on file with clearing restrictions - need to address NLEB.
0007023	Banks	Dave	I-bat & NLEB	Bridges	SR 59 @ GROVE CREEK	4/15/2017	9/15/2015	ROW	Will need survey, eligible for MOA to postpone survey until after ROW authorized; see aerial; wooded area	Needs survey in 2014
0007030	Dawson	Brian	I-bat & NLEB	Bridges	SR 9 @ ETOWAH RIVER	7/18/2014	6/21/2013	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007156	Banks	Chris	I-bat & NLEB	Bridges	SR 98 @ HICKORY LEVEL CREEK 3.5 MI SW OF HOMER	6/15/2016	5/15/2015	ROW		Addressed - no action needed at this time (besides reviewing reports in some cases)
0007158	Banks	Jaime	I-bat & NLEB	Bridges	SR 63 @ MIDDLE FORK BROAD RIVER 9 MI NE OF HOMER	4/15/2016	8/15/2014	ROW		Addressed - no action needed at this time (besides reviewing reports in some cases)
0007159	Barrow	Doug	NLEB	Bridges	SR 211 @ BEECH CREEK 6.8 MI E OF WINDER	12/12/2014	3/15/2014	ROW	Will need survey, eligible for MOA to postpone survey until after ROW authorized; see aerial; Sept 2013 - NLEB not addressed; mixed hardwood forest, 0.88 acre cleared for project; no required ROW - permanent easements for maintenance of slopes; off-site detour	Needs survey in 2014
0007169	Dawson	Megan	I-bat & NLEB	Bridges	SR 136 @ ETOWAH RIVER 5.7 MI EAST OF DAWSONVILLE	2/15/2016	10/15/2014	ROW	Dec 2013 report addressed Ibat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007174	Fulton	Doug	NLEB	Bridges	SR 3 @ PEACHTREE CREEK	5/15/2016	1/15/2015	ROW	No effect due to it being outside of the range for NLEB; See aerial; Northside at Bobby Jones GC - new bridge to west; per design, 3.5 acres disturbed	No effect - to be addressed programmatically.
0007285 0008037	Paulding	Megan	I-bat & NLEB	Roadway Project	PAULDING BUSINESS TECHNOLOGY PARK AND ROADWAY IMPROVEMENTS; PAULDING COUNTY TECHNOLOGY PARK LOCAL ACCESS ROAD	11/21/2014	12/15/2013	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007310	Fulton	Meg	NLEB	Multi-use Trail	SR 120 FM CS 65/JONES BRIDGE RD TO CS 79/PARSON RD-PHASE II	10/17/2014	1/17/2014	ROW & CST	Dec 2013 - NLEB addressed - clearing restrictions	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007311	Fulton	Doug	NLEB	Roundabout	CR 3266/BELL ROAD @ CR 72/BOLES ROAD	5/16/2014	6/15/2012	CST	see aerial; Roundabout in single-family residential area; 1 stream described as having a sparsely vegetated upland riparian buffer	No effect - to be addressed programmatically.
0007313	Fulton	Jaime	NLEB	Intersection Improvement	SR 372 @ CRABAPPLE RD; INC NEW LOC & INTERSECTION IMPROVEMENT	11/21/2014	9/15/2013	ROW & CST	see aerial; March 2013 - NLEB not addressed; intersection improvement with new location, roundabouts; residential/commercial area	No effect - to be addressed programmatically.
0007319	Hall	Chris	I-bat & NLEB	Widening	SR 347/FRIENDSHIP RD FM MCEVER RD TO LAKE LANIER - PHASE II	9/15/2015	4/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007353	Hall	Chris	I-bat & NLEB	Signals	SR 11;SR 11BU;SR 13;SR 53&SR60@9 LOC-TRAFFIC SIGNAL UPGRADES	6/20/2014	3/15/2013	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007457	Franklin	Chris	I-bat & NLEB	Pedestrian Crossings	I-85; SR 8; SR 17; SR 59 & SR 72 @ 12 LOCS	4/18/2014	3/15/2013	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007494	Bartow	Jeff	I-bat & NLEB	Widening	CS 1054/DOUTHIT FERRY RD FM OLD ALABAMA RD TO SR 61/SR 113	8/15/2016	7/15/2014	ROW	NLEB addressed - clearing restrictions	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007495	Lumpkin	Jaime	I-bat & NLEB	Pedestrian Crossings	PEDESTRIAN UPGRADES @ 20 SR LOCATIONS IN DISTRICT 1	1/15/2015	5/15/2013	CST	July 2012 - I-bat noted & JCP; 20 intersections - signal upgrades, wheel chair ramps	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007529	Cobb	Dave	NLEB	Widening	CR 8/CEDARCREST RD FM PAULDING CO LINE TO GOVERNORS TOWNE DR	1/15/2015	4/19/2013	CST	Will need survey, not eligible for MOA to postpone survey until after ROW authorized; see aerial; Feb 2012 - I-bat & NLEB not addressed	Needs survey in 2014
0007532	Fulton	Chris	NLEB	Roadway Project	AIRPORT LOOP ROAD ACCESS ROADS IN HAPEVILLE	6/15/2015	6/20/2014	ROW & CST	March 2012 - NLEB not addressed; sidewalks/lighting improvements in Hapeville; South Fulton so "out of range" per Pete	No effect - to be addressed programmatically.
0007533	Fulton	Brian	NLEB	Roundabout	CR 1374/BUTNER ROAD @ CR 1386/STONEWALL TELL ROAD	8/22/2014	7/19/2013	ROW	Dec 2013 - roundabout in College Park; residential, commercial & schools	No effect - to be addressed programmatically.

0007535	Gwinnett	Doug	NLEB	Roadway Project	CONNECTOR STREET FROM HEWATT ROAD TO BRITT DRIVE	4/15/2015	10/19/2012	ROW & CST	see aerial; May 2012 bats not addressed; new location connection behind commercial area on US 78 near residential area	No effect - to be addressed programmatically.
0007540	Fulton	Doug	NLEB	Miscellaneous Improvements	SEMMES ST FM WASHINGTON RD TO NORMAN BERRY RD IN EAST POINT	12/12/2014	7/22/2011	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007639 0008155	Hall	MAAI-TEE	I-bat & NLEB	Multi-use Trail; TE-Bike/Ped Facility	CENTRAL HALL RECREATION & MULTI-USE TRAIL IN HALL COUNTY; ATLANTA HIGHWAY BICYCLE/PEDESTRIAN TUNNEL	4/18/2014	6/17/2011	CST	trail through wooded area	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007691	Paulding	Chris	I-bat & NLEB	Widening	SR 92 FM CS 611/MALONE RD TO CS 519/NEBO RD-SEGMENT 1-PH IV	1/15/2017	6/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007912	Fulton	Jaime	NLEB	Signals	SR 154; CS 520; CS 904; CS 3541 & CS 3694 @ 18 LOCS	7/18/2014	1/18/2013	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0007949	Fulton	Sharilyn	NLEB	RR Facilities	HAPEVILLE RAIL FACILITIES & CORRIDOR	6/15/2015		CST	No effect due to being outside range for NLEB; see concept layout; NS rail crossing improvements; no ecology file	No effect - to be addressed programmatically.
0008067	Bartow	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	LEAKE MOUNDS-ETOWAH RIVERWALK LINK	7/18/2014		CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0008154	Hall	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	GILLSVILLE TRAIL & DOWNTOWN STREETSCAPE	6/20/2014		ROW & CST	Jan 2014 requested no effect for Ibat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0008190	Pickens	MAAI-TEE	I-bat & NLEB	TE-Scenic Hwy/Welcom Ctr	SR 53 @ TATE DEPOT IN PICKENS COUNTY	5/16/2014		CST		No effect - to be addressed programmatically.
0008256	Cobb	Jaime	NLEB	Managed Lanes	I-75/I-575 MANAGED LANES IN COBB & CHEROKEE			CST	NWC - currently being addressed	Addressed - no action needed at this time (besides reviewing reports in some cases)
0008314	Pickens	Doug	I-bat & NLEB	Realignment	SR 136 FROM SR 136 CONN TO SR 515	2/15/2016	2/15/2015	ROW & CST		Addressed - no action needed at this time (besides reviewing reports in some cases)
0008364	Whitfield	Brian	I-bat & NLEB	Bridges	SR 3 @ LITTLE SWAMP CREEK	1/15/2015	4/15/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0008375	Douglas	Brian	NLEB	Intersection Improvement	SR 8 @ CONNERS RD; @ MANN RD/MASON CREEK RD & @ POST RD	1/15/2016	4/15/2014	ROW & CST	Will need survey, eligible for MOA to postpone survey until after ROW authorized; see aerial; development encroaching on forested areas	Needs survey in 2014
0008627	Hall	Megan	I-bat & NLEB	Realignment	CR 1300/UNION CHURCH ROAD FROM SR 53 TO SR 211 @ 4 LOCS-HRRR	4/15/2016	4/15/2015	ROW & CST		Addressed - no action needed at this time (besides reviewing reports in some cases)
0008750	Fulton	Jaime	NLEB	Bridges	CR 72/BELL ROAD @ CAULEY CREEK	5/16/2014	4/15/2013	CST	CONFIRM WITH JAIME - SP for clearing; see aerial; bridge replacement; 2.6 acres of mixed hardwood	Probably no effect - to be addressed programmatically; need to confirm with USFWS
0008751	Fulton	Jaime	NLEB	Bridges	CR 79/PARSONS ROAD @ JOHNS CREEK	5/16/2014	4/15/2013	CST	CONFIRM WITH JAIME - SP for clearing; see aerial; Bridge replacement; 1.1 acres of mixed hardwood/pine; 1.5 ac mixed hardwood	Probably no effect - to be addressed programmatically; need to confirm with USFWS
0008903	Fulton	Sharilyn	NLEB	Bicycle/Ped. Facility	SR 3/CS 8028 FROM N WHITNEY AVE TO DEARBORN PLAZA - LCI	4/18/2014	1/18/2013	CST	Sidewalks in Hapeville	No effect - to be addressed programmatically.
0008912	Lumpkin	Brian	I-bat & NLEB	Streetscapes	DOWNTOWN DEVELOPMENT AUTHORITY DIST STREETSCAPE IN DAHLONEGA	9/19/2014	7/15/2013	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0008961	Cherokee	Chris	I-bat & NLEB	Bicycle/Ped. Facility	HICKORY RD & HOLLY SPRINGS PKWY-DOWNTOWN PED IMPROVEMENT-LCI	5/15/2015	8/16/2013	CST	Aug 2010 - bats not addressed; pedestrian improvements in Holly Springs	No effect - to be addressed programmatically.
0008963	Gwinnett	Chris	NLEB	Bicycle/Ped. Facility	DOWNTOWN LAWRENCEVILLE PED IMPROVEMENTS & ONE-WAY PAIR - LCI	5/15/2015	3/15/2014	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009010	Cobb	MAAI-TEE	NLEB	TE-Bike/Ped Facility	CR 4520/NORTH MAIN STREET FROM SR 92 TO BARTOW COUNTY LINE	12/12/2014		CST	no ecology file; sidewalk, pedestrian level lighting & landscaping in Acworth	No effect - to be addressed programmatically.
0009014	Cobb	MAAI-TEE	NLEB	TE-Bike/Ped Facility	CLAY ROAD FROM SR 5/AUSTELL ROAD TO CR 2373/FLOYD ROAD	4/18/2014		CST	1.65 miles sidewalks in residential area; 0.12 ac ROW, 0.48 ac perm easement; 0.9 ac temp easement	No effect - to be addressed programmatically.
0009021	Dade	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	TRENTON DOWNTOWN STREETSCAPING	12/12/2014		CST	no ecology file; replace damaged sidewalks, new crosswalks & landscape medians in Trenton	No effect - to be addressed programmatically.
0009022	Dawson	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	DAWSON COUNTY COMMUNITY CULTURAL TRAILWAY - PHASE I	5/16/2014		CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009045	Floyd	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	REDMOND TRAIL ALONG NORFOLK SOUTHERN RAILROAD CORRIDOR	12/12/2014		ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009048	Fulton	MAAI-TEE	NLEB	TE-Landscape/Beautif y	FOLK ART PARK PEDESTRIAN IMPROVEMENTS	6/20/2014		CST	Folk art park improvements; heavily urban area - signage, lighting	No effect - to be addressed programmatically.
0009057	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	ROSWELL RIVERWALK TRAIL CONNECTION - PHASE IV	12/12/2014		CST	NEED MORE PROJECT INFO; Per NPS EA - new location trail on NPS property	FWS requested more info on project; may be a "no effect" cleared programmatically

0009060	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	UNION CITY PEDESTRIAN SYSTEM	8/22/2014		ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009061	Gilmer	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	ELLIJAY STREETScape - PHASE V	4/18/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009066	Gordon	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	FAIRMOUNT STREETScape PHASE 1	8/22/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009079	Gwinnett	MAAI-TEE	NLEB	TE-Bike/Ped Facility	NORCROSS DOWNTOWN STREETScape - PHASE II	4/18/2014		CST	0.45 mi sidewalks; Pedestrian facility - residential area to park	No effect - to be addressed programmatically.
0009084	Hall	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	CENTRAL HALL COUNTY RECREATION & MULTI-USE TRAIL - PHASE II	4/18/2014		CST	included in report for 0008155; see 106 worksheet; trail through wooded area at edge of field	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009089	Haralson	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	TALLAPOOSA STREETScape - PHASE III	6/15/2015	6/15/2014	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009104	Lumpkin	None	I-bat & NLEB	Bicycle/Ped. Facility	DOWNTOWN DAHLONEGA PEDESTRIAN & LANDSCAPE IMPROVEMENTS	9/19/2014		CST	see aerial; downtown Dahlonega	No effect - to be addressed programmatically.
0009105	Lumpkin	MAAI-TEE	I-bat & NLEB	TE-Landscape/Beautif y	ENTRANCE CORRIDOR BEAUTIFICATION PROJECT	5/16/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009164	Cherokee	Chris	I-bat & NLEB	Widening	SR 20 FM 0.34 MI E OF I-575 TO 0.15 MI E OF CR 281/SCOTT RD	4/15/2016	4/15/2014	ROW		Addressed - no action needed at this time (besides reviewing reports in some cases)
0009218	Paulding	Doug	I-bat & NLEB	Intersection Improvement	SR 61 @ CR 277/NEBO ROAD/MAYFIELD ROAD	6/15/2015	7/15/2013	CST	Dec 2012 - no habitat for I-bat or gray bat	No effect - to be addressed programmatically.
0009316	Forsyth	Jaime	I-bat & NLEB	Widening	CR 455/BETHELVIEW ROAD FROM CR 8/CASTLEBERRY ROAD TO SR 20	1/15/2015	7/20/2012	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009392	Walker	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	CHICKAMAUGA BATTLEFIELD MULTI-USE TRAIL	8/22/2014		ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009396	Fulton	Sharilyn	NLEB	Bicycle/Ped. Facility	BELT LINE CORRIDOR FM ALLENE AVE TO LENA STREET	1/15/2017	6/15/2015	ROW & CST	No info	
0009405	Barrow	Meg	NLEB	Intersection Improvement	SR 8 @ CR 97/ED HOGAN ROAD	11/21/2014	6/15/2012	CST	No effect due to highly fragmented poor quality habitat; do not need surveys or clearing restrictions; see aerial; July 2011 did not address NLEB; tun lane, some forest, commercial/residential.	No effect - to be addressed programmatically.
0009620	Murray	Chris	I-bat & NLEB	Roundabout	SR 225 @ CR 132/MT CARMEL CHURCH ROAD/MITCHELL BRIDGE ROAD	10/15/2015	10/15/2014	ROW & CST	see aerial; Oct 2013 - SP for Ibat & gray bat	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009835	Douglas	Sharilyn	NLEB	Roundabout	SR 166 @ SR 92/SR 154	4/15/2015	4/15/2014	ROW & CST	No effect due to fragmentation of potential habitat; see aerial; will send shape file to USFWS & DNR -WRD; Nov 2013 draft report not in project documents; realignment - some wooded areas - also pavement being removed; residential encroaching into agriculture; do not need surveys or clearing restrictions;	No effect - to be addressed programmatically.
0009836	Douglas	Brian	NLEB	Roundabout	SR 5 @CR 174/DORSET SHOALS RD &@CR 198/BANKS MILL RD/POOL RD	6/15/2015	6/15/2014	ROW & CST	Will need survey, eligible for MOA to postpone survey until after ROW authorized; ; see aerials; one alternative within wooded area; Large intersection improvement; ecology report in review	Needs survey in 2014
0009860	Bartow	Megan	I-bat & NLEB	Bridges	SR 3 @ CR 122/OLD HWY 41 APPROX 4 MI S OF ADAIRSVILLE	9/15/2015	4/15/2014	ROW		
0009863	Elbert	Jaime	NLEB	Bridges	SR 368 @ PICKENS CREEK	4/15/2015	9/15/2013	ROW & CST	Will need survey, eligible for MOA to postpone survey until after ROW authorized; see aerial; April 2013 - NLEB not addressed; mixed hardwood forest - 40% of surveyed area	Needs survey in 2014
0009864	Haralson	Sharilyn	I-bat & NLEB	Bridges	SR 120 @ BEACH CREEK E OF TALLAPOOSA	8/15/2015	2/15/2014	ROW		
0009887	Cherokee	Doug	I-bat & NLEB	Roundabout	SR 372 @ SR 369	1/15/2015	4/15/2014	ROW & CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0009898	Bartow	Doug	I-bat & NLEB	Roundabout	I-75 @ CR 397/OLD ALLATOONA ROAD - SB & NB RAMPS	1/15/2015	1/15/2014	ROW & CST	No effect since widening is inside, towards the interstate; will send shape file to USFWS & DNR - WRD; see aerial; adjoins wooded area; report not received; interstate ramps	No effect - to be addressed programmatically.
0009938	Dawson	Doug	I-bat & NLEB	Roundabout	SR 53 @ SR 183	1/15/2016	10/15/2014	ROW & CST		Addressed - no action needed at this time (besides reviewing reports in some cases)
0009945	Habersham	Doug	NLEB	Roundabout	SR 384 @ CR 382/PEA RIDGE ROAD	12/15/2016	9/15/2015	CST	see aerial, woods in area not at intersection	No effect - to be addressed programmatically.
0009950	Lumpkin	Doug	I-bat & NLEB	Roundabout	SR 9 @ SR 60	4/15/2016	4/15/2015	ROW & CST	Will need survey,eligible for MOA to postpone survey until after ROW authorized; see aerial; wooded area	Needs survey in 2014

0009992	Fulton	Christina	NLEB	Roundabout	SR 280 @ CS 2645/NORTHWEST DRIVE	11/15/2015	12/15/2014	CST	No effect since no habitat for NLEB; see aerial; woods amongst residences in NW Atlanta	No effect - to be addressed programmatically.
0010009	Cobb	Jeff	NLEB	Multi-use Trail	BOB CALLAN TRUNK TRAIL - PHASE II - SEGMENT A	6/15/2015	4/15/2013	ROW	see aerials; survey for bat habitat due by Feb 15, 2014; dense development in area; Feb 2013 - NLEB not addressed; trail along Rottenwood Creek	
0010017	Gwinnett	Doug	NLEB	Sidewalks	GRAYSON CITY SCHOOL SYSTEM - SRTS	4/18/2014		CST	Sidewalks in Grayson	No effect - to be addressed programmatically.
0010123	Fulton	Chris	NLEB	Operational Improvement	SR 237 FROM HABERSHAM ROAD TO 0.10 MI S OF HABERSHAM DRIVE	9/19/2014	9/21/2012	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010194	White	Doug	I-bat & NLEB	Roadway Project	WEST CLEVELAND BYP FROM N OF SR 115 TO E OF SR 11 - PH II	10/17/2014		CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010241	Fulton	Doug	NLEB	Bicycle/Ped. Facility	CR 1332/ENCORE PKWY FM WESTSIDE PKWY TO NORTH POINT PKWY-LCI	9/19/2014	6/21/2013	ROW & CST	see aerial, trees line GA 400, rest of area developed; July 2011 - bridge reconstruction, bike lanes & sidewalks	No effect - to be addressed programmatically.
0010242	Gwinnett	Doug	NLEB	Bicycle/Ped. Facility	CS 1178/SOUTH LEE ST FM CS 1138/WEST MAIN ST TO SR 13	2/15/2016	12/15/2013	ROW & CST	see aerial; new sidewalks in developed area	No effect - to be addressed programmatically.
0010322	Fulton	None	NLEB	Bicycle/Ped. Facility	SR 8 FROM CS 797/WEST LAKE AVE TO PROCTOR CREEK - LCI			ROW	see aerial; DL Hollowell west of Maddox park; residential, landscape trees	No effect - to be addressed programmatically.
0010325	Cobb	Brian	NLEB	Bicycle/Ped. Facility	CR 1132/FRANKLIN RD FM TWINBROOKS DR TO LAS COLINAS APTS-LCI	1/15/2015	6/15/2013	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010329	Fulton	Brian	NLEB	Bicycle/Ped. Facility	SR 3 FM CS 8028/SOUTH CENTRAL AVE TO CS 3118/NORTH AVE - LCI	4/15/2015	12/13/2013	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010332	Paulding	Jaime	I-bat & NLEB	Bicycle/Ped. Facility	JOHNSTON ST; GRIFFIN ST; SPRING ST & PARK ST IN DALLAS - LCI	11/21/2014	5/15/2013	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010334	Habersham	Doug	I-bat & NLEB	Signals	SR 15 @ 2 LOCS; SR 17 @ 1 LOC & SR 105 @ 4 LOCS	5/15/2016	5/15/2015	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010350	Fulton	Jeff	NLEB	Pedestrian Crossings	SR 8/SR 10 FROM CS 1860/PIEDMONT AVE TO SR 42	12/12/2014	12/13/2013	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010385	Fulton	Chris	NLEB	Bicycle/Ped. Facility	CS 243/SANDY SPRINGS FM CS 262/HAMMOND DR TO SR 9-PH II-LCI	10/17/2014	6/15/2013	ROW	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010395	Fulton	Doug	NLEB	Sidewalks	ATLANTA CHARTER MIDDLE & NEIGHBORHOOD CHARTER SCHOOLS - SRTS	3/21/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010396	Cherokee	Jaime	I-bat & NLEB	Sidewalks	CHEROKEE COUNTY SCHOOL DISTRICT @ 6 SCHOOLS - SRTS	4/18/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010399	Whitfield	Meg	I-bat & NLEB	Sidewalks	DALTON PUBLIC SCHOOL SYSTEM @ 6 SCHOOLS - SRTS	5/16/2014		CST	Dec 2013 - requested no effect finding for I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010410	Gordon	Dave	I-bat & NLEB	Bridges	SR 156 @ CSX #340683F 2 MI N OF RANGER	7/15/2016	5/15/2015	ROW	see aerial; row of trees along RR	No effect - to be addressed programmatically.
0010416	Stephens	Christina	I-bat & NLEB	Bridges	SR 184 @ TOCCOA CREEK 3.5 MI NE OF TOCCOA	4/15/2015	6/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010419	Fulton	Chris	NLEB	Roundabout	SR 140 @ CR 186/HEMBREE ROAD	11/21/2014	8/15/2013	CST	see aerial; developed; Dec 2012 - didn't address NLEB; roundabout in residential area	No effect - to be addressed programmatically.
0010420	Fulton	Jeff	NLEB	Operational Improvement	SR 3 @ CS 253/MOORES MILL ROAD	10/17/2014	10/15/2013	ROW & CST	emailed PM - canceled? See aerial; no ecology file; left turn lanes within existing ROW; Northside at Moore's Mill	
0010425	Gwinnett	Megan	NLEB	Interchange	SR 316 @ CR 3929/WALTHER BLVD - GRADE SEPARATION	7/18/2014		ROW & CST	see aerial; survey for habitat complete; Aug 2013 grade separation - fragmented forest between multi-family residential areas; Consultant coordinated with Pete and they agreed on clearing restrictions and MANLAA	Need eco adm to address NLEB; need to request MANLAA concurrence.
0010448	Catoosa	Meg	I-bat & NLEB	Signals	SR 1 @ 3 LOC; SR 2 @ 4 LOC; SR 136 @ 3 LOC & SR 146 @ 2 LOC	1/15/2016	1/15/2015	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010453	Barrow	Sharilyn	NLEB	Sidewalks	STATHAM ELEMENTARY SCHOOL - SRTS	3/21/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010457	Carroll	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	VILLA RICA TRAILHEAD	9/19/2014		CST	see aerial; 950 ft extension from street along abandoned RR ROW; ; Trailhead in wooded area	No effect - to be addressed programmatically.
0010521	Fulton	None	NLEB	Multi-use Trail	SR 400 MULTI-USE TRAILS	10/15/2015	10/18/2013	CST	not federal	
0010647	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	HAPEVILLE STREETScape ENHANCEMENTS @ 5 LOCS	6/20/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010649	Cherokee	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	CS 791/VALLEY STREET @ 1 LOC & CS 793/CIVIC DRIVE @ 1 LOC	3/15/2015		ROW & CST	no ecology file; streetscape improvements in Ball Ground	No effect - to be addressed programmatically.
0010652	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	MORGAN FALLS RD FM MORGAN FALLS APARTMENTS TO OVERLOOK PARK	4/15/2015		ROW & CST	see concept rept; no ecology file; streetscape improvements to Morgan Fall Park approach	No effect - to be addressed programmatically.

0010654	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	SR 400 FM CR 1334/HAYNES BRIDGE ROAD TO CR 2227/MANSELL ROAD	5/15/2015		ROW & CST	No estimate as to when ecology rept will be available; emailed PM for copy of ecology; no file	
0010655	Cherokee	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 92 @ 1 LOC & CR 426/ROBIN ROAD @ 1 LOC	8/22/2014		CST	see 106 worksheet; streetscaping within existing ROW; 1.2 mi along SR92 & 0.5 mi along Robin Rd	No effect - to be addressed programmatically.
0010678	Forsyth	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	CR 53/SHILOH; CR 458/MCFARLAND & CR 953/SHILOH EAST @ 3 LOCS	5/15/2015	11/22/2013	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010679	Hall	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	GAINESVILLE MIDTOWN MULTI-USE TRAIL FROM PARKER ST TO SR 60	6/15/2015		ROW & CST	downtown Gainesville; no file	No effect - to be addressed programmatically.
0010680	Hall	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 51/CS 845/MAIN ST & CS 808/CHARLOTTE ST @ 2 LOCS IN LULA	10/15/2015		ROW & CST	see 106 worksheet; sidewalk & parking in Lula	No effect - to be addressed programmatically.
0010681	Lumpkin	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 60 BU FROM CS 522/CHOICE ST TO CS 530/CHURCH ST	4/15/2016	10/15/2014	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010684	White	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 17/SR 75 @ CHATTAHOOCHEE RIVER IN HELEN	3/15/2016	8/15/2014	ROW & CST	see project layout; 165' pedestrian bridge over Chatahoochee in downtown Helen	No effect - to be addressed programmatically.
0010688	Towns	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 2/SR 515 FM CS 352/SCHOOL ST TO CR 33/BRASSTOWN CREEK	3/15/2016	8/15/2014	ROW & CST	see project location map; streetscape in Young Harris; sidewalk upgrages	No effect - to be addressed programmatically.
0010695	Franklin	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	CS 815/RAILROAD ST @ 1 LOC & CS 830/CS 858/BOWERS ST @ 1 LOC			ROW & CST	see aerial; sidewalks in Royston	No effect - to be addressed programmatically.
0010703	Cobb	MAAI-TEE	NLEB	TE-Rehab Hist Trans Bldg	CS 1107/MILL ST; CS 1322/MCNEEL ALLEY & ATHERTON SQ @ 3 LOC	8/15/2015	4/15/2014	ROW & CST	see map; depot renovation & sidewalks on Mill St in Marietta	No effect - to be addressed programmatically.
0010704	Cobb	MAAI-TEE	NLEB	TE-Bike/Ped Facility	CS 1143/CEMETERY ST FROM SR 360 TO CS 1387/WEST ATLANTA ST	9/15/2015	5/15/2014	ROW & CST	JCP Appendix A; see map	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010705	Cobb	MAAI-TEE	NLEB	TE-Bike/Ped Facility	KENNESAW MOUNTAIN-CHATTAHOOCHEE RIVER TRAIL @ 5 LOCS	3/15/2016	10/15/2014	ROW & CST	see aerial; new multi trail along streets in Marietta, new location through park portion that's developed	No effect - to be addressed programmatically.
0010708	Gordon	MAAI-TEE	I-bat & NLEB	TE-Bike/Ped Facility	SR 3 FROM CS 746/HICKS STREET TO CS 738/PIEDMONT STREET	11/15/2015		ROW & CST	see topo map; sidewalk improvements in Calhoun	No effect - to be addressed programmatically.
0010727	Cobb	MAAI-TEE	NLEB	TE-Bike/Ped Facility	CR 2373/FLOYD RD FROM SILVER COMET TRAIL TO CR 2894/HICKS RD	9/15/2015	5/16/2014	ROW & CST	No effect due to fragmentation of potential habitat; will send shape file to USFWS & DNR - WRD; see aerial; May 2013 eco report 1.76 ac mixed hardwood	No effect - to be addressed programmatically.
0010729	Fulton	MAAI-TEE	NLEB	TE-Bike/Ped Facility	UNION CITY PEDESTRIAN SYSTEM @ 7 LOCS - PHASE III	12/12/2014		ROW & CST	MANLAA with clearing restrictions; sidewalks in Union City	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010746	Whitfield	Meg	I-bat & NLEB	Roadway Project	CARBONDALE BUSINESS PARK - LOCAL ACCESS ROAD	11/15/2015		CST	Ecology report addresses I-bat, asked to add NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010747	Fulton	Megan	NLEB	Bicycle/Ped. Facility	ATLANTA BELTLINE CITY HALL EAST BIKE & PEDESTRIAN PLAZA	6/20/2014		CST	Dec 2013 memo addressed NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010759	Douglas	Sharilyn	NLEB	Operational Improvement	SR 5/SR 8 FM SR 5 TO CR 275/STRICKLAND ST; INC NS #726593C	7/15/2016		ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010760	Fulton	Doug	NLEB	Operational Improvement	SR 10 @ CS 520/BLVD DRIVE	10/17/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010768	Fulton	Chris	NLEB	Operational Improvement	SR 400 @ CR 9284/WINDWARD PKWY	1/15/2015	1/15/2014	ROW & CST	No effect due to fragmentation of potential habitat; will send shape file to USFWS & DNR - WRD; see aerial; trees near development; Jan 2013 - bats not addressed; improvements at Windward Pkwy & GA 400	No effect - to be addressed programmatically.
0010769	Pickens	Rebecca	I-bat & NLEB	RRX Warning Device	SR 53 @ GNR #340856T IN TATE			CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010848	Hall	None	I-bat & NLEB	Signing	CR 1300/UNION CHURCH RD @MULBERRY RIVER TRIB-SIGNING&MARKING	4/15/2016		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010866	Fulton	Jaime	NLEB	Operational Improvement	SR 140 @ CS 127/WARSAW ROAD	2/21/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010870	Fulton	Brian	NLEB	Operational Improvement	SR 9 FM WINTHROPE PARK DR TO 0.05 NE OF WINTHROPE CHASE DR	4/18/2014		CST	see aerial; Turn lanes in Alpharetta within existing ROW; 1.6 discontinuous acre mixed pine/hardwood in survey area	No effect - to be addressed programmatically.
0010875	Fulton	Chris	NLEB	Operational Improvement	SR 141 FROM OLD ALABAMA ROAD TO STATE BRIDGE ROAD	8/15/2015	11/21/2014	ROW & CST	See aerial; operation improvements in commercial area	No effect - to be addressed programmatically.
0010877	Gwinnett	Rebecca	NLEB	Operational Improvement	SR 141 @ PEACHTREE INDUSTRIAL BLVD	4/15/2016		CST	see aerial; improvements at SR 141 & P'tree Industrial confined to roadway	No effect - to be addressed programmatically.
0010879	Cobb	Meg	NLEB	Operational Improvement	SR 120 @ SR 5/SR 360	4/18/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010880	Fulton	Jaime	NLEB	Operational Improvement	SR 140 FROM SR 400 NB RAMPS TO OLD ALABAMA ROAD	2/15/2015	5/16/2014	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)

0010881	Gwinnett	Jeff	NLEB	Operational Improvement	I-85 NB FROM SR 140 TO CR 560/INDIAN TRAIL LILBURN ROAD	4/18/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010883	Fulton	Ashley	NLEB	Signals	SR 139 @ 5 LOCS - SIGNAL UPGRADES	11/15/2015	12/15/2014	CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0010925	Fulton	Meg	NLEB	Roundabout	I-285 RAMPS @ CR 209/RIVERSIDE DRIVE	10/17/2014	10/17/2014	ROW & CST	see aerial & archaeo photos; no ecology file; ramp improvements - developed area	No effect - to be addressed programmatically.
0010939	Cobb	None	NLEB	Intersection Improvement	SR 3 @ SR 92	2/15/2016	2/15/2015	ROW & CST	no file, turn lanes in developed area	No effect - to be addressed programmatically.
0010941	Fulton	None	NLEB	Operational Improvement	SR 154/SR 166 @ CR 472/NISKEY LAKE ROAD	3/15/2017	3/15/2016	ROW & CST	No effect due to fragmentation of potential habitat; will send shape file to USFWS & DNR - WRD; see aerial; residential area with tree cover	No effect - to be addressed programmatically.
0010943	Fulton	None	NLEB	Operational Improvement	SR 92 @ CR 2043/SOUTH FULTON PKWY	12/15/2016	3/15/2016	CST	No effect since outside range for NLEB; see aerial; 3 of 4 quadrants undeveloped & treed	No effect - to be addressed programmatically.
0011682	Dade	Rebecca	I-bat & NLEB	Bridges	I-24 @ SR 299 6 MI NE OF NEW ENGLAND	7/18/2014		ROW & CST	potential foraging habitat for I-bat (MANLAA requested); NLEB not addressed	Section 7 requested - MANLAA IBAT. Memo addressing NLEB in review.
0011686	Murray	Dave	I-bat & NLEB	Bridges	SR 61 @ CSX #340636X 7.9 MI N OF CRANDALL	1/15/2017	6/15/2015	ROW	NEED MORE PROJECT INFO - NO EFFECT IF WIDENING NO MORE THAN 100 FT FROM EDGE; see aerial & photos; RR bridge in Tenga - treed area	FWS requested more info on project; may be a "no effect" cleared programmatically
0011712	Fulton	Meg	NLEB	Pavement Markings	MT PARAN RD @ 1 LOC IN ATL - OFF-SYSTEM SAFETY IMPROVEMENTS	6/21/2013		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0011737	Cobb	Meg	NLEB	Operational Improvement	SR 5 CONN @ CR 167/ROBERTS COURT/CR 4512/GEORGE BUSBEE PKWY			ROW & CST	developed area	No effect - to be addressed programmatically.
0011738	Cobb	Doug	NLEB	Operational Improvement	SR 3 @ CS 1720/WINDY HILL ROAD	8/15/2015	8/22/2014	ROW & CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
0012586	Fulton	None	NLEB	Bicycle/Ped. Facility	SR 8/US 29 FROM CS 520/BOULEVARD DR/MONROE DR TO SR 10 - LCI	5/15/2016	5/15/2015	ROW & CST	Ponce de Leon in Atlanta, sidewalks, etc	No effect - to be addressed programmatically.
0012608	Cobb	None	NLEB	Intersection Improvement	SR 3/US 41 @ SR 3 CONN (Roswell Rd)	10/15/2015	1/15/2015	ROW & CST	heavily developed	No effect - to be addressed programmatically.
0012640	Gwinnett	None	NLEB	Bicycle/Ped. Facility	SR 378 FM SR 13/US 13 TO CR 560/INDIAN TRAIL-LILBURN RD	5/15/2016	6/15/2015	ROW	see aerial; pedestrian improvements on Beaver Ruin - 1.7 mi	No effect - to be addressed programmatically.
0012808	Cobb	None	NLEB	Multi-use Trail	BOB CALLAN TRUNK TRAIL - PHASE II - SEGMENT B	6/15/2015		ROW	No effect due to fragmentation of potential habitat; will send shape file to USFWS & DNR - WRD; trail east of I-75 south of Terrell Mill; treed corridor amongst development	No effect - to be addressed programmatically.
0013045	Barrow	MAAI-TEE	NLEB	Signing	OFF-SYSTEM SAFETY IMPROVEMENTS @ 20 LOCS IN BARROW COUNTY	5/16/2014		CST	JCP Appendix A	Addressed - no action needed at this time (besides reviewing reports in some cases)
110600-	Gwinnett	Chris	NLEB	Managed Lanes	I-85 FM N OF OLD PEACHTREE TO HAMILTON MILL RD-MANAGED LANES	5/15/2015		CST	studies underway; no ecology report - managed lanes on I-85	Probably needs survey in 2014
122012- 122017- 0010211	Forsyth	Christina	I-bat & NLEB	Bridges	SR 369 @ CHATTAHOOCHEE RIVER/LAKE LANIER; SR 369 @ TWO MILE CREEK; SR 369 @ SIX MILE CREEK	4/15/2015	9/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
122090-	Rabun	Rebecca	I-bat & NLEB	Widening	SR 15/US 441 FM NORTH CL/CLAYTON TO NORTH CAROLINA LINE	5/15/2018	3/15/2015	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
122650-	Elbert	Sharilyn	NLEB	Widening	SR 72 FM WEST CITY LIMITS OF COMER TO E OF BROAD RVR/ELBERT	6/20/2014	6/22/2007	CST	see aerial; report addresses NLEB; clearing restriction based on habitat assessment; Project primarily in Madison County	Addressed - no action needed at this time (besides reviewing reports in some cases)
132790-	Dawson	Jaime	I-bat & NLEB	Intersection Improvement	SR 400 @ SR 53/CORR A1	11/21/2014	6/22/2012	CST	see quad map; Pete requested clearing restrictions; Jan 2011 report - continuous flow intersection, minimal additional ROW in commercial area; mist netting in 2013??	No effect - to be addressed programmatically.
132950-	Hall	Doug	I-bat & NLEB	Widening	SR 13 FROM CS 1120/SAWNEE AVE/GWINNETT TO SR 347/HALL	12/15/2015	12/13/2013	CST	no effect received March 2013 for I-bat	No effect - to be addressed programmatically.
142260-	Forsyth	None	I-bat & NLEB	Bridges	SR 369 @ SETTINGDOWN CREEK 6 MI N OF CUMMING			ROW	see aerial; 2007 eco rept - 40% residential, 60% farm	No effect - to be addressed programmatically.
620490- 621340-	Fannin	None	I-bat & NLEB	Roadway Project; Widening	SR 771 FM SR 5 NEAR CR 18 S/MCCAYSVILLE TO TENN STATE LINE; SR 5 FM SR 2/BLUE RIDGE N TO PROP MCCAYSVILLE BYP NR CR 138			ROW	Scoping phase underway, will include full surveys for history & ecology	Probably needs survey in 2014
621082-	Chattooga	Brian	I-bat & NLEB	Widening	SR 1 FROM CR 329 TO N OF CR 325 @ SR 1/US27	11/15/2015	11/15/2013	ROW	Bat survey in summer 2013; report transmitted to FHWA and USFWS 2/5/14	Addressed - no action needed at this time (besides reviewing reports in some cases)
621490-	Pickens	Sharilyn	I-bat & NLEB	Widening	SR 53BU FM SR 515/APD TO CR 243/INDUSTRIAL BLVD	12/15/2016	12/15/2014	ROW	Bat survey done in 2013; See habitat description, forested & developed	Addressed - no action needed at this time (besides reviewing reports in some cases)

621530-	Catoosa	Sharilyn	I-bat & NLEB	Widening	SR 151 FM S OF ROLLINS IND PARK/HOLCOMB RD TO SR 2/US 41	6/20/2014	8/20/2010	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
630975-	Cherokee	Meg	I-bat & NLEB	Bridges	CR 770/BELLS FERRY RD FM NO VICTORIA TO .2 MI N/LITTLE RV	9/15/2018	5/15/2017	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
631570-	Gordon	Sharilyn	I-bat & NLEB	Bridges	SR 225 @ NEW TOWN CREEK & COOSAWATTEE RIVER NE OF CALHOUN	3/21/2014	5/20/2011	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
632885-	Catoosa	Sharilyn	I-bat & NLEB	Bridges	SR 3/US 41 @ TIGER CREEK 1.9 MI EAST OF RINGGOLD	5/16/2014	3/15/2011	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
642400-	Cherokee	Sharilyn	I-bat & NLEB	Bridges	SR 372 @ ETOWAH RIVER 2.3 MI SE OF BALL GROUND	5/16/2014	9/15/2012	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
662420-	Floyd	Sharilyn	I-bat & NLEB	Roadway Project	SE ROME BYP FM SR 101 NE ON NEW LOC TO US 411; INC INTCH	6/17/2017	4/15/2014	ROW	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
662650-	Cherokee	Christina	I-bat & NLEB	Intersection Improvement	SR 20 @ SR 108; CR 17/WHITE RD & CR 13/MT CARMEL LANE	6/20/2014	5/21/2010	CST	surveyed in 2013; report will address I-bat & NLEB	Addressed - no action needed at this time (besides reviewing reports in some cases)
751420-	Fulton	Dave	NLEB	Widening	JOHNSON FERRY FM FERRY DR TO HUNTING CRK RD;INC ROUNDABOUTS	9/19/2014	4/15/2013	ROW	see soils map; developed; 2010 - roadway realignment in Sandy Springs	No effect - to be addressed programmatically.
752300-	Cobb	Jeff	NLEB	Interchange	I-285 @ CR 4519/ATLANTA ROAD	3/21/2014	4/20/2012	CST	Dec 2013 NLEB addressed	Addressed - no action needed at this time (besides reviewing reports in some cases)
752660-	Fulton	Jeff	NLEB	Widening	OLD ALABAMA RD FM CR 111/BUICE RD TO SR 141/MEDLOCK BRG RD	11/21/2014	5/15/2013	CST	see aerial; trees in developed landscape; May 2013 didn't address NLEB but did note presence of bat foraging habitat- small patch of wooded area being cleared for rip rap (no effect)	No effect - to be addressed programmatically.

## Levy, Alex

---

**From:** Katrina Morris <Katrina.Morris@dnr.state.ga.us>  
**Sent:** Friday, March 02, 2012 4:01 PM  
**To:** Levy, Alex  
**Subject:** Re: BTW - sweet pinesap (Monotropsis odorata)

Hi Alex,

It was last observed in May 2006. It's privately owned and it's on the former home property of Steve Bowling. Here are the notes:

Formerly 5890 Long Island Drive NW, Atlanta, prior to development as a Sandy Springs subdivision of apartments, this was family home of Steve Bowling; although the upland areas have been rebuilt, the ravine in which these plants occur remains intact.

Do you know Steve? You might ask him for more details about the site. If you aren't in contact with him, I can talk to him. Just let me know.

Trina

>>> "Levy, Alex" <Alex.Levy@arcadis-us.com> 3/2/2012 2:52 PM >>>

In December, you sent my colleague, Melissa Rottenberg, an update to the EO record for state-listed sweet pinesap (Monotropsis odorata), at a location in Sandy Springs: -84.393582 x 33.915472 .

I think it's along Long Island Drive, but can you provide any more details about the location (public or private property)?

We're going to go hunt for this spring-ephemeral soon.

Sincere thanks!

Alex

Alexander Levy | Senior Ecologist | [alex.levy@arcadis-us.com](mailto:alex.levy@arcadis-us.com) Chair, TRB Ecology and Transportation Committee  
<http://www.itre.ncsu.edu/ADC30/> ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA  
30339

O. 770.384.6595 | M. 404.423.0311 | F. 770.435.2666 [www.arcadis-us.com](http://www.arcadis-us.com) P Please consider the environment before printing this email.

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Georgia Department of Natural Resources  
Wildlife Resources Division

Nongame Conservation Section  
2065 U.S. Highway 278, S.E., Social Circle, Georgia 30025-4743  
(770) 918 6411



January 5, 2007

Alex Levy, Senior Ecologist  
ARCADIS  
2849 Paces Ferry Road  
Suite 400  
Atlanta, GA 30339

**Subject: Known Occurrences of Conservation Areas and Special Concern Animals and Plants On or Near I-285 Improvements to Top End Area; GDOT Project NHS-0001-00(758) and MSL-0003-00(433), PI#0001758 & 0003534, Cobb, Fulton & DeKalb Counties, Georgia**

Dear Mr. Levy:

This is in response to your request of December 22, 2006. According to our records, within a three-mile radius of the project corridor there are the following Natural Heritage Database occurrences:

I-75 Interchange (-84.46243, 33.88983; NAD27):

- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 1.5 mi. S of site in the Chattahoochee River
- GA *Elliptio arctata* (Delicate Spike) approx. 1.0 mi. E of site in the Chattahoochee River
- Elliptio fraterna* (Brother Spike) approx. 1.5 mi. SE of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 1.5 mi. SE of site in the Chattahoochee River
- Melanthium latifolium* (Broadleaf Bunchflower) approx. 1.5 mi. S of site
- Micropterus cataractae* (Shoal Bass) approx. 1.5 mi. S of site
- Micropterus cataractae* (Shoal Bass) approx. 2.0 mi. S of site
- GA *Nestronia umbellula* (Indian Olive) approx. 1.5 mi. S of site
- Quincuncina infucata* (Sculptured Pigtoe) approx. 1.5 mi. NE of site in the Chattahoochee River**
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. SE of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. NE of site**
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SE of site
- Chattahoochee River National Recreation Area [National Park Service] approx. 0.5 mi. SE of site
- Greenspace [Cobb County] approx. 2.5 mi. SW of site
- Greenspace [Cobb County] approx. 3.0 mi. NW of site

GA 400 Interchange (-84.35716, 33.91211; NAD27):

- [Fulton County] approx. 1.5 mi. NW of site
- GA *Monotropis odorata* (Sweet Pinesap) [EXTIRPATED] approx. 2.0 mi. W of site

GA *Schisandra glabra* (Bay Star-vine) approx. 2.5 mi. SE of site  
Greenspace [Fulton County] approx. 1.5 mi. NW of site

I-85 Interchange (-84.25904, 33.89170; NAD27):  
Greenspace [DeKalb County] approx. 2.5 mi. SW of site

\* Entries above preceded by "US" indicates species with federal status in Georgia (Protected or Candidate). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

### **Recommendations:**

We have two records of species of concern within 1000 feet of the project corridor. These records are listed in bold in the above occurrence lists. The *Quincuncina infucata* (Sculptured Pigtoe) record is located approx. 300 feet north of the project area in the Chattahoochee River. The *Schisandra glabra* (Bay Star-vine) record is located approx. 350 feet south of the project area on the east bank of the Chattahoochee River. Please also use the lists of protected species by watershed on our website to obtain information for other potential aquatic species of concern along this corridor:

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=89&txtPage=8>.

We are also concerned about streams and other habitats that could be impacted by the proposed road improvement project. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

The GA DNR Nongame Conservation Section, Social Circle office has moved! Our street address and zip code extension have changed. Please use the new address on the letterhead for future correspondence. Thanks for helping us have a smooth transition into the new building.

### **New Data Available on the Nongame Conservation Section Website**

We have recently updated the Nongame Conservation Section Website!!! You can view the updated rare species and natural community information by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at:

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=89>

An updated ESRI shape file of our rare species and natural community data by quarter quad and county is also available. It can be downloaded from:

<http://georgiawildlife.dnr.state.ga.us/assets/documents/gnhp/gnhpds.zip>



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

---

**WILDLIFE RESOURCES DIVISION**

**MARK WILLIAMS**  
COMMISSIONER

**DAN FORSTER**  
DIRECTOR

December 7, 2011

Melissa Rottenberg  
Project Ecologist  
ARCADIS  
2849 Paces Ferry Road  
Suite 400  
Atlanta, GA 30339

**Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Revive 285 Top End Project, DeKalb County, Georgia**

Dear Ms. Rottenberg:

This is in response to your request of November 7, 2011. According to our records, within a three-mile radius of the project corridor there are the following Natural Heritage Database occurrences:

I-75 Interchange (-84.46222, 33.89016; NAD27):

- GA *Ammodramus henslowii* (Henslow's Sparrow) approx. 1.0 mi. N of site
- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 1.5 mi. S of site in the Chattahoochee River
- GA *Elliptio arcata* (Delicate Spike) [HISTORIC] approx. 1.0 mi. E of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 1.5 mi. E of site in the Chattahoochee River
- Melanthium latifolium* (Broadleaf Bunchflower) [EXTIRPATED?] approx. 1.0 mi. S of site
- GA *Nestronia umbellula* (Indian Olive) [HISTORIC] approx. 1.0 mi. S of site
- Nyctanassa violacea* (Yellow-crowned Night-heron) approx. 0.5 mi. NW of site [-84.468882, 33.896033]
- Quadrula infucata* (Sculptured Pigtoe) [HISTORIC] approx. 1.0 mi. E of site in the Chattahoochee River
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. SE of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. NE of site [-84.441022, 33.901044]
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SE of site  
Chattahoochee River National Recreation Area [National Park Service] 0.4 mi. SE of site  
Greenspace [Cobb County] approx. 2.5 mi. SW of site

**NONGAME CONSERVATION SECTION**  
2065 U.S. HIGHWAY 278 S.E. | SOCIAL CIRCLE, GEORGIA 30025-4743  
770.918.6411 | FAX 706.557.3033 | WWW.GEORGIAWILDLIFE.COM

GA 400 Interchange (-84.35759, 33.91181; NAD27):

**GA *Monotropsis odorata* (Sweet Pinesap) approx. 2.0 mi. W of site [-84.393582, 33.915472]**

GA *Schisandra glabra* (Bay Star-vine) approx. 2.5 mi. SE of site  
Greenspace [Fulton County] approx. 1.5 mi. NW of site

I-85 Interchange (-84.25874, 33.89134; NAD27):

Greenspace [DeKalb County] approx. 2.5 mi. SW of site

\* Entries above preceded by "US" indicates species with federal status (Protected, Candidate or Partial Status). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

#### **Recommendations:**

We have records of four species of concern within the project corridor (see bold above). The *Quadrula infucata* (Sculptured Pigtoe) is considered historic and is not likely to be found in the river. However, some species may be found within the corridor and we recommend completing surveys to identify these and other species. Please avoid disturbance to high priority species and habitats while completing this project.

We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

#### **NEW - Data Available on the Nongame Conservation Section Website - NEW**

NEW Georgia protected plant and animal profiles are available on our website. Originating with the State Wildlife Action Plan, a strategy guiding conservation in Georgia, the accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.

By visiting the Nongame Conservation Section Website you can view the highest priority species and natural community information by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.

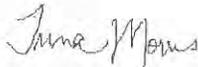
Downloadable files of our highest priority species and natural community data by quarter quad and county is also available. It can be downloaded from: <http://www.georgiawildlife.com/node/1370>.

**Disclaimer:**

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



**Katrina Morris**  
Environmental Review Coordinator

**Appendix D - Background Information**

Rain Gage Data

Qualifications Statement

Construction Plans

## NOWData - NOAA Online Weather Data

Atlanta Area (ThreadEx Station)

Monthly Totals/Averages

Precipitation (inches)

Years: 1981-2010

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average	4.20	4.67	4.80	3.36	3.66	3.95	5.26	3.90	4.47	3.41	4.10	3.90	49.68

This station's record may include data from more than one, possibly incompatible, locations. It reflects the longest available record for the Atlanta Area.

**Official data and data for additional locations and years are available from the Regional Climate Centers and the National Climatic Data Center.**



**Georgia Automated  
Environmental  
Monitoring Network**  
www.GeorgiaWeather.net



Clark Atlanta University  
Atlanta, Fulton County, Georgia

**Historical Data**

(Tmin,Tmax and Precipitation amount)

From - Sep - 23 - 2013	Date	Max. Temp. (°F)	Min. Temp. (°F)	Rain (in)
To - Nov - 11 - 2013	Sep 23, 2013	79.9	63.1	0.00
<input type="button" value="Submit"/>	Sep 24, 2013	69.4	60.4	0.04
	Sep 25, 2013	64.4	57.7	0.71
	Sep 26, 2013	77.5	58.8	0.00
	Sep 27, 2013	76.3	62.8	0.00
	Sep 28, 2013	73.0	59.2	0.00
	Sep 29, 2013	73.4	57.9	0.00
	Sep 30, 2013	77.0	59.2	0.00
	Oct 1, 2013	81.1	59.7	0.00
	Oct 2, 2013	82.8	62.4	0.00
	Oct 3, 2013	81.3	65.5	0.00
	Oct 4, 2013	85.1	66.0	0.00
	Oct 5, 2013	84.6	67.1	0.00
	Oct 6, 2013	82.2	57.9	1.97
	Oct 7, 2013	70.5	51.8	0.28
	Oct 8, 2013	72.1	56.1	0.00
	Oct 9, 2013	75.4	56.5	0.00
	Oct 10, 2013	77.4	56.8	0.00
	Oct 11, 2013	77.4	56.3	0.00
	Oct 12, 2013	78.6	56.8	0.00
	Oct 13, 2013	79.7	59.7	0.00
	Oct 14, 2013	72.7	63.7	0.00
	Oct 15, 2013	66.9	61.5	0.00

Oct 16, 2013	74.8	59.2	0.00
Oct 17, 2013	70.2	57.9	0.21
Oct 18, 2013	68.9	49.5	0.00
Oct 19, 2013	62.4	52.9	0.05
Oct 20, 2013	68.7	42.4	0.00
Oct 21, 2013	71.1	48.4	0.00
Oct 22, 2013	69.1	55.4	0.00
Oct 23, 2013	58.8	43.2	0.00
Oct 24, 2013	63.7	38.8	0.00
Oct 25, 2013	54.3	35.8	0.00
Oct 26, 2013	59.2	37.0	0.00
Oct 27, 2013	66.2	44.4	0.00
Oct 28, 2013	64.9	55.4	0.01
Oct 29, 2013	74.8	54.9	0.00
Oct 30, 2013	77.5	59.2	0.00
Oct 31, 2013	74.1	58.5	0.00
Nov 1, 2013	74.8	55.2	0.54
Nov 2, 2013	68.0	49.5	0.00
Nov 3, 2013	63.3	41.5	0.00
Nov 4, 2013	61.9	45.7	0.00
Nov 5, 2013	63.0	43.2	0.00
Nov 6, 2013	72.3	49.5	0.02
Nov 7, 2013	61.5	44.8	0.13
Nov 8, 2013	60.3	36.3	0.00
Nov 9, 2013	57.9	43.0	0.00
Nov 10, 2013	69.1	47.8	0.00
Nov 11, 2013	66.2	44.2	0.00

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Data requested on Thursday March 13 2014 at 1:37:43 PM.

For Automated Environmental Monitoring Network information  
or for comments or suggestions, please contact [AEMN Support](#)

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Clark Atlanta University  
Atlanta, Fulton County, Georgia

**Historical Data**

(Tmin,Tmax and Precipitation amount)

From -  -

To -  -

Date	Max. Temp. (°F)	Min. Temp. (°F)	Rain (in)
Nov 1, 2013	74.8	55.2	0.54
Nov 2, 2013	68.0	49.5	0.00
Nov 3, 2013	63.3	41.5	0.00
Nov 4, 2013	61.9	45.7	0.00
Nov 5, 2013	63.0	43.2	0.00
Nov 6, 2013	72.3	49.5	0.02
Nov 7, 2013	61.5	44.8	0.13
Nov 8, 2013	60.3	36.3	0.00
Nov 9, 2013	57.9	43.0	0.00
Nov 10, 2013	69.1	47.8	0.00
Nov 11, 2013	66.2	44.2	0.00
Nov 12, 2013	58.8	31.1	0.00
Nov 13, 2013	48.6	26.1	0.00
Nov 14, 2013	58.1	33.6	0.00
Nov 15, 2013	52.3	45.1	0.14
Nov 16, 2013	64.4	46.6	0.00
Nov 17, 2013	62.8	57.0	0.03
Nov 18, 2013	68.2	50.5	0.00
Nov 19, 2013	60.1	41.4	0.00
Nov 20, 2013	53.8	41.4	0.00
Nov 21, 2013	54.9	47.1	0.00
Nov 22, 2013	63.1	47.5	0.12
Nov 23, 2013	57.0	39.0	0.02
Nov 24, 2013	46.0	28.0	0.00

Nov 25, 2013	43.3	29.1	0.00
Nov 26, 2013	44.6	32.2	0.99
Nov 27, 2013	38.3	26.6	0.12
Nov 28, 2013	49.6	20.8	0.00
Nov 29, 2013	59.2	28.9	0.00
Nov 30, 2013	51.4	35.6	0.00
Dec 1, 2013	57.6	41.4	0.00

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Data requested on Tuesday March 25 2014 at 9:27:40 AM.

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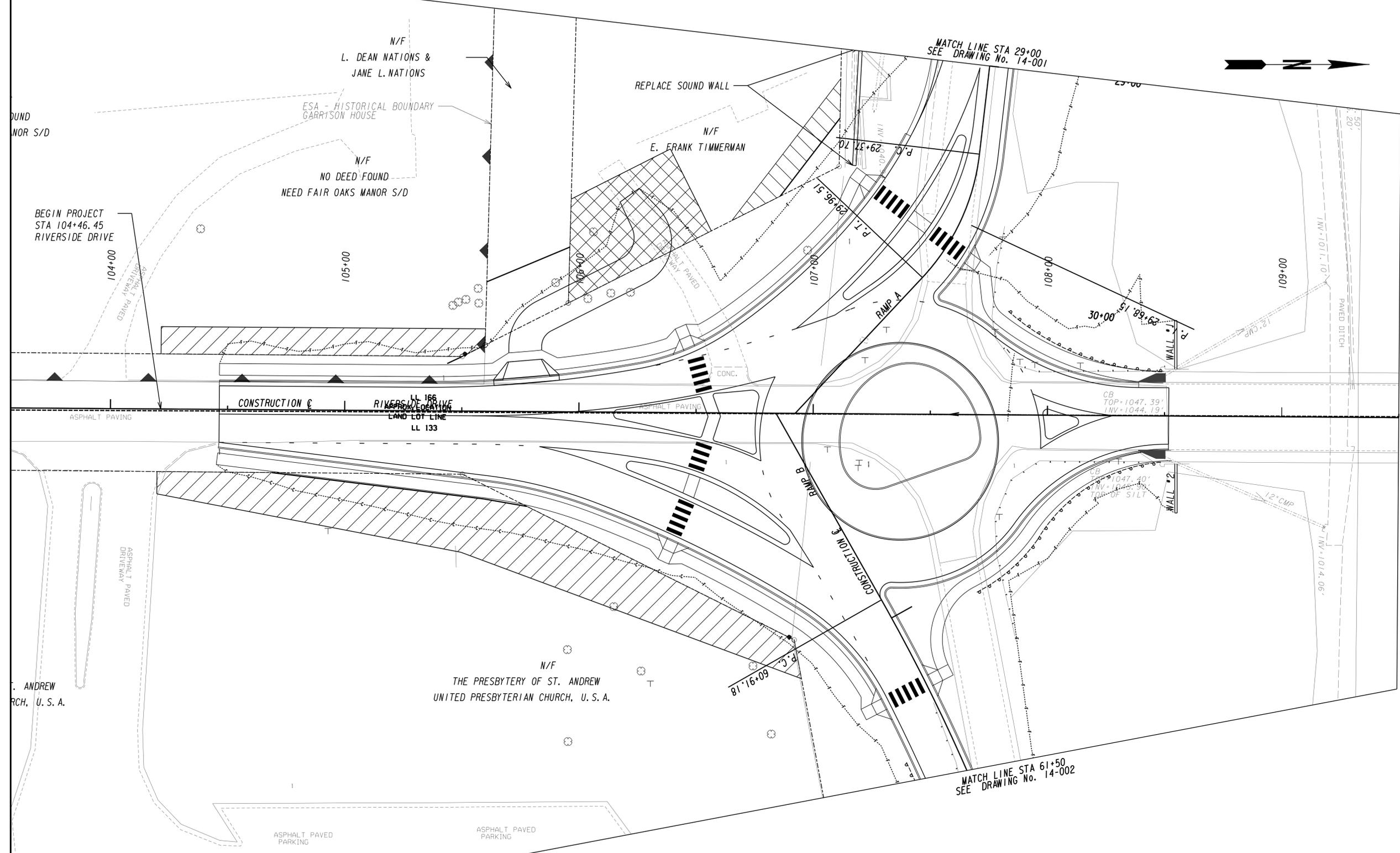
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This document was last modified on: *Tuesday, May, 17 2011 1:35 PM -0400 EST*

## Qualifications Statement

**Jason Morrell** is a Project Ecologist with ARCADIS and has over 11 years of experience in ecological field investigations, with specific emphasis on wetland delineation, stream assessment, protected species surveys, Section 404 Clean Water Act permitting, and compensatory mitigation. Mr. Morrell formerly worked as an Ecologist with the Georgia Department of Transportation and has evaluated the ecological effects of proposed transportation projects throughout the State of Georgia. Mr. Morrell is a Professional Wetland Scientist certified by the Society of Wetland Scientists.

**Claire Ike** is an Ecologist with ARCADIS and has over three years of experience conducting protected species surveys, wetland and stream delineations, and stream assessments in the southeastern US. Ms. Ike has conducted ecological site assessments throughout the Piedmont, Coastal Plain, and Southeastern Plain ecoregions of Georgia. Additional experience includes fire conservation and protected species conservation/planning. Ms. Ike's Georgia Department of Transportation experience includes ecological studies and National Environmental Policy Act (NEPA) compliance documentation.



PROPERTY AND EXISTING R/W LINE  
 REQUIRED R/W LINE  
 CONSTRUCTION LIMITS  
 EASEMENT FOR CONSTR  
 & MAINTENANCE OF SLOPES  
 EASEMENT FOR CONSTR OF SLOPES  
 EASEMENT FOR CONSTR OF DRIVES

---@--- BEGIN LIMIT OF ACCESS.....BLA  
 ---@--- END LIMIT OF ACCESS.....ELA  
 ---C---F--- LIMIT OF ACCESS  
 ---X---X--- REQ'D R/W & LIMIT OF ACCESS

**ARCADIS**  
 Infrastructure · Water · Environment · Buildings

SCALE IN FEET  
 0 20 40 80

COSTING PLANS  
 FOR DESIGN-BUILD

REVISION DATES		

STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE DELIVERY  
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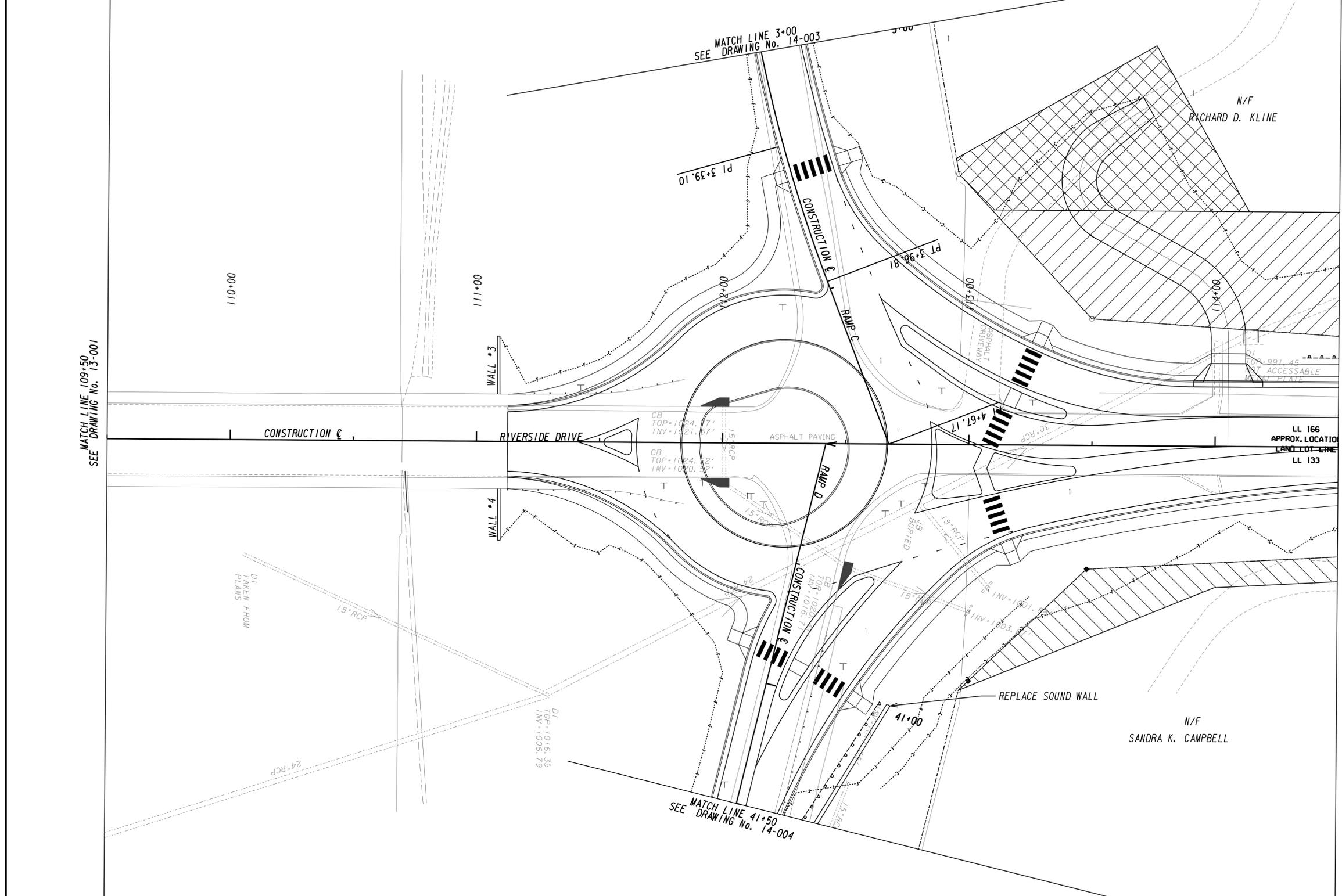
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 COUNTY: FULTON

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**ARCADIS**  
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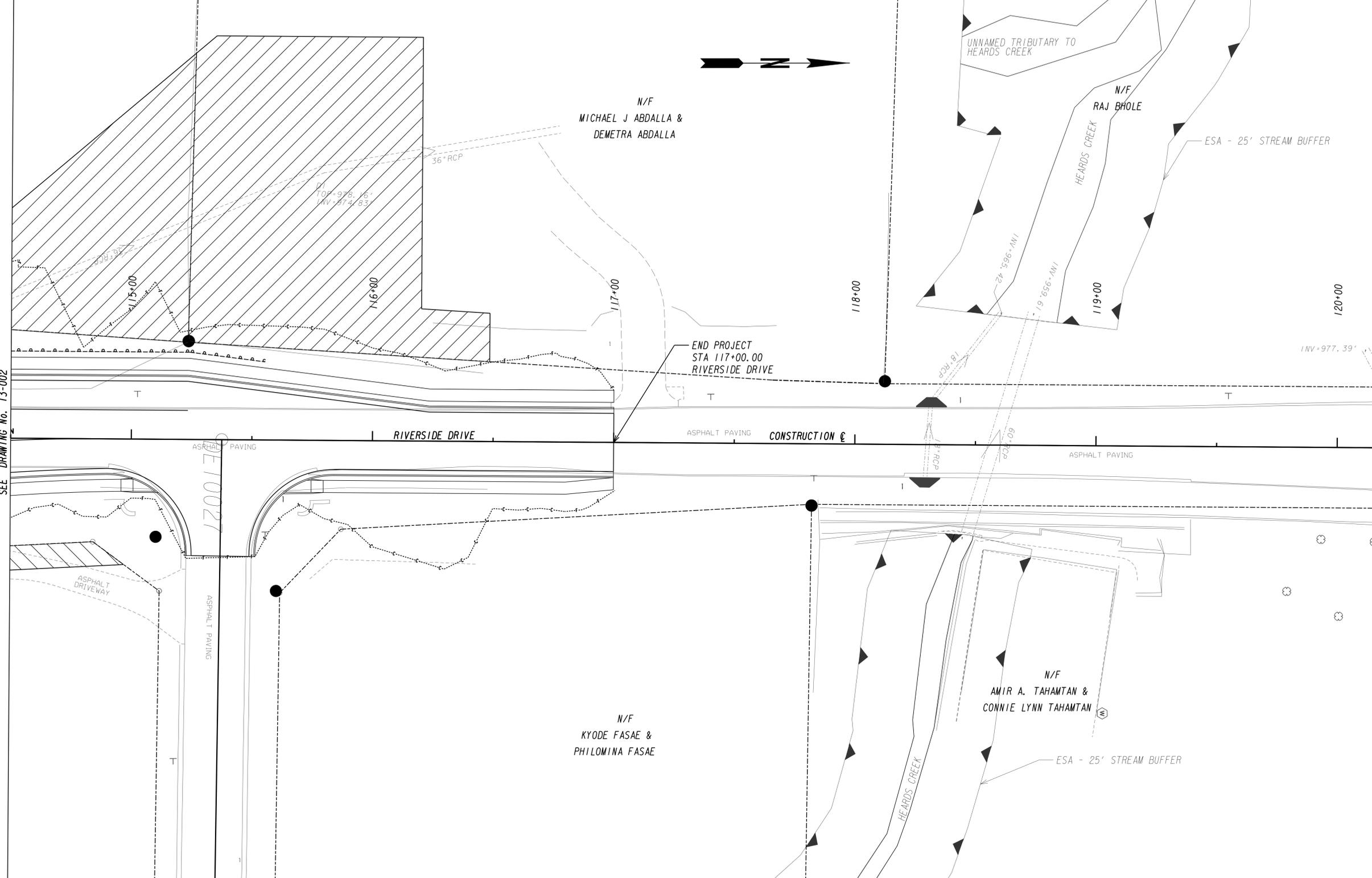
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REVISION DATES

STATE OF GEORGIA  
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PROJECT: PI 0010925  
 COUNTY: FULTON

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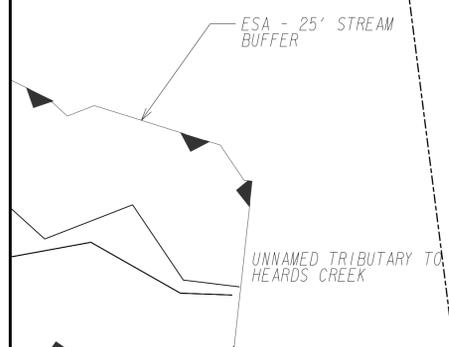
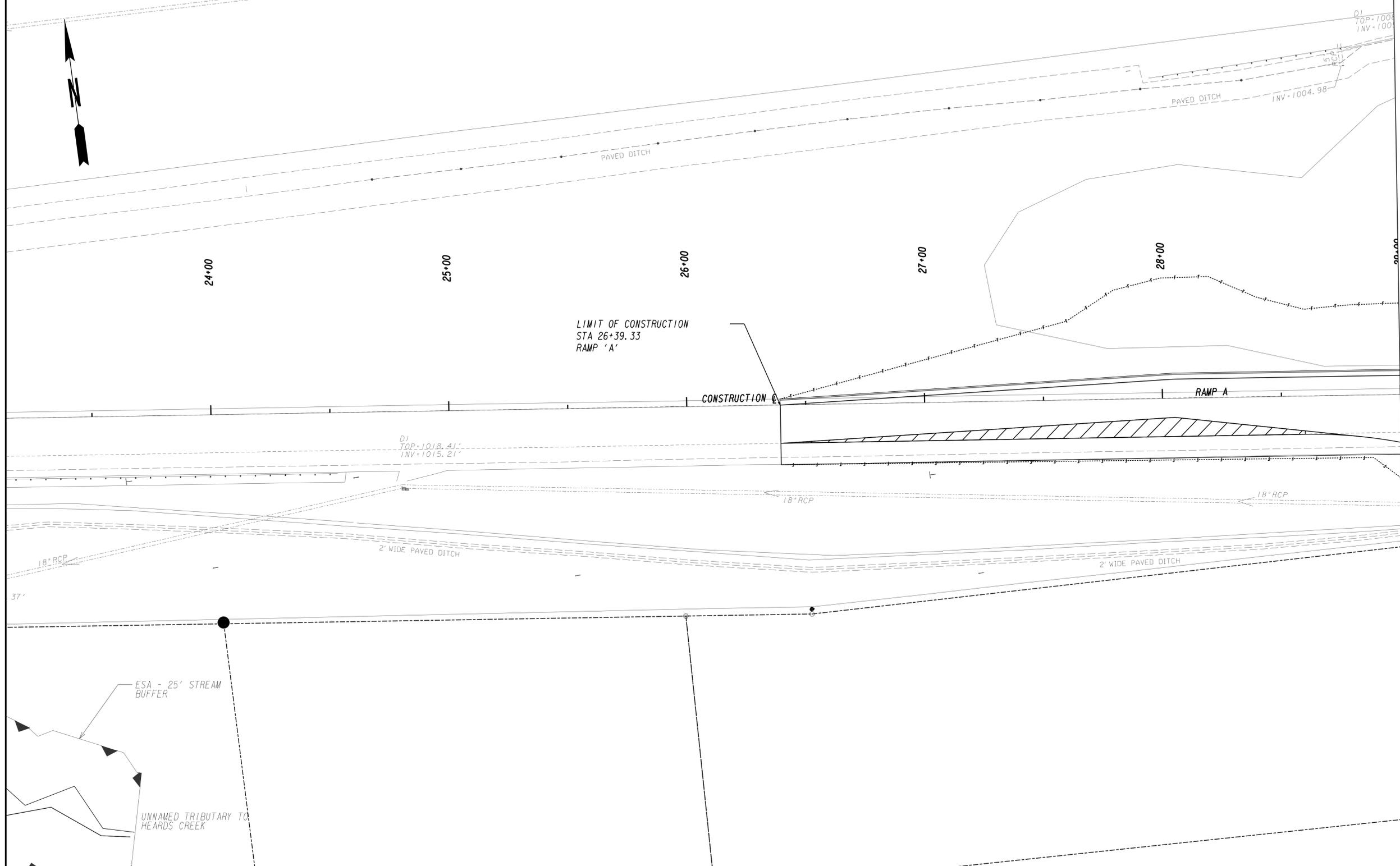
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STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE DELIVERY

**MAINLINE PLAN**

PROJECT: PI 0010925  
 COUNTY: FULTON

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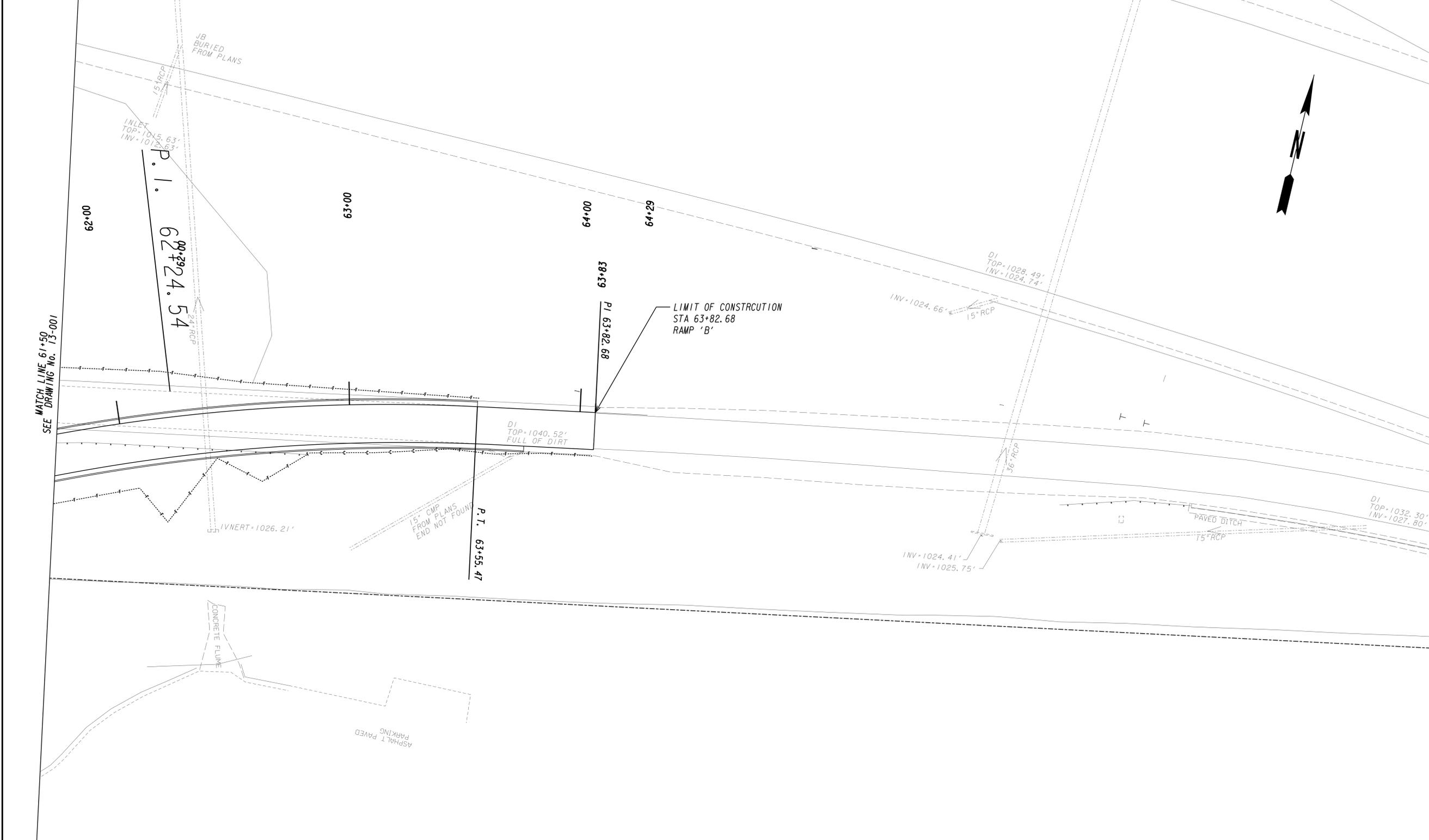
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STATE OF GEORGIA  
DEPARTMENT OF TRANSPORTATION  
OFFICE: INNOVATIVE DELIVERY

**CROSSROAD PLAN**

PROJECT: PI 0010925  
COUNTY: FULTON

DRAWING No. **14-001**



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**ARCADIS**  
 Infrastructure · Water · Environment · Buildings

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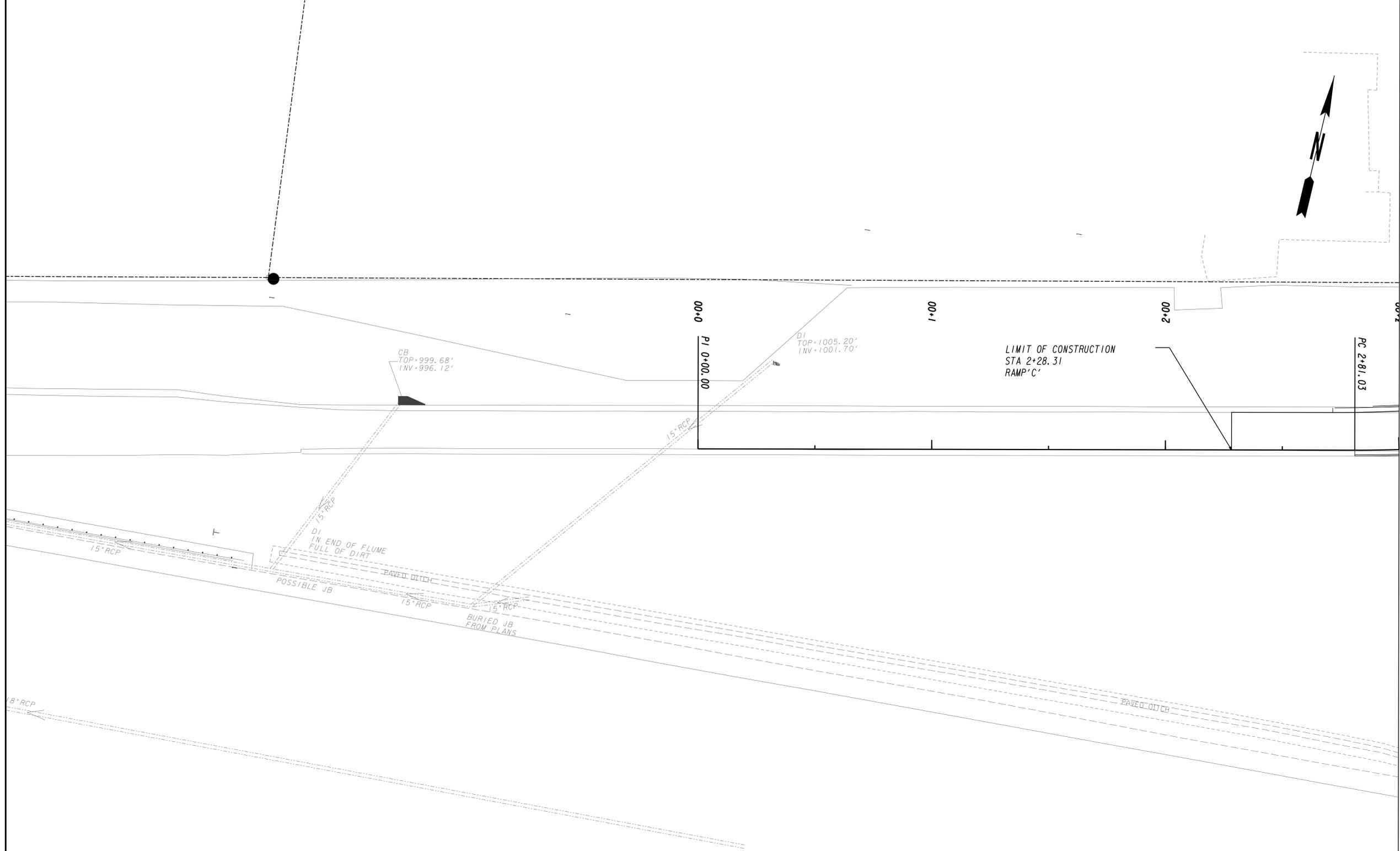
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 OFFICE: INNOVATIVE DELIVERY  
**CROSSROAD PLAN**

PROJECT: PI 0010925  
 COUNTY: FULTON

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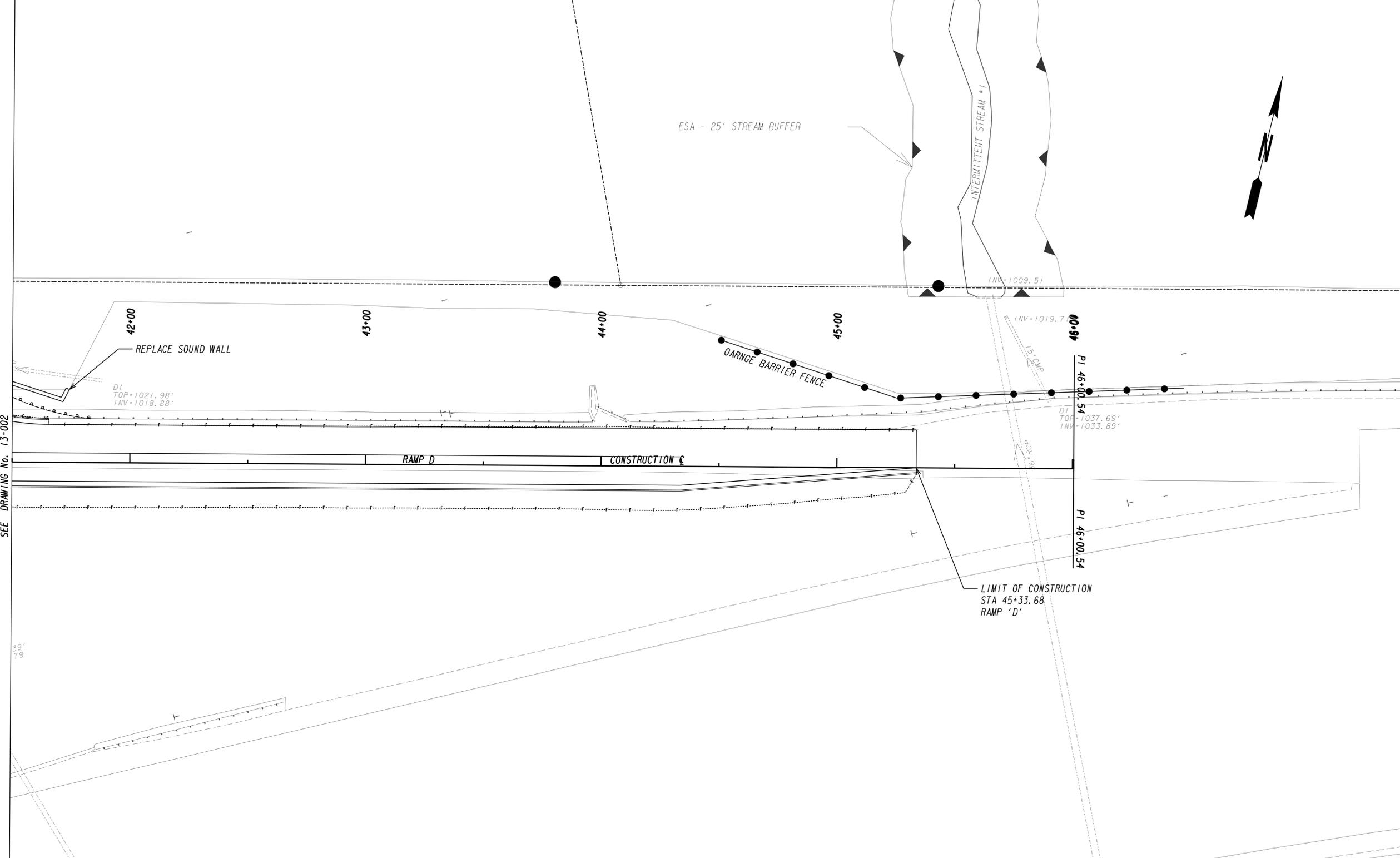
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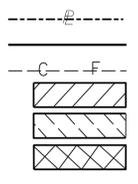
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**ARCADIS**  
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STATE OF GEORGIA  
 DEPARTMENT OF TRANSPORTATION  
 OFFICE: INNOVATIVE DELIVERY  
**CROSSROAD PLAN**

PROJECT: PI 0010925  
 COUNTY: FULTON

DRAWING No.  
**14-004**

## Appendix E – Protected Species Survey Report

PROTECTED SPECIES SURVEY REPORT  
For  
*Monotropsis odorata*  
Sweet Pinesap

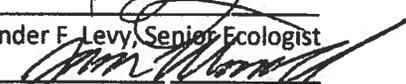
April 2014

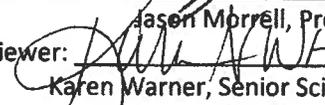
Interstate 285 Ramps at Riverside Drive  
Fulton County  
P.I. Number 0010925

Prepared by:  
ARCADIS U.S., Inc.  
2410 Paces Ferry Road, Suite 400  
Atlanta, GA 30339

Prepared for:  
Georgia Department of Transportation  
600 W. Peachtree Street  
Atlanta, GA 30308

Report Author:   
Alexander F. Levy, Senior Ecologist

Consultant Reviewer:   
Jason Morrell, Project Ecologist

GDOT Reviewer:   
Karen Warner, Senior Scientist, ATKINS

## Executive Summary

The Georgia Department of Transportation (GDOT) is proposing operational improvements to the Interstate 285 (I-285) ramps at County Road (CR) 209/Riverside Drive, in Fulton County, Georgia. The project is located within the City of Sandy Springs approximately 3.0 miles west of the intersection of State Route (SR) 400 and I-285. The proposed project would convert the existing eastbound (EB) and westbound (WB) signalized entry and exit intersections of I-285 from Riverside Drive to roundabouts. Utilizing a roundabout lane configuration at this interchange would decrease the number of crashes in the area as well as reduce traffic delays during times of increased traffic volumes. The total project length is approximately 0.5 miles.

Also commonly known as pygmypipes, sweet pinesap (*Monotropsis odorata*) is a threatened plant species listed by the State of Georgia as occurring in Fulton County, based on a 2006 Georgia Department of Natural Resources (GDNR) occurrence record; within approximately 0.5 mile of the project location. In conjunction with studies for the **revive285 top end**, GDOT projects NHS-0001-00(758) and MSL-0003-00(534), Cobb, Fulton, and DeKalb Counties, Georgia (P. I. Numbers: 0001758 and 0003534), the Riverside Drive project vicinity was initially surveyed for presence/absence of sweet pinesap on March 23, 2012. At that time, the presence of sweet pinesap was not found at the reference location of the previous GDNR occurrence record or from among other forested areas within the project vicinity that contain suitable habitat constituents, but lack a singularly-intact suitable habitat. The January 2013 Ecological Assessment of Effects for Interstate 285, **revive285 top end** concluded that the project would have “no significant adverse effect” to the sweet pinesap. Based on the 2012 **revive285 top end** field investigation and the 2014 Riverside Drive (P.I. No. 0010925) field investigation, habitats within the Riverside Drive study area include developed/landscaped areas, secondary successional mixed pine/hardwood forest, and mowed and maintained roadside rights-of-way. No individuals of the target species were observed during the Riverside Drive project specific 2014 survey. Marginally-suitable habitat to support the sweet pinesap is located within the Riverside Drive study area, and exists within areas proposed for impact. Based on the previous coordination and habitat findings for P. I. Numbers 0001758 and 000353, as well as more-recent project specific coordination and habitat findings for P.I. Number 0010925, the Interstate 285 Ramps at Riverside Drive project, would have “no significant adverse effect” to the sweet pinesap.

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- GDNR Element Occurrence Letter
- Field Notes
- Survey Data Forms

A. Project Description

The Georgia Department of Transportation (GDOT) is proposing operational improvements to the Interstate 285 (I-285) ramps at County Road (CR) 209/Riverside Drive, in Fulton County GA. The project is located within the City of Sandy Springs approximately 3.0 miles west of the intersection of State Route (SR) 400 and I-285. The project area was included in the ecology report for revive 285 top end (PI Numbers 0001758 & 0003534); however, this is a stand-alone project (P.I. Number 0010925) and is proceeding under one environmental document. The proposed project would convert the existing eastbound (EB) and westbound (WB) signalized entry and exit intersections of I-285 from Riverside Drive to roundabouts. Utilizing a roundabout lane configuration at this interchange would decrease the number of crashes in the area as well as reduce traffic delays during times of increased traffic volumes. The total project length is approximately 0.5 miles.

The proposed operational improvements are located along Riverside Drive from approximately 236 feet south of the eastbound intersection of Riverside Drive and I-285 to approximately 364 feet north of the westbound intersection of Riverside Drive and I-285. East and westbound I-285 entry and exit ramps are also included. The proposed project lies within the Upper Chattahoochee River Watershed (HUC 03130001) in the Southern Inner Piedmont Level IV ecoregion. The approximate midpoint of the project is located at Latitude 33.9159, Longitude -84.4066.

B. Study Area

The study area for the sweet pinesap (*Monotropsis odorata*) survey consists of relict forested ravine slopes and woodland edges within and adjacent to the proposed project rights-of-way (ROW) along Riverside Drive and I-285 characterized by approximately five acres of secondary successional stands of mature mixed pine/hardwood forest. The overall study area for the proposed project comprises approximately 22 acres. Potential effects to this area include construction impacts from cut and fill, grading, and paving, as well as operational impacts from the periodic use of mowing equipment and growth-retardant/herbicides to maintain the roadside shoulders associated with proposed roadway and intersection improvements.

C. Survey Methodology:

Species-specific pedestrian surveys were conducted by ARCADIS U.S., Inc. (ARCADIS) Senior Ecologist, Alex Levy, and Ecologist, Claire Ike on March 10, 2014. The survey was conducted during optimal, blooming season conditions. According to the GDNR species account, surveys for sweet pinesap are best conducted during flowering (February–April) and fruiting (May–June). Plants are often hidden under leaf litter or fallen pine needles; the sweet, cinnamon-like fragrance of the flowers can be smelled from some distance and used to locate the hidden plants (Chafin 2008). In addition, according to GDNR Botanist, Tom Patrick (personal communication), the best and most-recognized survey time for sweet pinesap coincides with its blooming season, which occurs “about the middle of March, [when] the plants will be poking up thru the litter and likely under 2-3 inches in height, single or small clusters, and have smooth deep burgundy stems.” Following the direction of published and personal references, the

ARCADIS survey methodology consisted of detailed observations via pedestrian surveys throughout all forested plant communities within and immediately adjacent to forested portions of the project ROW. Areas positively identified as containing any potential sweet pinesap habitat elements were limited to forested habitats containing a mature canopy including chestnut oak (*Quercus montana*) and associated leaf litter with understory vegetation characteristic of the Ericaceae family of acidic soil-loving plants. In order to effectively survey for the presence of the target species, ARCADIS ecologists used long-handled potato (cultivating) rakes to carefully lift leaf-litter from the organic humus layer of the forest floor, in order to reveal sprouting and emerging herbaceous vegetation (See Appendix). Additional survey details are included in the Field Survey section of this report.

#### D. Preparatory Data

Prior to field studies, the previous Ecological Assessment of Effects for the Interstate 285, **revive285 top end** project was reviewed along with ARCADIS protected species survey records for the **revive285 top end**, as well as Georgia Department of Natural Resources (GDNR) element occurrence records (<http://www.georgiawildlife.com/node/1380>). Georgia DNR element occurrence data indicates a historic record of a population approximately 0.5 miles east of the Riverside Drive interchange at I-285. This occurrence, reported by GDNR as “extirpated” in January 5, 2007 correspondence, was reported in December 7, 2011 correspondence from the GDNR to have been rediscovered in a 2006 record that found the species in a ravine at a subdivision located north of I-285 along Long Island Drive. Additionally, according to the GDNR (Morris, personal communication 2012), the site of the former ravine in which the plants were reportedly found intact in 2006, was formerly a property located along Long Island Drive NW, Atlanta.

Coordination with GDNR Nongame Conservation Section was initiated for this project on September 20, 2013 to request known species occurrences within a three mile radius of the project. A GDNR response letter was received on November 1, 2013 (See Appendix). According to GDNR data, the 2006 record for the plants’ location in Fulton County remains approximately 0.5 mile east of the project location. No other known occurrences of sweet pinesap have been documented by GDNR from within a three mile radius of the project area. Additional coordination with GDNR botanists, regarding the survey techniques and the status of sweet pinesap in Georgia, occurred prior to the March 10, 2014 field survey and is included in the Appendix of this report. Please refer to Figure 1 for a species range map.

Expert species information for performance of the field survey and report development was obtained from the following resources:

Chafin, Linda G. 2007. Field Guide to the Rare Plants of Georgia. The State Botanical Garden of Georgia and the Georgia Plant Conservation Alliance. Athens, GA.

Chafin, Linda G. 2008. Georgia Rare Species and Natural Community Information, Species Accounts for Rare Plants. Georgia Department of Natural Resources, <http://www.georgiawildlife.com/node/2627>

(Accessed March 7, 2014)

Levy, Alexander F. Ecological Assessment of Effects: Interstate 285, revive285 top end, GDOT Projects NHS-0001-00(758) and MSL-0003-00(534), P. I. Numbers: 0001758 and 0003534, Cobb, Fulton, and DeKalb Counties, Georgia. January 2013.

Moffett, Mincy. (March 7, 2014) "Monotropis odorata survey techniques" Interview by A. Levy [email inquiry]. Nongame Conservation Section, Wildlife Resources Division, Georgia Department of Natural Resources. Social Circle, GA

Morris, Katrina (March 2, 2014). Interview by A. Levy [email inquiry]. Nongame Conservation Section, Wildlife Resources Division, Georgia Department of Natural Resources. Social Circle, GA

Patrick, Thomas S. (March 10, 2014). "Monotropis odorata survey techniques" Interview by A. Levy [email inquiry]. Nongame Conservation Section, Wildlife Resources Division, Georgia Department of Natural Resources. Social Circle, GA

Patrick, Thomas S., James R. Allison, and Gregory A. Krakow. 1995. *Protected Plants of Georgia, An Information Manual on Plants Designated by the State of Georgia as Endangered, Threatened, Rare or Unusual*. Georgia Department of Natural Resources, Wildlife Resources Division, Georgia Natural Heritage Program.

Radford, A.E., H.E. Ahles, C.R. Bell, 1968. *Manual of the Vascular Flora of the Carolinas*. The University of North Carolina Press. Chapel Hill, NC

United States Department of Agriculture, Natural Resources Conservation Service (formerly Soil Conservation Service). 1999. *Soil Survey of Fulton County, Georgia*. <http://websoilsurvey.sc.egov.usda.gov/> (Accessed March 7, 2014).

United States Department of Agriculture, Natural Resources Conservation Service. 2014. The PLANTS Database. National Plant Data Team, Greensboro, NC 27401-4901 USA. <http://plants.usda.gov> (Accessed March 7, 2014)

#### E. Qualifying Statement

Prior to the protected species survey for this project, Alex Levy conducted surveys for the sweet pinesap along the I-285 corridor in Sandy Springs, in association with GDOT Projects NHS-0001-00(758) and MSL-0003-00(534), Cobb, Fulton, and DeKalb Counties, Georgia, P. I. Numbers: 0001758 and 0003534. Mr. Levy has more than 24 years of experience conducting ecological resource surveys and impact assessments for transportation and other infrastructure projects in Georgia. He has performed numerous botanical surveys, inventories, and effects assessments for state and federally protected

species. Mr. Levy has identified new occurrences of federal and state-listed plant species on numerous roadway project corridors throughout Georgia, including in metropolitan Atlanta-area counties. He is a certified Botanical Guardian by the Georgia Plant Conservation Alliance. Mr. Levy is formally trained in applying federal Endangered Species Act Section 7, Interagency Cooperation procedures, as well as FHWA policy for federal candidate species conservation and effects assessment, and is a known resource for statewide and national program-level threatened and endangered species issues.

Claire Ike has over three years of experience conducting botanical surveys within the Piedmont and Coastal Plain ecoregions of Georgia. She has also volunteered time to the conservation of other state-listed plants in the nearby Chattahoochee River National Recreation Area.

#### F. Field Survey

Seasonally appropriate field surveys for sweet pinesap were conducted for the proposed project on March 10, 2014. The field survey was conducted between the hours of approximately 10:30 a.m. and 2:30 p.m. (Eastern Daylight Time). Weather conditions were clear and sunny with temperatures ranging from 65° to 71° Fahrenheit. No precipitation was recorded for Atlanta Hartsfield-Jackson International Airport by the National Oceanic and Atmospheric Administration (NOAA) for March 10, 2014. The most recent day prior to the field survey that rainfall occurred was March 7, 2014 during which 0.19 inches was recorded. The current total precipitation for the 2014 calendar year is 6.81 inches. Surveys included a site visit to the voucher location of GDNR's 2006 occurrence record along Long Island Drive, approximately 0.5 mile from the Riverside Drive interchange. Previous habitat assessment of areas immediately-adjacent to the Riverside Drive and I-285 corridors, were used to identify target habitats for closer investigation. Intensive pedestrian surveys were conducted in all observed suitable and potentially suitable habitat along and adjacent to the proposed ROW limits, up to 100 feet from the existing and proposed ROW limits. Potato rakes were used to carefully lift and expose any rooted vegetation concealed beneath leaf litter. ARCADIS ecologists walked parallel transects in a zigzag pattern spaced 15 to 30 feet apart in potentially-suitable habitat along mesic, forested ravine slopes and ridgeline ecotones. Particular attention was paid to existing areas of exposed and/or disturbed soils, as well as thin leaf-packs within the drip-lines and at the base of chestnut oak tree trunks. Although infrequently-occurring, all areas with tree-fall mounds and depressions, as well as pine trees of any age and areas of pine needle litter were given added attention, even deviating from transect surveys where-necessary.

The target species was not found in the historically-documented location, which was also found to harbor few undisturbed portions of the plant community that were characteristic of the formerly forested habitat. Additionally, similar nearby forested ravine habitat was investigated, but was also found to contain few associated species and only scattered occurrences of woody members of sweet pinesap's family (Ericaceae), including sourwood (*Oxydendrum aboreum*) and Piedmont azalea (*Rhododendron canescens*).

## G. Species Description

Sweet pinesap is a perennial herb in the acid-loving heath/rhododendron (Ericaceae) family, lacking chlorophyll, and is parasitic on underground fungi associated with tree roots. It grows one to three inches (three to 7.6 centimeters) tall. Without chlorophyll, sweet pinesap has no green coloration and is covered with tan, scale-like, papery leaves which are triangular and measure less than 0.5 inches (1.27 centimeters) long. Flowers are arranged in nodding clusters at the top of the stems and are extremely fragrant with a sweet aroma. Preferred habitat for this species consists of mixed pine and hardwood forests or chestnut oak dominated forests with dry, acidic soils.

The sweet pinesap has been known to occur in parts of Georgia, Alabama, South Carolina, Tennessee, Virginia, West Virginia, Kentucky, Maryland, and Delaware (Chaffin 2007). Georgia rare species and natural community data provided by GDNR, indicate that the sweet pinesap has been known to occur within the following Georgia counties: Rabun, Habersham, Hall, Gilmer, Elbert, and Fulton (Figure 1). According to GDNR Botanist, Tom Patrick (personal communication March 10, 2014, see Appendix), “the only reliable [Georgia] population of *Monotropis odorata*, sweet pinesap, is behind the Visitor Center [at], Tallulah Gorge State Park [in northeast Georgia’s Rabun County].” The Tallulah Gorge State Park occurrence is found among a young Virginia pine (*Pinus virginiana*) thicket. The plants are mostly found near the base of the pine trunks, emerging through the needle litter. The deep burgundy stem color and sweet fragrance are notable characteristics when they appear around the middle of March. The plants extend through the leaf-litter, are below two to three inches in height, and occur as single stems or in small clusters. Mr. Patrick added that habitat conditions include pine litter and a heath understory with commensal species that include Blue Ridge blueberry (*Vaccinium pallidum*), chestnut oak, evergreen rhododendron (*Rhododendron* spp.), and mountain laurel (*Kalmia latifolia*). Most sites are associated with some sort of disturbance, such as a young pine stand, a trailside edge, old field terraces, at the base of a rocky ledge, on an old tree fall mound, or even the wave-lapped shoreline of a lake.

Photo 1: Sweet pinesap (Calvert County, MD)



R.H. Wiegand, Maryland Department of Natural Resources

Sweet pinesap is a non-photosynthetic plant; it lacks chlorophyll and therefore the means to produce carbohydrates. It is an epiparasite; it grows on a fungal parasite (*Hydnellum*) which - itself - is attached to the roots of a green, photosynthesizing plant. The fungus extracts carbon from the photosynthetic plant, and sweet pinesap extracts carbohydrates from the fungus (Chafin 2008).

Sweet pinesap flowers require cross-pollination in order to set fruit. Held in tubular anthers with only one opening at the tip, their pollen is relatively inaccessible to most pollinators. Bumblebees (*Bombus* spp.) extract the pollen by shaking the anthers: they grasp the flower and rapidly move their indirect flight muscles (not their wings), causing the flower and anthers to vibrate and release their pollen. Some of this pollen is taken back to the bumblebee's nest but some is carried to the next flowers the bumblebee visits. Sweet pinesap seeds are dispersed by small animals.

#### H. Habitat Assessment

Habitats within the project study area consist of developed, maintained/landscaped ROW, and mixed pine – hardwood forests (see Habitat Map Figure 2). Below are descriptions of each habitat type within the 22-acre project study area.

### Developed

These areas consist of impervious surfaces such as paved roadways and sidewalks, parking lots, buildings, residential structures, and adjacent landscaped areas. Vegetation typically consists of turf-type grasses and a variety of ornamental species, most of which are restricted to landscaped areas with patches of native vegetation that contain an abundance of invasive species. This habitat type is generally unusable for most species of flora and fauna, other than species adapted to urban conditions and is considered very low quality for biotic diversity. This habitat type makes up approximately 12 acres (54%) of the project study area.

### Maintained/Landscaped ROW

This habitat type consists of mowed and maintained herbaceous vegetation typically found along transportation ROWs, such as road shoulders and medians, and utility ROWs. Dominant vegetation found within this habitat type consists of turf type grasses, goldenrod (*Solidago* sp.), and blackberry (*Rubus* sp.). This habitat type makes up approximately five acres (23%) of the project study area.

### Mixed pine - Hardwood

This habitat consists of fragmented areas of secondary successional mixed pine – hardwood forest with a typical understory dominated by native and non-native shrubs and vines. Dominant overstory species within this habitat type include loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), tulip poplar (*Liriodendron tulipifera*), southern magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), mockernut hickory (*Carya tomentosa*), American elm (*Ulmus americana*), and water oak (*Quercus nigra*). Understory species include muscadine (*Vitis rotundifolia*), poison ivy (*Toxicodendron radicans*), roundleaf greenbrier (*Smilax rotundifolia*), leatherleaf mahonia (*Mahonia bealei*), yellow root (*Xanthorhiza simplicissima*), thorny olive (*Elaeagnus pungens*), Chinese privet (*Ligustrum sinense*), Christmas fern (*Polystichum acrostichoides*), and sensitive fern (*Onoclea sensibilis*). This habitat type makes up approximately five acres (23%) of the project study area. This habitat type is highly fragmented with forested patches not exceeding two acres. This habitat is marginally suitable for the sweet pinesap.

U.S. Department of Agriculture, Natural Resource Conservation Service mapped soils within the ROW and adjacent areas of Riverside Drive and I-285 include Cartecay-Toccoa complex, Grover-Mountain Park complex, Madison-Bethlehem complex, Rion sandy loam, Urban land, and Urban land-Rion complex.

While portions of the Riverside Drive project area contain plant community elements that are consistent with habitat for sweet pinesap, particularly areas of upland ravine-slope oak-hickory-pine forest, these areas appear to host a dense ground-layer of leaf-litter atop a two to four inch layer of organic humus, which could smother and be detrimental to the species survival. In addition, non-native and invasive species present within these habitats would likely out-compete any protected plants with potential occurrences within the project area. Potential habitat for this species occurs intermittently in the

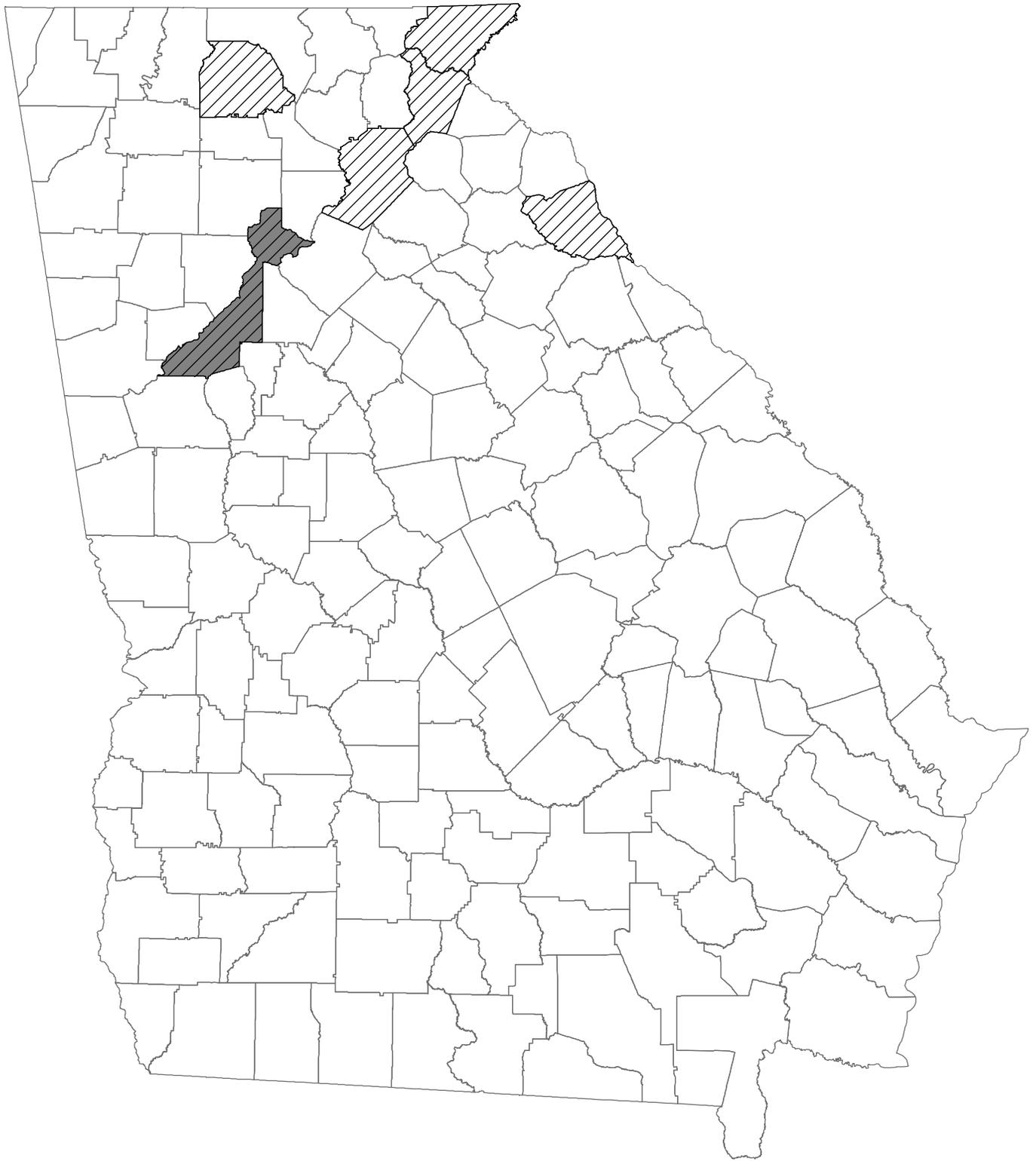
project study area within areas of mixed hardwood and pine forest that are physically fragmented by surrounding transportation, residential, and institutional land uses (See Habitat map, Figure 2).

I. Species Impact

Sweet pinesap is currently classified as State Threatened and has no listing classification under the federal Endangered Species Act. According to the GDNR, the species is classified as threatened because, once known from 11 sites, only three populations have been verified as of 2008, with all three occurring on state park or National Forest land. Loss of this species is attributed to conversion of habitat to pine plantations, land development, fire suppression, and foot traffic through populations. No sweet pinesap plants were observed during the blooming-season pedestrian survey of marginally-suitable habitats within areas that would be impacted by the proposed project. Therefore, proposed improvements to the Riverside Drive and I-285 interchange would have “no significant adverse effect” on sweet pinesap.

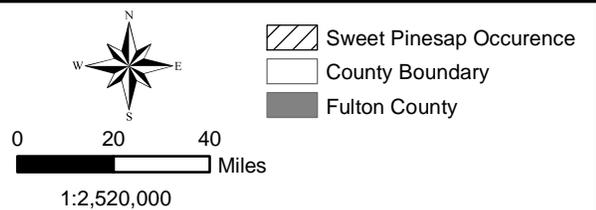
## Figures

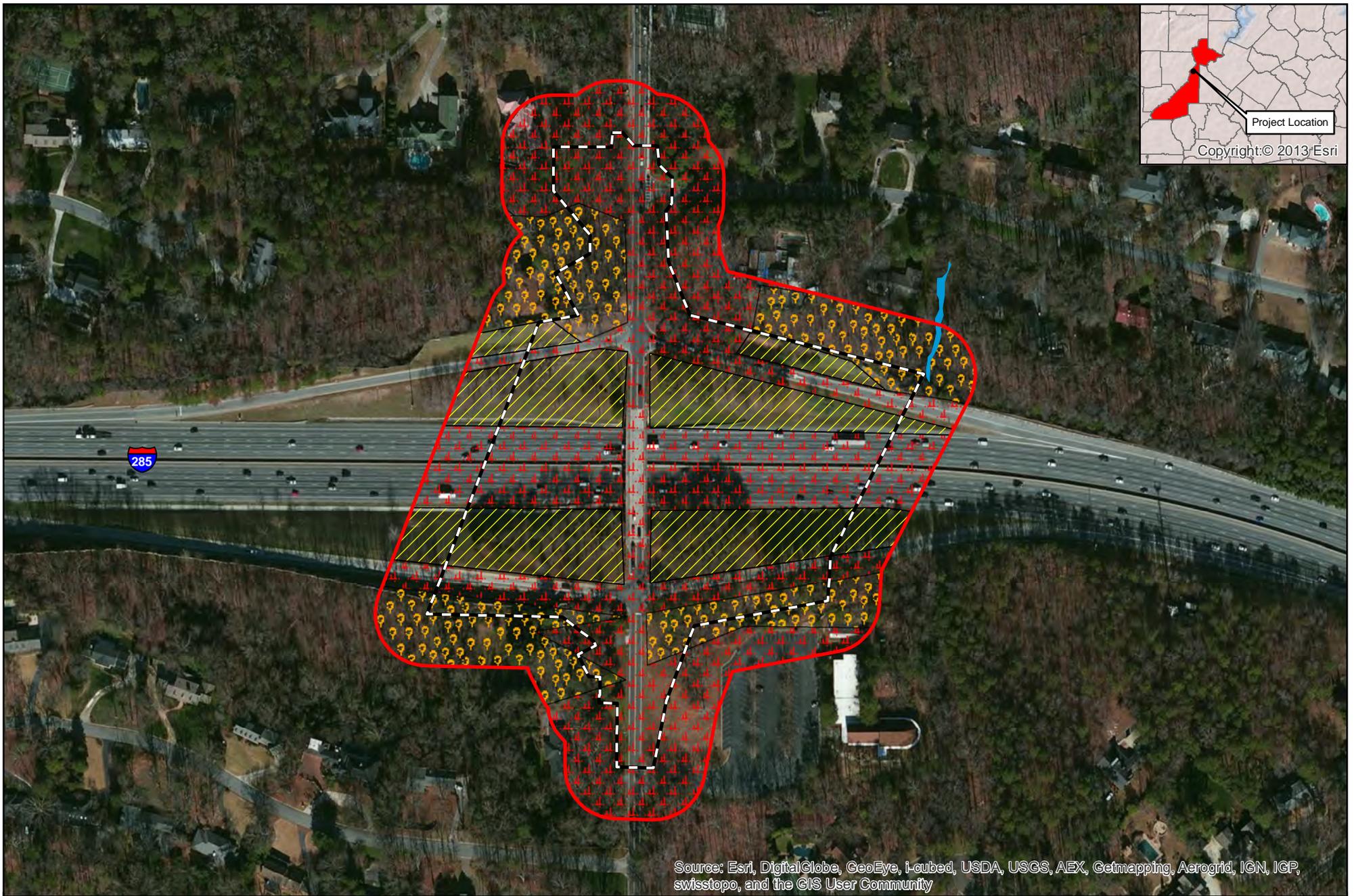
1. Species Range Map
2. Habitat Maps



Source: Georgia Dept. of Natural Resources, Georgia Rare Species and Natural Community Data (updated July 21, 2013)

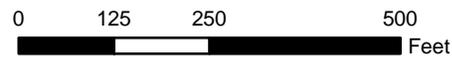
Figure 1: Species Range Map - Sweet Pinesap (*Monotropsis odorata*)  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia





Source: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Figure 2: Habitat Map  
 Interstate 285 Ramps at Riverside Drive  
 P.I.No. 0010925  
 Fulton County, Georgia



- Study Area
- Project Limit
- Maintained/Landscaped ROW
- Developed
- Streams
- Mixed Pine-Hardwood\*

\*Suitable habitat for sweet pinesap (*Monotropsis odorata*)

## Photographs



Photo 1. Oak dominated forest within northwestern quadrant of the project study area facing east. 3/10/2014



Photo 2. Forested habitat within the ROW and adjacent to the entry ramp to eastbound I-285 facing northeast. 3/10/2014



Photo 3. Oak dominated forest within ROW of I-285 located in the southwestern quadrant of the project study area facing northwest. 3/10/2014



Photo 4. Oak dominated forest within ROW of I-285 located in the southwestern quadrant of the project study area facing west. 3/10/2014



Photo 5. Georgia DNR element occurrence site representation located at 5890 Long Island Drive NW, Atlanta. 3/10/2014



Photo 6. Georgia DNR element occurrence site representation located at 5890 Long Island Drive NW, Atlanta. 3/10/2014

Appendix

GDNR Element Occurrence Letter and Agency Correspondence

Field Notes

Survey Data Form

# Georgia Department of Natural Resources Wildlife Resources Division

Nongame Conservation Section  
2065 U.S. Highway 278, S.E., Social Circle, Georgia 30025-4743  
(770) 918 6411



January 5, 2007

Alex Levy, Senior Ecologist  
ARCADIS  
2849 Paces Ferry Road  
Suite 400  
Atlanta, GA 30339

**Subject: Known Occurrences of Conservation Areas and Special Concern Animals and Plants On or Near I-285 Improvements to Top End Area; GDOT Project NHS-0001-00(758) and MSL-0003-00(433), PI#0001758 & 0003534, Cobb, Fulton & DeKalb Counties, Georgia**

Dear Mr. Levy:

This is in response to your request of December 22, 2006. According to our records, within a three-mile radius of the project corridor there are the following Natural Heritage Database occurrences:

I-75 Interchange (-84.46243, 33.88983; NAD27):

- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 1.5 mi. S of site in the Chattahoochee River
- GA *Elliptio arctata* (Delicate Spike) approx. 1.0 mi. E of site in the Chattahoochee River
- Elliptio fraterna* (Brother Spike) approx. 1.5 mi. SE of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 1.5 mi. SE of site in the Chattahoochee River
- Melanthium latifolium* (Broadleaf Bunchflower) approx. 1.5 mi. S of site
- Micropterus cataractae* (Shoal Bass) approx. 1.5 mi. S of site
- Micropterus cataractae* (Shoal Bass) approx. 2.0 mi. S of site
- GA *Nestronia umbellula* (Indian Olive) approx. 1.5 mi. S of site
- Quincuncina infucata* (Sculptured Pigtoe) approx. 1.5 mi. NE of site in the Chattahoochee River**
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. SE of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. NE of site**
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SE of site
- Chattahoochee River National Recreation Area [National Park Service] approx. 0.5 mi. SE of site
- Greenspace [Cobb County] approx. 2.5 mi. SW of site
- Greenspace [Cobb County] approx. 3.0 mi. NW of site

GA 400 Interchange (-84.35716, 33.91211; NAD27):

- [Fulton County] approx. 1.5 mi. NW of site
- GA *Monotropsis odorata* (Sweet Pinesap) **[EXTIRPATED]** approx. 2.0 mi. W of site

GA *Schisandra glabra* (Bay Star-vine) approx. 2.5 mi. SE of site  
Greenspace [Fulton County] approx. 1.5 mi. NW of site

I-85 Interchange (-84.25904, 33.89170; NAD27):  
Greenspace [DeKalb County] approx. 2.5 mi. SW of site

\* Entries above preceded by "US" indicates species with federal status in Georgia (Protected or Candidate). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

### **Recommendations:**

We have two records of species of concern within 1000 feet of the project corridor. These records are listed in bold in the above occurrence lists. The *Quincuncina infucata* (Sculptured Pigtoe) record is located approx. 300 feet north of the project area in the Chattahoochee River. The *Schisandra glabra* (Bay Star-vine) record is located approx. 350 feet south of the project area on the east bank of the Chattahoochee River. Please also use the lists of protected species by watershed on our website to obtain information for other potential aquatic species of concern along this corridor:

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=89&txtPage=8>.

We are also concerned about streams and other habitats that could be impacted by the proposed road improvement project. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

The GA DNR Nongame Conservation Section, Social Circle office has moved! Our street address and zip code extension have changed. Please use the new address on the letterhead for future correspondence. Thanks for helping us have a smooth transition into the new building.

### **New Data Available on the Nongame Conservation Section Website**

We have recently updated the Nongame Conservation Section Website!!! You can view the updated rare species and natural community information by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at:

<http://georgiawildlife.dnr.state.ga.us/content/displaycontent.asp?txtDocument=89>

An updated ESRI shape file of our rare species and natural community data by quarter quad and county is also available. It can be downloaded from:

<http://georgiawildlife.dnr.state.ga.us/assets/documents/gnhp/gnhpds.zip>



**GEORGIA**  
DEPARTMENT OF NATURAL RESOURCES

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**WILDLIFE RESOURCES DIVISION**

**MARK WILLIAMS**  
COMMISSIONER

**DAN FORSTER**  
DIRECTOR

December 7, 2011

Melissa Rottenberg  
Project Ecologist  
ARCADIS  
2849 Paces Ferry Road  
Suite 400  
Atlanta, GA 30339

**Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Revive 285 Top End Project, DeKalb County, Georgia**

Dear Ms. Rottenberg:

This is in response to your request of November 7, 2011. According to our records, within a three-mile radius of the project corridor there are the following Natural Heritage Database occurrences:

I-75 Interchange (-84.46222, 33.89016; NAD27):

- GA *Ammodramus henslowii* (Henslow's Sparrow) approx. 1.0 mi. N of site
- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 1.5 mi. S of site in the Chattahoochee River
- GA *Elliptio arctata* (Delicate Spike) [HISTORIC] approx. 1.0 mi. E of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 1.5 mi. E of site in the Chattahoochee River
- Melanthium latifolium* (Broadleaf Bunchflower) [EXTIRPATED?] approx. 1.0 mi. S of site
- GA *Nestronia umbellula* (Indian Olive) [HISTORIC] approx. 1.0 mi. S of site
- Nyctanassa violacea* (Yellow-crowned Night-heron) approx. 0.5 mi. NW of site [-84.468882, 33.896033]
- Quadrula infucata* (Sculptured Pigtoe) [HISTORIC] approx. 1.0 mi. E of site in the Chattahoochee River
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.0 mi. SE of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 1.5 mi. NE of site [-84.441022, 33.901044]
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SE of site  
Chattahoochee River National Recreation Area [National Park Service] 0.4 mi. SE of site  
Greenspace [Cobb County] approx. 2.5 mi. SW of site

**NONGAME CONSERVATION SECTION**  
2065 U.S. HIGHWAY 278 S.E. | SOCIAL CIRCLE, GEORGIA 30025-4743  
770.918.6411 | FAX 706.557.3033 | WWW.GEORGIAWILDLIFE.COM

GA 400 Interchange (-84.35759, 33.91181; NAD27):

**GA *Monotropsis odorata* (Sweet Pinesap) approx. 2.0 mi. W of site [-84.393582, 33.915472]**

GA *Schisandra glabra* (Bay Star-vine) approx. 2.5 mi. SE of site  
Greenspace [Fulton County] approx. 1.5 mi. NW of site

I-85 Interchange (-84.25874, 33.89134; NAD27):

Greenspace [DeKalb County] approx. 2.5 mi. SW of site

\* Entries above preceded by "US" indicates species with federal status (Protected, Candidate or Partial Status). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

#### **Recommendations:**

We have records of four species of concern within the project corridor (see bold above). The *Quadrula infucata* (Sculptured Pigtoe) is considered historic and is not likely to be found in the river. However, some species may be found within the corridor and we recommend completing surveys to identify these and other species. Please avoid disturbance to high priority species and habitats while completing this project.

We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

#### **NEW - Data Available on the Nongame Conservation Section Website - NEW**

NEW Georgia protected plant and animal profiles are available on our website. Originating with the State Wildlife Action Plan, a strategy guiding conservation in Georgia, the accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.

By visiting the Nongame Conservation Section Website you can view the highest priority species and natural community information by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.

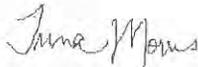
Downloadable files of our highest priority species and natural community data by quarter quad and county is also available. It can be downloaded from: <http://www.georgiawildlife.com/node/1370>.

**Disclaimer:**

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



**Katrina Morris**  
Environmental Review Coordinator

## Levy, Alex

---

**From:** Katrina Morris <Katrina.Morris@dnr.state.ga.us>  
**Sent:** Friday, March 02, 2012 4:01 PM  
**To:** Levy, Alex  
**Subject:** Re: BTW - sweet pinesap (Monotropsis odorata)

Hi Alex,

It was last observed in May 2006. It's privately owned and it's on the former home property of Steve Bowling. Here are the notes:

Formerly 5890 Long Island Drive NW, Atlanta, prior to development as a Sandy Springs subdivision of apartments, this was family home of Steve Bowling; although the upland areas have been rebuilt, the ravine in which these plants occur remains intact.

Do you know Steve? You might ask him for more details about the site.  
If you aren't in contact with him, I can talk to him. Just let me know.

Trina

>>> "Levy, Alex" <[Alex.Levy@arcadis-us.com](mailto:Alex.Levy@arcadis-us.com)> 3/2/2012 2:52 PM >>>

In December, you sent my colleague, Melissa Rottenberg, an update to the EO record for state-listed sweet pinesap (Monotropsis odorata), at a location in Sandy Springs: -84.393582 x 33.915472 .

I think it's along Long Island Drive, but can you provide any more details about the location (public or private property)?

We're going to go hunt for this spring-ephemeral soon.

Sincere thanks!

Alex

Alexander Levy | Senior Ecologist | [alex.levy@arcadis-us.com](mailto:alex.levy@arcadis-us.com) Chair, TRB Ecology and Transportation Committee  
<http://www.itre.ncsu.edu/ADC30/> ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA  
30339

O. 770.384.6595 | M. 404.423.0311 | F. 770.435.2666 [www.arcadis-us.com](http://www.arcadis-us.com) P Please consider the environment before printing this email.

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MARK WILLIAMS  
COMMISSIONER

DAN FORSTER  
DIRECTOR

November 1, 2013

Jason Morrell  
Project Ecologist  
ARCADIS U.S., Inc.  
2410 Paces Ferry Road, Suite 400  
Atlanta, GA 30339

**Subject: Known occurrences of natural communities, plants and animals of highest priority conservation status on or near Interstate 285 Ramps at Riverside Dr., Fulton County, Georgia**

Dear Mr. Morrell:

This is in response to your request of September 19, 2013. According to our records, within a three-mile radius of the project site, there are the following Natural Heritage Database occurrences:

- GA *Ammodramus henslowii* (Henslow's Sparrow) approx. 2.0 mi. W of site
- GA *Cambarus howardi* (Chattahoochee Crayfish) approx. 2.5 mi. NW of site in Sope Creek
- GA *Elliptio arctata* (Delicate Spike) approx. 1.5 mi. NW of site in the Chattahoochee River
- GA *Fothergilla major* (Mountain Witch-alder) approx. 2.5 mi. SW of site
- GA *Micropterus cataractae* (Shoal Bass) approx. 1.5 mi. N of site in the Chattahoochee River
- GA *Monotropsis odorata* (Sweet Pinesap) approx. 0.5 mi. E of site
- GA *Quadrula infucata* (Sculptured Pigtoe) approx. 1.5 mi. NW of site in the Chattahoochee River
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. NW of site
- GA *Schisandra glabra* (Bay Star-vine) approx. 2.0 mi. SW of site
- Chattahoochee River National Recreation Area [NPS] approx. 1.0 mi. NW of site
- Greenspace [County/Local] approx. 1.5 mi. E of site
- Greenspace [County/Local] approx. 2.0 mi. N of site
- McFarlane Nature Park [County/Local] approx. 2.0 mi. N of site

\* Entries above preceded by "US" indicates species with federal status in Georgia (Protected or Candidate). Species that are federally protected in Georgia are also state protected; "GA" indicates Georgia protected species.

**Recommendations:**

We have no records of high priority species or habitats within the project area. Since this project is an improvement to an existing set of roads, it is not likely to negatively impact rare species or habitats.

We are concerned about streams and other habitats that could be impacted by the proposed road improvement project. We recommend that stringent erosion control practices be used during construction activities and that vegetation is re-established on disturbed areas as quickly as possible. Silt fences and other erosion control devices should be inspected and maintained until soil is stabilized by vegetation. Please use natural vegetation and grading techniques (e.g. vegetated swales, turn-offs, vegetated buffer strips) that will ensure that the road or ROW does not serve as a conduit for storm water or pollutants into the water during or after construction. These measures will help protect water quality in the vicinity of the project as well as in downstream areas.

#### **NEW ENVIRONMENTAL REVIEW COORDINATOR**

**Please send all future correspondence to Anna Yellin, Environmental Review Coordinator. Email correspondence is preferred. I can be contacted at [anna.yellin@dnr.state.ga.us](mailto:anna.yellin@dnr.state.ga.us) or 706-557-3283.**

#### **Disclaimer:**

Please keep in mind the limitations of our database. The data collected by the Nongame Conservation Section comes from a variety of sources, including museum and herbarium records, literature, and reports from individuals and organizations, as well as field surveys by our staff biologists. In most cases the information is not the result of a recent on-site survey by our staff. Many areas of Georgia have never been surveyed thoroughly. Therefore, the Nongame Conservation Section can only occasionally provide definitive information on the presence or absence of rare species on a given site. Our files are updated constantly as new information is received. **Thus, information provided by our program represents the existing data in our files at the time of the request and should not be considered a final statement on the species or area under consideration.**

If you know of populations of highest priority species that are not in our database, please fill out the appropriate data collection form and send it to our office. Forms can be obtained through our web site (<http://www.georgiawildlife.com/node/1376>) or by contacting our office. If I can be of further assistance, please let me know.

Sincerely,



Anna Yellin  
Environmental Review Coordinator

### **Data Available on the Nongame Conservation Section Website**

- Georgia protected plant and animal profiles are available on our website. These accounts cover basics like descriptions and life history, as well as threats, management recommendations and conservation status. Visit <http://www.georgiawildlife.com/node/2721>.
- Rare species and natural community information can be viewed by Quarter Quad, County and HUC8 Watershed. To access this information, please visit our GA Rare Species and Natural Community Information page at: <http://www.georgiawildlife.com/conservation/species-of-concern?cat=conservation>.
- Downloadable files of rare species and natural community data by quarter quad and county are also available. They can be downloaded from: <http://www.georgiawildlife.com/node/1370>.

## Levy, Alex

---

**From:** Patrick, Tom <Tom.Patrick@dnr.state.ga.us>  
**Sent:** Monday, March 10, 2014 3:59 PM  
**To:** Hedeem, Meghan W.; Morrell, Jason; Levy, Alex  
**Cc:** Ike, Claire  
**Subject:** RE: Monotropis odorata survey techniques - PI#0010925

All,

The only reliable population of *Monotropis odorata*, sweet pinesap, is behind the Visitor Center, Tallulah Gorge State Park. Go into the young *Pinus virginiana*, Virginia pine, thicket on the trail down from the parking lot on the left side of the Visitor Center. The plants are mostly near the trunks of the pines barely coming up thru the needle litter. The deep burgundy stem color and the sweet fragrance are notable. They appear about the middle of March. The plants will be poking up thru the litter and likely under 2-3 inches in height, single or small clusters, and have smooth deep burgundy stems. I would suspect pine litter and a heath understory – *Vaccinium pallidum*; other indicators would be chestnut oak (*Quercus montana*), evergreen rhododendrons and mountain laurel litter. Most sites are associated with some sort of disturbance – young pine stand, trailside edge, old terraces, base of rocky ledge, old tree fall mound, lapping edge of a lake.

Proper flowering time is key to finding this; lasts about a month; variable, sometime during March-early April.

Good luck.

Tom.

---

**From:** Hedeem, Meghan W. [mailto:mhedeem@dot.ga.gov]  
**Sent:** Monday, March 10, 2014 6:40 AM  
**To:** 'Morrell, Jason'; Levy, Alex  
**Cc:** Ike, Claire; Patrick, Tom  
**Subject:** RE: Monotropis odorata survey techniques - PI#0010925

Jason - Thank you for letting me know. I wish Alex and Claire luck; that is a difficult species to locate.

Alex – Since we do not have an approved survey methodology for this species, any survey detail you can record and share for future surveys would be greatly appreciated.

Thank you,  
Meg

*Meghan Hedeem, Ecology Consultant Manager  
GDOT Office of Environmental Services  
mhedeem@dot.ga.gov  
404.631.1812*

---

**From:** Morrell, Jason [mailto:Jason.Morrell@arcadis-us.com]  
**Sent:** Friday, March 07, 2014 4:45 PM  
**To:** Hedeem, Meghan W.  
**Cc:** Ike, Claire; Levy, Alex; Tom.Patrick@dnr.state.ga.us  
**Subject:** FW: Monotropis odorata survey techniques - PI#0010925

Hey Meg,

Alex Levy and Claire Ike of ARCADIS are planning on surveying the Riverside Dr. roundabouts project (PI No. 0010925) for sweet pinesap (*Monotropsis odorata*) on Monday. They are planning on conducting a pedestrian survey of all suitable habitat within the project survey area, with a specific focus on ground cover. Turning forks or potato rakes may be used to lift leaf litter or duff while searching for the species. The following was received from Mincy Moffett, a GDNR Botanist, in response to an inquiry from Alex. Alex also contacted Tom Patrick (see attached) with a proposed survey methodology, but has not yet received a response. Do you have any additional comments regarding the proposed survey methodology? I'll follow-up with you Monday morning as well.

Thanks,

Jason

**Jason E. Morrell, PWS** | Project Ecologist | [jason.morrell@arcadis-us.com](mailto:jason.morrell@arcadis-us.com)  
ARCADIS U.S., Inc. | 2410 Paces Ferry Road, Suite 400 | Atlanta, GA 30339  
T: 770 384 6608 | M: 404 783 4005  
[www.arcadis-us.com](http://www.arcadis-us.com)

ARCADIS, Imagine the result

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**From:** Levy, Alex  
**Sent:** Friday, March 07, 2014 2:35 PM  
**To:** Morrell, Jason; Ike, Claire  
**Subject:** Monotropsis odorata survey techniques

---

**From:** Moffett, Mincy [<mailto:Mincy.Moffett@dnr.state.ga.us>]  
**Sent:** Friday, March 07, 2014 1:58 PM  
**To:** Levy, Alex  
**Subject:** RE: Monotropsis odorata survey techniques

Hi Alex,

Hope you're doing well. Unfortunately, I don't know of any tricks for surveying these cryptic critters. At least the early bloom is during a time of the year when they might be the only color on the ground. The latter bloom not so much.

It would be neat if there was a certain type of eyeglass that would pick up or enhance the lavender-red color.

Have you thought about calling an optical expert – seriously. Just a call to your personal optometrist?

[http://www.fnai.org/FieldGuide/pdf/Monotropsis\\_reynoldsiae.pdf](http://www.fnai.org/FieldGuide/pdf/Monotropsis_reynoldsiae.pdf)

<http://www.amjbot.org/content/96/12/2197.full>

Maybe there is some literature out there about searching for Achlorophyllose plants.

Sorry I'm not more help.

Mincy

---

**From:** Levy, Alex [<mailto:Alex.Levy@arcadis-us.com>]  
**Sent:** Friday, March 07, 2014 12:43 PM  
**To:** Moffett, Mincy  
**Subject:** Monotropis odorata survey techniques  
**Importance:** High

Mincy:

It's been quite a while since we've chatted and I hope all's well with you.

I've already got a call-in to Tom, but thought I'd pick your brain about any tips for searching for sweet pinesap in a hardwood duff on a Sandy Springs site that's not too far from a 2006 record by Steve Bowling.

Knowing how well the plant camouflages against leaf litter, are there any survey techniques – short of laying on the ground and looking for flashes of purple/pink – that you would recommend we use in an upcoming search?

Sincere thanks,  
Alex

**Alexander Levy** | Senior Ecologist | [alex.levy@arcadis-us.com](mailto:alex.levy@arcadis-us.com)  
**Chair, TRB Committee on Ecology and Transportation**  
<http://www.itre.ncsu.edu/ADC30/>  
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O. 770.384.6595 | M. 404.423.0311 | F. 770.435.2666  
[www.arcadis-us.com](http://www.arcadis-us.com)

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*Nature is trying very hard to make us succeed, but nature does not depend on us. We are not the only experiment.*  
-R. Buckminster Fuller

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The Georgia DOT spent approximately \$15 million in 2013-2014 for 135 fast-tracked projects under the Quick Response program to reduce traffic congestion and improve operations across Georgia. Quick Response projects are typically under \$200,000 on the state route system and funded from state motor fuel tax. Visit us at <http://www.dot.ga.gov>; or follow us on <http://www.facebook.com/GeorgiaDOT> and <http://twitter.com/gadepoftrans>

Location Riverside Dr 1285 Date 3/10/19

Project / Client ADST - Sweet Pine ssp survey

TCT / WFL

Arrived at site at 10:50. Checked reference population located site  
 Long Island Drive Weather: clear/sunny  
 High temp ~ 70°  
 NB species found at historic reference site  
 heavy duff layers present at remnant prairie  
 fire overstratified present. field staff  
 turned leaf litter searching for species -  
 none found  
 photos: 733-737  
 Veg present - chestnut oak, poison ivy,  
 white oak, tulip pop, blackwillow, red oak,  
 Q. rubra, Amelanchier,  
 Red buckeye, box elder, C. rivina, honey suckle,  
 (Thorny olive  
 unnecessary  
 ground oak = English ivy / post  
 elderberry near roadside  
 \* subdivision established 1996  
 \* left reference site at 11:15 (45 min survey)  
 \* has quality post-people living w/ homes abutting  
 Yamine dump yard clipping into area. duff layer  
 very thick in some places. Also increase ambient  
 English ivy.

Location Riverside 1285 Date 3/10/19

Project / Client ADST

Pine ssp survey TCT / AKC

Arrived at project area at 12:00 noon.  
 Weather clear/sunny. approx 70°  
 parked at vacant lot at Riverside 1285 intersection  
 \* Siderite 1B habitat / NLB hab.  
 some energy, but not ideal, bridges all  
 suitable, no dead standing timber,  
 some trees w/ ivy growing, may provide  
 habitat.  
 habitat marginally suitable / not optimal -  
 northeastern quadrant  
 \* pine ssp survey - NW quadrant; also got the  
 end of the landowner surveyed along forested  
 slope. Chestnut oak present. Also groundcover  
 dominated by English ivy. no pine ssp found  
 \* north Eastern quadrant - no Sweet pine ssp  
 area between northward small w/ heavy duff  
 accumulation. Area where forested area opens up  
 close to 151 heavily covered by English ivy. Open +  
 Yes some Chestnut in the canopy, but no  
 pine ssp observed.  
 \* photos NW quad = 738-740  
 NE Quad = 741

Location Riverside/285Date 2/10/19Project / Client GRISTSilver pine sp 7C/A APC

to assess ~~at~~ southern quadrants - parked  
at church

SE quad of church. Chestnut trees growing in  
LOW adjacent church - cultivated

most of forested area w/in proj area is dominated  
by pine. English ivy also present

SW quad - habitat present, but no species

found. Overstory veg - Chestnut oak, Southern red O,  
Magnolia, Turp poplar, Scarlet oak, white oak, ~~post~~

\* Constituent elements for suitable hab occur  
but species not present

# photos: 744-746

# Photos SE quad 742-743

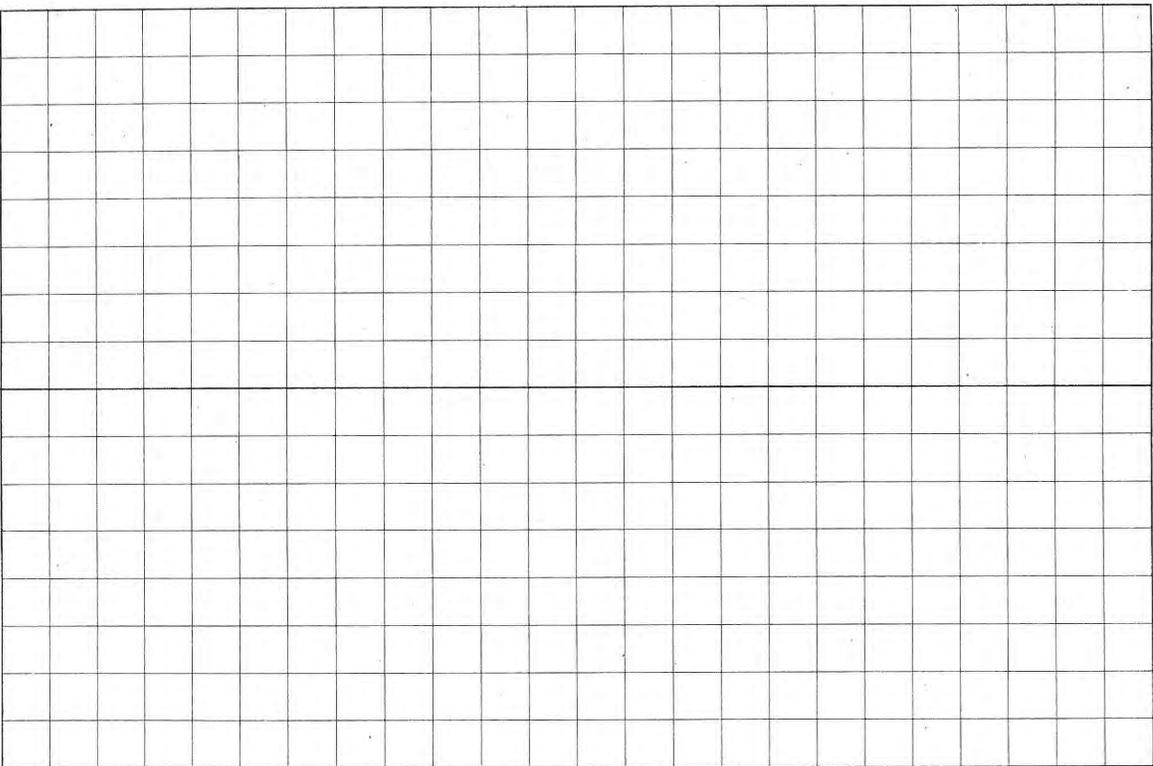
Understorey - Serrulberry, deer berry, green hner

SUMMARY: No pine sp; mistledeer habitat  
in SW quad of intersection, N's pine sp species  
found.

left site @ 2:30pm.

End mileage = 2425

Project / Client \_\_\_\_\_



**Protected Species Survey Data Form**

**Date:** March 10, 2014

**Project Number:** Not Applicable (NA)

**Surveyors:** Alex Levy and Claire Ike

**County:** Fulton

**Temperature:** 65-71°F

**P.I. Number:** 0010925

**Start/End Time:** 10:30 – 2:30 (EDT)

**Transect Width:** NA; Entirety of suitable habitat surveyed

**Trees:** Loblolly pine (*Pinus taeda*), sweetgum (*Liquidambar styraciflua*), tulip poplar (*Liriodendron tulipifera*), southern magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), mockernut hickory (*Carya tomentosa*), American elm (*Ulmus americana*), water oak (*Quercus nigra*), and chestnut oak (*Quercus montana*)

**Shrubs:** leatherleaf mahonia (*Mahonia japonica*), thorny olive (*Elaeagnus pungens*), Chinese privet (*Ligustrum sinense*)

**Forbs:** Crane-fly orchid (*Tipularia discolor*), heartleaf wild-ginger (*Hexastylis arifolia*), and spotted wintergreen (*Chimiphila maculate*)

**Vines:** Muscadine (*Vitis rotundifolia*), poison ivy (*Toxicodendron radicans*), roundleaf greenbrier (*Smilax rotundifolia*)

**Soil:**

GaE - Grover-Mountain Park complex, 10-20% slopes, stony

GaF - Grover-Mountain Park complex, 20-60% slopes, stony

MdC2 - Madison-Bethlehem complex, 6-10% slopes, moderately eroded

ReD - Rion sandy loam, 10-20% slopes

UrE - Urban land-Rion complex, 10-25% slopes

Ub- Urban land

**Terrain:** relict forested ravine slopes and woodland edges within and adjacent to the proposed project right-of-way

**Presence of target species:** N

**Estimated Number of Individuals/Population size:** NA

**GPS Points of target species:** NA

**Photos of habitat/species:** see enclosed photographs

**GPS Points of Habitat:**

Latitude	Longitude
33.915	-84.408
33.917	-84.407
33.916	-84.405
33.915	-84.406