GDOT Historic Landscape Mitigation Evaluation

April 29, 2014

GDOT Historic Landscape Mitigation Evaluation

as prepared by

URS Corporation
&
New South Associates

for

The Georgia Department of Transportation

Georgia Department of Transportation

U.S. Department of Transportation Federal Highway Administration

NEW SOUTH ASSOCIATES

URS

Foreword

Over my past thirteen years of employment with the Georgia Department of Transportation GDOT, I have been responsible for implementing landscape mitigation for a variety of projects – in some cases I was the author of the mitigation, and in others I was fulfilling the vision of a past historian. Until recently, implementation meant creating a landscape plan with the assistance of a landscape architect, sometimes with the input of property owners, and ensuring the plan was incorporated into the construction plans – and that's it. Essentially, implementation from GDOT historians ended when the project was awarded for construction; it was left up to the contractor to complete the task without supervision from the historian or the landscape architect who created the design. Sometimes, as will be demonstrated through the case studies that follow, this approach was successful, but, in other instances, the lack of follow-through often resulted in less than optimal results.

This lack of follow-through raised many questions and resulted in gaps in the information. Were our mitigation efforts successful? Was the landscape plan needed at all? If the landscape plan was successful, what made it successful? And could the results be replicated on other projects? The initiation of this study offers a unique opportunity to look back fifteen years and provide some answers to questions previously unanswered due to limitations in time and resources. This critical look back does not negate the good faith effort represented by the case studies in this report; rather, it is intended to help us grow as an agency so that we can make informed decisions going forward as we come full circle on these mitigation projects.

-Sandy Lawrence
Cultural Resources Section Chief,
Georgia Department of Transportation

Introduction

Historic Landscapes are our nation's finger prints of the past. They provide us a glimpse into the way people worked, lived, and admired the land. As the earth's population continues to grow, so does the need for infrastructure improvements such as roadways, transit and utilities. More pressure is being applied to these culturally significant resources, potentially altering their historic settings more than ever before. Once a historic resource is altered or removed, that glimpse into the past is lost forever. Striking that balance between historic preservation and the need for accommodating the growing population through infrastructure improvements can be a challenge. How do you preserve, protect and promote our historic landscapes while providing the necessary transportation infrastructure improvements for the growing population?

The Georgia Department of Transportation's Office of Environmental Services saw a need to evaluate the landscaping that they had installed at various historic properties over the years. This landscaping had been installed as mitigation for road projects that had been determined to result in adverse effects to properties determined to be eligible for, and listed in, the National Register of Historic Places. The Office of Environmental Services seeks to use this evaluation to inform landscaping mitigation going forward.
As a result of this evaluation, general recommendations include:

- Landscape mitigations are not just plants; they can be walls, fences, slopes, signs, monuments, and other features.
- Each historic landscape and associated roadway project should be evaluated as unique.
- A multi-disciplinary approach, including public outreach, results in a more successful outcome, rather than working in silos.
- On site meetings with a project's team should be conducted during and after construction and prior to final contractor payment.

Acknowledgments

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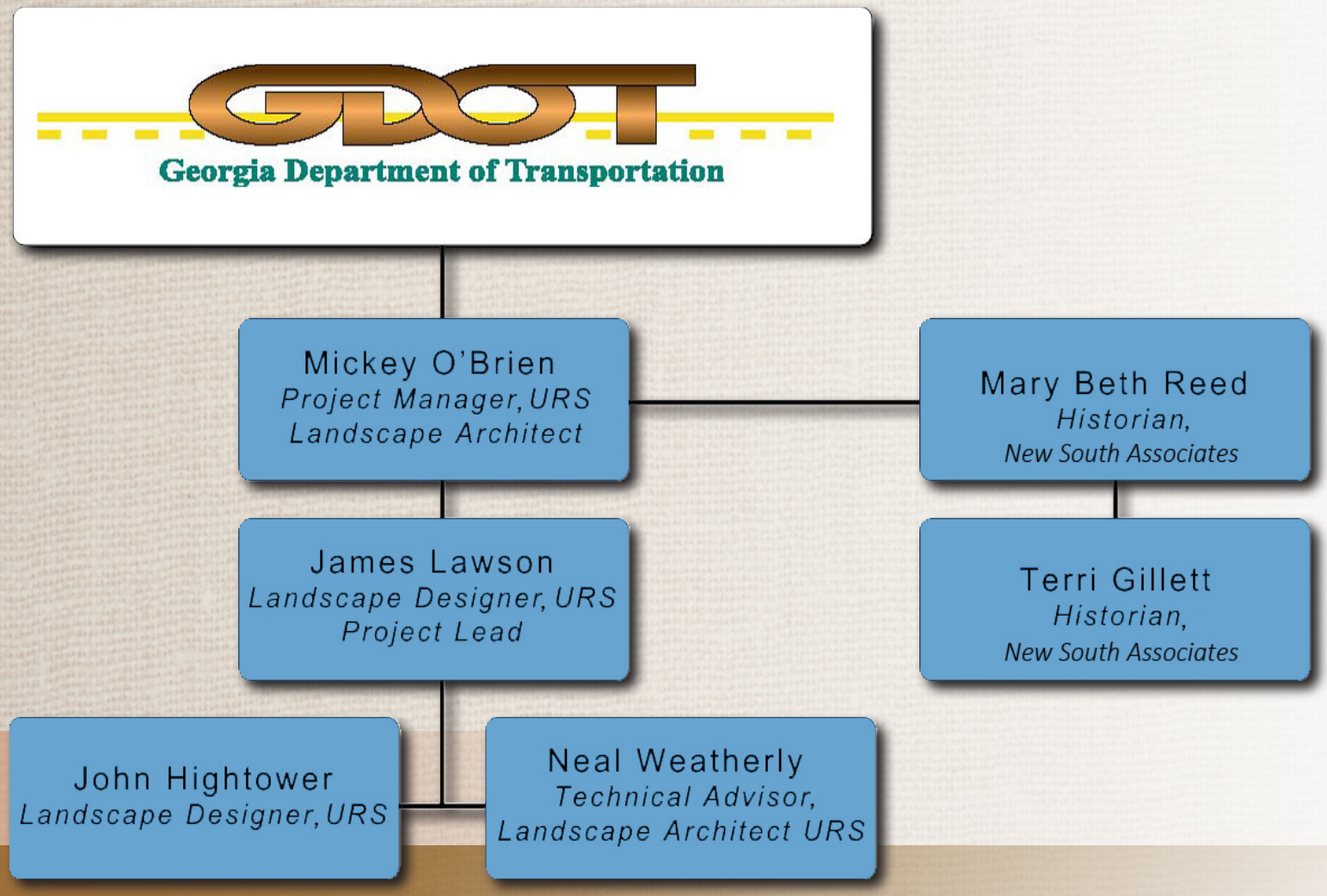
Need and Purpose:

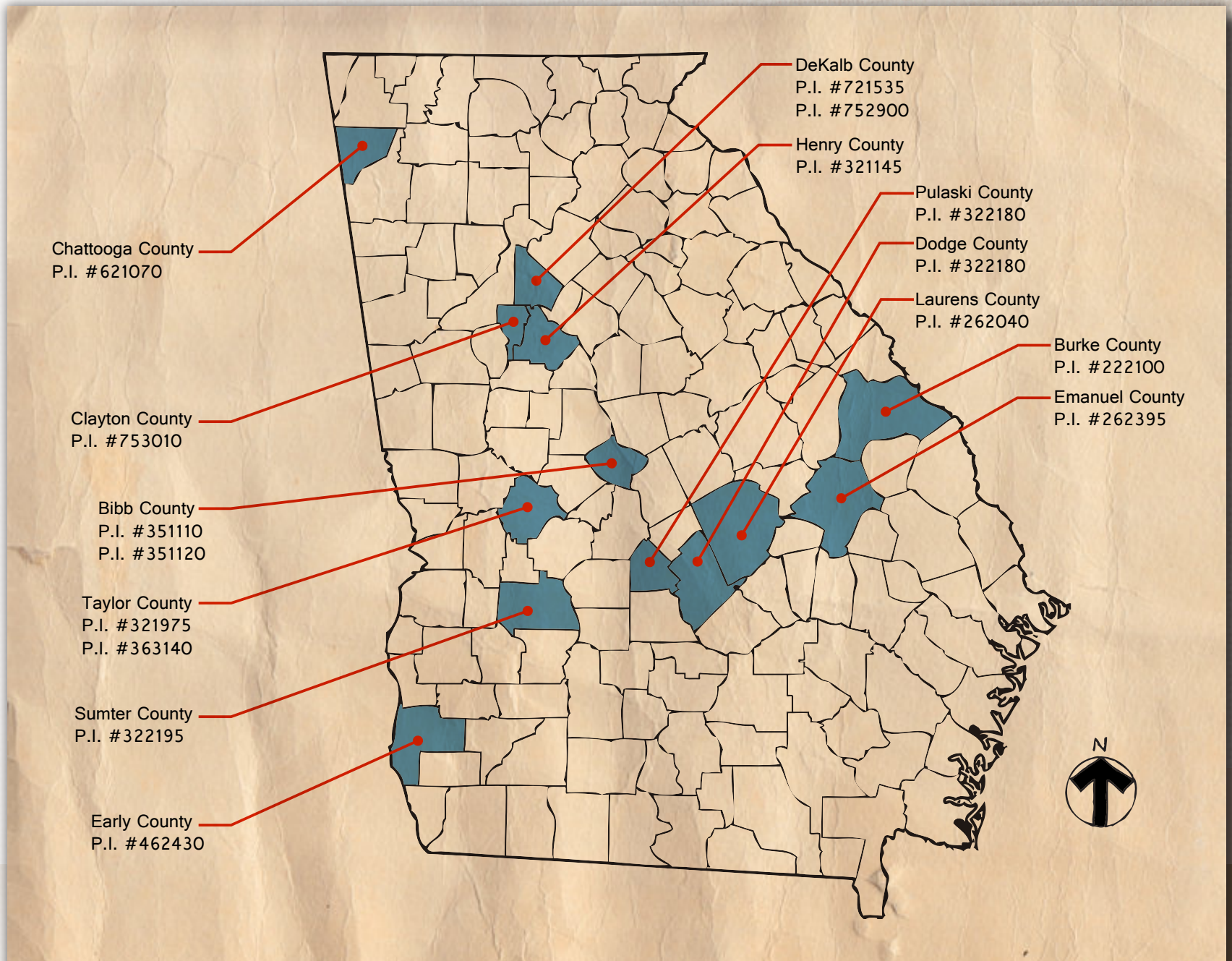
This document provides an in depth analysis of fourteen historic landscape mitigation projects implemented throughout Georgia in the last fifteen years by the Georgia Department of Transportation (GDOT) as part of Section 106 of the National Historic Preservation Act of 1966. Prior to this document, no previous analysis of past GDOT Section 106 landscaping mitigation efforts had been performed. Included in this study is an assessment to determine if the landscaping mitigation 1) was true to the proposed mitigation, and 2) benefited the historic resource and the resource's property owner. The analysis was done by professional historians and landscape architects from GDOT and the consulting firms of URS and New South Associates.

Project Evaluation Team:



Site Location Map

Below is a map of Georgia with the thirteen highlighted counties which contain the fourteen GDOT landscaping mitigation projects analyzed in this report; the projects are identified by a project P.I. number. Several of these sites and their historic resources were photographed prior to construction of the GDOT projects. However, not all sites have before construction photos.



Key Terminology

What is a Historic Resource?

An historic resource is a prehistoric or historic district, site, building, structure, or object, included in, or eligible for the National Register of Historic Places (NRHP). National Register Bulletin # 30: "Guidelines for Evaluating and Documenting Rural Historic Landscapes" is a tool which can be used for preparation of nominations to the National Register of Historic Places for historic sites or districts known as rural historic landscapes. It is useful because many historic sites are found in rural areas. Eligibility is defined by Section 106 of the National Historic Preservation Act. The criteria for eligibility are divided into four categories; these Criteria are A, B, C, and D. Criterion A applies to sites that are associated with events that have contributed to patterns of our history; criterion B applies to sites that are associated with the lives of significant persons; criterion C applies to sites that embody the distinctive characteristics of a type or period; criterion D applies to sites which have yielded information important in history of prehistory.

The National Historic Preservation Act Section 106

As a part of Section 106 of the National Historic Preservation Act of 1966, the federal agency with jurisdiction over a construction project, referred to as an undertaking, will consult with other parties interested in the effect of the undertaking on historic resources. The goals of this consultation are to identify historic resources that have the potential to be affected by an undertaking; assess these effects on the historic resources; and identify ways to avoid, minimize harm, or mitigate any adverse effects on historic resources.

Rex Industrial/Commercial District - Clayton County

The Assessment of Effects

The Assessment of Effects (AOE) is an evaluation of the effects that a proposed undertaking may have on a historic resource. The evaluation is performed by the Federal Highway Administration (FHWA). These effects can include, but are not limited to, physical, audible, and visual effects. If an undertaking has an adverse effect on a historic resource, a Memorandum of Agreement is prepared.

The Memorandum of Agreement

The Memorandum of Agreement (MOA) includes the measures that will be taken to mitigate the project's adverse effects on the historic resource. The mitigation measures are set forth as "stipulations" and may include, but are not limited to the following: medium format photography, landscape plans, oral histories, and the relocation of historic resources. An executed and implemented MOA indicates that the federal agency has complied with Section 106.

Historic Landscapes

A historic landscape is a prehistoric or historic environment in which the land and/or vegetation has been manipulated by a person or group of people for a particular land use, experience, or aesthetic effect. Historic landscapes are divided into three different categories:

Historic Designed Landscape

A Historic Designed Landscape per the United States National Park Service, is a landscape that was designed by a Landscape Architect, Master Gardener, Architect, or Horticulturist according to design principles, or an amateur gardener working in a recognized style or tradition. Aesthetic values play a significant role in designed landscapes. Examples include: parks, gardens, estates, campuses, planned communities, roads, and parkways.

Historic Ethnographic Landscape

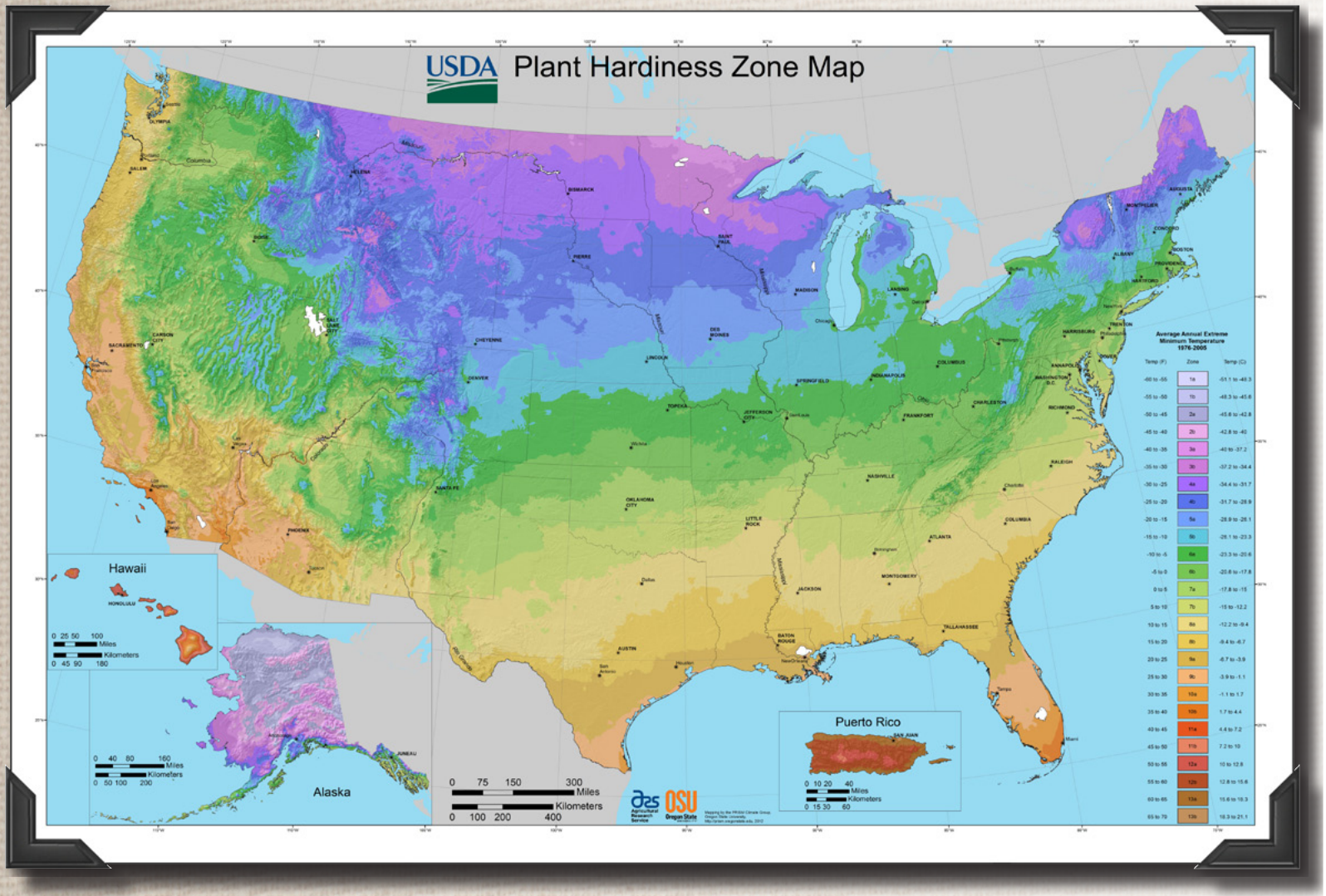
Historic Ethnographic Landscapes are landscapes containing a variety of natural and cultural resources associated with a people's heritage. Examples include contemporary settlements, religious sacred sites, and massive geological structures. Small plant communities, animals, and ceremonial grounds are often components of these types of landscapes.

Historic Vernacular Landscape

A Historic Vernacular Landscape is a landscape that evolved through use by people whose activities or occupancy shaped that landscape. Function plays a significant role in vernacular landscapes. Examples include rural villages, industrial complexes, and agricultural landscapes. All case studies in this report are Historic Vernacular.

Ecology

United States Department of Agriculture Plant Hardiness Zones (U.S.)



Temp (F)	Zone	Temp (C)
-60 to -55	1a	-51.1 to -48.3
-55 to -50	1b	-48.3 to -45.6
-50 to -45	2a	-45.6 to -42.8
-45 to -40	2b	-42.8 to -40
-40 to -35	3a	-40 to -37.2
-35 to -30	3b	-37.2 to -34.4
-30 to -25	4a	-34.4 to -31.7
-25 to -20	4b	-31.7 to -28.9
-20 to -15	5a	-28.9 to -26.1
-15 to -10	5b	-26.1 to -23.3
-10 to -5	6a	-23.3 to -20.6
-5 to 0	6b	-20.6 to -17.8
0 to 5	7a	-17.8 to -15
5 to 10	7b	-15 to -12.2
10 to 15	8a	-12.2 to -9.4
15 to 20	8b	-9.4 to -6.7
20 to 25	9a	-6.7 to -3.9
25 to 30	9b	-3.9 to -1.1
30 to 35	10a	-1.1 to 1.7
35 to 40	10b	1.7 to 4.4
40 to 45	11a	4.4 to 7.2
45 to 50	11b	7.2 to 10
50 to 55	12a	10 to 12.8
55 to 60	12b	12.8 to 15.6
60 to 65	13a	15.6 to 18.3
65 to 70	13b	18.3 to 21.1

The United States Department of Agriculture divides the country up into hardiness zones based upon an average extreme low temperature expected in the region. The USDA Plant Hardiness Zone Map is the standard by which gardeners and growers can determine which plants are most likely to thrive in a particular location. The map is based on the average annual minimum winter temperature, divided into 10-degree Fahrenheit zones. The zones are numbered 1 - 13, with zone 1 representing the region with the lowest average annual low temperature, and zone

13 representing the highest average annual low temperature. Each zone represents a 10 degree Fahrenheit change in average annual extreme low. These zones are broken down even further, into ‘a’ and ‘b’ sections, for more precise determination of what areas are most appropriate for certain plant species. For instance, zone 8a would have a cooler average annual low than zone 8b. These hardiness zones help in selection of appropriate plant material when designing a landscape. The climate of a region will dictate what plants will survive in that region’s landscape as well as what plants will occur naturally in a landscape as well. A plant’s hardiness range is also known its “habitable zone.”

Ecological Succession

Ecological succession, also referred to as natural succession, often occurs after a large-scale disturbance in the environment. These changes in the environment can occur naturally (i.e. fires, floods, earthquakes, etc.) or may be the result from human-induced disruption (i.e. land clearing, pollution, fires, etc.). Over time, hardy plants known as pioneer species will start to recolonize a site that has experienced this change. In time this pioneer species community will alter the soil and sediments to be more suitable for other species and animals that have particular ecological needs. If not significantly disturbed, this ecological succession can continue until the ecological community becomes more self-sustaining than the ones before it. Ecologists refer to this kind of establishment as a mature community. Mature communities can vary from deserts, grasslands, or forests. Below is a section-timeline of ecological succession.

Building a Case for Ecological Succession

The following is a checklist for historic and landscape professionals to consider when deciding whether a landscape plan is necessary for mitigation, or if letting nature take its course (ecological succession) is the best action. The more items that are checked off when evaluating the historic property, the more ecological succession becomes an appropriate and viable option.

☐ **Is the historic resource located in a vernacular setting?**

Historic resources in rural settings tend to be located in a vernacular landscape, meaning that much of the existing landscape has spread and propagated without human intervention.

☐ **Is the historic resource 500 ft. or more from the roadway improvement project?**

In some cases, a historic resource may be significantly distanced from the GDOT roadway improvement project, yet the historic viewshed is adversely affected by the introduction of the increase in pavement or traffic through the area. However, where there is more distance between a historic resource and a roadway improvement project, there is more room and potential for the ecological succession of existing vegetation. This growth can eventually mature and visually buffer the road from the historic resource, while blending in with the existing rural setting.

☐ **Is the finished floor elevation (FFE) of the historic resource 15 ft. above or below the grade of the roadway improvement project?**

The topography of a road can sometimes render houses, neighborhoods, or even towns invisible depending on the vertical offset of the structures from the road.

☐ **Is there healthy existing vegetation which, if preserved, can serve as a visual buffer of the road from the historic resource?**

Preservation of healthy existing vegetation on a historic site is perhaps the best landscape mitigation measure there is to preserving the integrity of a historic property. Maintaining historic vegetation contributes much more to the historic property than new landscaping does. However, whenever there is existing vegetation which is in good health and has a good life expectancy, the preservation of that existing vegetative material can help to serve as visual buffers, maintain physical integrity of the historic site, and propagate future new growth.

☐ **Is there property owner compliance?**

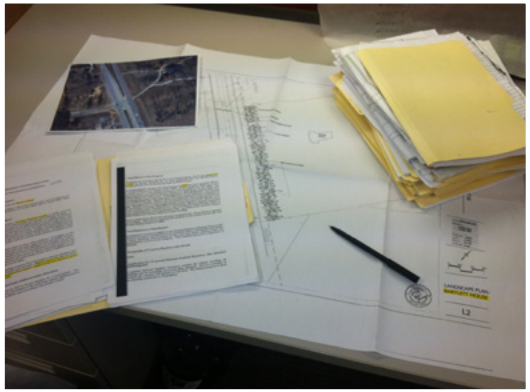
Ecological succession takes time. If the property owner feels the need for mitigation, GDOT may find it necessary to accommodate the owner and provide a landscape plan so as to expedite the mitigation process. However, if the owner does not desire a landscape treatment to be introduced to the site, and is willing to wait for ecological succession, ecological succession is an appropriate measure.

Project Approach:

Each historic landscape mitigation site evaluation was divided into three components: Research, Site Analysis, and Evaluation.

Research

The research phase involved reviewing existing information of each historic landscape mitigation site. The background information includes a description of the GDOT roadway project, a description of the historic resource, and the effects and proposed mitigation for the historic resource.



Site Analysis

Site analysis involved a field evaluation of the installed landscaping and an analysis of the effects of the GDOT project on the historic resource. The team used a field checklist, applicable to all sites, in an effort to evaluate the effectiveness of each mitigation effort. The team looked at the appropriateness of the selected plant material, the arrangement of the plants to each other and the resource, and the percentage of the proposed plant material that was installed. Property owners were also interviewed.

Evaluation

An evaluation is provided for each unique site. The evaluation includes a summary of the effectiveness of the landscaping and recommendations for improvement.

Evaluation Criteria

During each site visit, the team used a field checklist to evaluate each historic landscape mitigation treatment. Each site is unique. The field checklist was comprised of eight basic questions that were used to help provide a standardized evaluation that could be applied to each site. These field checklists and its results are shown at the end of the site evaluation section for each site in the case studies portion of this document. The field checklist is as follows:

1) **Does the landscape plan reflect the defined historic landscape (i.e. Historic Design, Ethnographic, or Vernacular)?**

2) **Is the plant selection appropriate for the historic resource and its natural environment?**

3) **Does the landscape plan meet the mitigation stipulations set forth by the MOA?**

4) **Is the spacing of the plant material appropriate?**

5) **Is the plant material installed as shown per the landscape plans?**

6) **What was the survivability of the installed landscape?**

7) **Does the landscaping meet the stakeholder's expectations for a successful mitigation?**

8) **Overall, was the landscape mitigation effort successful?**

While performing site analysis, additional considerations should be given to:

- What is the relation of the right-of-way to the resource?
- Is the installed landscaping well maintained? Is it low maintenance?
- Would it have been better to let the landscape naturalize on its own?
- Did the MOA call for a visual screen? Was a visual screen necessary?
- Analyze the actual roadway project (the right-of-way, clear zone, etc.)
- Were the stakeholders consulted?

In some of the case studies, alternative landscape mitigation solutions are provided. These recommendations are based on alternative plant selection which take into account the appropriateness of a plant to a region (habitable zone), as well as the plant's availability at the time the historic resource was constructed. A plant's historical availability was determined from information provided in a thesis, written by Sara Katherine Williams, "*A Guide to Restoration of Georgia Gardens: 1733-1925.*" The thesis was submitted to the University of Georgia, College of Environment and Design in 1976 and provides an extensive list of historically available plants in the state of Georgia. The plant list is separated into sublists of trees, shrubs/vines, and flowers available for the years 1800, 1825, 1865, 1900, and 1925. The full list of plants is located in Appendix B of this report.

Case Studies

Bibb County

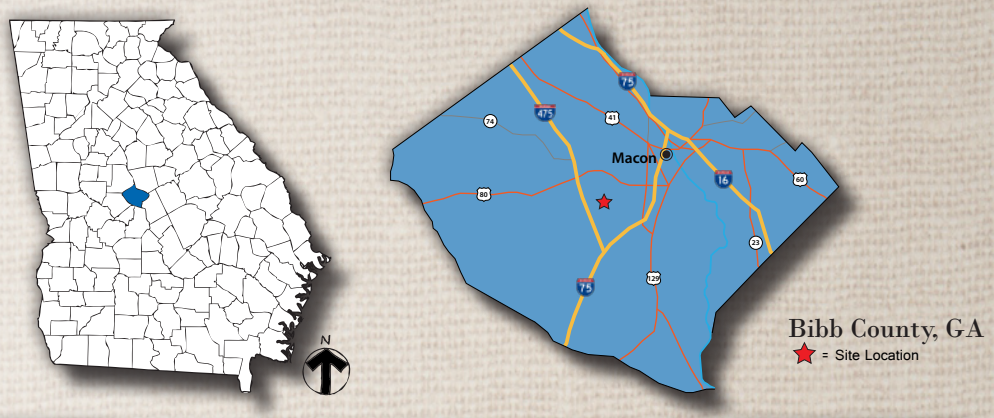
Site 1

The Byrd House, The Espy House, and The Bloomfield Estates Subdivision

P.I. #351110 & 351120

Bibb County At a Glance:

Site 1 is located in Bibb County, off of Bloomfield Road, approximately six miles southwest of Macon, Georgia. The historic resources consist of two houses, the Byrd House and the Espy House, and the historic Bloomfield Estates Subdivision. GDOT Projects P.I. #351110 and P.I. #351120, road-widening projects along Bloomfield Road, adversely impacted these NRHP-eligible resources, both physically and visually, by altering the property's character-defining features.



Historic Resources:
- *The Byrd House*
- *The Espy House*
- *The Bloomfield Subdivision*

Resource Construction Date:
- *ca. 1925 (Byrd)*
- *ca. 1927 (Espy)*
- *ca. 1952 (Bloomfield Subdivision)*

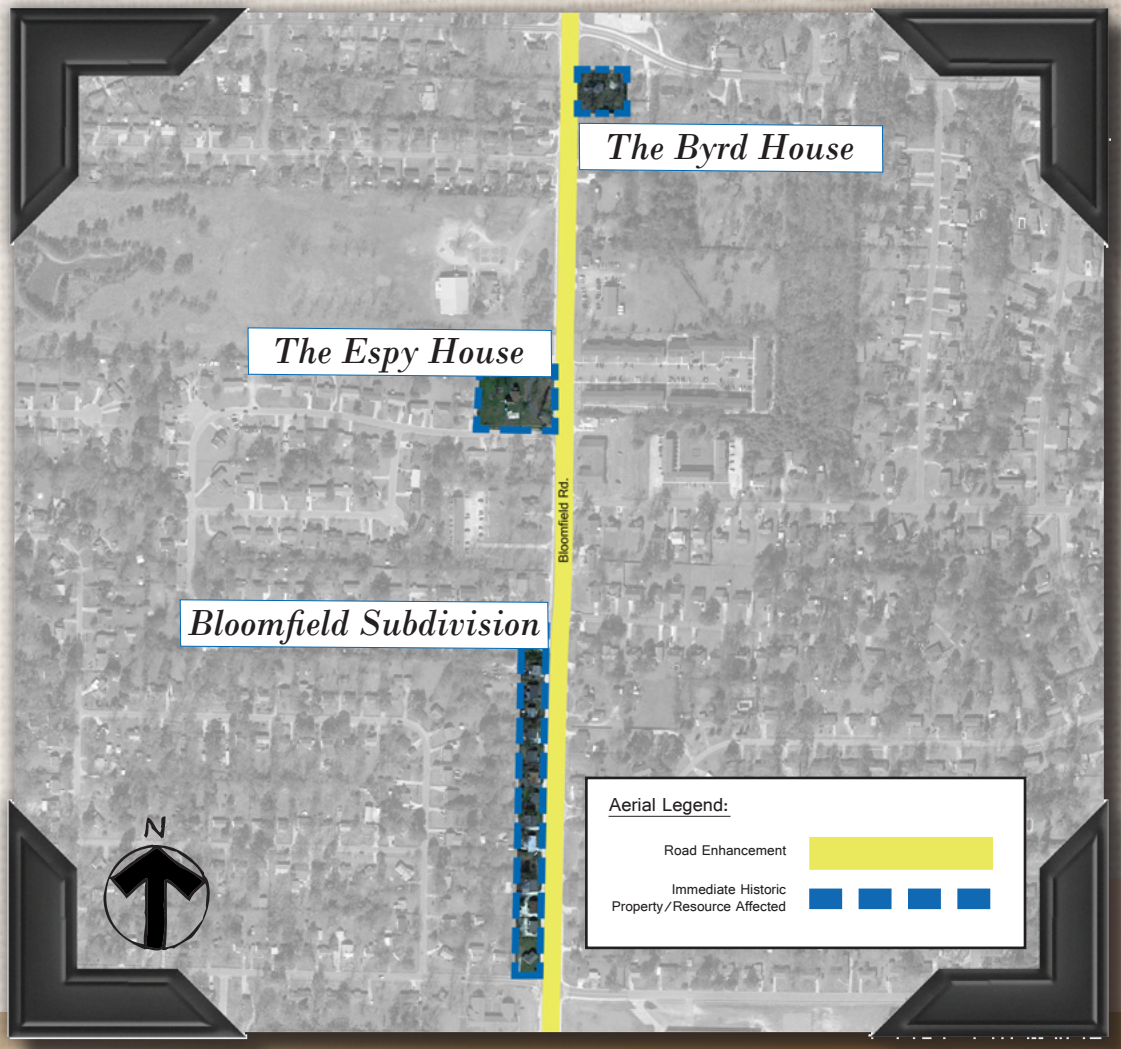
Historic Landscape Type:
- *Historic Vernacular*

USDA Hardiness Zone:
- *8a*

GDOT Construction Type:
- *Road Widening*

GDOT Construction Completion Date:
- *May 2007*

Adverse Effects:
- *Physical*



**Google Earth, 2013*

The Byrd House

Research

The Byrd House is a circa 1925 Temple-Front Cottage type house, with elements of the Craftsman architectural style (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house is eligible for listing in the NRHP under Criterion C for architecture. The historic core of the one-story house is two rooms wide and three rooms deep. The exterior walls are weatherboard, and the foundation is brick pier with brick infill. The hipped roof is covered with composition shingle, and it features exposed rafter tails. A front-facing gable shelters a full-width front porch with square, tapered columns and an asymmetrical entry with flanking one-over-one double-hung windows. There is a full-width addition on the rear elevation of the house. Project documentation did not specify whether or not this addition was historic. The Byrd House currently sits back approximately 30 ft. from the edge-of-pavement, down a small incline. A chain-link fence surrounds the house. Although there was no formal discussion of integrity in the project documentation concerning the Byrd House, from the information available, it appears that the Byrd House retained integrity in its setting, feeling, and association, as an early-twentieth-century residential property surrounded by an informal mature landscape. The landscape includes several mature Pecan trees, which are the remnants of a former grove, and many smaller shrubs placed in an informal arrangement around the yard. This informal hardwood forest species setting would classify the landscape as Historic Vernacular (see Page 18, Photo 2).

GDOT Projects P.I. #351110 and #351120 were implemented to widen Bloomfield Road / Log Cabin Drive from Rocky Creek Road to Mercer University Drive within a 100 ft. right-of-way. The purpose of the projects was to provide additional traffic capacity to accommodate future traffic volumes. In 2005, the roadway in front of the Byrd House was widened from a two-lane facility to a five-lane facility. As a result, the setback from the house was reduced from approximately 50 ft. to 30 ft. from the edge-of-pavement, significantly altering the historic setting of the house. Immature Dogwood trees and two mature Pecan trees were removed from the front of the house. The roadway projects were designed for a speed limit of 45 miles per hour, which requires a minimum horizontal clearance of 14 ft. between the center of tree and the edge-of-pavement or face of curb*. The project documents did not specify a clear zone requirement for this project.

The Assessment of Effects document, completed in March of 2005, determined that the road widening would have an adverse effect on the physical characteristics of the historic resource, due to its close proximity to the widened road. As a result, a Memorandum of Agreement was established. The landscape stipulations from that MOA are listed in Figure 1a.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Memorandum of Agreement Landscape Stipulations:

Figure 1a

- "In order to maintain a finding of Conditional No Adverse Effect to the Byrd House, GDOT will coordinate with the owners of the Byrd House, prior to project implementation, to determine if the owners would be interested in the development of a landscape plan for the area in front of the Byrd House that will be affected by the proposed project. Should the owners of the Byrd House accept this offer, a landscape plan will be developed for this area, and the owners and the Georgia SHPO will be provided with an opportunity to comment on the landscape plan before its implementation. The project historian will request that the owners of the Byrd House notify GDOT, in writing, of their decision regarding the development and implementation of a landscape plan."

- "If a landscape plan is ultimately developed with the consent of the owners of the Byrd House, both SHPO and the owners shall be afforded thirty (30) days to review and comment on the landscape plan."

- "If a landscape plan is developed, the project historian shall prepare a contract stipulation outlining the agreed upon landscape plan. This contract stipulation will serve as a formal request to have the approved landscape plan incorporated into the final construction plans for the projects. The project historian shall ensure that the contractor, prior to project implementation, has correctly incorporated the approved landscape plan and all related notes into the construction plans."

- "If a landscape plan is developed, the project historian shall schedule a site visit within ninety (90) days of completion of the landscape plan to ensure that it has been implemented according to design."

Condition 1 of the Statement of Condition for No Adverse Effect stated that GDOT was to coordinate with the homeowners of the Byrd House to determine if they were interested in the development of a landscape plan for the area in front of the house. A landscape plan was developed that called for the installation of six trees, three Flowering Dogwoods (*Cornus florida*) and three Zelkovas (*Zelkova serrata*), in front of the Byrd House. There was no evidence in the project documentation that suggested that the landscape plan was developed with homeowner input. The Plant Schedule is shown in Figure 1b, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. Fifty percent (i.e., three Zelkovas) of the landscaping was present on-site. However, no Dogwoods were present (see Page 21, Photo 4). Evidence of some landscape installation was observed where the Dogwoods might have been planted (see Page 23, Photo 6). The Zelkovas were planted in a row, approximately 25 ft. on center (see Page 22, Photo 5), and still had tree guying wires attached to them from the installation (see Page 24, Photo 7). The Zelkovas were not in good health because these wires were choking their trunks. Evidence showed that all proposed landscaping had been installed at one point in time; however, only half of the plant material was present during site analysis, and these plants were in poor health. The house was vacant and owned by a third party property management company; therefore, no contact with the original property owner was possible.

Evaluation

The installed landscape had a 50 percent survival rate. This rate may decline further if the Zelkovas' guying wires are not removed. Zelkovas are an ornamental tree; their short trunks and rounded oval shapes contrast with the tall-vase form of the existing historic Pecan trees, and they are not contextual with the original orchard setting. The remaining tree circles on-site suggest that the proposed Dogwoods were installed but have been removed (see Page 23, Photo 6). Young Dogwoods need plenty of shade, and there was no shade in front of the Byrd House. Insufficient shade, combined with heat radiating from the new road, can lead to poor health among Dogwoods.

Plant Schedule:

Figure 1b

QTY.	Botanical Name	Common Name	Spacing
3	*Cornus florida*	Flowering Dogwood	Per Plan
3	*Zelkova serrata*	Zelkova	Per Plan

West facade of Byrd House, pre-construction. Facing east.

Tree guying-wire on Zelkova, west of Byrd House.

The ultimate goal of the mitigation effort, whether to satisfy the homeowner or replicate the historic vegetation, is unknown; however, the new road, because of its width and nearness to the house, is simply too overwhelming visually for any landscape mitigation effort to succeed in maintaining the integrity of setting, feeling, and association. An appropriate alternative would have been to repopulate the property with a few hardwood forest species, such as Pecan (*Carya illinoinensis*) or Eastern Red Cedar (*Juniperus virginiana*). These would have served as better specimens for restoring some historic context to the site and would require less maintenance.

The MOA stipulation that the historian visit the site 90 days after construction completion was an appropriate stipulation. However, the consultant firm responsible for executing this site visit could not confirm whether the inspection ever took place. Although not specified in the MOA, the project landscape architect could have accompanied the historian on the site visit to ensure that the landscape had been installed according to design. The project landscape architect could have also made a site visit after the project establishment period had expired to ensure that guying wires had been removed. It is unknown whether the landscape architect for this project inspected the site 90 days after construction completion. The team's field checklist and results are shown in Figure 1c.

Summary

Site Analysis Summary:

- Tree guying wires were not removed.
- Vegetation removed from in between Zelkovas.
- Trees installed as shown on plan.
- No one living in house.

Evaluation Summary:

- Tree guying wires should be removed after establishment period as defined by GDOT Special Provision Section 702 – Vine, Shrub, and Tree Planting.
- The project landscape architect should have accompanied the project historian on a site visit within ninety (90) days of construction completion to ensure plant material was installed correctly.
- Consideration should have been given to a plant selection more fitting with existing vegetation – not ornamental trees.
- Consideration should have been given to re plant trees on the property, but not necessarily directly in front of the house.
- Maintenance agreement should be set in place with the Bibb County.

Figure 1c

Field Checklist: Byrd House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

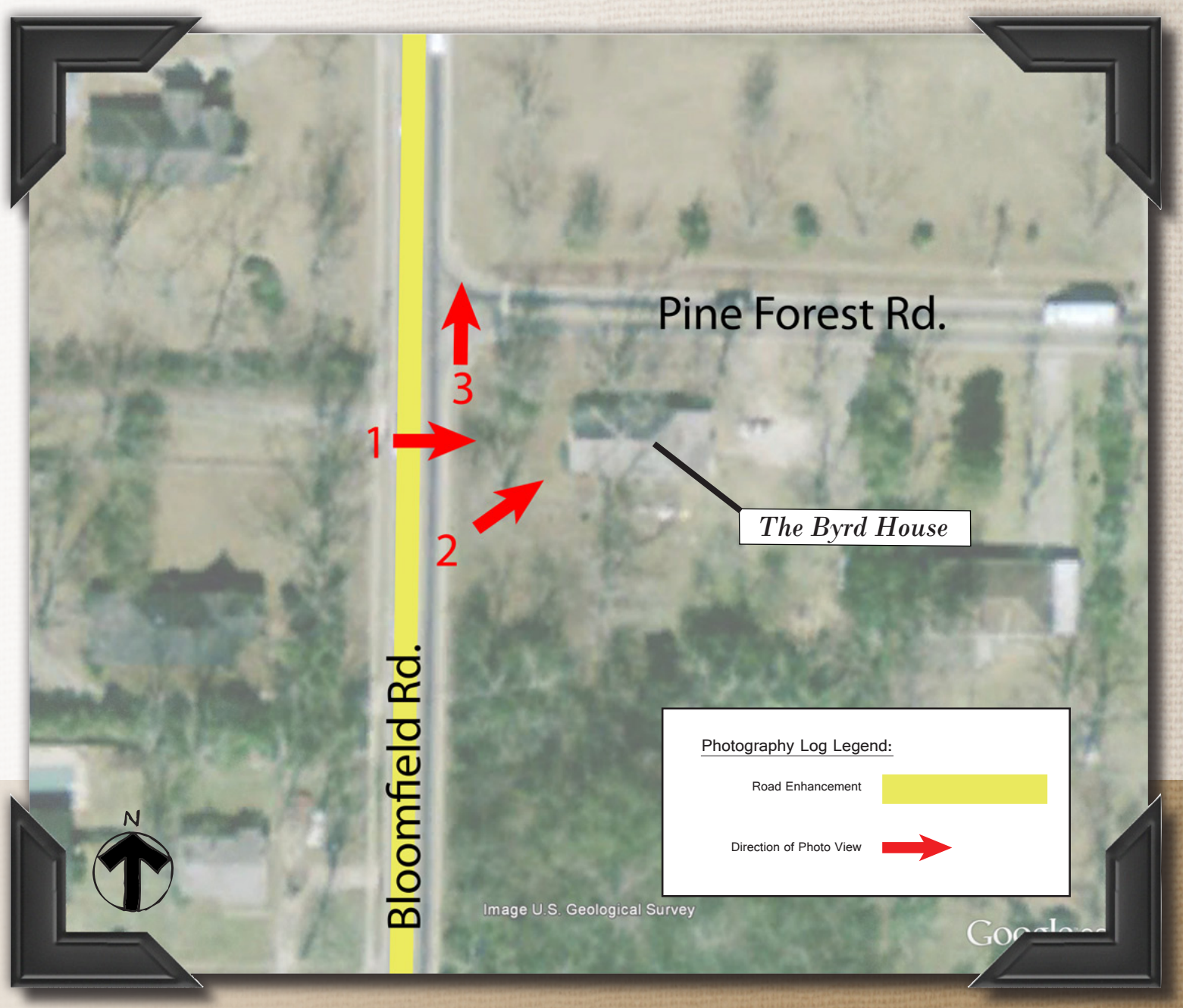
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 0%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map: The Byrd House, Bibb County - P.I. # 351110



*Google Earth, 2007

Pre-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 1

Description: The Byrd House, front/west facade prior to construction. Facing east.

**Pre-construction photos taken ca. 2005.*

Pre-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 2

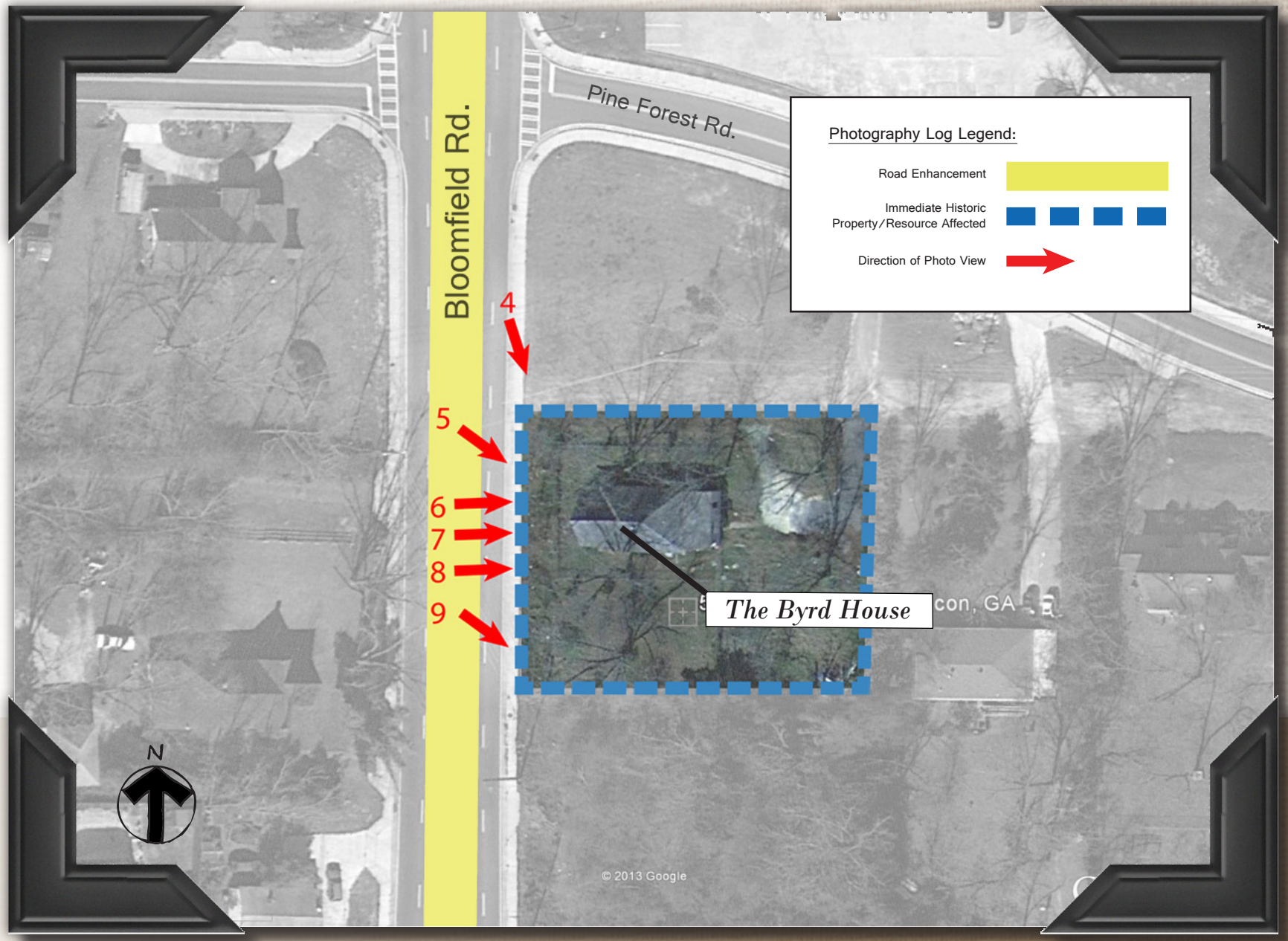
Description: The Byrd House, west and south facade prior to construction. Facing northeast.

Pre-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 3

Description: Intersection of Pine Forest Road into Bloomfield Road prior to construction. Facing north.

Post-Construction Aerial and Site Photo Map: The Byrd House, Bibb County - P.I. # 351110



*Google Earth, 2013

Post-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 4

Description: The Byrd House, front/west facade and north facade. Facing southeast.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 5

Description: Front yard of Byrd House and northern-most Zelkova Tree outside of right-of-way. Facing southeast.

Post-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 6

Description: Remaining tree ring of a previously installed tree in front yard of Byrd House, presumably from Landscape Mitigation Effort. Facing east.

Post-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 7
Description: Leftover tree guying wires on Zelkova Tree in front of Byrd House. Facing east.

Photo Number: 8
Description: Middle Zelkova Tree in front of Byrd House. Facing southeast.

Post-Construction Photographs:
The Byrd House, Bibb County - P.I. # 351110

Photo Number: 9

Description: Southern-most Zelkova Tree and existing site vegetation in front of Byrd House. Facing southeast.

The Espy House

Research

The Espy House is located at 5297 Bloomfield Road, in the northwest quadrant of the intersection of Bloomfield Road and Bob-O-Link Drive. According to the county tax assessor record, it was constructed in 1927. The survey report completed for GDOT Project P.I. #351120 identified the house as a Side-Gable Cottage (see Page 30, Photo 1) with historic additions (1935) at each end and on the rear (1955) of the structure. The majority of the house is clad in brick, with siding in the gable ends and on the rear addition. The landscape surrounding the house was described in the property information form as "casual with grass, shrubbery, and a variety of trees. A line of pine trees extends along the front of the property line." The informal landscape of this house in a residential area classifies the landscape as Historic Vernacular (see Page 31, Photo 2). The Espy House is eligible for listing in the NRHP under Criterion C for architecture.

GDOT Projects P.I. #351110 and #351120 were implemented to widen Bloomfield Road / Log Cabin Drive from Rocky Creek Road to Mercer University Drive within a 100 ft. right-of-way. The purpose of the projects was to provide additional traffic capacity to accommodate future traffic volumes. The projects widened Bloomfield Road / Log Cabin Drive from a two-lane road to a four-lane road with a 14 ft. flush median, curb and gutter, and sidewalks on both sides from Rocky Creek Road to Mercer University Drive. This widening required the removal of several pine trees from the front of the Espy House property. The roadway project was designed for a speed limit of 45 miles per hour, which requires a minimum horizontal clearance of 14 ft. between the center of tree and the edge-of-pavement or face of curb*. The project documents did not specify a clear zone requirement for this project.

In an interview with a historian from GDOT, it was revealed that the Section 106 work was completed by a consultant firm who was hired by Bibb County. The county paid for the professional engineering, including mitigation costs, while GDOT paid for the right-of-way and construction. As a result of this arrangement, GDOT was left out of some of the coordination between the SHPO and Bibb County. A copy of the AOE document on the Espy House was unavailable; however, GDOT provided a copy of the Memorandum of Agreement (MOA) regarding GDOT Project P.I. #351120. This MOA focused on screening the view of the widened road and utility poles from the Espy House. The landscape stipulation from that MOA is listed in Figure 1d.

East facade of Espy House, pre-construction. Facing west.

According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

Figure 1d

Memorandum of Agreement Landscape Stipulation:

"A landscape plan will be developed and implemented for an informal landscape treatment that will screen the view of the widened road and utility poles from the Bloomfield Estates Subdivision and the Espy House. The landscape plan will be implemented within DOT rights-of-way as allowed outside of the area required for "cut and fill" activities as well as utilities. Where DOT right-of-way is not sufficient to implement a landscape plan, the property owners will be contacted and afforded the opportunity to have an informal landscape treatment developed and implemented on private property. This landscape plan will be submitted to the Georgia SHPO and the homeowner for approval. The landscape plan will contain directions for the placement of appropriate landscape materials and will be a part of the construction plans for the proposed improvements to Bloomfield Road."

The landscape plan proposed that five Dogwoods (*Cornus florida*) be planted approximately 23 ft. on center in a single row on the front lawn of the Espy House between the dual driveways as a means to replace trees lost to construction and to restore the historic viewshed.

The team made contact with the owner of the property, Mr. Gregory W. Espy, to determine his involvement in the development of the landscape plan. Mr. Espy informed the team that he had purchased the house around 2001. He currently lives in Suwanee, Georgia, and rents out the Espy House. Despite MOA specifications, Mr. Espy stated that he was never contacted by GDOT regarding the landscape plan. He also stated that he would not have approved the installation of Dogwoods and would have preferred shrubbery installed in the front yard instead. Mr. Espy also said that he does not remember any landscape mitigation taking place on the property. The Plant Schedule is shown in Figure 1e, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. None of the proposed landscaping was present on-site (see Page 37, Photos 7 and 8). In the location where the Dogwoods were proposed, there were tree rings, which suggested that vegetation had previously been installed (see Page 36, Photo 6). There was no indication as to what plants had been installed there, but these five depressed soil spots were inside of the right-of-way approximately 20 ft. on center (see Page 37, Photos 7 and 8). The house is currently vacant, but it appears that it was used as a daycare in the recent past.

Evaluation

A linear arrangement of the trees was appropriate for mitigating the effects on this historic resource. However, the plant selection was inappropriate. Young Dogwoods need plenty of shade when establishing themselves, and there is insufficient shade at the Espy House. The lack of shade may have led to the death of the Dogwoods. These trees were also installed directly underneath the overhead utilities. If the Dogwoods had survived, they would have posed an obstruction to these power lines once they had reached a mature height (see Page 37, Photos 7 and 8, and Page 38, Photo 9).

An appropriate alternative would be to plant a hardwood forest species, such as Southern Magnolia (*Magnolia grandiflora*) or Pecan tree (*Carya illinoinensis*), on the Espy House property. These trees would be able to grow to a mature height without interfering with the overhead utilities. At a mature height, the trees would provide a visual buffer between the house and the power lines, as well as the road, while also fitting within the historic context of the site. However, planting on private property would require the consent of the property owner, and GDOT would need to purchase an easement to plant the trees outside the right-of-way.

Plant Schedule:

Figure 1e

QTY.	Botanical Name	Common Name	Spacing
5	*Cornus florida*	Flowering Dogwood	Per Plan

East and north facade of Espy House, post-construction. Facing southwest.

An easement allows one party entry and/or use of another party's property without actually owning said property. If it is determined an easement may provide additional space necessary for a landscape visual screen, an easement could be obtained using GDOT's standard policies and procedures associated with obtaining additional land associated with the transportation project.

If gaining an easement to plant on private property is not a viable option, the appropriate alternative would have been to plant Sweetbay Magnolia (*Magnolia virginiana*) within the right-of-way, underneath the overhead utilities. This species will survive in the conditions present, fit within the context of the site, and not grow to a height that would interfere with the overhead utilities. The team's field checklist and results are shown in Figure 1f.

East facade of Espy House, post-construction. Facing northwest.

Summary

Site Analysis Summary:

- Trees installed as shown on plan, but were removed
- Overhead utilities located above proposed plant material
- No one living in house

Evaluation Summary:

- If planting inside the right-of-way, plant trees which will not interfere with overhead utilities.
- Vegetation easement would allow taller trees to be used to screen overhead utilities.
- The project landscape architect should accompany the project historian on a site visit within ninety (90) days of construction completion to ensure plant material was installed correctly.
- Maintenance agreement should be set in place with the Bibb County.

Figure 1f

Field Checklist: Espy House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

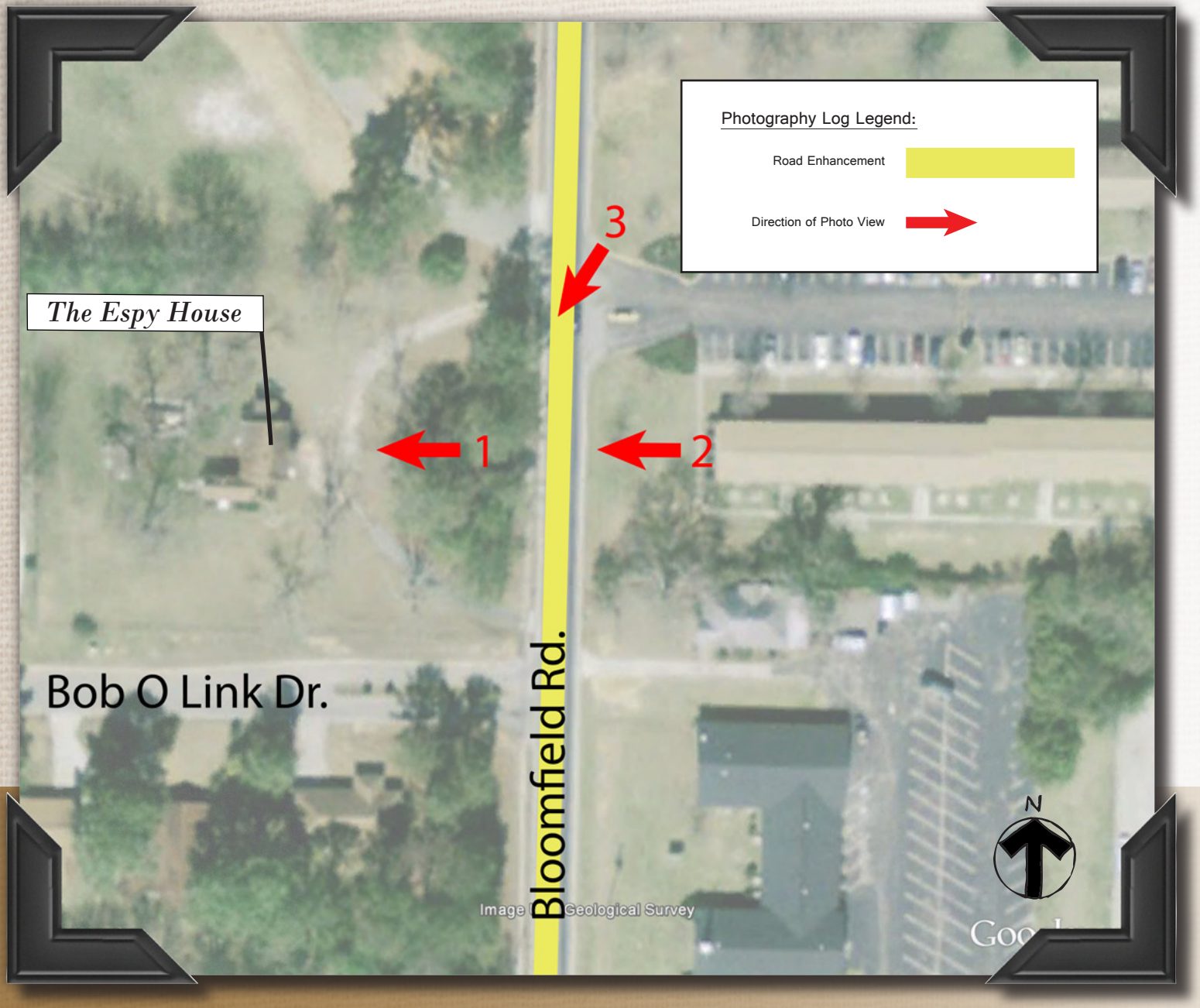
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 0%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map: The Espy House, Bibb County - P.I. # 351120



*Google Earth, 2007

Pre-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 1

Description: The Espy House front/east facade prior to construction. Facing west.

**Pre-construction photos taken ca. 2005.*

Pre-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 2

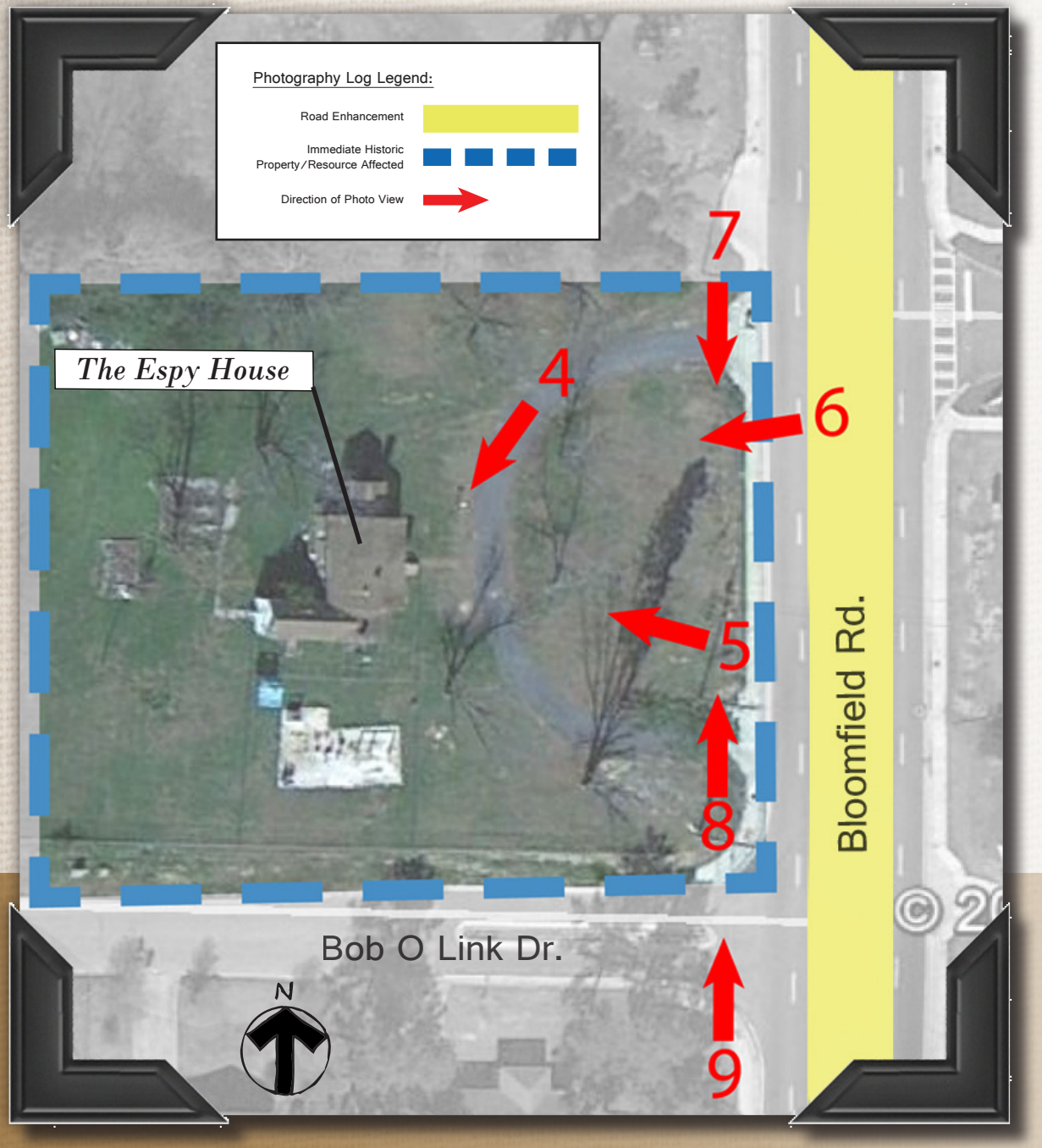
Description: The Espy House front/east facade prior to construction. Facing west.

Pre-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 3

Description: The Espy House front yard with pine trees prior to construction. Facing southwest.

Post-Construction Aerial and Photo Site Map: The Espy House, Bibb County - P.I. # 351120



*Google Earth, 2013

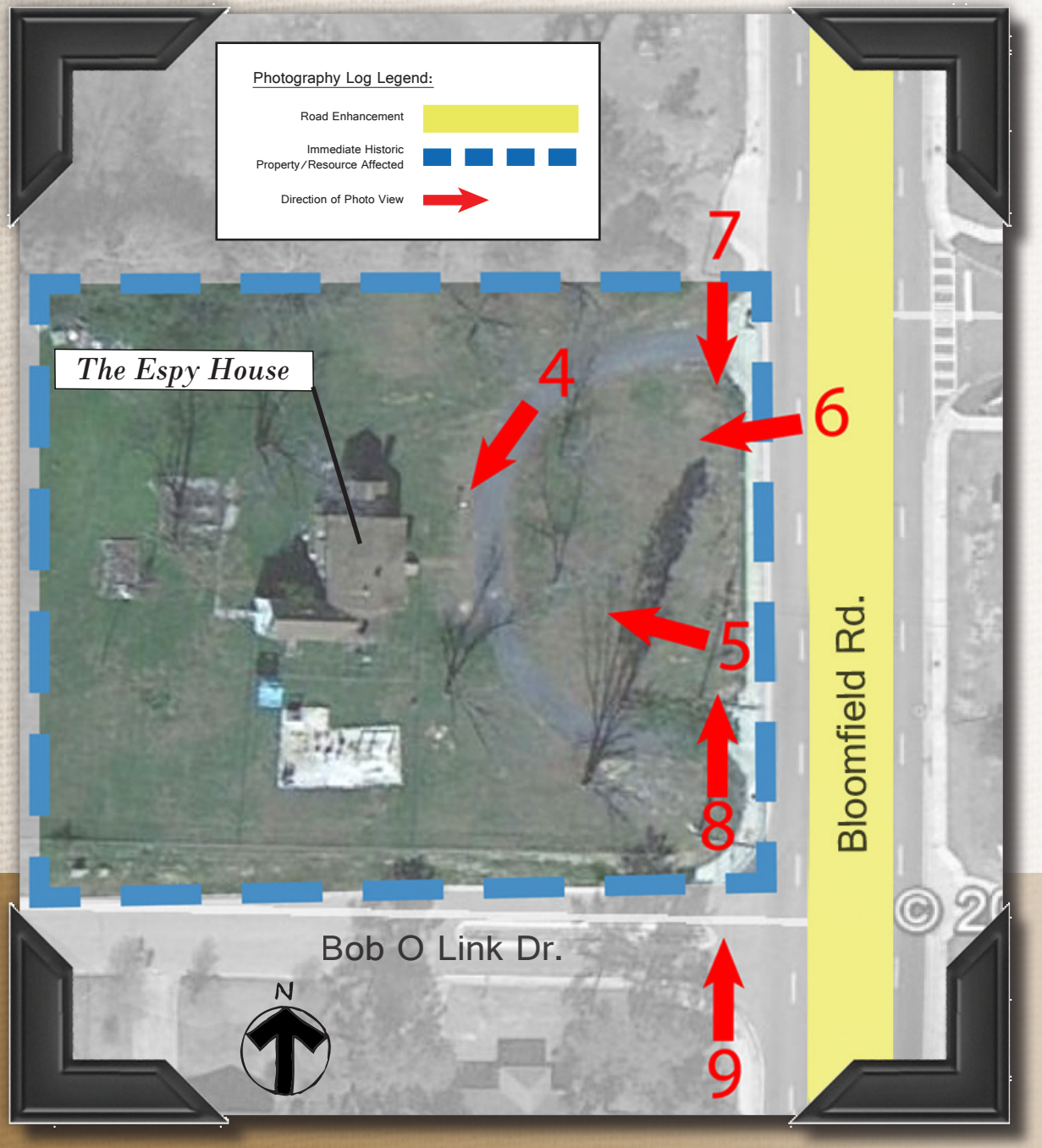
Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 4

Description: The Espy House front/east facade. Facing southwest.

**Post-construction photos taken September 2013.*

Post-Construction Aerial and Photo Site Map: The Espy House, Bibb County - P.I. # 351120



*Google Earth, 2013

Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 4

Description: The Espy House front/east facade. Facing south west.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

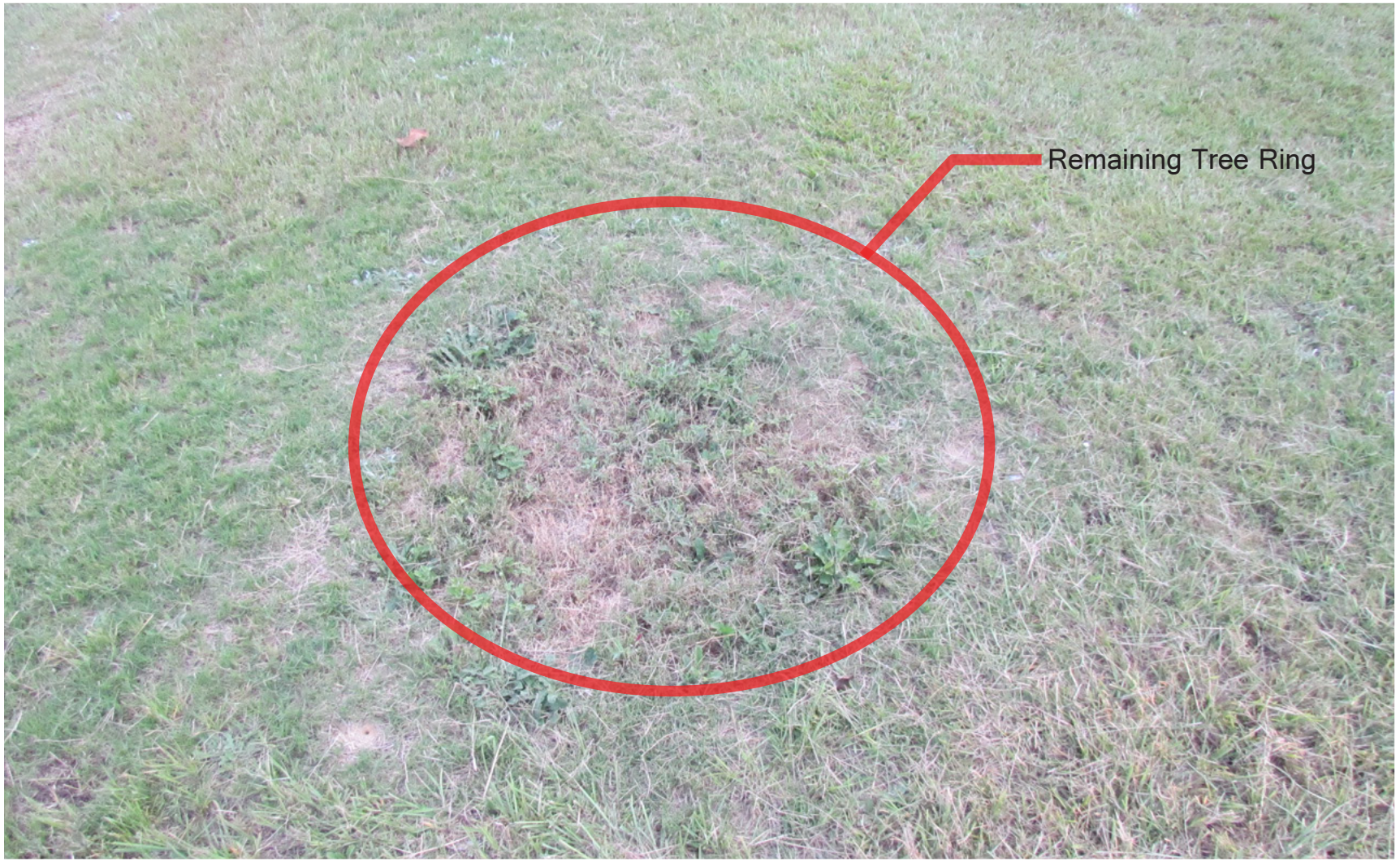
Photo Number: 5

Description: The Espy House front/east facade. Facing west.

Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 6

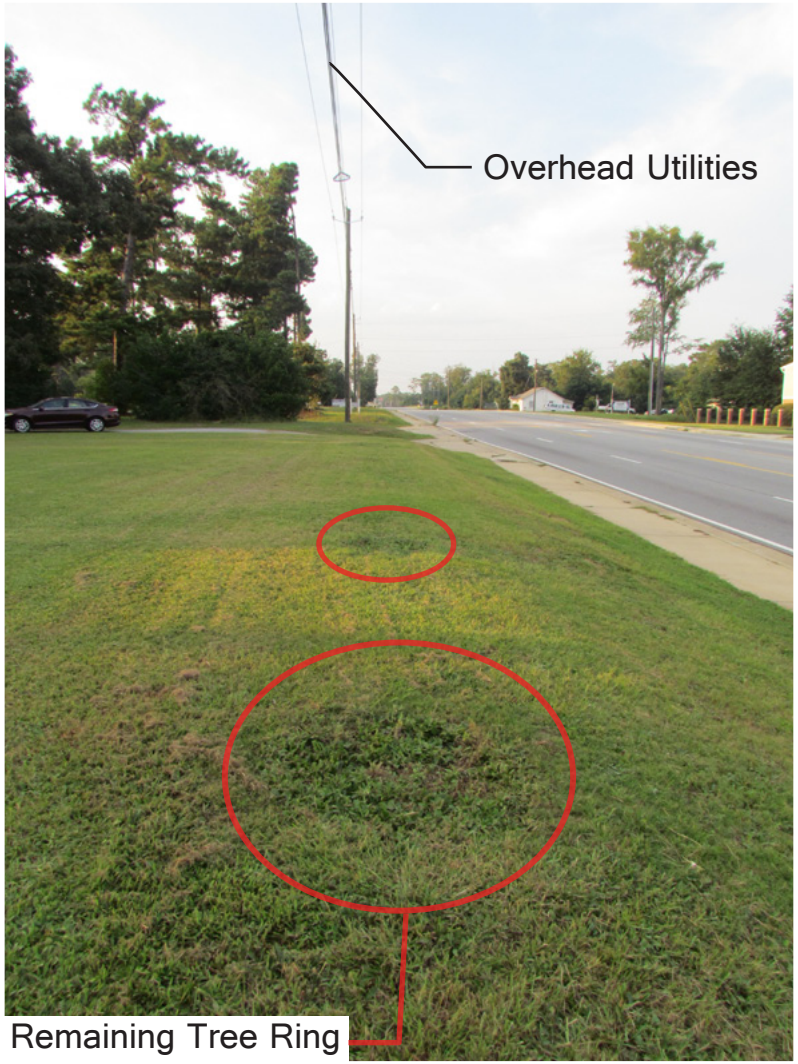
Description: Remaining tree ring of a previously installed tree in front yard of Espy House, presumably from Landscape Mitigation Effort. Facing west.



Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 7
Description: Proposed area for Landscape Mitigation Effort. Facing south.

Photo Number: 8
Description: Proposed area for Landscape Mitigation Effort. Facing north.



Post-Construction Photographs:
The Espy House, Bibb County - P.I. # 351120

Photo Number: 9

Description: View of proposed Landscape Mitigation area from adjacent property south of Espy House. Facing north.

Bloomfield Subdivision

Research

The Bloomfield Estates Subdivision is a residential community that was developed in the early 1950s by the Standard Development Company, Inc. It is bounded by Bloomfield Road on the east, Emerson Circle and Nisbet Drive to the west, Barrett Avenue to the north, and Virginia Drive to the south. The neighborhood features uniformly sized rectangular lots with the houses set back approximately 30 to 50 feet. The houses on the corner lots are placed diagonally. The houses are all categorized as American Small Houses, which have a one-story, compact rectangular form (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). Both hipped and gable-end roofs are seen, as are several types of exterior wall cladding, including clapboard, brick, asbestos, aluminum, and vinyl siding. The majority of the houses have a stoop entry and lack architectural ornamentation. Several of the homes have carport or rear additions. Bloomfield Estates is eligible for listing in the National Register of Historic Places (NRHP) under Criterion C for architecture. The properties were originally landscaped casually with grass and shrubbery in the front yards and mature hardwood trees in the back yards (see Pages 42-45, Photos 1-4), classifying this landscape as Historic Vernacular.

Memorandum of Agreement Landscape Stipulation: Figure 1g

"A landscape plan will be developed and implemented for an informal landscape treatment that will screen the view of the widened road and utility poles from the Bloomfield Estates Subdivision and the Espy House. The landscape plan will be implemented within DOT rights-of-way as allowed outside of the area required for "cut and fill" activities as well as utilities. Where DOT right-of-way is not sufficient to implement a landscape plan, the property owners will be contacted and afforded the opportunity to have an informal landscape treatment developed and implemented on private property. This landscape plan will be submitted to the Georgia SHPO and the homeowner for approval. The landscape plan will contain directions for the placement of appropriate landscape materials and will be a part of the construction plans for the proposed improvements to Bloomfield Road."

Georgia Department of Transportation (GDOT) Projects P.I. #351110 and #351120 were road widening projects of Bloomfield Road / Log Cabin Drive from Rocky Creek Road to Mercer University Drive within a 100 ft. right-of-way. The purpose of the projects was to provide additional traffic capacity to accommodate future traffic volumes. The projects widened Bloomfield Road / Log Cabin Drive from a two-lane road to a four-lane road with a 14-ft. flush median, curb and gutter, and sidewalks on both sides from Rocky Creek Road to Mercer University Drive. The roadway projects were designed for a speed limit of 45 miles per hour, which requires a minimum horizontal clearance of 14 ft. between the center of tree and the edge of pavement or face of curb*. The project documents did not specify a clear zone requirement for this project.

In an interview with a historian from GDOT, it was revealed that the Section 106 work was completed by a consultant firm hired by Bibb County. The county paid for the professional engineering, including mitigation costs, while GDOT paid for the right-of-way and construction. As a result of this arrangement, GDOT was left out of some of the coordination between the Georgia State Historic Preservation Office (SHPO) and Bibb County. A copy of the Assessment of Effects (AOE) document on the Bloomfield Subdivision was unavailable; however, GDOT provided a copy of the Memorandum of Agreement (MOA). The MOA focused on screening the view of the widened road and utility poles from the Bloomfield Subdivision. The landscape stipulation from the MOA is listed in Figure 1g.

Sandra Barry, a resident of the Bloomfield Subdivision, was contacted in March, 2014 concerning the landscape mitigation efforts. Ms. Barry said that she was never contacted by anyone regarding landscaping during execution of the Section 106 work. She stated that she would not have wanted the landscape treatment because her lawn is too small. She also mentioned that there is a sewer system running beneath her lawn and the other lawns of the houses along Bloomfield Road, and that this poses a conflict with the root systems of any extensive vegetation.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

The landscape plan proposed that Creeping Juniper (*Juniperus horizontalis*) be planted in a row, approximately 6 ft. on center, outside the right-of-way on all subdivision properties adjacent to Bloomfield Road as a means to visually buffer approximately two of the four lanes from each house. The plants were arranged in between underground pipe utilities. The Plant Schedule is shown in Figure 1h, and the landscape plans can be found in Appendix A of this report.

Figure 1h

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
126	*Juniperus horizontalis*	Creeping Juniper	Per Plan

Site Analysis

A site analysis was conducted on September 5, 2013. None of the proposed vegetation was observed at the site (see Pages 47-53, Photos 5-11). Some of the houses featured front lawns that were maintained while others had lawns that were overgrown. However, none of them displayed any evidence of the proposed landscape mitigation.

Evaluation

The use of a landscaping project as a mitigation effort was a suitable stipulation set forth by the MOA. Low shrubbery (approximately 12 to 18 inches tall) would have screened the roadway enough to provide a view of only two lanes from the historic resource. These stipulations also appropriately sought to include the property owner and the SHPO in the process of developing a landscape plan; however, no such attempt to contact the property owners was made. It is unclear as to why the landscape plan was not implemented.

The Creeping Juniper (*Juniperus horizontalis*) was a highly inappropriate plant choice for the setting. Juniperus horizontalis only grows north of Zone 6b (near Frankfort, Kentucky) and therefore cannot survive as far south as Zone 8a. A more appropriate plant choice would have been the Blue Chip Juniper (*Juniperus horizontalis 'Blue Chip'*). This cultivar, once established, is very low-maintenance, grows only about 1 ft. high, and spreads 6 to 8 ft wide. The team's field checklist and results are shown in Figure 1i.

Summary

Site Analysis Summary:

- No landscape mitigation treatment installed.

Evaluation Summary:

- Proposed plant material inappropriate.
- Landscape mitigation would have helped, but should be left up to property owner's discretion.
- The project landscape architect should accompany the project historian on a site visit within ninety (90) days of construction completion to ensure plant material was installed correctly.
- Maintenance agreement should be set in place with the Bibb County.

Figure 1i

Field Checklist: Bloomfield Estates Subdivision

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 0%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

*Google Earth, 2007

Pre-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 1

Description: Bloomfield Subdivision House at 5475 Bloomfield Rd. prior to construction. Facing west.

**Pre-construction photos taken ca. 2005.*

Pre-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 2

Description: Bloomfield Subdivision House at 5467 Bloomfield Rd. prior to construction. Facing west.

Pre-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 3

Description: Bloomfield Subdivision House at 5443 Bloomfield Rd. prior to construction. Facing west.

Pre-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 4

Description: Bloomfield Subdivision House at 5427 Bloomfield Rd. prior to construction. Facing west.

Post-Construction Aerial and Photo Site Map: The Bloomfield Subdivision, Bibb County - P.I. # 351120

*Google Earth, 2013.

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 5

Description: The Bloomfield Subdivision at Bob O Link Dr. and Bloomfield Rd. intersection. Facing south.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 6

Description: Front yard at 5395 Bloomfield Rd. Facing north.

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 7

Description: Front yard at 5397 Bloomfield Rd. Facing south.

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 8

Description: Front yard at 5419 Bloomfield Rd. Facing north.

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 9

Description: Front yard at 5427 Bloomfield Rd. Facing south.

Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 10

Description: Front yard at 5443 Bloomfield Rd. Facing north.

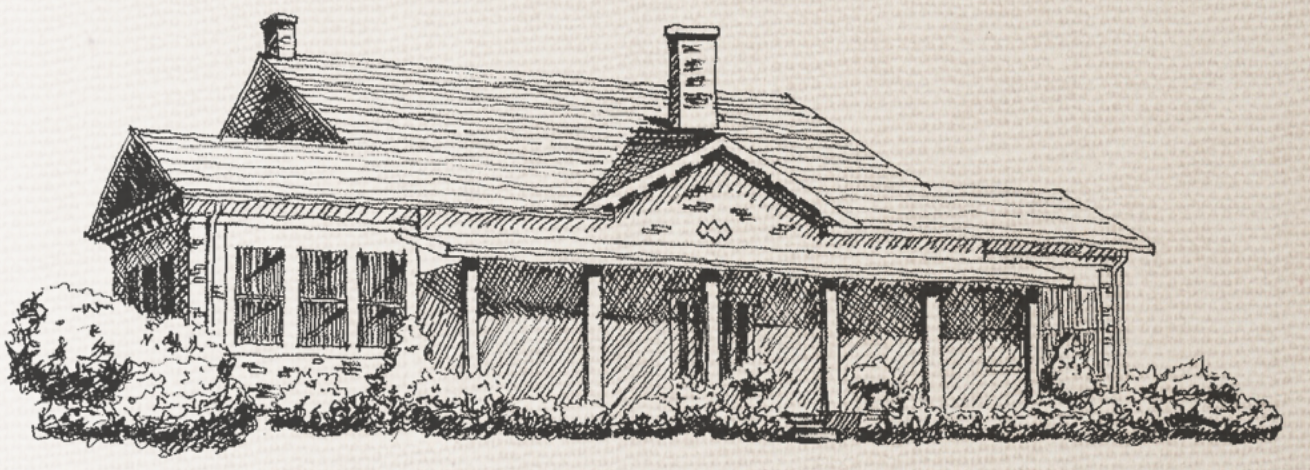
Post-Construction Photographs:
The Bloomfield Subdivision, Bibb County - P.I. # 351120

Photo Number: 11

Description: Front yard at 5459 Bloomfield Rd. Facing south.

Burke County

Site 2

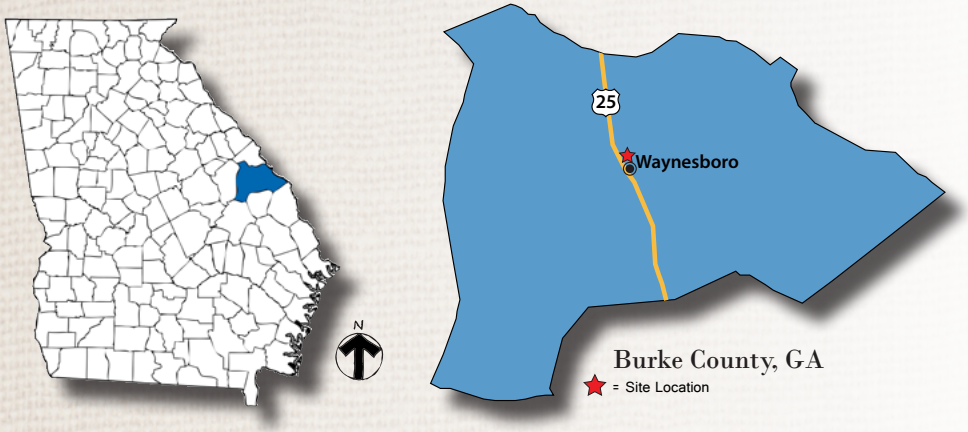


The Bartlett House & The Turner House

P.I. #222100

Burke County At a Glance:

Site 2 is located in Burke County, on the east side of US 25, approximately two miles north of Waynesboro, Georgia. GDOT Project P.I. #222100 was a road-widening project that adversely impacted the NRHP-eligible Bartlett House and Turner House, both physically and visually, by altering the district's character-defining features.



Historic Resources:

- *The Bartlett House*
- *The Turner House*

Resource Construction Date:

- *1927 (Bartlett House)*
- *ca. 1930 (Turner House)*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a*

GDOT Construction Type:

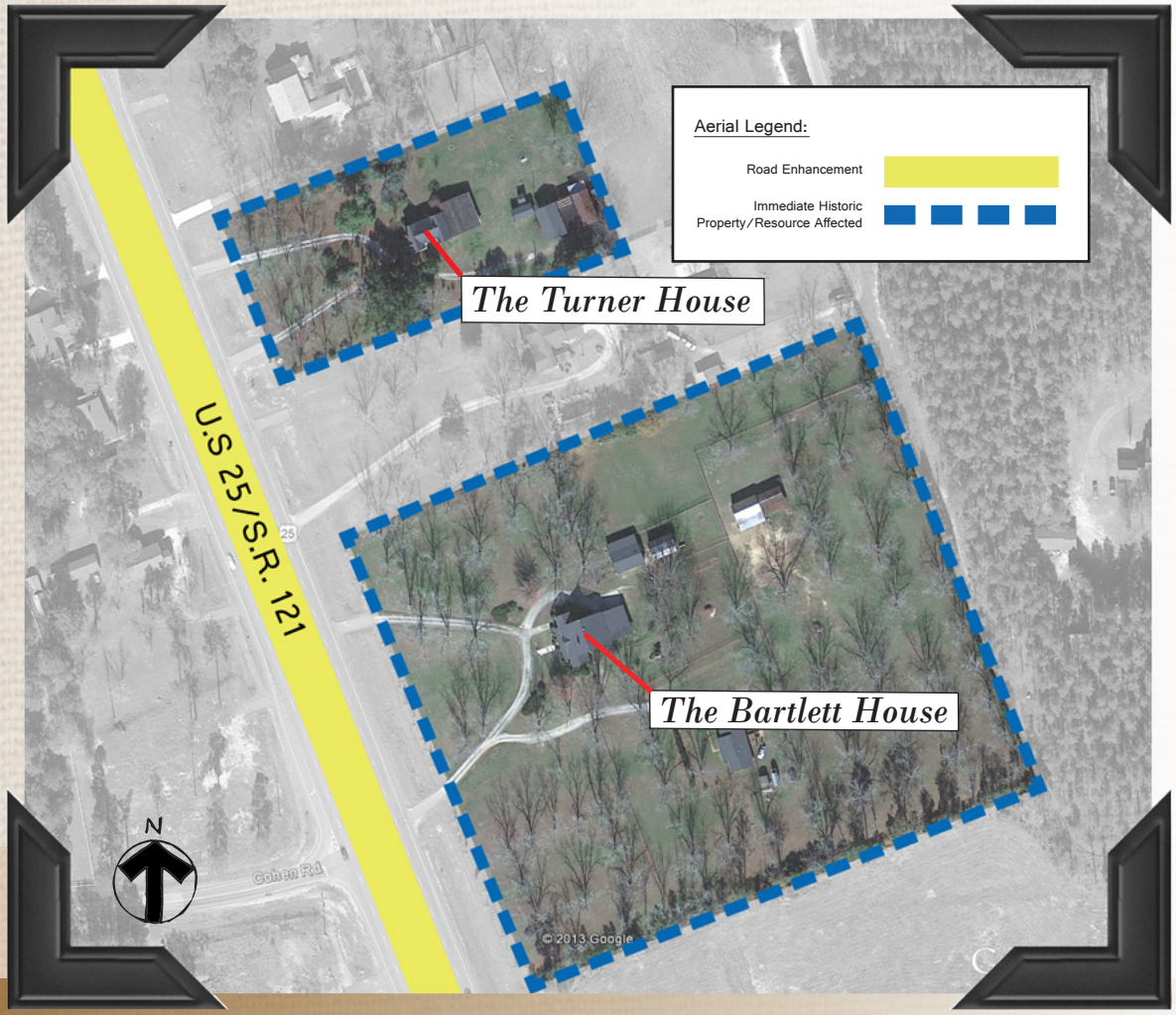
- *Road Widening*

GDOT Construction Completion Date:

- *July 2009*

Adverse Effects:

- *Visual*
- *Physical*



**Google Earth, 2013*

The Bartlett House

Research

The Bartlett House is a 1927 one-and-a-half-story English Cottage with Colonial Revival detailing (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The historic core of the house is symmetrical, with a central entry, and is essentially square in plan. The house sits on a continuous brick foundation, and the lateral gable roof is covered with asbestos shingles. The façade of the house features a gable accent over the front door and a full-width porch. Two nine-over-nine windows flank each side of the central entrance. The Porte cochere on the north elevation and an added porch on the south elevation have been enclosed. There is also a shed roof carport addition at the rear of the house. The project documentation did not specify if these additions were historic. Colonial Revival detailing includes a raked cornice with modillions. End gables on the enclosed wings have full returns, while the main gable roof has partial returns. The entrance features a glass door with sidelights. A course of brick trim with a central keystone above the entrance is another Colonial Revival accent, along with three cement diamonds in the front gable. Numerous windows occur singly, in pair, and in tripartite groupings.

The Bartlett House is situated in a grove of mature Pecan trees (*Carya illinoinensis*) on the east side of U.S. Highway 25 / State Route (S.R.) 121, near the intersection of Cohen Road (see Page 63, Photo 3). There are approximately 100 Pecan trees on the property, with farmland surrounding the site. Other plant species on-site include historic Live Oak (*Quercus virginiana*) and Magnolia trees (*Magnolia grandiflora*). The house is eligible for listing in the NRHP under Criterion C for architecture. Because of its farmland setting, the landscape is classified as Historic Vernacular.

GDOT Project P.I. # 222100 was implemented to widen U.S. 25 / S.R. 121 within a 150 ft. right-of-way from Waynesboro, Georgia, to Augusta, Georgia. The purpose of the project was to provide additional traffic capacity to accommodate future traffic volumes. The project added two 12 ft. lanes parallel to the existing two lanes with a 44 ft. depressed grass median from the Waynesboro Bypass (Burke County) to S.R. 88 in Hephzibah (Richmond County). The project was designed for a speed limit of 55 miles per hour, which requires all vegetation to be outside of the clear zone*. The clear zone requirement for this project was 25 ft. from the edge-of-pavement of the road.

The Assessment of Effects document, completed in May 1996, determined that the road widening would have an adverse effect on the visual and physical characteristics of the site, due to the removal of approximately 50 historic Pecan trees from the site and the loss of 1.76 acres from the Bartlett House Property. There were originally 150 historic Pecan trees on the Bartlett House Property. As a result, a Memorandum of Agreement was established. The landscape stipulations are listed in Figure 2a.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Front/southwest facade of Bartlett House, pre-construction. Facing northeast.

Figure 2a

Memorandum of Agreement Landscape Stipulations:

"The character of the Bartlett House and Turner House frontage landscaping will be retained by the creation of a landscape plan. During final design, coordination with the property owners for a suitable screen or visual buffer between the highway and their properties will occur."

"The existing dual driveway access at the Bartlett House will be preserved."

A variety of different plant material was proposed in this landscape plan. The proposed planting design featured an informal arrangement of trees in staggered rows, outside and in between the dual driveways at the southwest edge of the property. These trees were meant to provide a visual buffer between the house and the road. The Plant Schedule can be found in Figure 2b, and the landscape plan can be found in Appendix A of this report.

The current owner, Jonnie Mae Chance, stated that she and her husband purchased the house in 1980. She claimed there had been approximately 150 Pecan trees on the property. Ms. Chance said that she and her daughter, Katherine, initially opposed the road widening and fought to prevent the project from happening. However, as the demand for the road widening became more apparent, she and Katherine realized the project was necessary and inevitably would need to occur. Ms. Chance stated that around 40 to 50 Pecan trees were taken during the road widening and that she was compensated for each tree that was removed. Prior to development of the landscape plan, Ms. Chance was given the opportunity to select the plant material that would be planted as part of the landscape mitigation adjacent to, and northeast of, U.S. 25.

Katherine revealed that two landscape plans were developed before installation. Katherine did not know the reasoning behind this, but stated that the initial plan featured a wide variety of plants in staggered patterns while the second plan was a much more simplified version with less plant material. She was unable to locate either of the plans that had been given to her. Katherine also mentioned that for some time, she personally drove a water tank to each tree when several of the trees started to show signs of declining health. The project documentation did not specify maintenance responsibilities.

The GDOT landscape architect stated that the number of Pecan trees removed was larger than the right-of-way requirements had called for. This was because the Bartlett House owners' wanted an additional row of trees adjacent to the road removed due to the trees' poor health. She stated that the property owners wanted ornamental trees re-planted along the road to shield the view of any weeds that would grow in the newly created cut at the new roadway. The landscape architect also said that she had to improvise in the field and stake where the plants would go before the installers arrived because the initial landscape plan had proposed plants within the utility easement. These plants had to be moved out of the right-of-way, closer to the house. She also informed the team that no post-construction maintenance agreement was set in place.

Site Analysis

A site analysis was conducted on June 20, 2013. Per the MOA, the Bartlett House dual driveway was preserved (see Post-Construction Aerial and Photo Site Map, Page 64, and Page 71, Photo 12), maintaining the two access points to U.S. 25 from the house. Only three species from the plant list were present on site.

Figure 2b

Plant Schedule:

QTY. Bartlett	Botanical Name	Common Name	Spacing
13	*Acer floridanum*	Souther Sugar Maple	Per Plan
38	*Acer rubrum*	Red Maple	Per Plan
47	*Juniperus virginiana*	Red Cedar	Per Plan
8	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
5	*Quercus alba*	White Oak	Per Plan
9	*Tilia americana*	Basswood	Per Plan

Those species were Red Cedar (*Juniperus virginiana*), White Oak (*Quercus alba*), and Basswood (*Tilia americana*). The only other plant species present that was planted by GDOT was Silver Maple (*Acer sacharrinum*), which was not specified on the plant list. Of these species, the Red Cedars and White Oaks were the healthiest. Both species exhibited fully-leafed branches and vibrant color (see Page 68, Photo 7 and Page 69, Photo 9). A few of the Silver Maples were beginning to lose their leaves and exhibit bare branches (see Page 69, Photo 10). This was due to increased temperatures from heat radiating off the roadway pavement. The Basswoods were all dead (see Page 68, Photo 8), because the habitable zone of *Tilia americana* does not extend south of Zone 6a which is near Knoxville, Tennessee. Average annual temperatures south of this zone are too high for the plant to survive. A map of the United States plant hardiness zones is on page 5.

Approximately 30 percent of the proposed landscaping was installed but, due to the utility conflicts, was not arranged as shown per the landscape plans. Of the plant material that was installed, approximately 70 percent of it survived. There was evidence of plant material that has since been removed (see Page 70, Photo 11). The main factor that contributed to the poor health of these trees was lack of maintenance.

The trees were planted in a linear pattern rather than a staggered informal arrangement, and in some cases appeared to be planted around 10 to 15 ft. on center (see Page 66, Photo 5); in other cases, the trees were planted around 2 ft. on center (see Page 70, Photo 11). Based on historical aerial photos of the property, there were seven parallel rows of Pecan trees between the house and U.S. 25 (see Page 63, Photo 3). The road-widening project took four of those rows; more than 50 mature Pecan trees were lost (see Page 71, Photo 12).

Evaluation

Preservation of the Bartlett House dual driveway was an appropriate MOA stipulation because it preserved the access to the site and the historic resource; however, there is a contradiction in the MOA. Stipulation 2 of the MOA states “the character of the Bartlett House and Turner House frontage landscaping will be retained by the creation of a landscape plan.” The widened road creates an adverse visual effect,and the vegetation used to mitigate this effect is out of context with the historic site. The installed landscape, which consists of a variety of trees and shrubs, does not restore a pre-existing condition, nor does it fit in with the historic landscape. At the road, the former landscape consisted exclusively of rows of mature Pecan trees and lawn (see Pre-construction Aerial and Photo

Front/southwest facade of Bartlett House, post-construction. Facing east.

Front lawn and U.S. 25 post-construction. Facing southwest.

Site Map, Page 60). Second, the MOA states, “during final design, coordination with property owners for a suitable screen or visual buffer between the highway and their properties will occur.” The installed landscape does not appear to have been planted as densely as the landscape plan indicates. As a result, it does not offer a visual buffer between the highway and the Bartlett House.

The plant material was spaced inconsistently. This was most likely due to the impromptu relocation of the landscape treatment outside of the utility easement. The removal of dead plant material, which occurred later on, also contributed to inconsistent plant spacing. The random arrangement of plants contrasts with the regimented alignment of the Pecan orchard, creating a landscape that does not reflect the historic character of the resource.

A single row of young Pecan trees planted along the southwest edge of the property line would have retained the historic character of the resource’s landscaping, and there appears to be ample space for that to have been an option (see Page 72, Photo 13). Additionally, a maintenance plan for the landscape mitigation should have been established. The team’s field checklist and results are shown in Figure 2c.

Summary

Site Analysis Summary:

- Dual driveway was preserved.
- 30% of proposed landscaping was installed.
- Landscaping not installed as shown in plan.
- Plants were arranged in linear pattern.
- Plant spacing was inconsistent.
- Installed landscape had a 70% survival rate.
- U.S. 25 and clear zone still visible from Bartlett House.

Evaluation Summary:

- Landscape mitigation was appropriate measure.
- The property owner needed proper consultation on appropriate landscape mitigation measures.
- Proposed plant material was not fitting for the historic character of the setting.
- Installed plant material was not fitting for the historic character of the setting or region.
- Consideration should have been given to replacing Pecan trees in-kind.

Figure 2c

Field Checklist: Bartlett House

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
-No

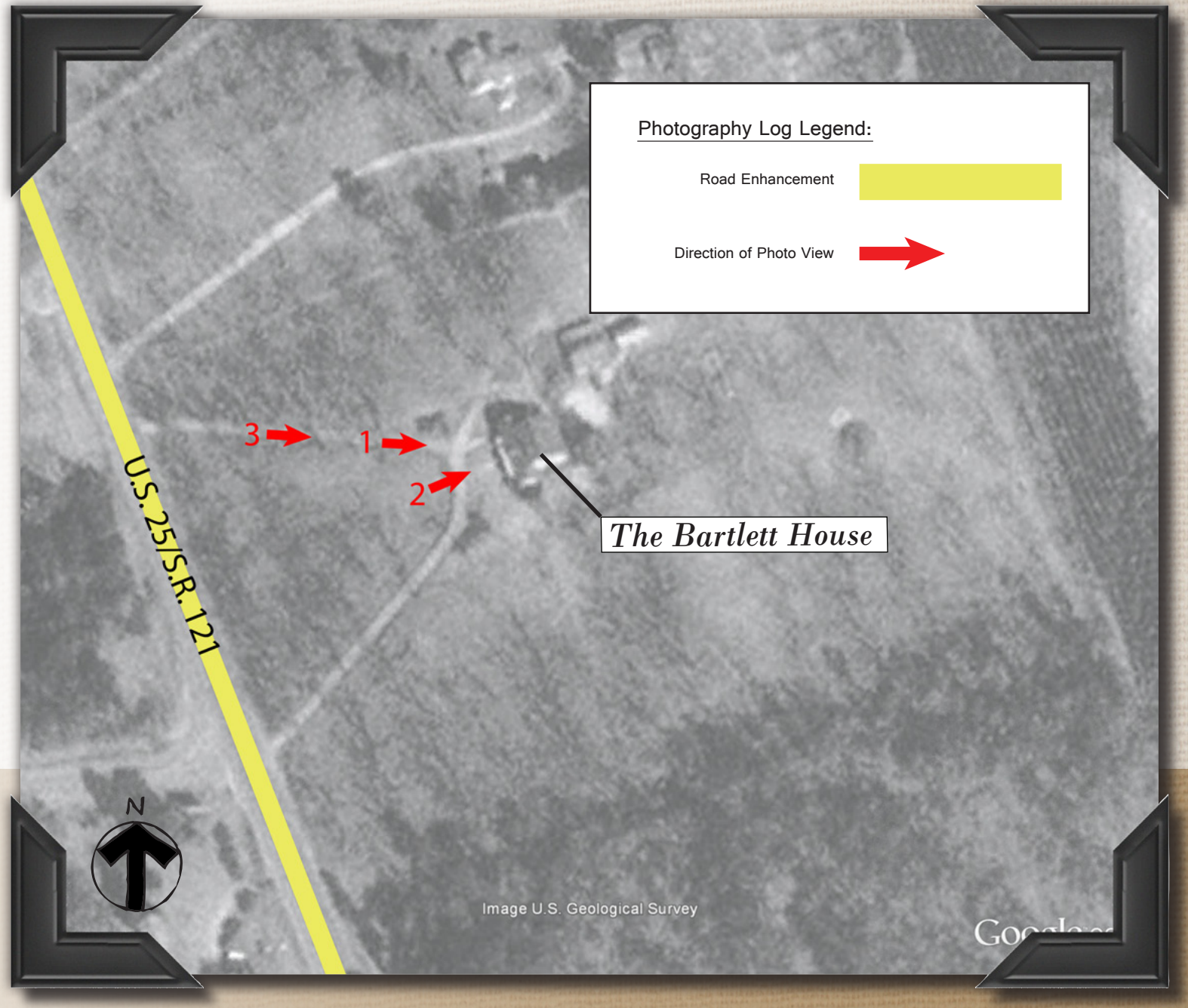
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- ~70%

Does the landscaping meet the stakeholder’s expectations for a successful mitigation?
- Yes

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Bartlett House, Burke County - P.I. # 222100



*Google Earth, 1993

Pre-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 1

Description: The Bartlett House front/west facade, prior to road construction; Facing east.

**Pre-construction photos taken ca. 1997*

Pre-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 2

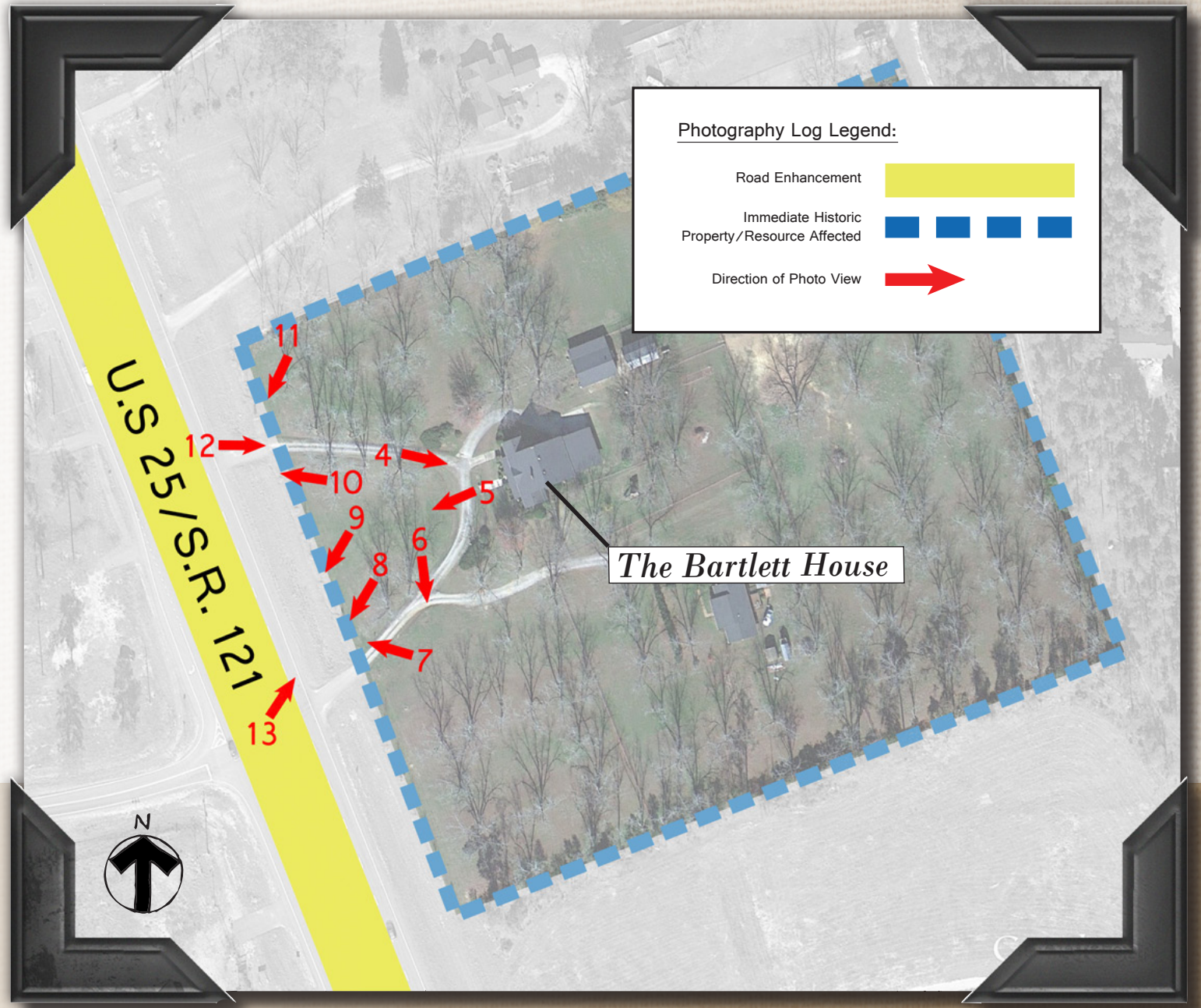
Description: The Bartlett House front/west facade, prior to road construction. Facing northeast.

Pre-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 3

Description: The Bartlett House northern driveway, prior to road construction. Facing east.

Post-Construction Aerial and Photo Site Map: The Bartlett House, Burke County - P.I. # 222100



*Google Earth, 2013

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 4

Description: The Bartlett House front facade. Facing east.

**Post-construction photos taken June 2013.*

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 5

Description: Landscape mitigation between dual driveways, where plants have been removed at Bartlett House, along U.S. 25. View from front facade of Bartlett House facing southwest.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 6

Description: View across the Bartlett House lawn, through Pecan grove, towards U.S. 25. Facing south.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 7
Description: Healthy Red Cedar (*Juniperus virginiana*) at Bartlett House along U.S. 25. Facing west.

Photo Number: 8
Description: Dead Basswood (*Tilia americana*) at Bartlett House along U.S. 25. Facing south-west.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 9
Description: Healthy White Oak (*Quercus alba*) at Bartlett House along U.S. 25. Facing southwest.

Photo Number: 10
Description: Unhealthy Silver Maple (*Acer saccharinum*) at Bartlett House along U.S. 25. Facing west.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 11

Description: Silver Maples and Basswood installed too closely north of northern driveway at Bartlett House, along U.S. 25. Facing southeast.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 12

Description: Northern driveway at Bartlett House, from end of driveway. Pecan rows numbered. Facing east.

Post-Construction Photographs:
The Bartlett House, Burke County - P.I. # 222100

Photo Number: 13

Description: Landscape mitigation treatment in linear fashion between dual driveways at Bartlett House, along U.S. 25. Facing northeast.

The Turner House

Research

The Turner House is a circa 1930 English Cottage, featuring elements of the English Vernacular Revival house style (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house is one story in height, with a continuous brick foundation and brick exterior walls. The historic core of the house is essentially rectangular in plan with a multi-gabled roof, consisting of two parallel lateral gable roofs connected by a front-gable middle section. Elements indicative of the English Cottage house type are the gable-front entrance, steeply pitched roof, exterior chimney on the façade, and side porch. The house is eligible for listing in the NRHP under Criterion C for architecture. The house is situated in a grove of Pecan trees (*Carya illinoinensis*) and other mature vegetation on the east side of U.S. Highway 25 / S.R. 121 (see Page 85, Photo 9), near the intersection of Cohen Road. Other species on-site include Live Oak (*Quercus virginiana*) and Magnolia (*Magnolia grandiflora*). Because of its farmland setting, the landscape is considered to be Historic Vernacular.

GDOT Project P.I. # 222100 was implemented to widen U.S. 25 / S.R. 121 within a 150 ft. right-of-way from Waynesboro, Georgia to Augusta, Georgia. The purpose of the project was to provide additional traffic capacity to accommodate future traffic volumes. The project added two 12-ft. lanes parallel to the existing two lanes, with a 44-ft. depressed grassed median from the Waynesboro Bypass (Burke County) to S.R. 88 in Hephzibah (Richmond County). The project was designed for a speed limit of 55 miles per hour, which requires all vegetation to be outside of the clear zone*. The clear zone requirement for this project was 25 ft. from the edge-of-pavement of the road.

The Assessment of Effects document, completed in May 1996, determined that the road widening would have an adverse effect on the visual and physical characteristics of the site, due to the loss of .59 acres from the Turner House Property, the removal of mature trees from the front yard, and the loss of a portion of the house's driveway. The amount and type of trees removed was not specified in the project documentation. As a result, a Memorandum of Agreement was established. The landscape stipulations are listed in Figure 2d.

Mr. and Mrs. L.V. Jenkins purchased the Turner House property in early 2013. They live in the house between the Bartlett House and Turner House. Mr. Jenkins expressed his discontent with the landscape mitigation efforts, stating that the road was never visible from the home,

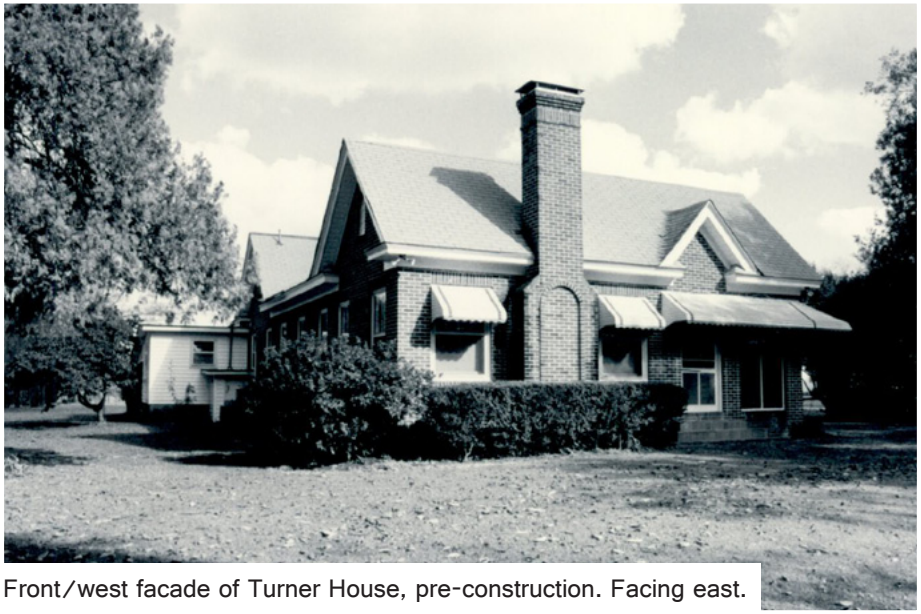
**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Figure 2d

Memorandum of Agreement Landscape Stipulations:

- "The character of the Bartlett House and Turner House frontage landscaping will be retained by the creation of a landscape plan. During final design, coordination with the property owners for a suitable screen or visual buffer between the highway and their properties will occur."

- "The existing dual driveway access at the Bartlett House will be preserved."



Front/west facade of Turner House, pre-construction. Facing east.

due to the pre-existing landscaping in the front yard of the Turner House. He felt that for this reason, the landscape mitigation was unnecessary. Mr. Jenkins also stated that cutting the grass around the installed landscaping has been problematic. Mr. Jenkins said he intends to remove all of the trees installed from the mitigation efforts. Mrs. Patricia Jenkins stated that the previous property owner also did not approve of the mitigation efforts, as they had feared the landscape mitigation treatment would be an additional visual buffer that would further disconnect the house from the community.

The GDOT landscape architect confirmed that the property owner did not want any screen; however, the vegetative screen had already been negotiated with SHPO, and GDOT was required to provide one. She stated that a compromise with the property owner was reached to plant Boxwood (*Buxus sempervirens*) shrubs along the southwest edge of the property. This was the first landscape plan developed. She said the district personnel were supposed to take on the maintenance of the final landscape within the right-of-way. However, the district did not honor the maintenance agreement, and the Boxwoods died from lack of care. An explanation as to why they did not take on maintenance was not available. Eventually these shrubs were replaced by GDOT with a second landscape mitigation treatment from a second landscape plan in order to meet the landscape stipulation in the MOA. A variety of different plant material was proposed in this second landscape plan. The proposed planting design featured an informal arrangement of trees in staggered rows along the road at the south-west edge of the property. These trees were to provide a visual buffer between the house and the road. The plant schedule for the second landscape plan is shown in Figure 2e, and the landscape plan can be found in Appendix A of this report.

The second landscape plan was installed, despite opposition from the property owners. The GDOT landscape architect had to improvise in the field and stake where the plants would go before the installers arrived because the first landscape plan had proposed plants within the utility easement. These trees from the second landscape plan had to be installed outside the right-of-way, closer to the house. The landscape architect stated that there was no maintenance agreement associated with the second landscape mitigation effort either.

Site Analysis

A site analysis was conducted on June 20, 2013. The Red Cedars (*Juniperus virginiana*) were the only plants installed that were proposed on the plant list from the second mitigation effort (see Page 83, Photo 7). As was the case at the Bartlett House, the Silver Maples (*Acer sacharrinum*) were also installed on-site, although they were not a part of the either plant list. They exhibited signs of poor health (see Page 84, Photo 8). Approximately 20 percent of the proposed landscaping was installed; due to the utility conflicts, it was not arranged as shown on the second set of landscape plans. The plants were spaced anywhere from 8 to 25 ft. on center (see Page 85, Photo 9). The trees were planted in a linear pattern rather than a staggered informal arrangement as shown in the second landscape plan. The MOA did not specify the arrangement of plants; it only specified that a landscape plan be used for a suitable screen or visual buffer. Approximately 65 percent of the plant material that was

Figure 2e

Plant Schedule:

QTY. Turner	Botanical Name	Common Name	Spacing
5	*Acer floridanum*	Souther Sugar Maple	Per Plan
7	*Acer rubrum*	Red Maple	Per Plan
15	*Juniperus virginiana*	Red Cedar	Per Plan
6	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
1	*Quercus alba*	White Oak	Per Plan
4	*Tilia americana*	Basswood	Per Plan

installed for mitigation survived. The main factor that contributed to the poor health of these trees was lack of maintenance.

In addition to the pre-existing Pecan trees on-site, there were also pre-existing Magnolias and Live Oaks on the property. There was a massing of pre-existing low shrubbery on the front lawn that included camellias, junipers, and forsythia which provided a visual buffer between the road and the house (see Page 82, Photo 5). Framing the house were pre-existing Crepe Myrtles, Nandina, Lantana, and Boxwood (see Page 80, Photo 3, and Page 81, Photo 4), while the pre-existing Magnolias, Pecans, and Live Oaks provided a dense canopy over the yard (see Page 83, Photo 6). None of this vegetation was a part of the landscape mitigation effort.

Evaluation

Stipulation 2 of the MOA states "the character of Turner House frontage landscaping will be retained by the creation of a landscape plan." The installed landscape, which consists of a variety of trees non-existent prior to road construction, does not retain the historic character of the Turner House. The pre-existing landscape of the property included Pecan trees in the front lawn and along the roadside. The MOA also states, "during final design, coordination with property owners for a suitable screen or visual buffer between the highway and their properties will occur." Ultimately, the mitigation effort on private property was not approved by the owner. A visual buffer between the road and Turner House was unnecessary based on the pre-existing vegetation on the front lawn of the Turner House; the variety of shrubbery in the front yard already effectively screened the house from the road (see Page 82, Photo 5). Therefore, a recommendation for no landscape mitigation would have been appropriate for the Turner House. The team's field checklist and results are shown in Figure 2f.

Summary

Site Analysis Summary:

- 20% of proposed landscaping was installed.
- Landscaping not installed as shown in plan.
- Plants were arranged in linear pattern.
- Plant spacing was inconsistent.
- Installed landscape had a 65% survival rate.
- U.S. 25 not visible from Turner House due to existing vegetation.

Evaluation Summary:

- Landscape mitigation was not appropriate measure – property owner did not want or need it.
- Proposed plant material was not fitting for the historic character of the setting.
- Installed plant material was not fitting for the historic character of the setting or region.
- Consideration should have been given to ecological succession.

Figure 2f

Field Checklist: Turner House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
-No

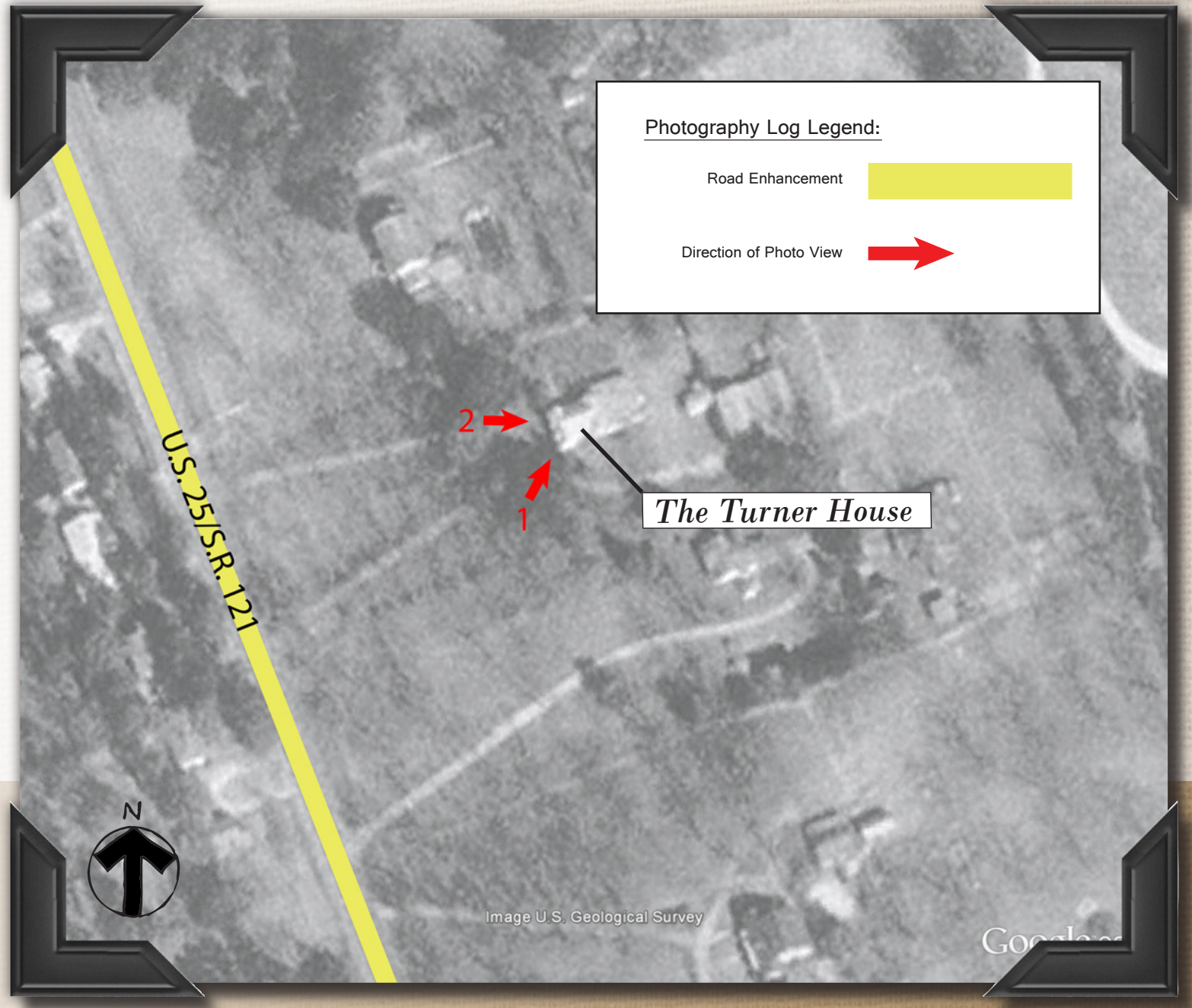
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- ~65%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map: The Turner House, Burke County - P.I. # 222100



*Google Earth, 1993

Pre-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 1

Description: The Turner House front/west facade prior to road construction. Facing northeast.

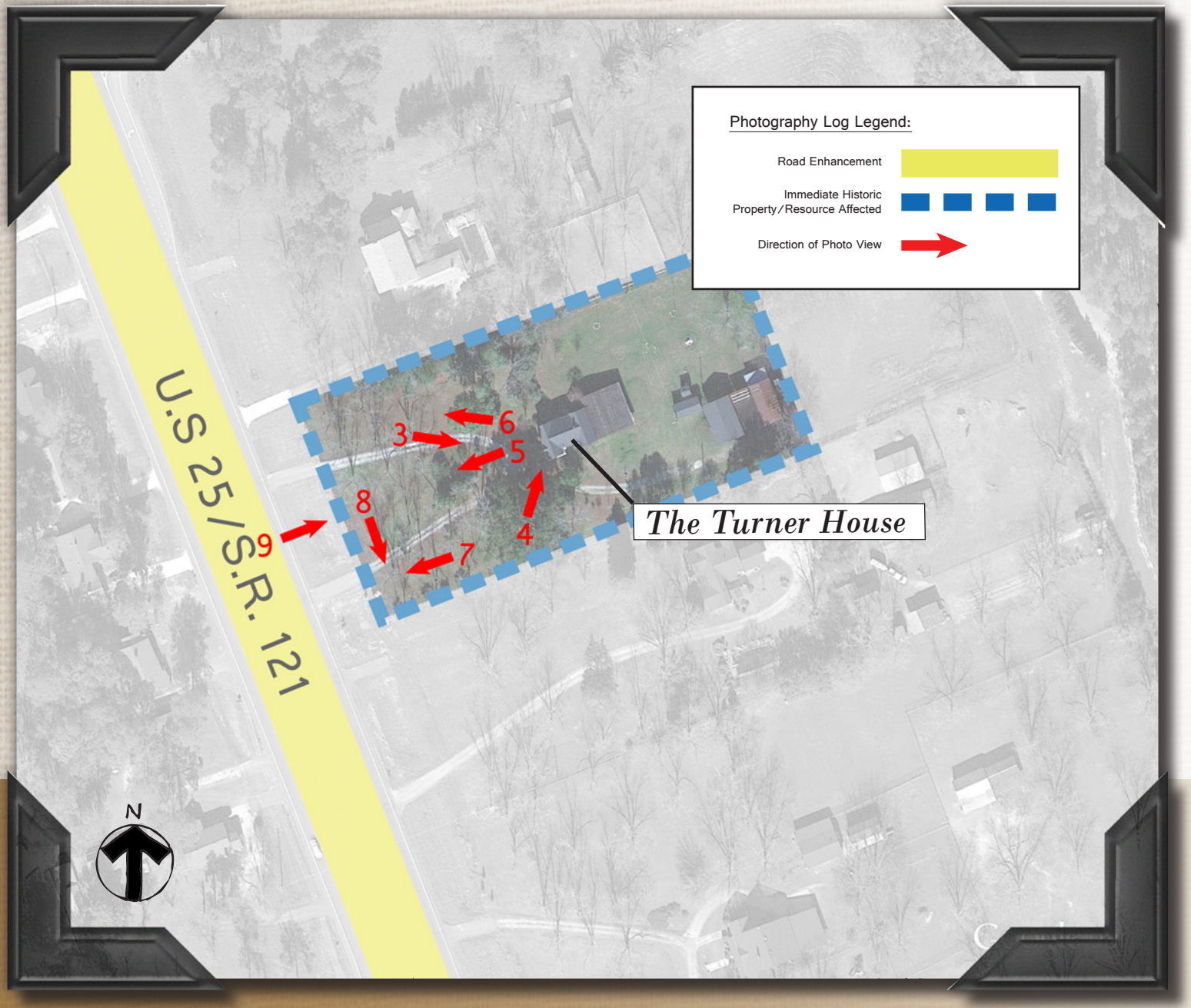
**Pre-construction photos taken ca. 1997.*

Pre-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 2

Description: The Turner House front/west facade prior to road construction. Facing east.

Post-Construction Aerial and Photo Site Map: The Turner House, Burke County - P.I. # 222100



*Google Earth, 2013

Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 3

Description: The Turner House front/west facade. Facing east.

**Post-construction photos taken June 2013.*

Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 4

Description: Turner House front/west facade and vegetation. Facing northeast.

Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 5

Description: Pre-existing landscaping in front yard of Turner House buffering U.S. 25. Facing west.

Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 6

Description: Existing Magnolia (*Magnolia grandiflora*) tree canopy on Turner House Property. Facing northwest.

Photo Number: 7

Description: Healthy Red Cedar (*Juniperus virginiana*) at Turner House, along U.S. 25. Facing west.

Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 8

Description: Unhealthy Silver Maple (*Acer saccharinum*) at Turner House, along U.S. 25. Facing southeast.

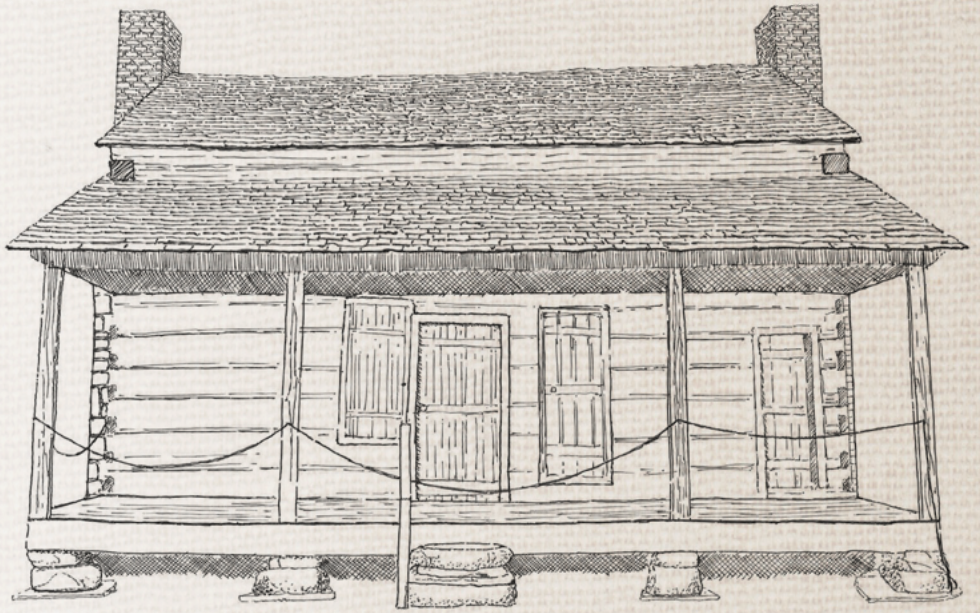
Post-Construction Photographs:
The Turner House, Burke County - P.I. # 222100

Photo Number: 9

Description: Installed landscape mitigation in front of Turner House, along U.S. 25. Facing northeast.

Chattooga County

Site 3

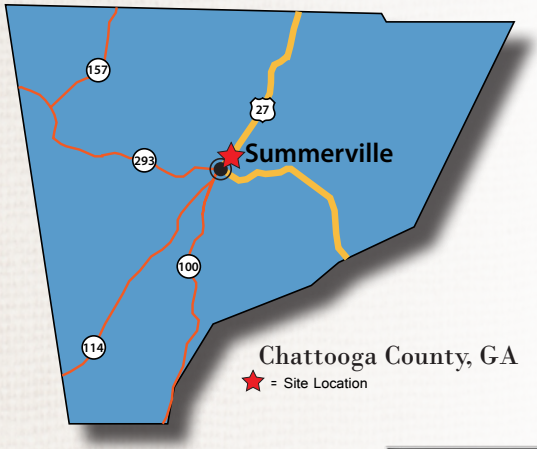


The Couey-Owings-Knowles House

P.I. #621070

Chattooga County At a Glance:

Site 3 is located in Chattooga County, off of University Street, in the heart of Downtown Summerville. The historic resource known as the Couey-Owings-Knowles House is an 1840 Single-Pen type house. GDOT Project P.I. # 621070 was a realignment of U.S. 27 / S.R. 1 that required the acquisition and relocation of the house to prevent demolition.



Historic Resources:

- *The Couey-Owings-Knowles House*

Resource Construction Date:

- *ca. 1840*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *7b*

GDOT Construction Type:

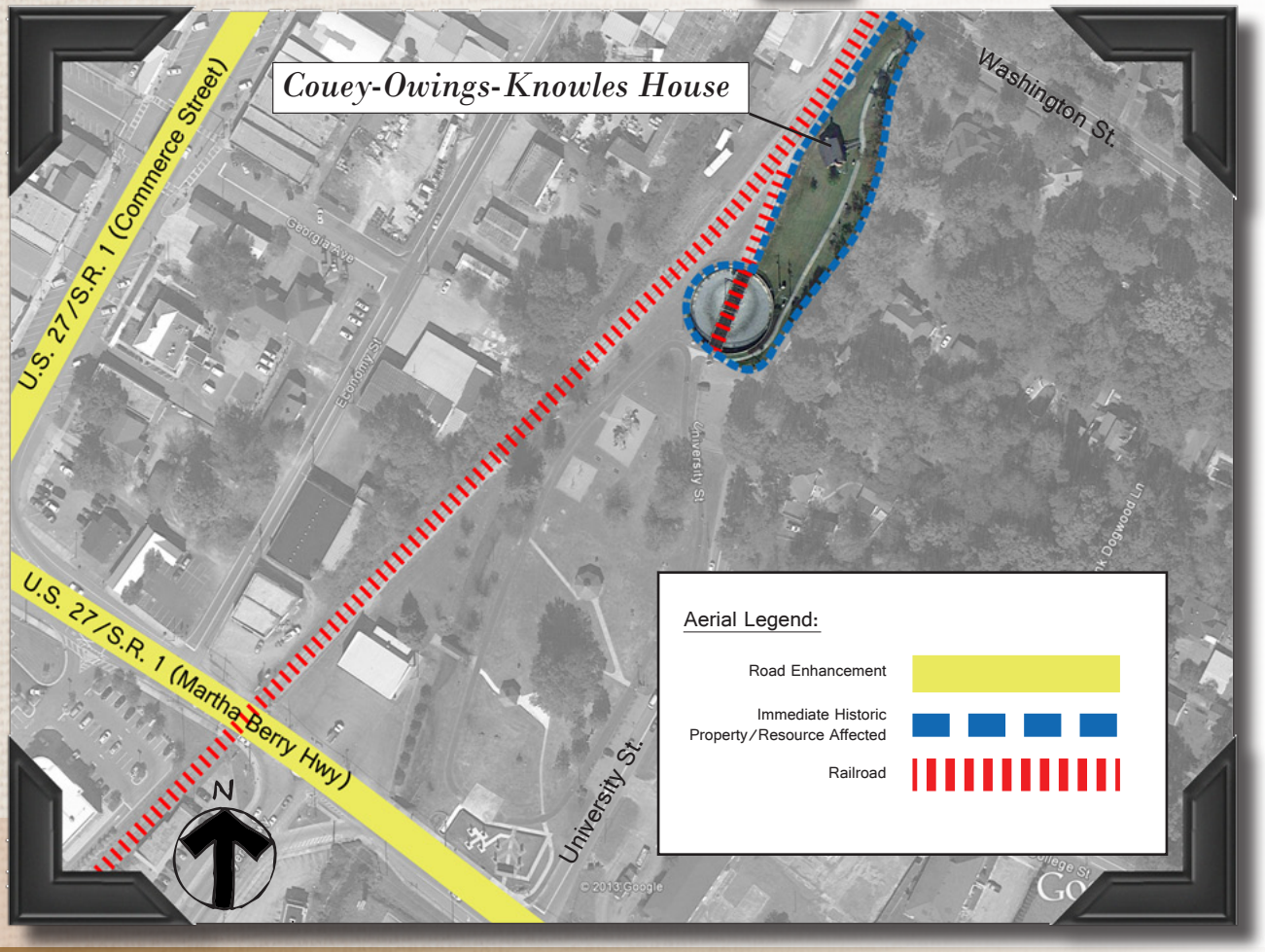
- *Road Widening (Resource Relocation)*

GDOT Construction Completion Date:

- *November 2000*

Adverse Effects:

- *Character Setting*
- *Physical*



*Google Earth, 2013

The Couey-Owings-Knowles House

Research

The Couey-Owings-Knowles House is a circa 1840 Single-Pen type house of log construction (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house was originally located on the west side of U.S. 27 north of C.R. 326, but was moved as a result of the realignment of U.S. 27 / S.R. 1, (GDOT Project P.I. #621070). The house is now located at the northern end of Dowdy Park, in downtown Summerville, Georgia, approximately 7 miles from its original location. The one-and-one-half-story log house currently sits on a stone pier foundation and is topped by a gable-end roof. Though additions had been made to the structure during its long history, the only portions moved were the historic core, measuring 27 feet wide by 18 feet deep, and some elements of the full-width shed roof front porch. Prior to being moved, the house had been sheathed in both weatherboard and clapboard siding, and tarpaper covered the roof. All of the siding has since been removed, revealing the historic hand-hewn logs and joinery. The roof has been resurfaced with wood shake shingles. The Couey-Owings-Knowles House is significant as a good representative example of a Single-Pen type house of log construction, as well as its "contribution to the understanding of the use of logs as a building material and how they were utilized in building construction in this region of North Georgia during the early part of the Nineteenth Century" (Couey-Owings-Knowles House, HABS No. GA-2297). Originally located on a 400-acre parcel of land, the Couey-Owings-Knowles House was once a profitable farmstead which produced livestock, corn, and cotton. The surrounding setting included a vegetative make-up of mature pine forest species. Given the plant species on the original site and the property's agricultural background, the landscape would be classified as Historic Vernacular. The house is eligible for listing in the NRHP under Criterion C for architecture.

GDOT Project P.I. # 621070 widened U.S. 27 /S.R. 1 within a 200 ft. right-of-way, beginning at S.R. 156 in Floyd County and ending at C.R. 329 in Chattooga County. The purpose of the project was to create continuity with the existing four-lane portion of U.S. 27/ S.R. 1 and reduce

Front/south facade of the Couey-Owings-Knowles House in Dowdy Park. Facing north.

Figure 3a

Memorandum of Agreement Landscape Stipulations:

- "The preservation plan also shall include a landscape plan for the proposed future site for the Couey-Owings-Knowles House in Dowdy Park in the City of Summerville, Georgia, which shall be developed by GADOT. National Register Bulletin 30, "Guidelines for Evaluating and Documenting Rural Historic Landscapes", shall serve as the guideline for developing the landscape plan. All re-creations of landscape features shall be based on historical information."

- "The SHPO and the City of Summerville, Georgia shall be afforded 30 days to review and comment on the preservation plan."

- "Within 90 Days of completion of the preservation and landscape plans for the Couey-Owings-Knowles House, the SHPO shall be afforded the opportunity to re-evaluate the eligibility of the resource in its new site."

traffic delays by creating passing opportunities. The project widened the existing two-lane facility to four 12-ft. travel lanes with a 44-ft. wide depressed median and 10-ft.-wide shoulder. The road widening resulted in acquisition and relocation of the Couey-Owings-Knowles House to Dowdy Park in Summerville, Georgia.

The Assessment of Effects document determined that the road widening would have an adverse effect on the physical characteristics of the historic resource, due to the acquisition and removal of the Couey-Owings-Knowles House. As a result, a Memorandum of Agreement was developed. The landscape stipulations are listed in Figure 3a.

The preservation plan specified in the MOA proposed that the Couey-Owings-Knowles House be relocated to Dowdy Park in downtown Summerville. The preservation plan states, "Although Dowdy Park is located in an urban setting, its proximity to a well maintained residential district and a viable commercial district is seen as a positive sign the resource will be visible and inviting to the public." J.R. "Dick" Dowdy Park is located in the heart of Summerville, Georgia. University Street forms the eastern edge of the park, and U.S. 27 / S.R. 1 forms the southern edge. Topographically, the park is generally flat with the exception of the northernmost point where the railroad enters onto the site (see Page 98, Photo 3). The surrounding setting includes an early-twentieth-century neighborhood to the east of the park and the downtown district of Summerville to the west (see Page 100, Photo 5).

The landscape plan was developed in 2001 and included only the northern end of the park, ending at the railroad turntable. The plan called for an extensive planting scheme that made full use of the strip of land on which the house was relocated. On the plan, the front of the house faces the railroad tracks and a series of curvilinear paths divide the landscape. One of these paths stretches from the northern end of the park to the southern end of the railroad turntable. Another path circles the house and leads to an open lawn space, parterre garden, and orchard. A rustic fence was proposed to run along the western edge of the path and garden area. Beds of flowering trees, evergreens, shrubs, and groundcovers fill the rest of the space. The landscape architecture consultant declined to provide a plant schedule of specific plants that were proposed. The landscape plans are located in Appendix A of this report.

Site Analysis

A site analysis was conducted on May 31, 2013. The Couey-Owings-Knowles House was present within Dowdy Park as shown in the landscape plans. Because the landscape architecture consultant declined to provide a plant list, there is no way of knowing what specific plants were proposed. However, it was evident that the landscaping had not been installed as per the landscape plans (see Page 102, Photo 7). Plants that were installed on-site included Red Oak (*Quercus rubra*), Crape Myrtle (*Lagerstroemia indica*), Fringe Flower (*Loropetalum chinensis*), Nandina (*Nandina domestica*), and Liriope (*Liriope muscari*). Two oak trees at the south corner of the house are the only plantings installed in close proximity to the house in the current landscape (see Page 118, Photo 6). All plants on-site were in excellent health and well-maintained; however, none of these plants were arranged as in the landscape plan.

The house was set diagonally on a very narrow swath of land at the north end of Dowdy Park (see Page 104, Photo 9, and Page 105, Photo 10). The parcel measured approximately 75 ft. across at its widest point and was bordered by an early-twentieth-century residential neighborhood immediately to the east and a pair of railroad tracks immediately to the west (see Page 109, Photo 14). Across the railroad tracks, within the viewshed of the house, are some industrial buildings and the 1918 Summerville Depot (see Page 102, Photo 7). In 2003, a historic railroad turntable was installed in the park just south of the house (see Page 103, Photo 8).

The southern end of Dowdy Park is equipped with a walking path, playground and exercise equipment, two pavilions, multiple picnic tables, and a war memorial honoring Chattooga County veterans (see Page 108, Photo 13; Page 110, Photo 15; and Page 112, Photo 17).

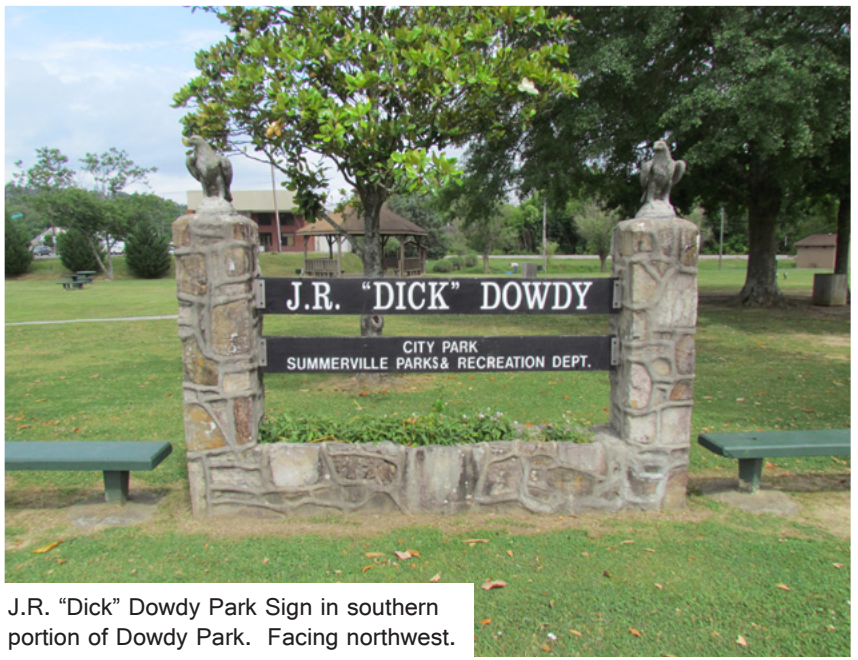
The current condition of the house is poor. The rear sill has been broken, and sagging towards the middle of the house is evident (see Page 105, Photo 10). Significant insect damage was also noted on the rear of the building. City employee Tony Carroll identified the insects as powder post beetles.

Mr. Carroll also said there had been incidents of vandalism and arson since the house was relocated to the park, resulting in the city shuttering and padlocking the window openings (see Page 96, Photo 1). Mr. Carroll stated that while GDOT funded the relocation of the historic resource and the development of a landscape plan, no funding was provided for the installation of the landscape treatment. Mr. Carroll stated that the original plans were too extensive and would have required heavy maintenance had all the landscaping been installed. He felt the relocation of the house was successful, and he was proud of the maintenance the city provided.

Evaluation

Given the growing traffic demands of U.S. 27 / S.R. 1, acquisition and relocation of the Couey-Owings-Knowles House was essential to preserving the historic resource, since a "no-build" alternative for GDOT Project P.I. #621070 was not deemed a viable option. The relocation site for the historic resource does not reflect the historic setting of the Couey-Owings-Knowles House. Dowdy Park is an active green space with playgrounds and walking paths (see Page 108, Photo 13) as well as an active rail line and turntable. The park's location, just outside of the downtown area, does not reflect the house's original, rural, setting.

Stipulation 3 of the MOA states that the plan was to be based on historical information and on National Register Bulletin 30, "Guidelines for Evaluating and Documenting Rural Historic Landscapes." According to that document "rural landscapes commonly reflect the day-to-day occupational activities of people engaged in traditional work," including agriculture, "and have not been developed according to academic or professional design standards, theories, or philosophies of landscape architecture." Whether the designer of the landscape plan integrated specific historical information about the Couey-Owings-Knowles House into the plan is not known, but in general, a more sparse and informal landscape plan would have been more appropriate in terms of historic context of a circa 1840 log cabin. However, it would have been almost impossible to implement a plan that would reflect the true historic setting of the house or one similar, given the confines of its current location in the park. The plan as drawn did attempt to include components of the rural landscape, as defined by Bulletin 30, including a "Circulation Network" of paths leading from the house to the garden, orchard, and points further. The plan also included "Boundary Demarcations" in the form of the rustic fence, as well as the paths and plantings. "Vegetation Related to Land Use" (agriculture, in the case of the Couey-Owings-Knowles House) is found in the orchard, parterre garden, open field, and ornamental trees. However, all of these elements are speculative; without historic photos or an oral history of the resource's historic landscape, there is no way to determine the historic setting.



J.R. "Dick" Dowdy Park Sign in southern portion of Dowdy Park. Facing northwest.

As stated earlier, the landscape plan was never installed. The Couey-Owings-Knowles House is set in a grassy lawn (see Page 118, Photo 6). A more appropriate recommendation for this historic resource would have been to relocate the structure in a larger and more passive park where there would be ample room surrounding the house, much like its original setting would have been. The team's field checklist and results are shown in Figure 3b.

Summary

Site Analysis Summary:

- House was relocated as per landscape plans.
- The landscape plan was not implemented.
- Residential neighborhood east of house and park.
- Downtown Summerville west of house and park.
- Park was well used and maintained.
- House was in poor condition.

Evaluation Summary:

- Relocation of Couey-Owings-Knowles House was necessary for its preservation.
- Downtown park setting does not reflect original historic setting.
- Landscape plan does propose circulation network and "boundary demarcations" in the form of a rustic fence.
- Consideration should have been given to a more informal and generously spaced landscape plan.
- The location allows the historic house to be a great education tool for the public.

Figure 3b

Field Checklist: The Couey-Owings-Knowles House

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
-Yes

Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 100%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: N/A

Description: The Couey-Owings-Knowles House front facade prior to relocation.

**Pre-construction photos taken ca. 1993, prior to house relocation.*

Pre-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

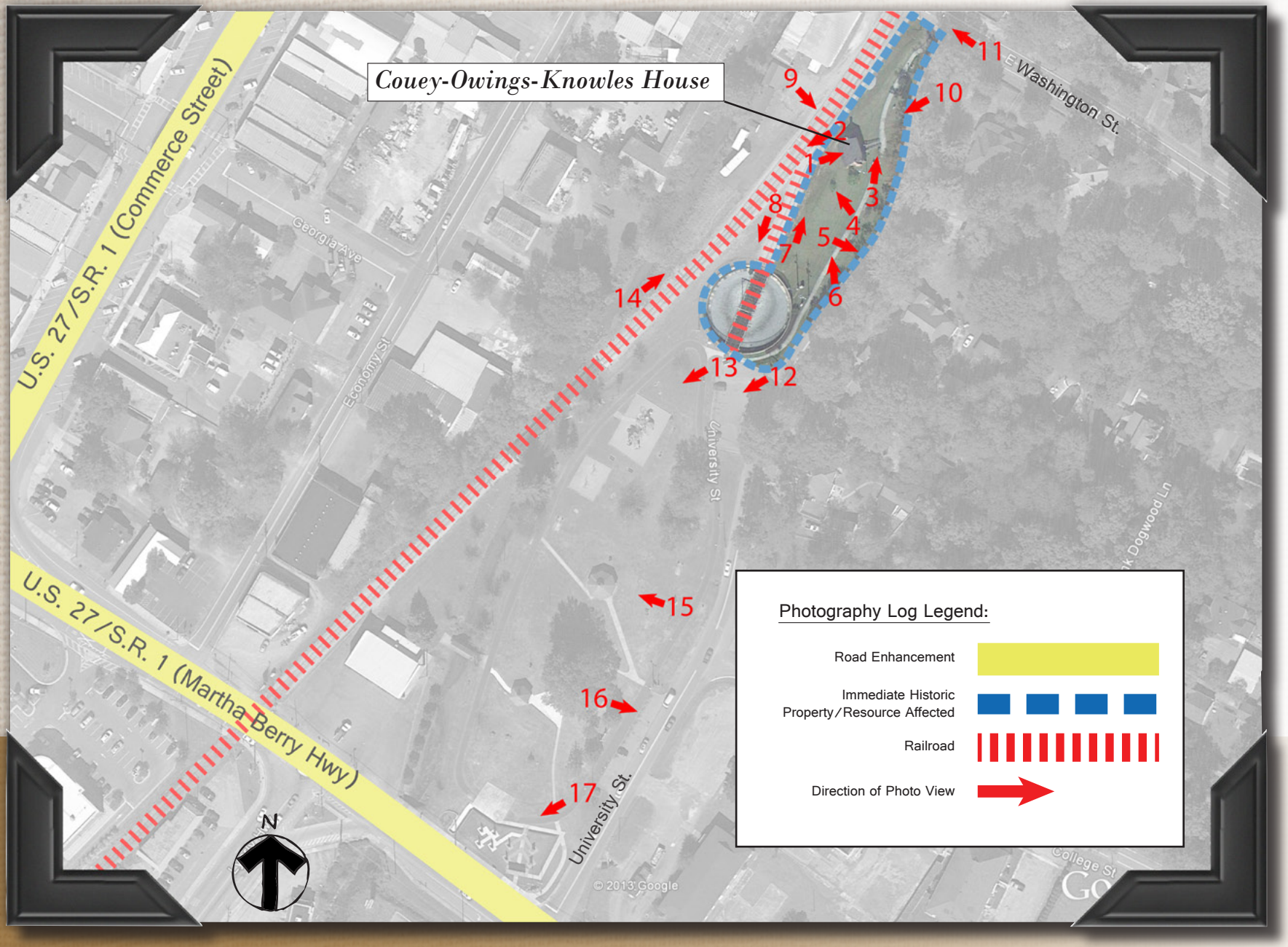
Photo Number: N/A

Description: The Couey-Owings-Knowles House exterior chimney prior to relocation.

Pre-Construction Aerial and Photo Site Map:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

*Google Earth, 1993

Post-Construction Aerial and Photo Site Map:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070



*Google Earth, 2013

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 1

Description: The Couey-Owings-Knowles House front/west facade. Windows and doors padlocked shut Facing east.

Post-construction photos taken May 2013.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 2

Description: Railroad tracks located in park, left pair splits off to turntable located in park. Facing southwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 3

Description: Dowdy Park sidewalk behind Couey-Owings-Knowles House. Facing north.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 4

Description: Scarlet Oak in Dowdy Park southwest of Couey-Owings-Knowles House. Facing northwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 5

Description: Residential neighborhood east of Dowdy Park and University St. Facing east southeast.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 6

Description: The Couey-Owings-Knowles House southern facade and two Red Oaks located south of the house. Sidewalk runs parallel with University St. Facing north.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 7

Description: Train Depot north of Couey-Owings-Knowles House, north of Washington St. Facing north.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 8

Description: The railroad turn table in Dowdy Park southwest of the Couey-Owings-Knowles House. Facing southwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 9

Description: The Couey-Owings-Knowles House west and north facade. Facing southeast.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 10

Description: The Couey-Owings-Knowles House north facade. Facing southwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 11

Description: View of Downtown Summerville from intersection of Washington St. and University St. Facing northwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 12

Description: Southern portion of Dowdy Park and parking lot, from University St. Facing southwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 13

Description: Dowdy Park playground and train trestel. Facing southwest.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 14

Description: Railroad track split west of turntable. View facing northeast.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 15

Description: Gazebo located in southern portion of Dowdy Park. Facing west.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 16

Description: Historic building located east of Dowdy Park between College St. and U.S. 27/S.R. 1. Facing east.

Post-Construction Photographs:
The Couey-Owings-Knowles House, Chattooga County - P.I. # 621070

Photo Number: 17

Description: Veteran's Memorial located in southern portion of Dowdy Park, adjacent to and north of U.S. 27/S.R. 1. Facing southwest.

Clayton County

Site 4

The Rex Industrial/Commercial District

P.I. #753010

Clayton County At a Glance:

Site 4 is located in Clayton County, off of Rex Road, approximately 5 miles north of Stockbridge, Georgia. The historic resources—collectively referred to as the Rex Historic District—consist of a grist mill (circa 1820), a cotton gin, a mercantile shop, various shops, and a house. GDOT Project P.I. #753010 was a bridge construction project, which resulted in an adverse visual effect to the resource.

Historic Resources:

- *The Rex Industrial/Commercial District*

Resource Construction Date:

- *ca. 1820-1959*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a*

GDOT Construction Type:

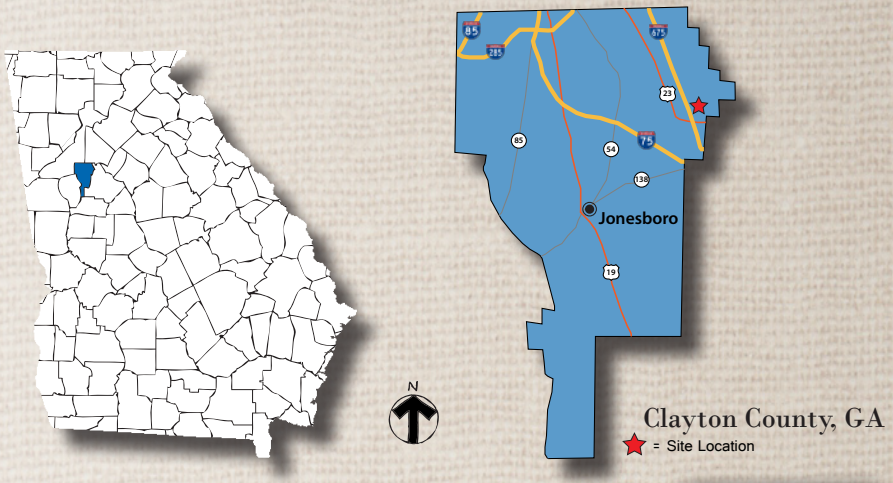
- *Bridge Construction/Road realignment*

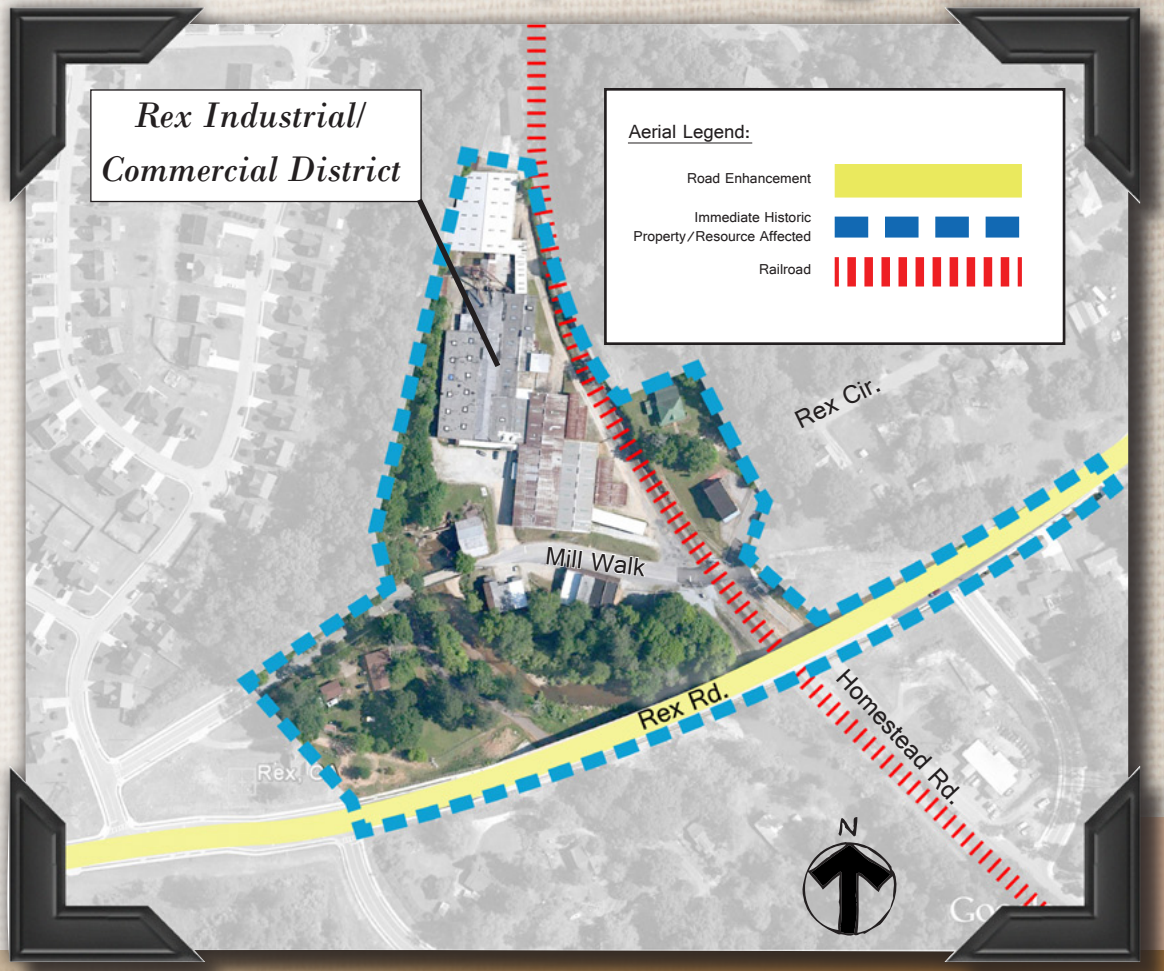
GDOT Construction Completion Date:

- *August 2009*

Adverse Effects:

- *Visual*





*Google Earth, 2013

The Rex Industrial/Commercial District

Research

The Rex Industrial/Commercial District is a circa 1820-1959 rural industrial and commercial district. The district centers on the Rex Mill, which was in continuous use from 1920 through 1959 (see Page 121, Photo 2). The district was built up around the mill and dam, and includes a pony-truss bridge over Little Cotton Indian Creek, several commercial shops, a cotton gin, and the Norfolk-Southern railroad. The Rex Industrial/Commercial District is eligible for listing in the NRHP under Criterion A for engineering and agriculture and Criterion C for architecture. Because of its agricultural and industrial setting, the landscape is considered Historical Vernacular.

GDOT Project PI #753010 was a new bridge construction and road realignment of Rex Road. The purpose of the project was to provide a more efficient route over Little Cotton Indian Creek. The project realigned Rex Road to bypass the Rex Historic District and constructed a new bridge located approximately 540 ft. south of the existing bridge, 45 ft. above the creek bank. The roadway project was designed for a speed limit of 35 miles per hour in a commercial area, which requires a minimum horizontal clearance of 4 ft. between the center of tree and the edge-of-pavement or the face of curb*. The project documents did not specify a clear zone requirement for this project.

Figure 4a

Memorandum of Agreement Landscape Stipulations:

- "Prior to project implementation, a special provision will be added to the construction contract which requires design to consider the feasibility of staging equipment on the south side of the proposed bridge in order to save the vegetation located on the north side of the proposed bridge."

- "A modified Texas Rail will be used for the design of the proposed bridge. This design will consist of window indentations formed into the rail with concrete panels at the opening."

- "Prior to project implementation, a landscape plan will be drafted to plant screening vegetation at both ends of the bridge along the end rolls."

- "A neutral color coating such as white or beige will be applied to the safety fencing in lieu of the standard zinc or aluminum coating."

The Assessment of Effects document, completed in October 2003, determined that the 45-ft.-high bridge on new alignment south of both properties would be clearly visible from the east end of the district and introduce "an element that is completely out of character" with the historic viewshed of the district. As a result, a Memorandum of Agreement was developed. The stipulations of that MOA are listed in Figure 4a.

Gayle Bettingfield, the head of the Rex Village Historic Preservation Committee, and her husband have owned the mill and other buildings in Rex since 1972. She stated that the bridge was needed from a safety standpoint, but one of the negatives has been that people now bypass the village and, as a result, the stores have suffered. She also mentioned the property owner at 3829 Rex Road, who had a portion of the landscape treatment installed in front of his house. He now finds it dangerous getting in and out of his driveway due to site visibility issues caused by the new plants (see Page 138, Photo 18). Mrs. Bettingfield stated that she was never contacted or involved in the development of any mitigation efforts for the Rex Historic District. She said that she and her husband would have liked to have had the opportunity; it would have given them a greater sense of ownership in the landscaping since they are the only ones who maintain the GDOT landscaping. The MOA did not specify that any stakeholders be

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Mercantile Shop in Rex Historic District, pre-construction. Facing north.

contacted regarding the landscape mitigation effort. The MOA also did not specify a maintenance plan.

The GDOT project manager was interviewed concerning the bridge and the landscape mitigation effort. He stated that two Public Information Open Houses were held for the general public. The public's main concern was the bridge being an "eye sore" to the historic district; as a result, the project historian recommended painting the bridge beige. The project manager also suggested that historians, project managers, and designers needed to collaborate more and create an agreed-upon set of project priorities. Typically, the project manager has to determine methods to accommodate both project budget and project schedule after they receive historians' stipulations. The project manager stated that there was no collaboration between him and the historian during the development of the stipulations. As a result, the project budget and schedule were increased significantly beyond the original estimate. The project manager suggested that if someone (e.g., historians, the public) makes comments or stipulations that are reasonable and necessary, the budget and schedule should be adjusted to accommodate the additional effort.

The GDOT historian stated that the biggest success was the staging of the equipment during construction. The construction equipment was required to be staged where it would have minimal impact on the surrounding environment. As a result, mature vegetation in between the bridge and the historic district was preserved, effectively shielding the majority of the bridge from the resource. The historian stated that she hoped that the eastern end of the bridge would be visually buffered from the district by the landscape mitigation treatment; however, she said there was no collaboration between her and the project landscape architect. Because the screening of the northeast end of the bridge was never emphasized, the landscape plans did not include landscape mitigation in this area. The historian stated that there was no landscape maintenance agreement established for the upkeep of the landscape mitigation effort. She also stated that painting the safety fence that runs along both sides of the bridge may not have been necessary due to the amount of maintenance that will be required to periodically repaint the fence. She agreed that an effort needs to be made to have all involved parties (project manager, project designer, historian, landscape architect) meet before and during development, throughout construction, and after construction has been completed, to ensure an effective mitigation.

Retail shops in Rex Historic District, post-construction. Facing east.

The landscape plan was developed by GDOT landscape architects. The GDOT landscape architect was unable to recall much about the design or the project itself; however, she did remember being asked to produce a hand-sketched design for the landscape mitigation effort associated with the project. She stated that GDOT landscape architects are often asked to produce a landscape design as part of a mitigation effort. Once they have submitted the plan, however, they may never hear of the project again. In some cases, the project manager may not use these plans. The landscape architect stated that this practice is sometimes the reason why the landscape mitigation that is installed on-site differs from what the GDOT landscape architect had originally designed.

The landscape plan proposed a formal landscape treatment comprised of hardwood forest species planted in singular rows along Rex Road and shrubbery at both ends of the bridge. The trees, Overcup Oaks (*Quercus lyrata*) and Serviceberries (*Amelanchier x grandiflora*), were proposed on both the north and south sides of Rex Road. The Overcup Oaks were proposed on the west end of the bridge, and the Serviceberries were proposed on the east end of the bridge. The

shrubs, American Hollies (*Ilex opaca*), were proposed on both ends of the bridge, on both the north and south sides of Rex Road, within the end rolls. The Plant Schedule can be found in Figure 4b, and the landscape plans can be found in Appendix A of this report.

Plant Schedule:

Figure 4b

QTY.	Botanical Name	Common Name	Spacing
16	*Quercus lyrata*	Overcup Oak	35' O.C.
12	*Ilex opaca*	American Holly	12' O.C.
11	*Amelanchier x grandiflora*	Serviceberry	20' O.C.

Site Analysis

A site analysis was conducted on May 22, 2013. The Serviceberries were the only plant species proposed in the plant schedule that were absent from the site. The landscape treatment was located along Rex Road, to the east and west of the new bridge. There were three American Hollies at the southwest quadrant of the bridge. The remainder of the hollies had been installed at one time, as was evident from street views from 2012 available online; however, these plants had died and been removed prior to the site visit. Instead of the proposed Serviceberry shrubs on the south side of Rex Road, Crepe Myrtles (*Lagerstroemia indica*) were planted. The Crepe Myrtles were planted 20 ft. on center and were in good health (see Page 138, Photo 18). The Overcup Oaks were all present, but still had guying wires attached to them and were in declining health (see Page 142, Photo 22). One hundred percent of the proposed landscaping had been installed; roughly 65 percent of it survived. All landscape material installed on-site was installed per the landscape plans, with the exception that Crepe Myrtles replaced the proposed Serviceberries. Lack of maintenance and failure to remove tree guying wires contributed to the poor health of the trees.

Per the MOA, a modified Texas rail was installed on the bridge and the safety fencing was painted beige (see Page 135, Photo 15, and Page 139, Photo 19). Preservation of the existing vegetation south of the historic district did occur and provided a visual screen between the west end of the bridge and the historic district (see Page 124, Photo 4). There was no vegetation planted along the end rolls of the bridge on the east end (see Page 134, Photo 14). Only the American Hollies on the west end of the bridge were planted within the end roll (see Page 140, Photo 20)

Evaluation

The use of Crepe Myrtles was unfitting to the context of the site because the species is not found naturally occurring around creeks or lowland forest settings. When asked regarding this plant substitution, the GDOT landscape architect stated that sometimes the contractor may not have access to a particular plant and will defer to the construction engineer for approval of another species. This is what might have happened in this project. The construction engineer is not qualified to make this decision if he has no formal background in landscape architecture.

The painting of the bridge will require ongoing maintenance, as the paint will start to chip due to weathering. Given that the goal of mitigation efforts was to conceal the bridge, painting it a beige color was unnecessary and counterproductive; the color makes the bridge stand

Rex Mill in Rex Historic District, post-construction. Facing northeast.

out against the dark green color of the existing vegetation's foliage. Additionally, a landscape maintenance plan should have been established. The Crepe Myrtles installed as part of the mitigation along Rex Road will need to be maintained to ensure that they do not become overgrown and impede sight distance along the road.

Stipulation 4 of the MOA states, "A landscape plan will be drafted to plant screening vegetation at both ends of the bridge along the end rolls." Aside from the substitution of Serviceberries with Crepe Myrtles, the landscape was installed as drawn; however, it does not offer effective screening of the bridge as viewed from the east end of the Rex Industrial/Commercial District (see Page 127, Photo 7). The majority of plantings were installed on the south side of the bridge, which is not visible from the eligible property. In order to effectively screen the bridge from the resource, the plantings should have been installed north of the bridge on its east end. The only plantings called for north of the proposed bridge were three American Hollies that did not survive. Had they survived, the closely spaced shrubs prescribed in the landscape plan would have been an insufficient screen. A more appropriate plant choice for this area would have been Eastern Red Cedar (*Juniperus virginiana*). These trees are appropriate to the region and would have provided an effective screen of the eastern end of the bridge.

An effective component of the mitigation efforts was the preservation of the existing vegetation to the north of the bridge, shielding the new bridge from the Rex Historic District. The team's field checklist and results are shown in Figure 4c.

Summary

Site Analysis Summary:

- Landscaping arranged as per landscape plan.
- Crepe Myrtles were used instead of Serviceberries.
- End rolls of bridge not planted.
- 65% of the landscape material survived.
- A modified Texas rail was used on the bridge.
- Fencing along bridge was painted beige.
- Existing mature vegetation over Little Cotton Indian Creek was preserved.

Evaluation Summary:

- Subbing Serviceberries with Crepe Myrtles was unfitting with the ecology and history of the site.
- Bridge will have to be repainted once the current paint layer starts to peel due to weathering.
- Landscape maintenance plan should have been established to improve sight distance from private residences.
- East end of bridge not screened, West end of the bridge effectively screened by preserved vegetation.
- Vegetation installed on south side of bridge unnecessary. These plants cannot be seen from the historic district.
- Consideration should have been given to planting taller evergreens along the eastern end roll of the bridge.
- The landscape mitigation effort was successful due to the preservation of the existing vegetation, which served an effective visual buffer of the bridge from the resource.

Figure 4c

Field Checklist: Rex Industrial/Commercial District

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- No

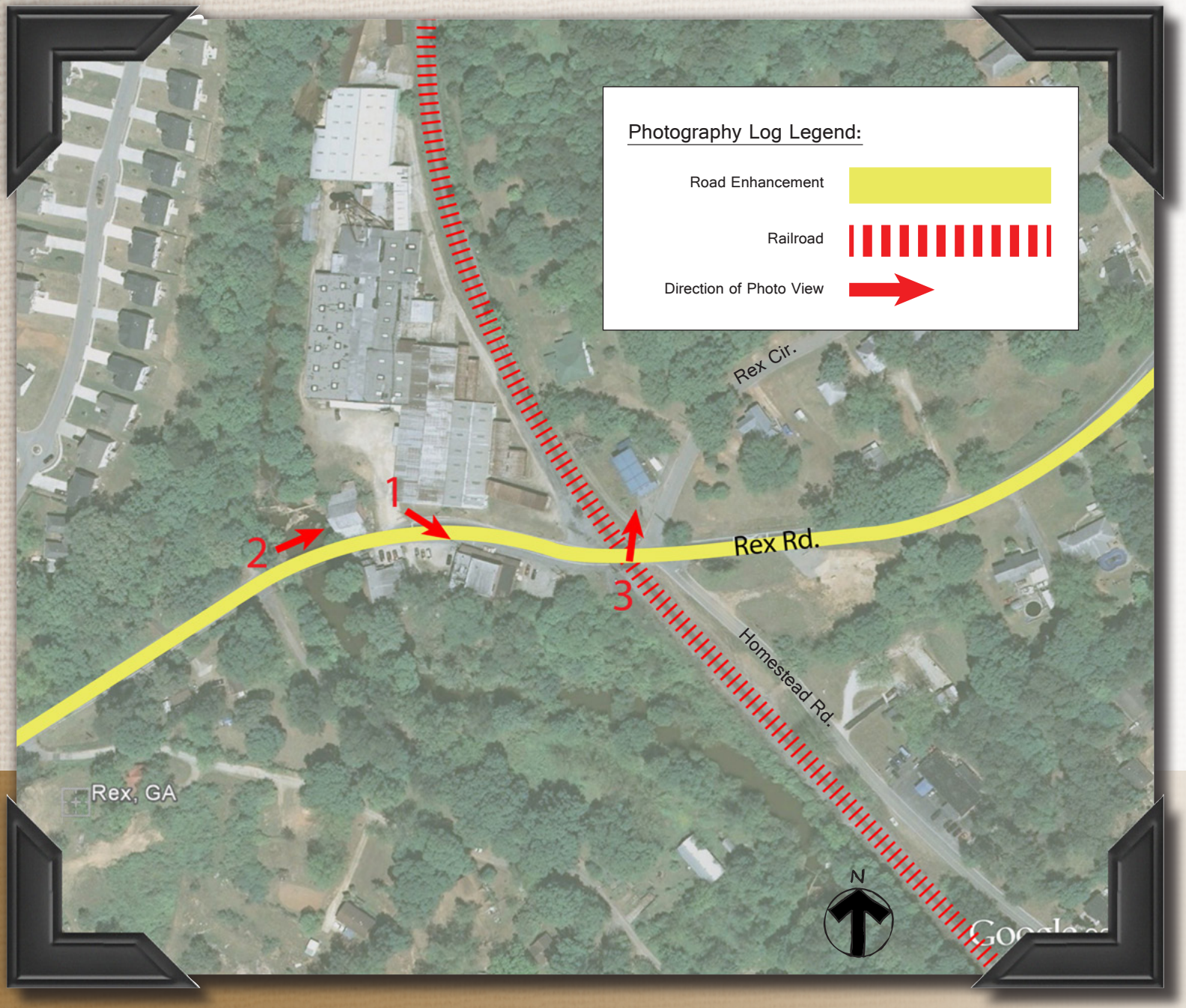
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 65%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010



*Google Earth, 1993

Pre-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 1

Description: Retail shops in the Rex Historic District prior to bridge construction, adjacent and south of Mill Walk. Facing southeast.

**Pre-construction photos taken ca. 2003.*

Pre-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 2

Description: West facade of the Rex Mill prior to bridge construction. Facing northeast.

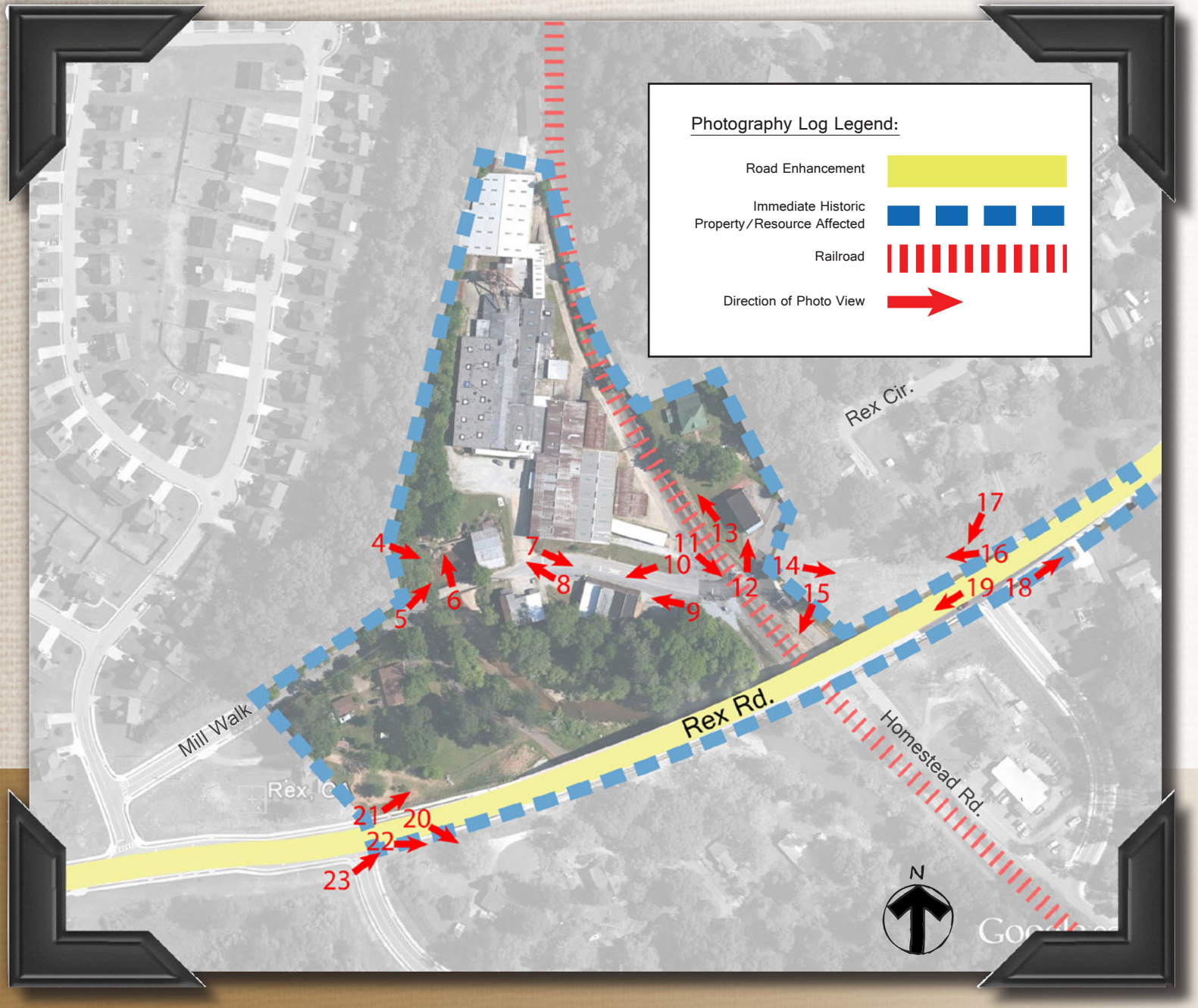
**Pre-construction photos taken ca. 2003.*

Pre-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 3

Description: Mercantile Shop front/south facade prior to bridge construction, adjacent to and north of Rex Cir. Facing northeast.

Post-Construction Aerial and Photo Site Map:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010



*Google Earth, 2013

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 4

Description: Original bridge crossing over Little Cotton Indian Creek (Mill Walk). Facing southeast.

**Post-construction photos taken May 2013.*

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 5

Description: Rex Mill western facade adjacent to and north of Mill Walk. Facing northeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 6

Description: Rex Mill stone dam. Facing north.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 7

Description: Retail shops in the Rex Historic District, adjacent to and south of Mill Walk, new bridge in background. Facing east.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 8

Description: Rex Mill eastern facade, adjacent to and north of Mill Walk. Facing northwest.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 9

Description: Retail shops in the Rex Historic District adjacent to and south of Mill Walk, mill in background. Facing west.

Historic Landscape Mitigation Evaluation Post-Construction Photograph Log: Clayton County - The Rex Industrial/Commercial District; P.I. # 753010

Photo Number: 10

Description: Retail shops in the Rex Historic District adjacent to and south of Mill Walk. Facing southwest.

Historic Landscape Mitigation Evaluation Post-Construction Photograph Log: Clayton County - The Rex Industrial/Commercial District; P.I. # 753010

Photo Number: 11

Description: New bridge (Rex Road) over railroad tracks. Facing southeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 12

Description: Mercantile Shop front/south facade, adjacent to and north of Rex Cir. Facing northeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 13

Description: North-bound railroad tracks over Mill Walk. Facing northwest.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 14

Description: New bridge (Rex Road) northeastern end with non-mitigation planting. Facing east.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 15

Description: Modified Texas Rail on north side of new bridge (Rex Road) over Homestead Rd. and railroad. Facing southwest.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 16

Description: Rex Industrial/Commercial District from northeastern end of new bridge (Rex Rd.). Facing west.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 17

Description: Top of eastern end of new bridge on north side of Rex Rd. Facing southwest.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 18

Description: Residences adjacent to and south of newly aligned Rex Road, on east end of bridge. Crepe Myrtles planted along roadside. Facing northeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 19

Description: Beige fencing along north side of new bridge (Rex Road). Facing southwest.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 20

Description: American Hollies (Ilex opaca) planted on southwest quadrant of Rex Rd. bridge. Facing southeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 21

Description: American Hollies (Ilex opaca) planted on northwest quadrant of Rex Rd. bridge. Facing northeast.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 22

Description: Overcup Oak (Quercus lyrata) planted south of and adjacent to Rex Rd. with tree guying-wire still attached. Facing east.

Post-Construction Photographs:
The Rex Industrial/Commercial District, Clayton County - P.I. # 753010

Photo Number: 23

Description: Overcup Oaks (Quercus lyrata) installed south of and adjacent to Rex Rd., east of Amberly Rd. Facing northeast.

DeKalb County

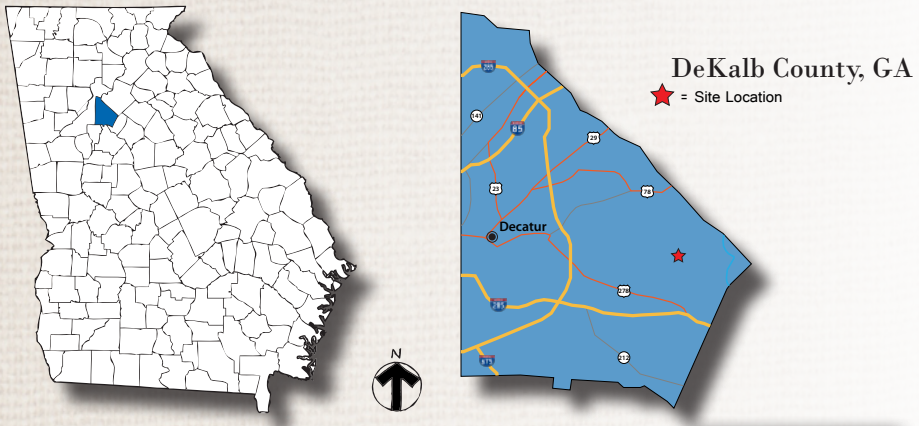
Site 5

The Bond-Purswell House

P.I. #721535

DeKalb County At a Glance:

Site 5 is located in DeKalb County at 1226 Rock Chapel Road, approximately 3.5 miles north of Lithonia, Georgia. GDOT Project P.I. #721535 was a road-widening project on Rock Chapel Road. It adversely impacted the NRHP-eligible Bond-Purswell House, both physically and visually, by altering the resource's character-defining features.



Historic Resources:

- *The Bond-Purswell House*

Resource Construction Date:

- *ca. 1870*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a*

GDOT Construction Type:

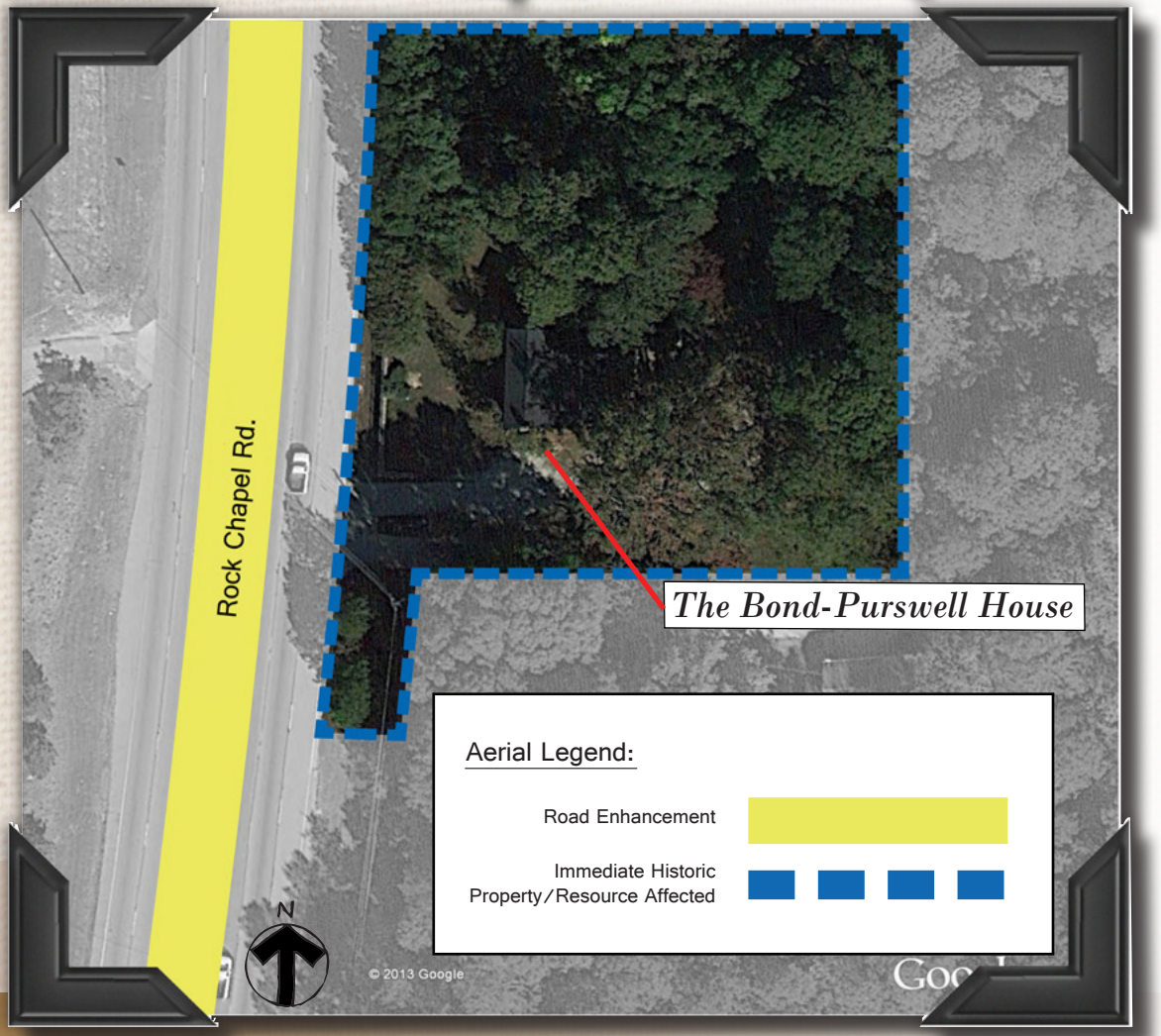
- *Road Widening*

GDOT Construction Completion Date:

- *August 2001*

Adverse Effects:

- *Physical*
- *Visual*



*Google Earth, 2013

The Bond-Purswell House

Research

The Bond-Purswell House was built circa 1870. It is an I-House type, which is defined as a gable-end house, one room deep, and two full stories in height (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). I-Houses are symmetrically designed, with a central entryway. Often I-Houses will have a rear addition, as is the case with the Bond-Purswell House, which has been added onto several times. The historic property information form specified "a rear dormer was added to the second story and the rear ell porch was enclosed and a new kitchen added." The Bond-Purswell House sits on a stone pier foundation that has been infilled with brick. The walls are clapboard. An exterior chimney is on the south elevation of the house. The house has a hip-roof, partial-width front porch, and carving on the supports. The Bond-Purswell House is eligible for listing in the NRHP under Criterion C for architecture.

Prior to the project's construction, the viewshed from the house was shielded by mature vegetation, including a historic Water Oak (*Quercus nigra*). The landscape of the site would be considered historic vernacular, as the original property was once farmland. Initially, all construction associated with GDOT Project P.I. #721535 was to take place within the right-of-way, on the west side of the road, opposite the Bond-Purswell House; therefore, no adverse effect was anticipated. However, during project construction, Richard Cloues, formerly of the SHPO, noticed construction taking place on both the east and west sides of the existing Rock Chapel Road. He learned that GDOT engineers had implemented a concept change in the roadway plans, unbeknownst to GDOT historians, which resulted in construction taking place on both sides of Rock Chapel Road within a minimum 130 ft. right-of-way. The right-of-way was cleared of vegetation to adhere to clear zone requirements. While the project documents never specified a clear zone requirement, Mr. Cloues estimated that it must have run along the front façade of the house. The speed limit for Rock Chapel Road was set for 45 miles per hour, which requires a minimum horizontal clearance of 14 ft. between the center of tree and the edge-of-pavement or face of curb*. The right-of-way conflicted with the grade of the front lawn of the Bond-Purswell House. It was determined that a retaining wall would be constructed in front of the resource to address grading issues, and as a result, the historic Water Oak would be removed.

These actions would result in the loss of the formerly secluded character of the property, with adverse physical and visual effects. As a result, a formal mitigation agreement between GDOT, the Georgia Department of Natural Resources, The Historic Preservation Department, and the property owner, Victor McCrary, was developed in January 2001. The landscape stipulations are listed in Figure 5a.

Figure 5a

Memorandum of Agreement Landscape Stipulations:

- The Georgia Department of Transportation ("Department"), agrees to construct a concrete retaining wall with stone-block veneer also to include "picket" style unornamented metal fence at the location shown on Plan Sheet 51-b, said Plan Sheets being on file at the Department's, Chamblee District Office. Specifications for the wall are to meet those as specified on Attachment A. The Department agrees to maintain that portion of the wall located on the right-of-way, and Mr. McCrary agrees to accept the responsibility for any damage that might occur to that portion of the wall located on his property.

- The Department agrees to provide and install landscaping as shown and specified in drawings by the Jaeger Co. Plan Sheets 51-C and 51-D. The Department further agrees to guarantee the landscaping for a period of one growing season. Mr. McCrary being aware of the nature and growth characteristics of the "Virginia Creepers" agrees to be responsible for any pruning or other desired maintenance of the Virginia creepers during that period of one growing season. After the one year growing season, Mr. McCrary will be solely responsible for the maintenance of the landscaping.

- The Department agrees to construct a concrete drive way to the back of the construction easement.

- The Department agrees to remove the existing 32" diameter oak tree and replace it with up to 3 of the following: White Oak, Shumard Oak, Willow Oak, or Red Maples of 6 to 8" diameter. Choices and locations are to be made by Mr. McCrary.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Attempts to contact Richard Cloues and the McCrary family were unsuccessful. The initial correspondence between Mr. Cloues and GDOT can be found in the Appendix of this report.

The granite stone-block veneer retaining wall / fencing was agreed upon by both Mr. Cloues and the McCrarys. The McCrarys felt very strongly about the fencing along the top of the wall; they did not want to be held responsible for anyone who might fall off the wall. The blocks were specified to be granite, roughly squared, and medium-gray in color. The fencing on top of the wall was to be medium-to-light-gray to match the wall.

The landscape plan proposed an informal landscape treatment to replace lost vegetation on both sides of the Bond-Purswell House, both inside and outside the right-of-way, along the front, west side of the property boundary. Minimal planting was proposed directly in front of the house. Plant material proposed for the project included species native to mature pine forests of Zone 8a, which prefer moist but well-drained soils, as well as a few flowering specimen trees. GDOT agreed to the maintenance of the landscape treatment for one growing season, during which Mr. McCrary would be only responsible for the maintenance of the Virginia Creeper. The formal agreement stated that Mr. McCrary was "aware of the nature and growth characteristics of the 'Virginia Creepers,'" which is an invasive and aggressive plant with high maintenance requirements. After the one-year growing season, Mr. McCrary was then responsible for all landscaping installed as part of the mitigation effort. The plant list is shown in Figure 5b, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on June 27, 2013. Approximately 90 percent of the proposed vegetation was installed and arranged per the landscape plan. Plant specimens proposed in the plan that were not on-site were Virginia Creeper (*Parthenocissus quinquefolia*) and Forsythia (*Forsythia intermedia*). The landscape treatment was planted both within and outside the right-of-way, on both sides of the house, along Rock Chapel Road (see Page 167, Photo 16). The open view of the road from the house was preserved, with minimal planting occurring directly in front of the house (see Page 158, Photo 7). All newly installed trees on-site exhibited full canopies, strong branches, mature height, and appropriate plant spacing (see Pages 154, Photo 3, and Page 156, Photo 5). The landscape treat-

Front / west facade of Bond-Purswell House. Facing east.

Figure 5b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
5	*Acer rubrum*	Red Maple	12' O.C.
6	*Cornus florida*	Flowering Dogwood	12' O.C.
2	*Ilex opaca*	American Holly	not specified
31	*Juniperus virginiana*	Red Cedar	12' O.C.
7	*Liquidambar styraciflua*	Sweetgum	12' O.C.
34	*Pinus taeda*	Loblolly Pine	12' O.C.
4	*Prunus caroliniana*	Carolina Cherry Laurel	not specified
6	*Quercus coccinea*	Scarlet Oak	12' O.C.
8	*Forsythia intermedia*	Forsythia	not specified
5	*Ilex vomitoria "nana"*	Dwarf Yaupon Holly	7' O.C.
5	*Lagerstroemia indica*	Crepe Myrtle	not specified
4	*Perthenicissus quinquefolia*	Virginia Creeper	not specified

ment had a near-100 percent survivability rate. Evidence suggested that two trees had been removed just south of the driveway, as there were tree rings and sunken spots in the soil (see Page 164, Photo 13). These spots appeared to be too close together for either tree to have survived. Eastern Red Cedars (*Juniperus virginiana*) were the trees that had been proposed in the landscape plan for these areas. All other specimens were in good health. In the location of the pre-existing Water Oak, there were remnants of the tree's stump, but no evidence of a replacement tree, as specified in Stipulation 4 of the formal agreement (see Page 159, Photo 8). Several sprigs of Sweet Gum (*Liquidambar styraciflua*) were present across the site (see Page 155, Photo 4).

All hardscape elements – the retaining wall, fencing, and concrete driveway – prescribed in the agreement were present on-site. The retaining wall was constructed of granite stone-block veneer and included an unornamented metal picket fence along the top of the wall; however, it was painted black instead of gray (see Page 166 Photo 15). The paint on the fence was chipping off in some places (see Page 162, Photo 11). The new driveway specified by the formal agreement was constructed of concrete and ended approximately 30 ft. back from the road where the driveway then turned to gravel (see Page 161, Photo 10). Additionally, a second concrete driveway had been constructed for the property behind the Bond-Purswell House, though it was not prescribed in the agreement (see Page 165, Photo 14).

Evaluation

The initiative of Richard Cloues led to a formal agreement, which established roles and responsibilities for both GDOT and the property owner.

An agreement between the property owner and GDOT stated that GDOT "agrees to construct a concrete retaining wall with stone-block veneer also to include a 'picket' style unornamented metal fence..." It appears that the retaining wall and fence were constructed almost exactly as outlined in the agreement, with the exception of the fence color; however, the design is rather formal for the rural setting of an I-House and would be better suited in an institutional environment. The construction of this type of wall is also costly. A retaining wall of this size and material can cost up to $80,000. Instead, a stacked stone wall with no railing would have been more economical and, more important, it would have been more fitting for the rural historic setting. If the wall had been constructed within the right-of-way, the property owner would have been absolved of any liability associated with the structure, and metal fencing would not have been necessary. Additionally, the concrete driveway does not fit within the historical context of the site. A compromise might have been reached with the property owner by proposing that half of the newly constructed driveway be concrete and the other half be gravel, thus reducing the amount of concrete present on the property.

The Sweet Gum, along with other naturally succeeding plants, has spread rapidly and poses a threat to the foundation of the house (see Page 160, Photo 9). While the Sweet Gum is appropriate and pre-existing on the site, it is known for its resilience and aggressive propagation. It will need to be maintained so as not to spread and

Mature Sweet Gum Tree (Liquidambar styraciflua) in backyard of Bond-Purswell House. Facing east.

further endanger the house. As stated in the agreement, the responsibility of the landscape maintenance falls on the homeowner.

This landscape plan was successful. Approximately 90 percent of the plan was installed as drawn, was appropriate for the historic setting, and was in excellent health. In the decade since the project's completion, the surrounding vegetation, as well as the landscape mitigation treatment, has matured, and the property has regained its secluded character (see Page 167, Photo 16). The preservation of the viewshed of the road from the house was also an appropriate and successful effort (see Page 158, Photo 7). It allows the historic resource to remain visible to passing traffic. This is important because it was a pre-existing condition of the site. The team's field checklist and results are shown in Figure 5c.

Summary

Site Analysis Summary:

- Landscaping arranged as per landscape plan.
- Near 100% installation and survival rate.
- Concrete retaining wall constructed as described.
- Fencing along retaining wall painted black instead of gray.
- Concrete Driveway constructed as per Formal Agreement.
- Second Concrete Driveway constructed, not part of Formal Agreement.
- Sweet Gum prevalent on property.

Evaluation Summary:

- Installed plant material is in excellent health and blends well with existing vegetation.
- Pre-existing viewshed of house effectively recreated.
- Retaining wall not in keeping with historic context of the site. Stacked stone retaining wall would have been an appropriate alternative.
- Concrete driveway was not in keeping with the historic context of the site. Using less concrete and more gravel would have been an appropriate alternative.
- The landscape mitigation effort was successful due to the preservation of the views from the house to the road and the use of appropriate plant material which was healthy and blended well with the pre-existing vegetation on site.

Figure 5c

Field Checklist: The Bond-Purswell House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- Yes

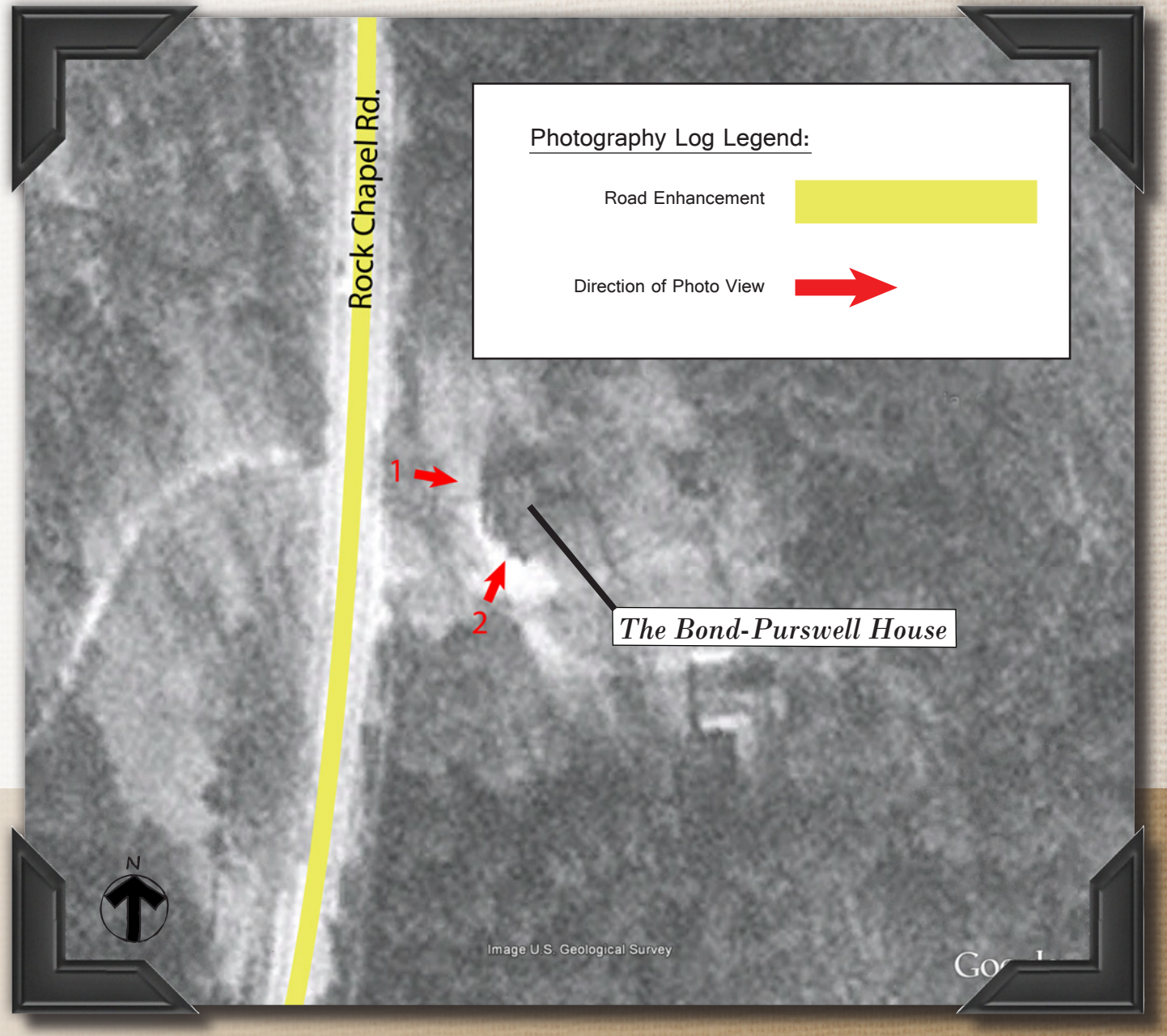
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 98%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map: The Bond-Purswell House, DeKalb County - P.I. # 721535



*Google Earth, 1993

Pre-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 1

Description: Bond-Purswell House front/west facade adjacent to and east of Rock Chapel Rd. Facing east.

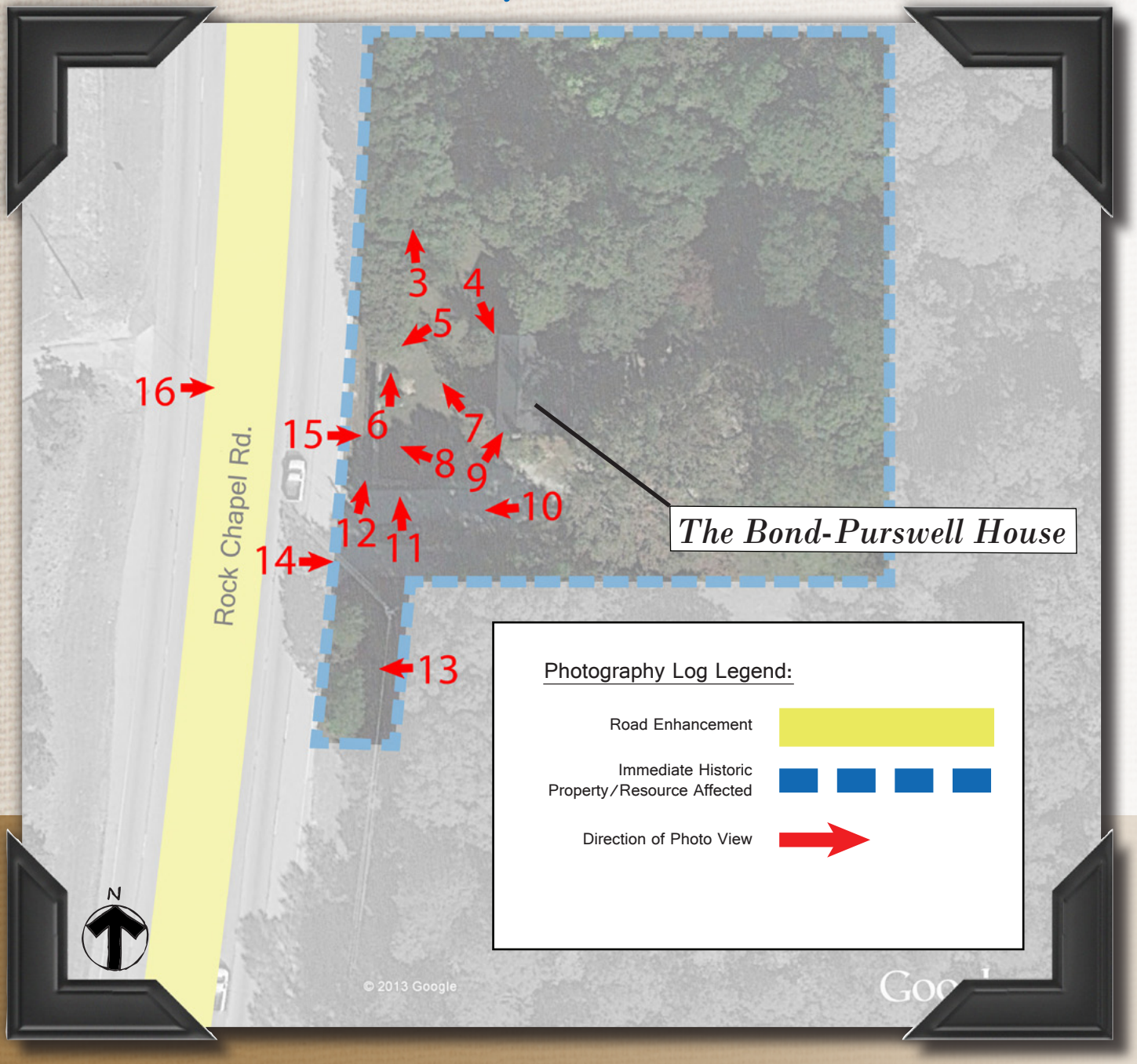
**Pre-construction photos taken ca. 2001.*

Pre-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 2

Description: Bond-Purswell House south facade. Facing northeast.

Post-Construction Aerial and Photo Site Map:
The Bond-Purswell House, DeKalb County - P.I. # 721535

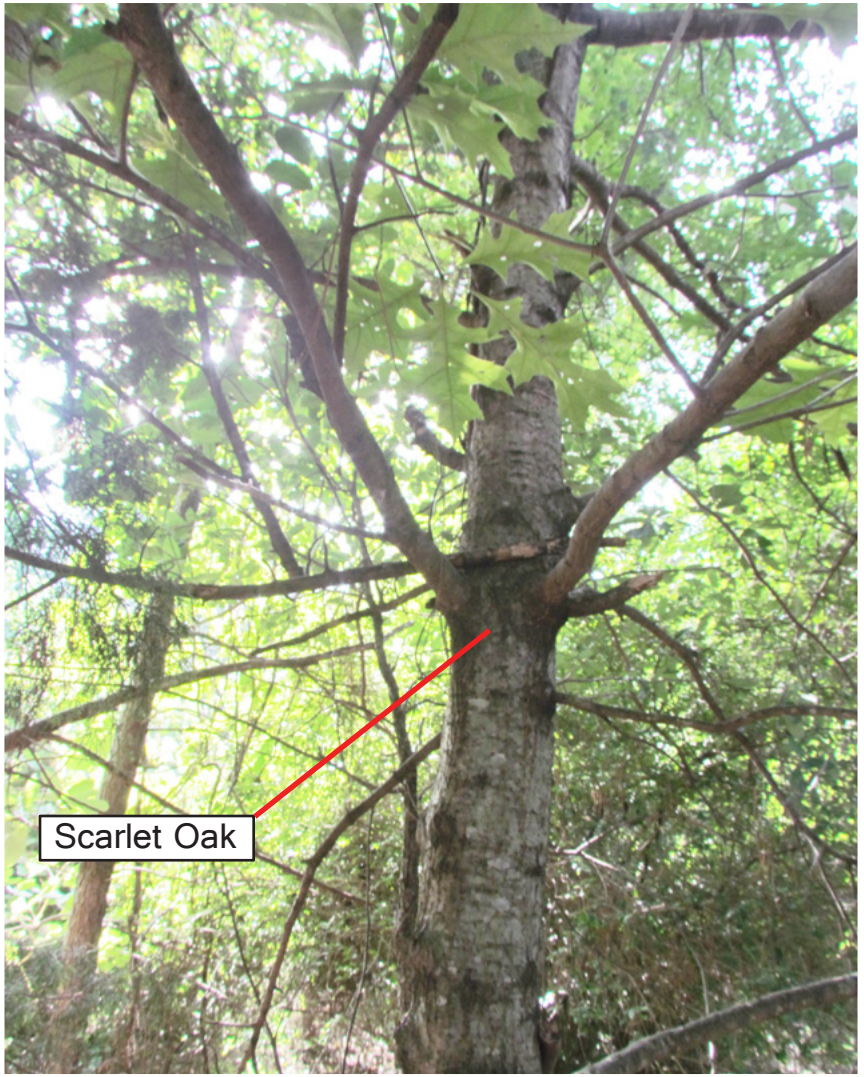


*Google Earth, 2013

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 3

Description: Scarlet Oak tree and surrounding Landscape Mitigation Treatment northwest of the Bond-Purswell House, adjacent to and east of Rock Chapel Rd. Facing north.



**Post-construction photos taken June 2013.*

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 4

Description: Bond-Purswell House front/west and north facade. Facing southeast.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 5

Description: Crepe Myrtles along fence in front yard of Bond-Purswell House, adjacent to and east of Rock Chapel Rd. Facing southwest.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 6

Description: "Picket" style fencing adjacent to and east of Rock Chapel Rd. Facing north.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 7

Description: Crepe Myrtles along fence in front yard of Bond-Purswell House, adjacent to and east of Rock Chapel Rd. Facing northwest.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 8

Description: Remnants of the 32" diameter Water Oak in front yard of Bond-Purswell House, adjacent to and east of Rock Chapel Rd. Facing west.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 9

Description: Bond-Purswell House front/west and south facade. Facing northeast.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 10

Description: Concrete driveway to Bond-Purswell House on east side of Rock Chapel Rd. Facing west.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 11

Description: Minimal black paint chipping on "Picket" style fencing adjacent to and north of concrete driveway. Facing north.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 12

Description: Brick-veneer retaining wall adjacent to and east of Rock Chapel Rd. Facing north.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 13

Description: Landscape Mitigation Treatment southwest of Bond-Purswell House and concrete driveways. Facing west.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 14

Description: Additional concrete driveway south of the Bond-Purswell House concrete driveway east of Rock Chapel Rd. Facing east.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 15

Description: Brick-veneer retaining wall and weep-holes adjacent to and east of Rock Chapel Rd. Facing east.

Post-Construction Photographs:
The Bond-Purswell House, DeKalb County - P.I. # 721535

Photo Number: 16

Description: Bond-Purswell House front/west facade, adjacent to and east of Rock Chapel Rd. Facing east.

DeKalb County

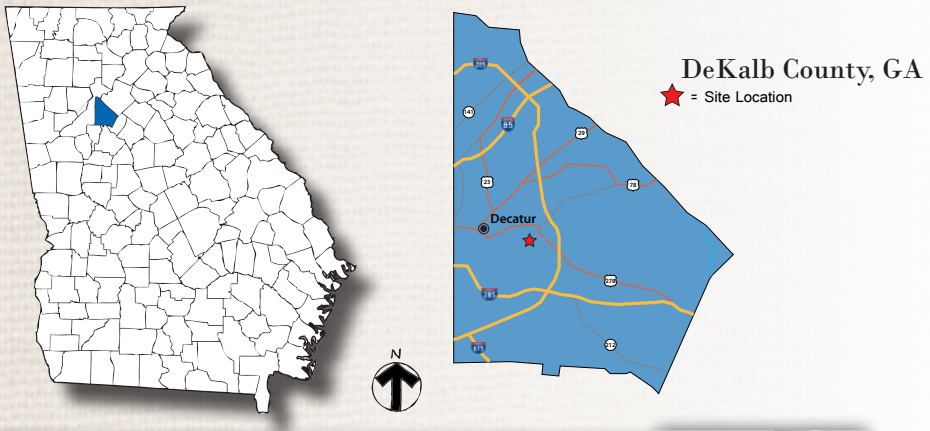
Site 6

The College Heights Historic District

P.I. #752900

Site 6 At a Glance:

Site 6 is located in DeKalb County, just south of the intersection of Midway Road and South Candler Street, in Decatur, Georgia. GDOT Project P.I. #752900 included road widening and a culvert replacement, on South Candler Street, which adversely impacted the NRHP-eligible College Heights Historic District, both physically and visually, by altering the district's character-defining features.



Historic Resource:
- *The College Heights Historic District*

Resource Construction Date:
- *ca. 1945*

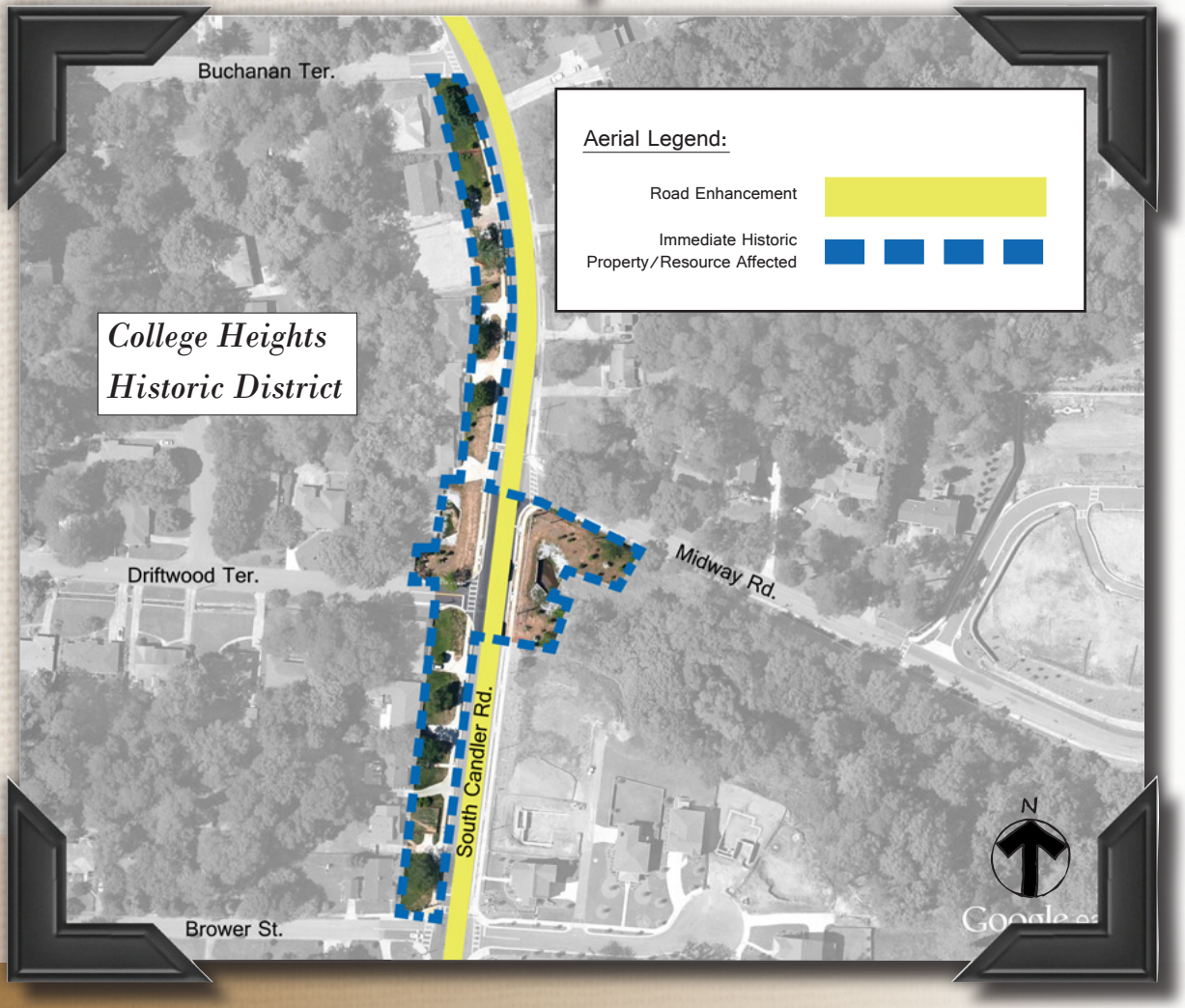
Historic Landscape Type:
- *Historic Vernacular*

USDA Hardiness Zone:
- *8a*

GDOT Construction Type:
- *Road Widening & Realignment*

GDOT Construction Completion Date:
- *September 2012*

Adverse Effects:
- *Physical*
- *Visual*



Source: Google Earth, 2013

The College Heights Historic District

Research

The College Heights Historic District is a post-World War II (WWII) residential neighborhood located in the southeastern portion of the City of Decatur. The period of significance for the proposed district was defined as 1945-1951, the time period within which most of the houses in the district were built, although the neighborhood was platted prior to WWII. There are several hundred houses within the boundaries of the district, the majority of which are the English Cottage house type. Several of the houses exhibit elements of the English Vernacular Revival style (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). American Small Houses and Compact Ranches make up the remainder of the neighborhood. The streets in College Heights were laid out in a curvilinear arrangement, conforming to the natural contours of the land. The houses are set back generously on their landscaped lots. Portions of the neighborhood are heavily wooded, providing areas of deep shade and an overall sylvan setting.

GDOT Project PI # 752900 was a road realignment project on South Candler Street. The project area lies within the proposed boundary of the College Heights Historic District on South Candler Street, between Buchanan Terrace and Brower Street. Candler Street / S.R. 155 functions as a minor north-south arterial road connecting the City of Decatur and I-20. The purpose of the project was to correct roadway and culvert deficiencies, increase operational movements, improve traffic safety by separating the turning and through traffic, and improve pedestrian safety. The project replaced the existing and contributing stone-clad 30-ft.-long culvert with a 105-ft. concrete bridge culvert, constructed left turn lanes for Midway Road and Driftwood Terrace, and added a 5-ft. sidewalk on both sides of Candler Street. The existing two-lane facility was widened to three 12-ft. lanes. Two pedestrian bridges located along Candler Street over Shoal Creek were removed, and a traffic signal was to be installed at the Midway Road intersection. Proposed right-of-way was 60 ft. The project was designed for a speed limit of 25 miles per hour, which requires a minimum horizontal clearance of 8 ft. between the center of tree and the edge-of-pavement or the face of curb*. The clear zone was set at 18 ft.

The Assessment of Effects document, completed in December 2012, determined that the road realignment and widening would have adverse visual and physical effects on the district, due to the removal of the historic culvert and pedestrian bridge and of mature vegetation within the historic district along Candler Street that contributed to the "park-like setting of the district" (AOE). As a result, a Memorandum of Agreement was developed. The landscape stipulation from this MOA is listed in Figure 6a.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

West side of South Candler Street pre-construction at Driftwood Terrace. Facing northeast.

Figure 6a

Memorandum of Agreement Landscape Stipulations:

- "The FHWA will ensure that a landscape plan is developed and implemented for an informal landscape treatment to replace the vegetation that will necessarily be lost during the project implementation. The landscape plan will be implemented within rights-of-way as allowed outside the area required for 'cut and fill' [grading] activities as well as utilities...where DOT right-of-way is not sufficient to implement a landscape plan, the property owners will be contacted and afforded the opportunity to have an informal landscape treatment developed and implemented on private property."

The informal lowland species setting, combined with the historic neighborhood, classifies this landscape as historic vernacular. Prior to the project, there was a dense canopy of trees over the stream (see Page 178, Photo 3) as well as a historic stacked stone culvert to divert the water under the road (see Page 177, Photo 2). The original sidewalks over the creek had handrails for crossing over Shoal Creek (see Page 176, Photo 1). The proposed landscape mitigation was an informal plan that featured a list of lowland forest species affiliated with moist, but well-drained, alluvial soils. The Plant Schedule is located in Figure 6b, and the landscape plans are located Appendix A of this report.

These plants were located along the tops of the banks of the creek and just outside the right-of-way, in front of residential properties. Green and Gold (*Chrysogonum virginianum*) were recommended and proposed for stream bank stabilization. The banks were proposed to be graded at a 4:1 slope. The Green and Gold were specified in 4-inch pots, and spaced at 9 in. on center. A maintenance plan mandated that every 3 months, weeding would be conducted to keep other vegetation from overtaking this low-mounding groundcover. The contractor was to be held responsible for maintenance for two years. Thereafter, GDOT would be responsible for maintaining the Green and Gold, as well as other plants within the right-of-way.

As part of the MOA, GDOT also offered to replant historic trees (50 years or older) removed from private property due to the roadway project. Property owners were reached via mail to inform them of the option to have this landscape mitigation effort installed in their yard. The addresses were: 825 South Candler Street, 827 South Candler Street, 831 South Candler Street, 837 South Candler Street, 843 South Candler Street, 901 South Candler Street, and 919 South Candler Street. The owners were given a choice between Willow Oak (*Quercus phellos*), Red Maple (*Acer rubrum 'October Glory'*), and Lacebark elm (*Ulmus parviflora 'Allee'*). According to the landscape plans, the October Glory Maple was chosen to be installed on all private property sites. These trees were all planted at residences on the west side of South Candler Street so as not to conflict with the overhead utilities on the east side. The tree locations were to be staked and approved by either the project landscape architect or project engineer to avoid conflict with individual utility lines strung to each house. In an email, GDOT landscape architects recommended that these trees' limbs be pruned as they matured to further avoid overhead utility conflict. The GDOT landscape architects advised against landscaping on the east side of South Candler Street near a proposed housing development, as there was not sufficient room between the easement and proposed buildings. Six mature trees specified on the landscape plan were to be preserved during construction, according to the landscape plan. The construction plans specified orange fencing to denote and protect these trees.

Plant Schedule:

Figure 6b

QTY.	Botanical Name	Common Name	Spacing
8	*Acer rubrum 'October Glory'*	October Glory Red Maple	Per Plan
6277	*Chrysogonum virginicum*	Green and Gold	Per Plan
3	*Cornus florida 'Cloud Nine'*	Cloud Nine' Dogwood	Per Plan
6	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
5	*Magnolia grandiflora 'Little Gem'*	Little Gem Magnolia	Per Plan
11	*Oxydendron arboreum*	Sourwood	Per Plan
3	*Pinus taeda*	Loblolly Pine	Per Plan
6	*Quercus phellos*	Willow Oak	Per Plan
29	*Sambucus canadensis*	Elderberry	Per Plan

East side of South Candler Street. Facing north

Site Analysis

A site analysis was conducted on April 15, 2013. The landscape mitigation treatment was sparse and appeared as if the installation was not finished. The installed vegetation featured Sourwood (*Oxydendron arboretum*), Tulip Poplars (*Liriodendron tulipifera*), Willow Oaks (*Quercus phellos*), Little Gem Magnolias (*Magnolia grandiflora 'Little Gem'*), and Green and Gold (*Chrysogonum virginicum*), all of which had been prescribed in the landscape plan. All Red Maples (*Acer rubrum 'October Glory'*) proposed on private property were installed per the landscape plans (see Page 200, Photo 24; Pages 203-206, Photos 26-29; Page 208, Photo 31; and Page 209, Photo 32). The leaves were not showing on any Red Maples, as it was not in season for the trees to bear leaves.

The existing stone culvert had been replaced by a much larger stamped concrete culvert, and rip rap was used to stabilize the slopes of the creek (see Page 183, Photo 7). The slopes surrounding the culvert and the stream banks were graded at approximately a 2:1 slope instead of 4:1 (see Page 195, Photo 20). It is unknown why the slopes were graded at 2:1 instead of 4:1. The project manager stated that the 4:1 slopes were proposed for the slopes immediately next to the culvert. There was no grading plan for the slopes of the stream bank. Erosion control silt fences were not removed from the construction site (see Page 188, Photo 12). The west side of the culvert had a few exposed pipes for drainage into the creek (see Page 197, Photo 22). It was unknown if these were a part of the GDOT project. Outside of the 18-ft. clear zone, there was room for vegetation to be installed; however, the landscape plan did not specify plants to be installed here (see Page 187, Photo 11).

Five of the six trees specified for preservation had been preserved. The house and historic tree at 825 South Candler Street were removed after GDOT construction had been completed. This tree had been specified for preservation. A new house was being built, and new landscaping was being installed in the front yard. It is unclear if the removal of this tree was associated with GDOT Project P.I. #752900 or if it was the property owner's decision. The other five historic trees specified for preservation within the historic boundary remain (see Page 192, Photos 16 and 17; Page 199, Photo 23; Page 201, Photo 25; and Page 207, Photo 30). An attempt was made to contact the owners regarding their input; however, none of the property owners contacted had lived along South Candler Street prior to the start of construction.

The arrangement of the landscape treatment surrounding the culvert did not match what was proposed in the landscape plans. Cloud

West side of South Candler Street. Facing northeast.

Stamped concrete culvert, east of South Candler Street. Facing north.

Nine Dogwoods (*Cornus florida 'Cloud Nine'*) had been arranged in staggered patterns at 8 ft. on center (see Page 193, Photo 18) rather than informally spaced as shown on the landscape plans. There was no evidence of Elderberry (*Sambucus canadensis*). The Green and Gold groundcover was sparse in its proposed locations (see Page 184, Photo 8). Over 6,200 Green and Gold pots were proposed north and south on either side of the bridge. Approximately 1 percent of the proposed Green and Gold was present on-site.

The project manager for the South Candler Street realignment project was interviewed over the phone regarding the landscape mitigation efforts. The project manager stated that some plant material was unavailable. She could not specify which plant material was unavailable, but did state that more Cloud Nine Dogwoods were used to replace proposed plant material that was not acquired. She did recall a shortage of the Green and Gold plants. The GDOT landscape architect was able to find a nursery that could provide some of the Green and Gold quantities, but not the full amount. Because GDOT was unable to install the specified amount of Green and Gold, a large amount of rip rap was used to stabilize the slopes.

The landscape plan was developed by GDOT landscape architects. The GDOT landscape architect stated that the plant material was to be in-kind with what was already in existence on-site. She stated that the Green and Gold was specified on the commitments table. She believes that no plant species should be specified on a commitments table. This provides a binding obligation to use that particular plant regardless of the availability of the plant material. She went on to say that more of the existing vegetation was cleared than what was expected. She believes that in historic landscape mitigation efforts, existing vegetation should be preserved as much as possible, and that if any clear cutting is required, a justification should be provided by the contractor.

Approximately 30 percent of the proposed landscape plan had been installed; roughly half of the installed material was in poor health, or dead. The Willow Oaks, located on the east side of South Candler Street, were in poor health; they had minimal-to-no leaves on their branches (see Page 209, Photo 14). The Little Gem Magnolias and Tulip Poplars, on the east side of South Candler Street, had a 50 percent survival rate. All of the trees still had tree guying wires attached to them (see Page 181, Photo 5). Factors that contributed to the poor health of the trees include the failure to remove tree guying wires and lack of maintenance.

Evaluation

Prior to construction, the area was heavily vegetated. The character-defining features of the landscape – the historic, stone-clad culvert, the pre-existing pine, oak, Dogwood, and Magnolia trees along South Candler Street – identified in the 2001 survey were not recreated in the new design. Specifying the Green and Gold on the commitments table was not an appropriate measure. The plant itself is scarce among nurseries in the South. Had the plant not been listed as an environmental commitment, the plant could have been easily substituted with another groundcover that was readily available. A more appropriate measure would have been to seed the creek banks with a riparian seed mix.

Overall, the proposed plant material that was used was appropriate for a lowland forest setting as well as the historic setting. However, prior to the implementation of the project, mature trees stood informally some distance from one another; their canopies were able to grow to their full potential (see Page 178, Photo 3). The replacement trees are too close to one another to achieve their true size at maturity, and in some spots, the plantings are contrived in their formality (see Page 186, Photo 10). As a result of the historic culvert's replacement, the mature vegetation that contributed to the "park-like setting," as described in the AOE, was removed. This particularly impacted the area immediately surrounding Shoal Creek, where the majority of trees were lost (see Page 176, Photo 1). Without these mature trees, there was insufficient shade provided for the Dogwoods that were installed as part of the mitigation. The handrails along the pedestrian bridges were not replaced (see Page 185, Photo 9). While this was never specified in the MOA, it would have contributed to the historic character of the setting and provided an added safety feature to the new culvert by providing a distinct barrier between the sidewalk and the drop-off into Shoal Creek at the culvert (see Page 189, Photo 13).

The preservation of the existing historic trees on the residential lots, while not mandated by the MOA, was an appropriate and successful effort. These trees help to preserve the historic character of the College Heights Historic District. Grading the banks of the creek at a softer slope would have also provided a context-sensitive design. This would have allowed the existing brush and native groundcover to establish itself along the disturbed banks of Shoal Creek and stabilize the slopes. A 4:1 slope would have helped in the ecological succession process and reduced the amount of rip rap necessary. Restoring the culvert and the pedestrian bridges to their original form would have helped to preserve the historic character of the site. The team's field checklist and results are shown in Figure 6c.

Summary:

Site Analysis Summary:

- Erosion control silt fences were not removed.
- All private property trees installed
- One historic tree specified for preservation was not preserved
- Extensive use of rip rap along stream banks
- Lack of groundcover stabilization
- Formal spacing of trees - trees too close in proximity
- Stamped/patterned concrete culvert walls
- Not enough plantings per plans

Evaluation Summary:

- Construction best management practices, such as erosion control fencing, should be removed per the State of Georgia's Erosion Control Manual.
- Considerations to reducing the amount of rip rap should have been explored (i.e. terraced gabion or stone clad walls with vegetation to reduce severity of slope).
- Consideration should have been made to use real stone on culvert face to match existing culvert.
- More consideration could have been made to space tree plantings at varying distances for a more natural appearance.
- Guy wires should have been removed after establishment period.
- Maintenance agreement should be set in place with the City of Decatur.

Figure 6c

Field Checklist: The College Heights Historic District

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- No

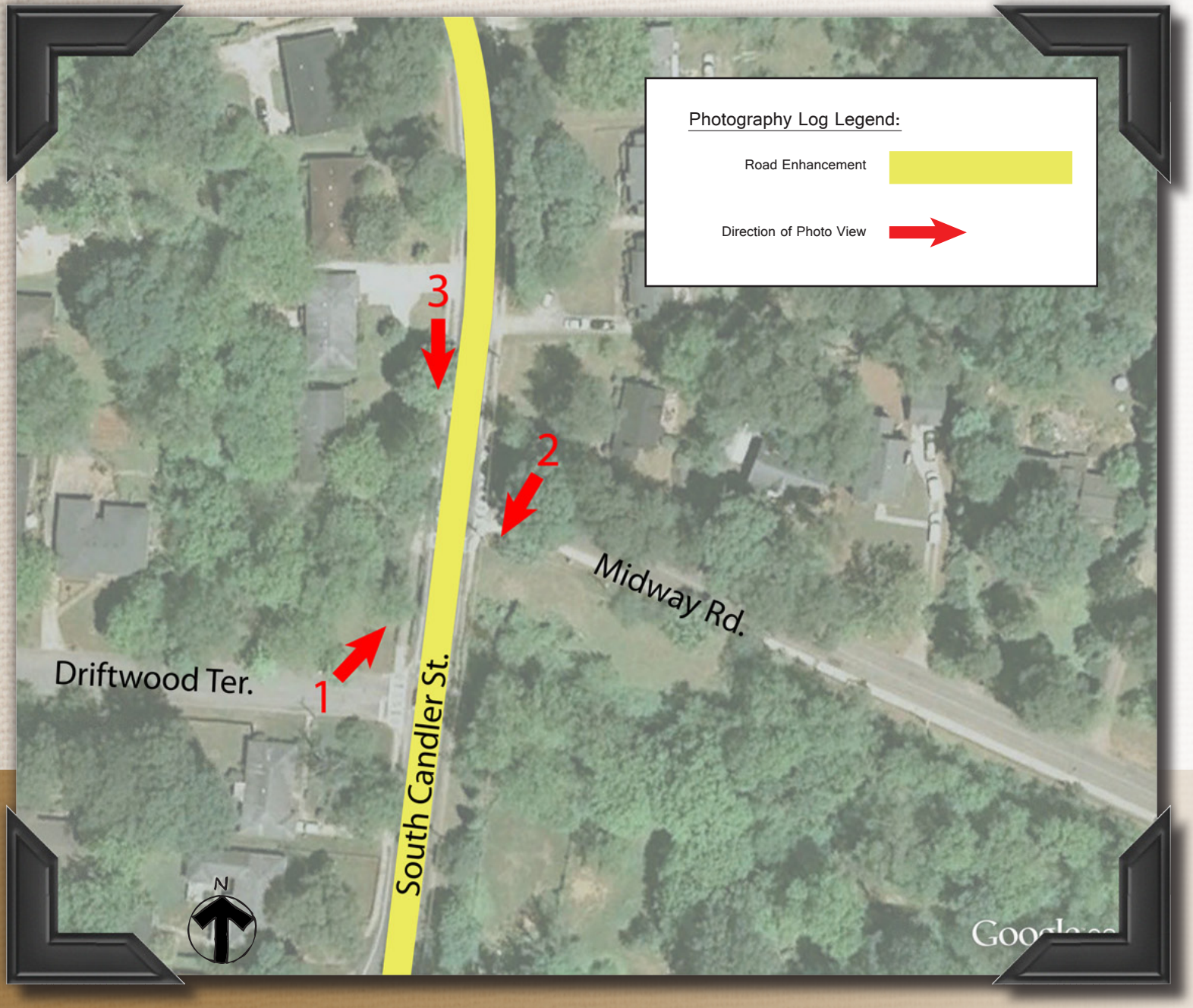
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 50%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
College Heights Historic District, DeKalb County - P.I. # 752900



*Google Earth, 2007

Pre-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 1

Description: Pedestrian bridge adjacent to and west of South Candler Street prior to construction. Facing northeast.

**Pre-construction photos taken ca. 2008.*

Pre-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 2

Description: Pedestrian bridge, and stone culvert adjacent to and east of South Candler Street prior to construction. Facing southeast.

Pre-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 3

Description: Driftwood Terrace intersection at South Candler Street, Pedestrian Bridge, adjacent to and west of South Candler Street, prior to construction. Facing south.

Post-Construction Aerial and Photo Site Map:
College Heights Historic District, DeKalb County - P.I. # 752900

*Google Earth, 2013.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 4

Description: Rip-rap on northern stream bank, adjacent to and east of South Candler Street. Facing southwest.

**Post-construction photos taken April 2013.*

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

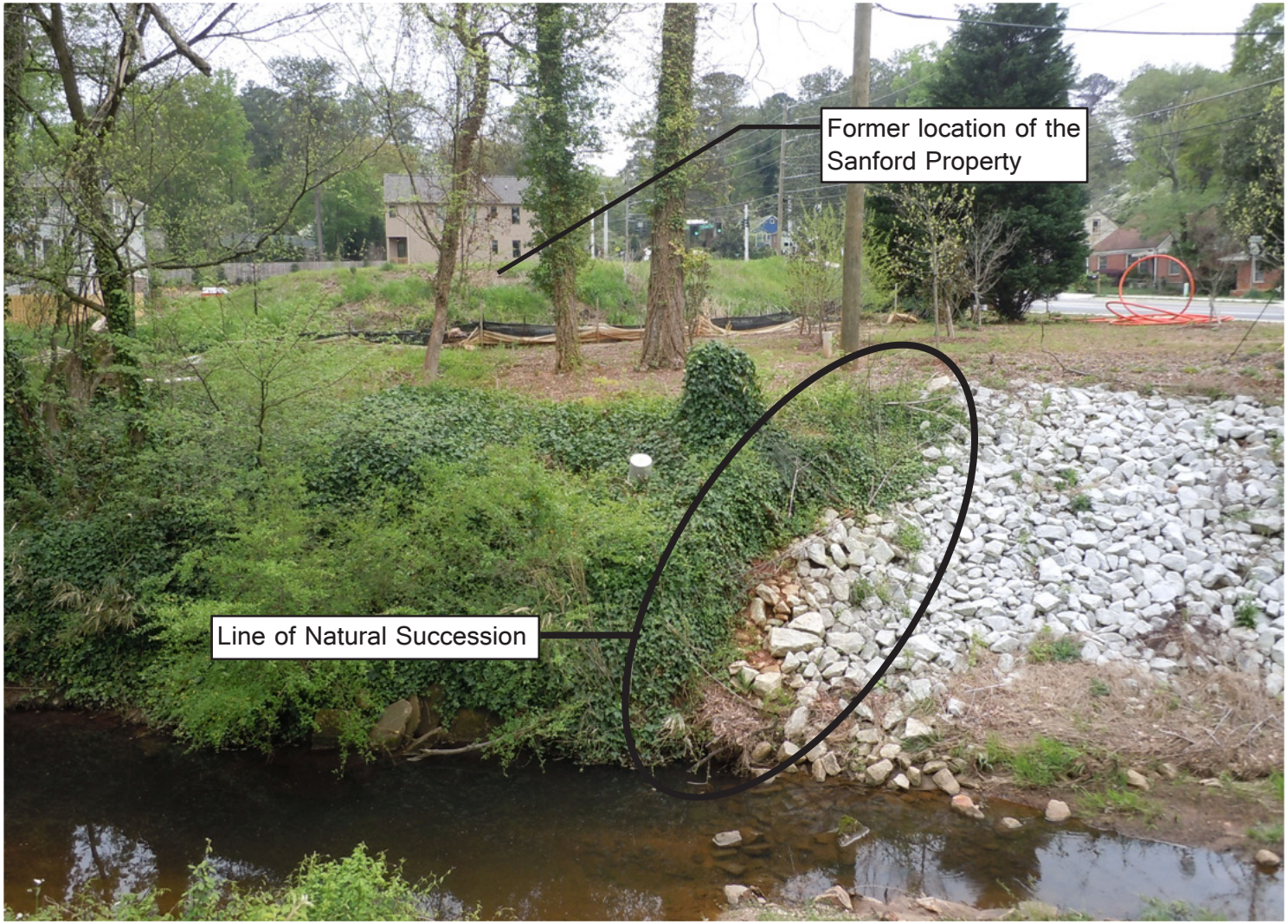
Photo Number: 5

Description: Tree guying on Cloud Nine Dogwoods, adjacent to and east of South Candler Street. Facing east.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 6

Description: Distinct line between rip-rap and stream bank natural succession, adjacent to and east of South Candler Street. Facing southwest.



Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 7

Description: Stamped concrete culvert, adjacent to and east of South Candler Street. Facing southwest.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 8

Description: Green and Gold plantings north of culvert, adjacent to and east of South Candler Street. Facing south.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 9

Description: Bus stop and sidewalk, adjacent to and east of South Candler Street. Facing south.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 10

Description: Stream bank meets flattened grade, adjacent to and east of South Candler Street. Facing southeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 11

Description: Intersection of Midway Road at South Candler Street, adjacent to and east of South Candler Street. Facing northeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 12

Description: Remnants of silt fencing, adjacent to and east of South Candler. Facing south.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 13

Description: Stamped concrete culvert and rip-rap, adjacent to and east of South Candler Street. Facing north.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 14

Description: Willow Oak in poor health, adjacent to and east of South Candler Street. Note existing vegetation in back ground along south side of Shoal Creek. Facing east.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 15

Description: Sidewalk, adjacent to and west of South Candler Street. Facing northeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 16
Description: Preserved Tree, adjacent to and north of Driftwood Terrace. Facing west.

Photo Number: 17
Description: Preserved Tree, adjacent to and north of Driftwood Terrace. Facing west.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 18

Description: Cloud Nine Dogwoods and Willow Oak south of Shoal Creek, adjacent to and west of South Candler Street. Facing northeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 19

Description: Intersection of Driftwood Terrace and South Candler Street, adjacent to and west of South Candler Street. Facing southeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 20

Description: Stamped concrete culvert, adjacent to and west of South Candler Street. Facing northeast.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 21

Description: Existing vegetation along Shoal Creek, adjacent to and west of South Candler Street. Facing west.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 22

Description: Exposed piping over Shoal Creek, adjacent to and west of South Candler Street. Facing west.

Post-Construction Aerial and Photo Site Map:
College Heights Historic District, DeKalb County - P.I. # 752900

Photography Log Legend:

Road Enhancement

Immediate Historic Property/Resource Affected

Direction of Photo View

*Google Earth, 2013

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 23

Description: Preserved Magnolia tree at 927 S Candler St., adjacent to and west of S Candler St. Facing southwest.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 24

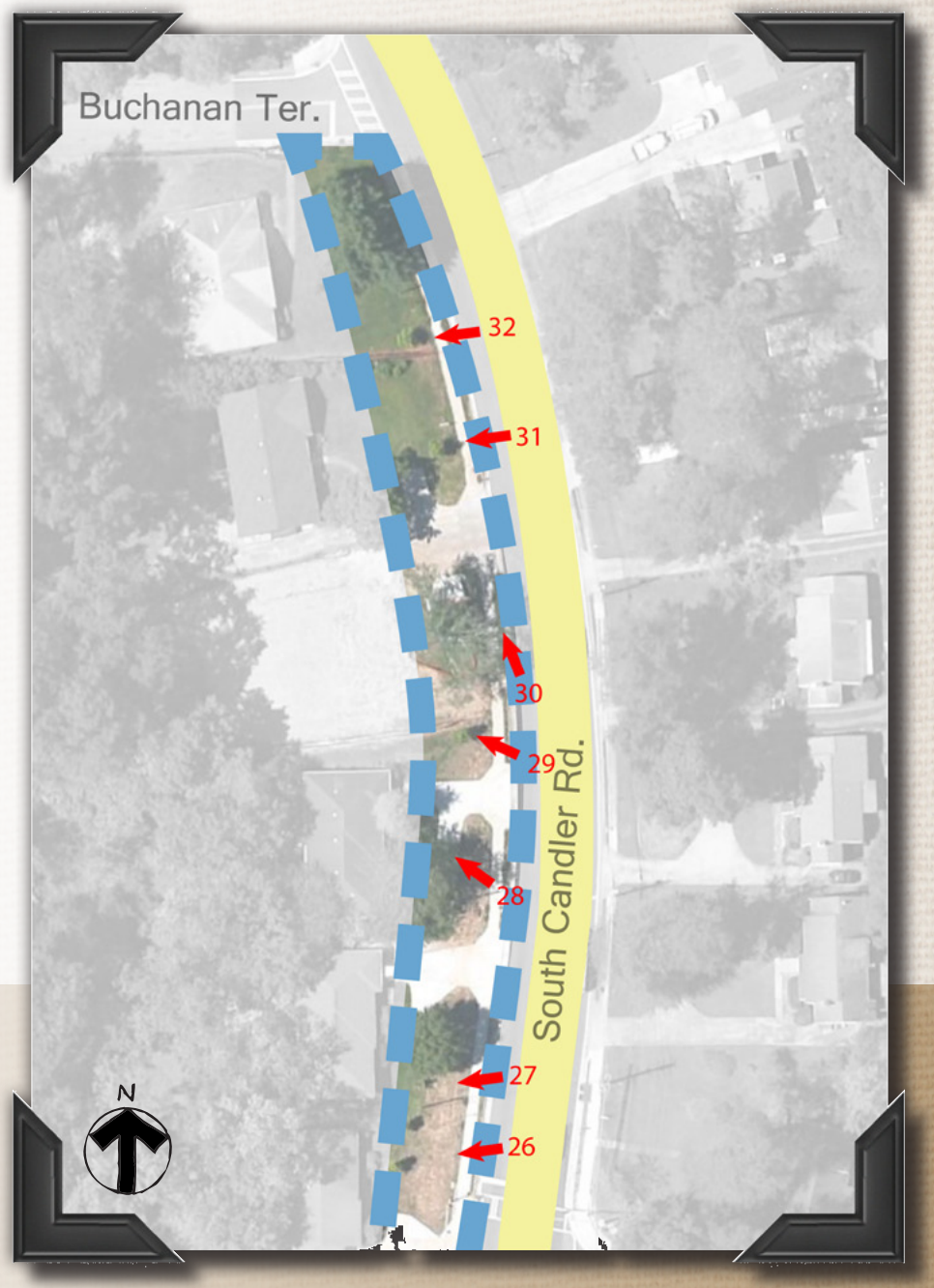
Description: Red Maple at 919 S Candler St., adjacent to and west of S Candler St. Facing southwest.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 25

Description: Preserved Magnolia tree at 915 S Candler St., adjacent to and west of S Candler St. Facing west.

Post-Construction Aerial and Photo Site Map: College Heights Historic District, DeKalb County - P.I. # 752900



Photography Log Legend:

Road Enhancement

Immediate Historic Property/Resource Affected

Direction of Photo View

*Google Earth, 2013

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 26

Description: Red Maples at 901 S Candler St. adjacent to and west of S Candler St. Facing west.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 27

Description: Red Maple at 843 S Candler St. adjacent to and west of S Candler St. Facing west.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 28

Description: Red Maple at 837 S Candler St. adjacent to and west of S Candler St. Facing northwest.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 29

Description: Red Maple at 831 S Candler St. adjacent to and west of S Candler St. Facing northwest.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 30

Description: Preserved oak at 831 S Candler St. adjacent to and west of S Candler St. Facing north.

Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 31

Description: Red Maple at 827 S Candler St. adjacent to and west of S Candler St. Facing west.

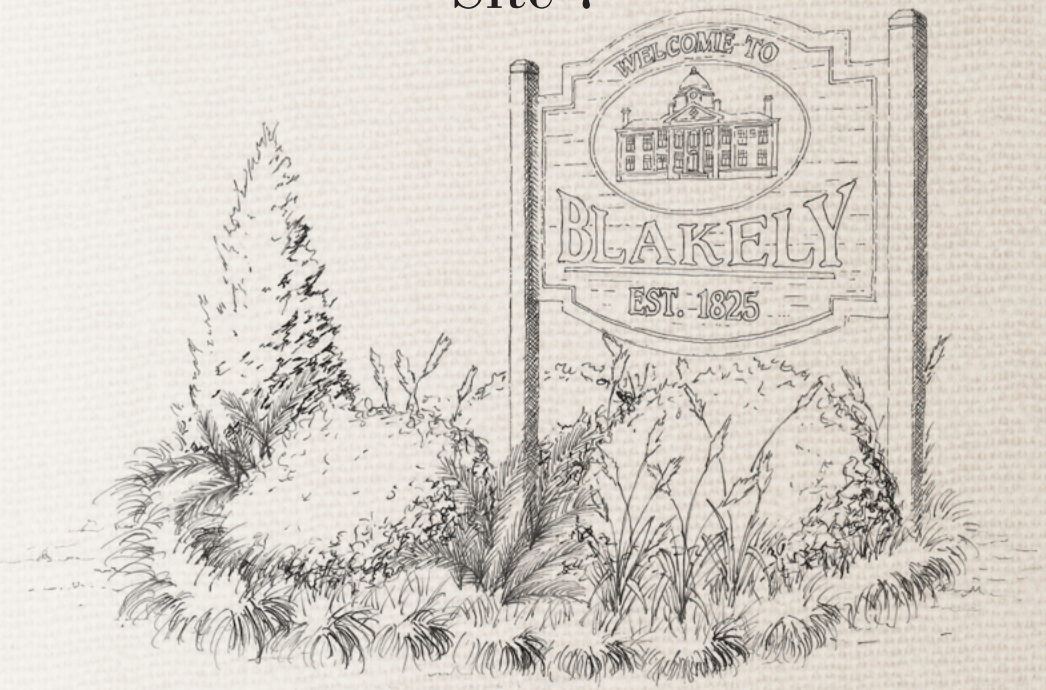
Post-Construction Photographs:
College Heights Historic District, DeKalb County - P.I. # 752900

Photo Number: 32

Description: Red Maple at 825 S Candler St. adjacent to and west of S Candler St. Facing west.

Early County

Site 7

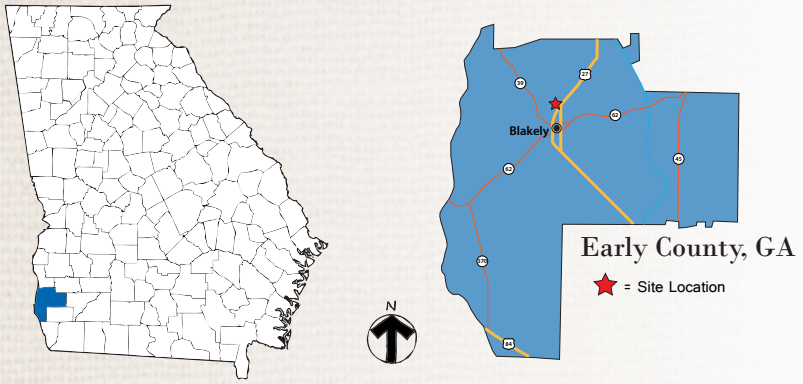


The Fryer-Moye Homeplace

P.I. #462430

Early County At a Glance:

Site 7 is located in Early County, between North Main Street and U.S. 27 / S.R. 1, approximately 3 miles north of Blakely, Georgia. GDOT Project P.I. #462430 involved the construction of a new north-south bypass for the town of Blakely, Georgia. It adversely visually impacted the NRHP-eligible Fryer-Moye Homeplace.



Historic Resources:

- *The Fryer-Moye House*

Resource Construction Date:

- *ca. 1849*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8b*

GDOT Construction Type:

- *New Road Construction*

GDOT Construction Completion Date:

- *April 1995*

Adverse Effects:

- *Visual*

**Google Earth, 2013*

The Fryer-Moye Homeplace

Research

The Fryer-Moye Homeplace was a well-preserved example of the Dogtrot type house built circa 1840-1849, according to the 1996 Georgia Historic Resources survey form. The Dogtrot house type is a symmetrical, one-story, two-room house that forms a rectangle, with the façade on the long end (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house gets its name from the open central passage between the two rooms. This example had a gable-end roof and exterior chimneys, as well as a full-width, shed-roof front porch. Although there was no formal discussion of integrity in the project documentation, from the information available it appears that the Fryer-Moye Homeplace retained a high level of integrity in its setting, feeling, and association, as an isolated rural residence surrounded by agricultural fields. The house was considered eligible for the NRHP under Criterion C for architecture. The landscape would be classified as Historic Vernacular.

The Fryer-Moye Homeplace, which was located on the east side of North Main Street between County Road 156 and 2nd Kolomoki Road, is no longer extant at this location. The house burned down between 1999 and 2005. The house was replaced by a manufactured home during that time, according to historic aerial photography. At the time the Fryer-Moye Homeplace was surveyed in 1996, it was set back from the road (North Main Street) approximately 100 feet at the center of a semi-circular drive with a casual unplanned landscape. Agricultural fields surrounded the house; however, by 1999, the property owner had planted the fields with pine trees, between North Main Street and the U.S. 27 new alignment, located behind the house.

GDOT Project P.I. #462430 featured the construction of a new north-south bypass of the town of Blakely, Georgia. The purpose of the project was to create a more efficient route around Blakely to alleviate congestion in the town. The project constructed a new four-lane divided roadway with two lanes in each direction and a grassed median in-between. Project documentation did not provide dimensions or right-of-way requirements. The new four-lane road is approximately 300 ft. from the historic resource. The project was designed for a speed limit of 55 miles per hour, which requires all vegetation to be planted outside of the clear zone*. The project documents did not specify clear zone requirements.

The Assessment of Effects document stated that the construction of the new road in the vicinity of the Fryer-Moye Homeplace would have a visual adverse effect. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 7a.

As the MOA specified, the resulting landscape plan called for indigenous species to be planted along an approximately 1,000-ft. segment of U.S. 27 behind (to the east of) the house. The plants were to be arranged in informal staggered rows, within the proposed right-of-way, to provide an effective visual buffer of the road from the Fryer-Moye Homeplace. The Plant Schedule is shown in Figure 7b, and the landscape plan is located in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. The resident of the mobile home on the property stated that the

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

Figure 7a

Memorandum of Agreement Landscape Stipulations:

"A landscaping plan for the area of the proposed northern right-of-way in the vicinity of the Fryer-Moye Homeplace will be developed and implemented in order to mitigate the adverse visual effect. The landscaping plan will utilize indigenous species of the area which are relatively fast growing. The landscape plan will be submitted to the SHPO for review and comment."

Figure 7b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
17	*Quercus laevis*	Turkey Oak	Per Plan
12	*Quercus margaretta*	Sand Post Oak	Per Plan
27	*Pinus palustris*	Longleaf Pine	Per Plan
34	*Vaccinium arboreum*	Sparkleberry	Per Plan
33	*Crataegus flava*	Yellow Hawthorn	Per Plan
45	*Rhus copallina*	Winged Sumac	Per Plan

historic resource had burned down several years prior. She stated that James Lee currently owned the property and mobile home. An attempt was made to contact Mr. Lee; however, no communication was made.

Approximately 90 percent of the landscape mitigation treatment had been installed, and all specimens were in healthy condition (see Page 216, Photo 1). The installed plant material was densely arranged (see Page 217, Photo 2). Many of the species had propagated, and new growths had appeared throughout the site, blending well with the existing vegetation on-site (see Page 219, Photo 4). The only species not present on-site was the Yellow Hawthorn (*Crataegus flava*), a rare hawthorn species that is no longer grown in local nurseries.

U.S. 27 / S.R. 1 was not visible from the original house location (see Page 224, Photo 9). Much of the vegetation outside of the right-of-way had grown as well (see Page 220, Photo 5). This was not a part of the landscape mitigation effort.

Evaluation

The recommended trees and shrubs that were present on-site were installed according to the landscape plans and were healthy and thriving. The landscape mitigation effort utilized appropriate plant material and would have succeeded in its goal of offering a visual buffer between the historic resource and the new bypass, if the house had remained in place. This is due to an appropriate selection of plants for the region and the plant spacing. The arrangement of plants was dense, but not so tightly packed as to inhibit healthy plant growth (see Page 217, Photo 2). The landscape mitigation treatment provided an effective screen between the road and the original location of the house (see Page 224, Photo 9). Had the house still been standing, the landscape mitigation treatment would have been successful.

Vegetation that was not a part of the mitigation also contributed to screening the new road from the Fryer-Moye Homeplace. This vegetation appeared to be arranged in rows and most likely was planted by the property owner (see Page 220, Photo 5). Nonetheless, the pines were not in existence at the time of the road construction; therefore, the landscape mitigation was needed to provide initial screening from the project. The team's field checklist and results are shown in Figure 7c.

Summary

Site Analysis Summary:

- Historic House was no longer on site. The house had burned down.
- Approximately 90% of the proposed vegetation had been installed.
- Vegetation not a part of landscape mitigation was growing on the property between the road and the original location of the Fryer-Moye Homeplace.
- U.S. 27 was not visible from the original location of the house.

Evaluation Summary:

- Appropriate plant material resulted in a healthy landscape mitigation treatment that would have succeeded in visually screening U.S. 27 from the Fryer-Moye Homeplace, had the house remained.
- Vegetation that had grown on the property would have also helped in the visual screening of the road.
- This vegetation was not on site at the time of the GDOT roadway construction. Therefore, the landscape mitigation treatment was necessary for initial screening of the historic resource from the road.

Figure 7c

Field Checklist: The Fryer-Moye Homeplace

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- Yes

Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 80%

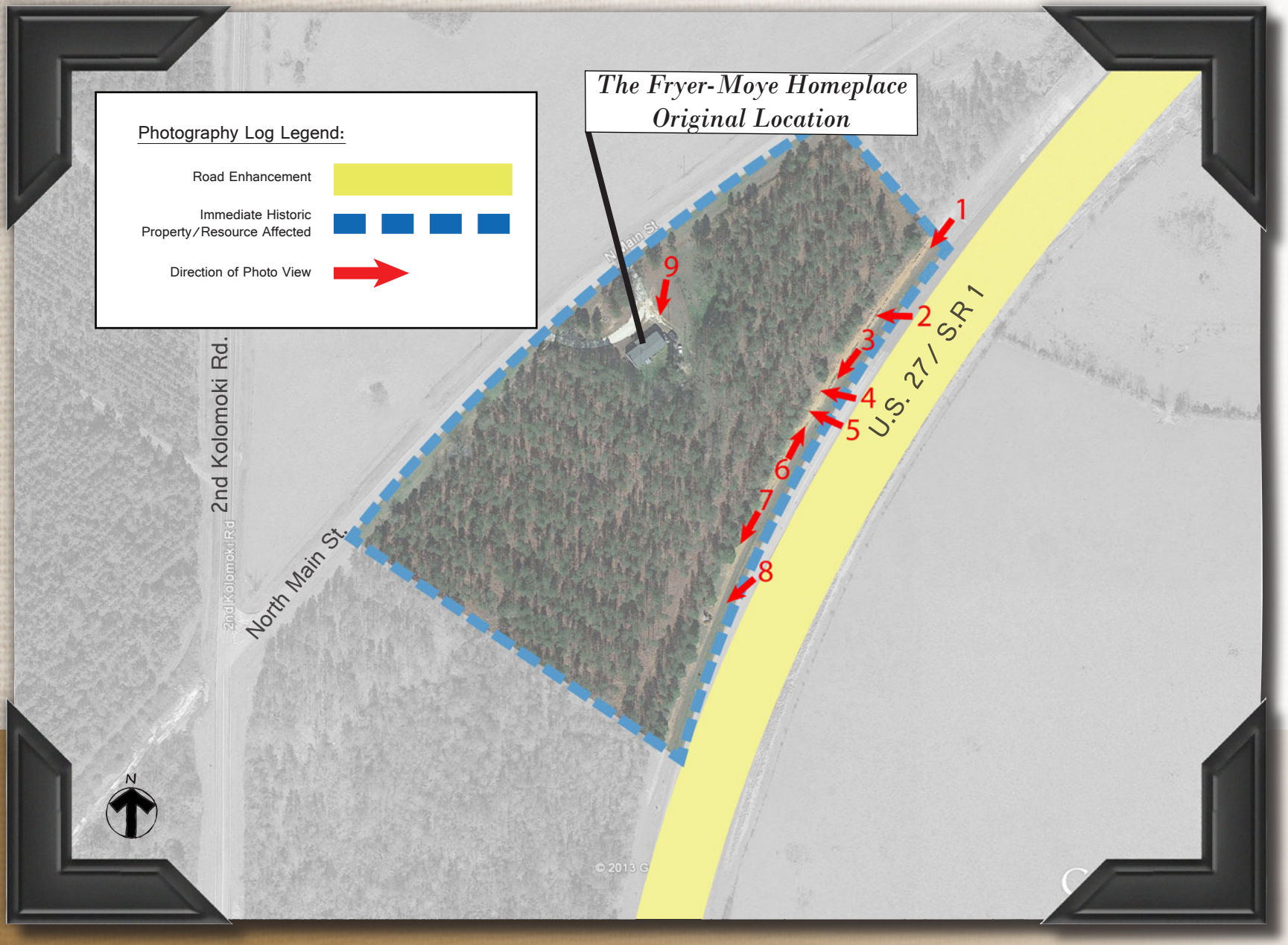
Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

*Google Earth, 1993

Post-Construction Aerial and Photo Site Map:
The Fryer-Moye Homeplace, Early County - P.I. # 462430



*Google Earth, 2013

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 1

Description: Roadside adjacent to and west of U.S. 27/S.R. 1. Facing southwest.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 2

Description: Landscape Mitigation Treatment adjacent to and west of U.S. 27/S.R. 1. Facing west.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 3

Description: Exposed soil on roadside adjacent to and west of U.S. 27/S.R. 1. Facing southwest.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 4

Description: Landscape Mitigation Treatment adjacent to and west of U.S. 27/S.R. 1. Facing west.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 5

Description: Landscape Mitigation Treatment adjacent to and west of U.S. 27/S.R. 1; Facing northwest.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 6

Description: Landscape Mitigation Treatment adjacent to and west of U.S. 27/S.R. 1. Facing northeast.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 7

Description: Landscape Mitigation Treatment and exposed soil adjacent to and west of U.S. 27/S.R. 1. Facing southwest.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 8

Description: City of Blakely welcome sign adjacent to and west of U.S. 27/S.R. 1. Facing southwest.

Post-Construction Photographs:
The Fryer-Moye Homeplace, Early County - P.I. # 462430

Photo Number: 9

Description: Mobile home in the original site of Fryer-Moye Homeplace. Facing southwest.

Emanuel County

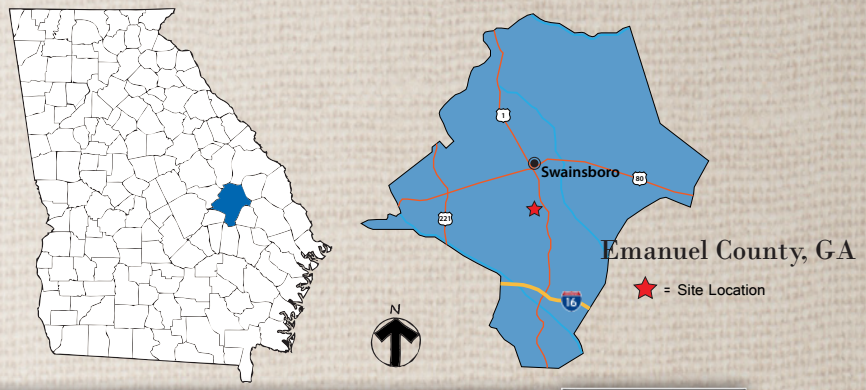
Site 8

The Parker House

P.I. #262395

Emanuel County At a Glance:

Site 8 is located in Emanuel County off of U.S. 1 / S.R. 4 (Swainsboro Bypass), approximately 5 miles south of Swainsboro, Georgia. GDOT Project P.I. #262395 involved the new construction of the Swainsboro Bypass, a multi-lane roadway around Swainsboro that resulted in a visual adverse effect on the NRHP-eligible Parker House.



Historic Resources:

- *The Parker House*

Resource Construction Date:

- *ca. 1880*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8b*

GDOT Construction Type:

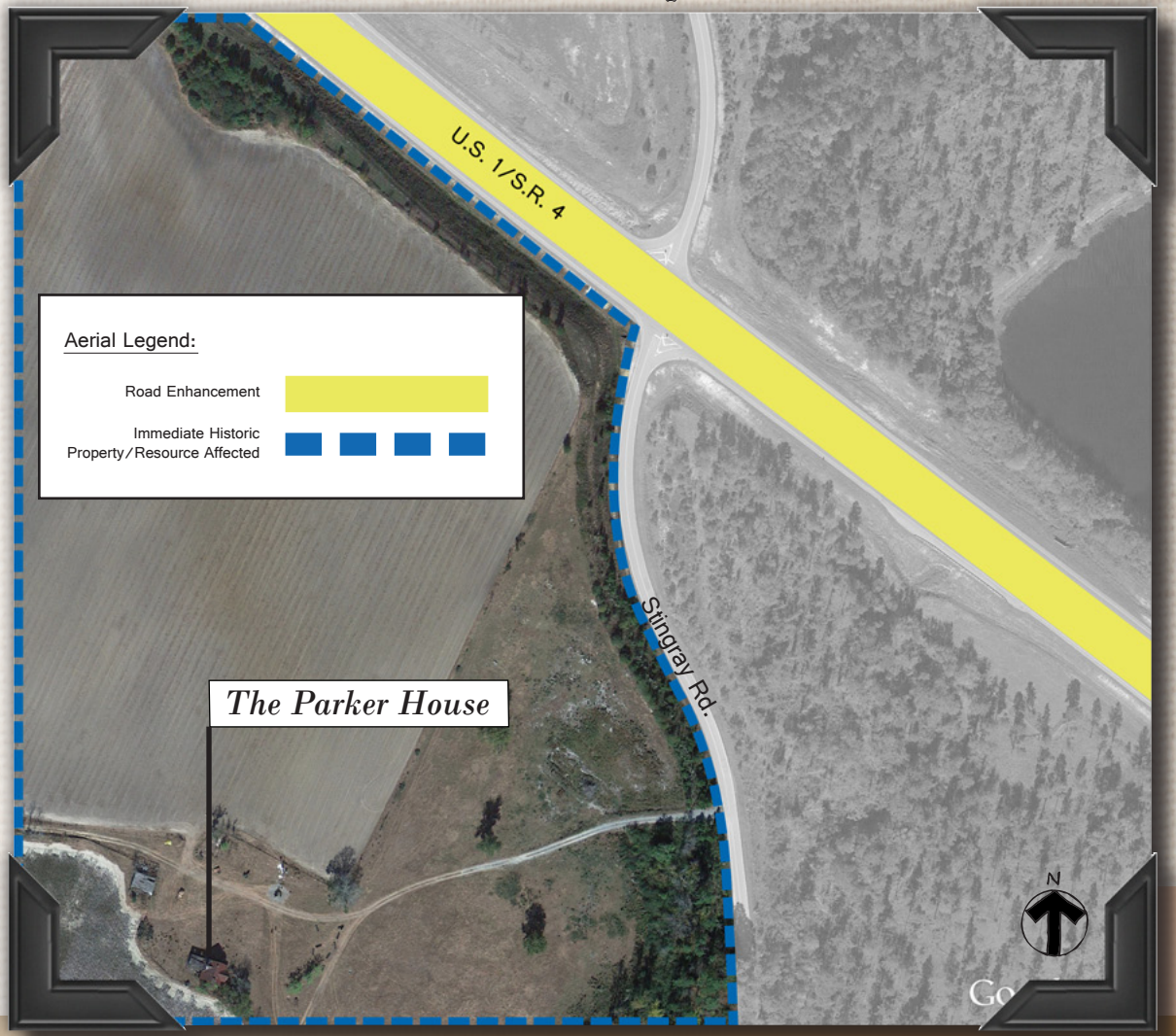
- *New Road Construction*

GDOT Construction Completion Date:

- *January 2011*

Adverse Effects:

- *Visual*



**Google Earth, 2013*

The Parker House

Research

The Parker House is a circa 1880 Georgian Cottage (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)), that was recorded in a 1995 comprehensive survey of Emanuel County. The house is currently vacant, as it was in 1995, and is in a dilapidated state. The house sits approximately 1300 ft. from the new alignment of the Swainsboro Bypass on a 360-acre tract of land that includes several agricultural fields and wooded areas, classifying the landscape as Historic Vernacular. The house is eligible for the NRHP under Criterion C for architecture.

GDOT Project P.I. #262395 involved construction of a bypass along the west side of Swainsboro, Georgia. The purpose of the project was to create a more efficient route around Swainsboro in order to alleviate in-town traffic. The project constructed a new four-lane divided roadway, with 12-ft. lanes in each direction and a grassed median in between. The proposed right-of-way would vary from 200 to 250 ft. The project was designed for a speed limit of 55 miles per hour, which requires all vegetation to be planted outside of the clear zone*. The project documentation did not specify clear zone requirements, but the landscape plans did specify a 30-ft. planting setback.

The Assessment of Effects document, completed in February of 1998, determined that the new construction would have an adverse visual effect on the Carmichael-Youmans Historic Rural District, of which the Parker House was a contributing resource. As a result, an MOA was established. The landscape stipulation from this MOA is listed in Figure 8a.

The Parker House property owner, Randy Thompson, Jr., stated that his father had purchased the land back in the 1950s and that, while he was unaware of any landscape mitigation efforts to buffer the road from the house, GDOT had planted several trees off of Stingray Road, a local road just off of the bypass used to access the Parker House. These trees were not a part of the landscape mitigation plan.

The landscape plan called for a fairly diverse mix of mature pine forest material, including Overcup Oak (*Quercus lyrata*), Loblolly Pine (*Pinus taeda*), Blackjack Oak (*Quercus marilandica*), Easter Red Cedar (*Juniperus virginiana*), and Fringe Tree (*Chionanthus virginicus*), to be arranged in an informal manner along the new alignment to buffer the Parker House property. The plant schedule is shown in Figure 8b, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on June 20, 2013. The Parker House was approximately 1,300 ft. away from the bypass, and sat at an elevation roughly 20 ft. above that of the road, making it invisible from the bypass (see Page 232, Photo 2). The intersection of the U.S. 1 / S.R. 4 and Stingray Road was vegetated with some deciduous plant material among several pine trees (see Page 234, Photo 4). Loblolly Pines were present at this intersection and along Stingray Road, although they were not installed as per the landscape plans. Plants that were present along Stingray Road, but were never proposed in the landscape plan, included Wax Myrtles (*Myrica cerifera*) and Blackberry shrubs (*Rubus fruticosus*) (see Page 240, Photo 10). The bluffs around

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

Figure 8a

Memorandum of Agreement Landscape Stipulations:

"Project implementation will include landscape buffering along the sides of the proposed facility in the area of the Parker House. The buffer will use native tree species and be compatible with existing natural surroundings. The landscape plan will be provided to the SHPO for review and comment."

Figure 8b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
7	*Quercus lyrata*	Overcup Oak	not specified
36	*Pinus taeda*	Loblolly Pine	15' O.C.
8	*Quercus marilandica*	Blackjack Oak	not specified
22	*Juniperus virginiana*	Eastern Red Cedar	not specified
9	*Chionanthus virginicus*	Fringe Tree	not specified

the intersection of Stingray Road and U.S. 1 were covered in grasses (see Page 231, Photo 1).The trees along Stingray Road were not maintained (see Page 239, Photo 9).

Evaluation

The newly constructed road sits approximately 20 feet below grade from the historic property. This, along with the deep set back of the Parker House from the road, makes the road invisible from the Parker House; therefore, the visual landscape buffer stipulated in the MOA was unnecessary. The project historian and landscape architect were apparently unaware that the new road would be located so far below the elevation of the historic property; otherwise, there would have been no proposal for a landscaping buffer. The team's field checklist and results are shown in Figure 8c.

Summary

Site Analysis Summary:

- The house is approximately 1,300 ft. set back from the U.S. 1 bypass. The house is at an elevation approximately 20 ft. higher than the elevation of the U.S. 1 bypass.
- Vegetation installed was not installed as per the landscape plans. Landscape treatment was installed along Stingray road instead of U.S. 1, and plant material present was not proposed in the plant list.

Evaluation Summary:

- The Parker House was not visible from the newly constructed road due to distance and topography.
- Historian and landscape architect were most likely unaware of the elevation change between the road and the historic resource.
- No landscape plan was necessary.

North facade of the Parker House. Facing south.

Figure 8c

Field Checklist: The Parker House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

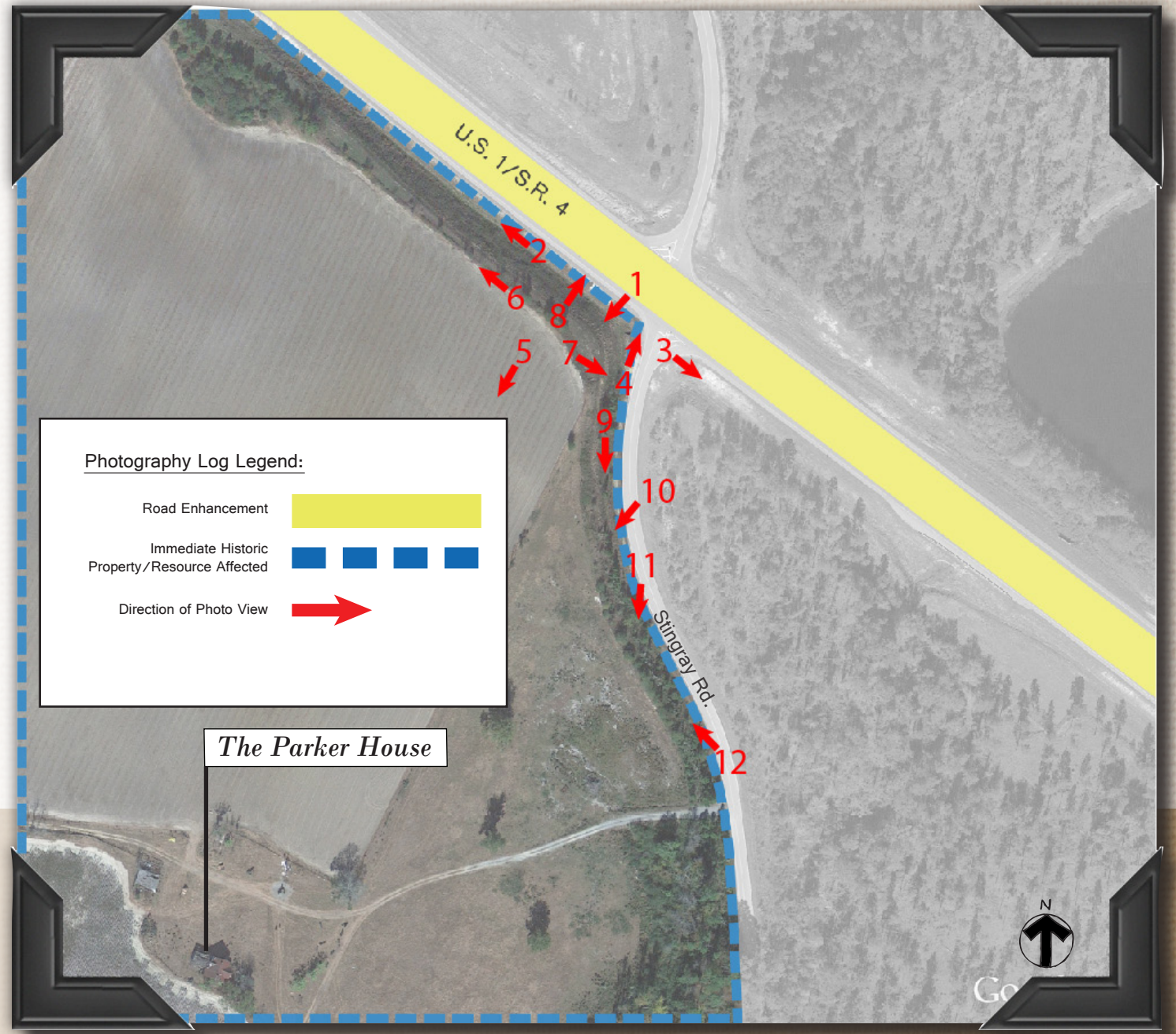
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 50%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

*Google Earth, 1993



*Google Earth, 2013

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 1

Description: Embankment, adjacent to and south of U.S. 1/S.R. 4; Facing southwest.

**Post-construction photos taken June 2013.*

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 2

Description: Roadside, adjacent to and south of U.S. 1/S.R. 4. Facing northwest.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 3

Description: Roadside, adjacent to and south of U.S. 1/S.R. 4. Facing southeast.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 4

Description: Intersection of U.S. 1/S.R. 4 and Stingray Rd. from southwest corner. Facing north.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 5

Description: The Parker House north facade from top of embankment, adjacent to and south of U.S. 1/S.R. 4. Facing southwest.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 6

Description: Top of embankment, adjacent to and south of U.S. 1/S.R. 4. Facing northwest.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 7

Description: Top of embankment, adjacent to and south of U.S. 1/S.R. 4. Facing southeast.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 8

Description: Intersection of U.S. 1/S.R. 4 and Stingray Rd. from top of embankment, southwest corner. Facing north.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 9

Description: Roadside adjacent to and west of Stingray Rd. south of U.S. 1/S.R. 4. Facing south.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 10

Description: Wax Myrtle growing on the west side of Stingray road south of U.S. 1/S.R. 4. Facing southwest.

Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 11

Description: Loblolly Pine along west side of Stingray Road south of U.S. 1/S.R. 4. Facing south.

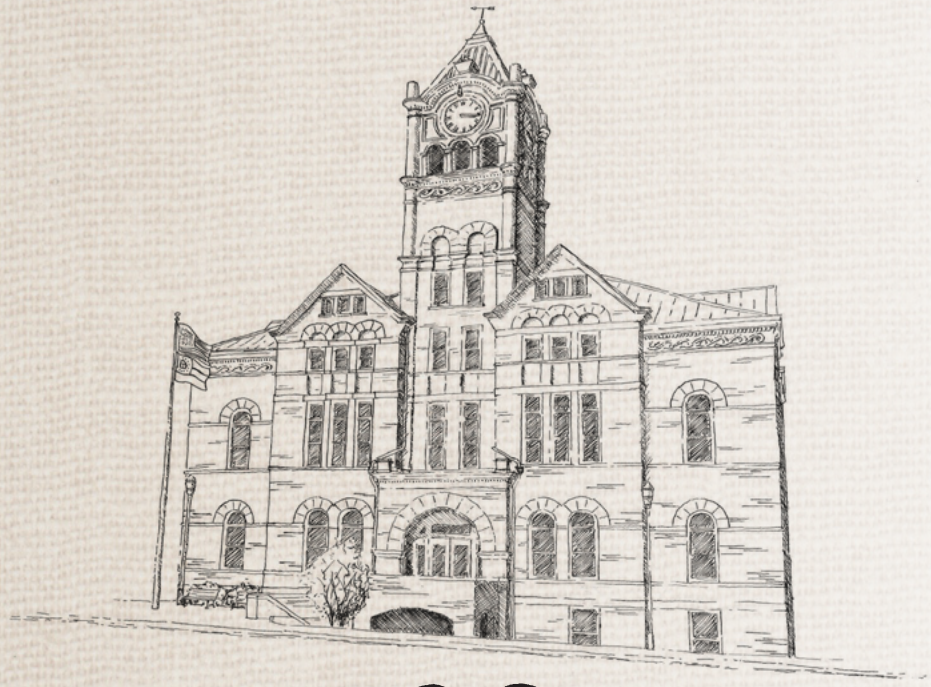
Post-Construction Photographs:
The Parker House, Emanuel County - P.I. # 262395

Photo Number: 12

Description: Stingray Road south of U.S. 1/S.R. 4 and east of the Parker House. Facing northwest.

Henry County

Site 9

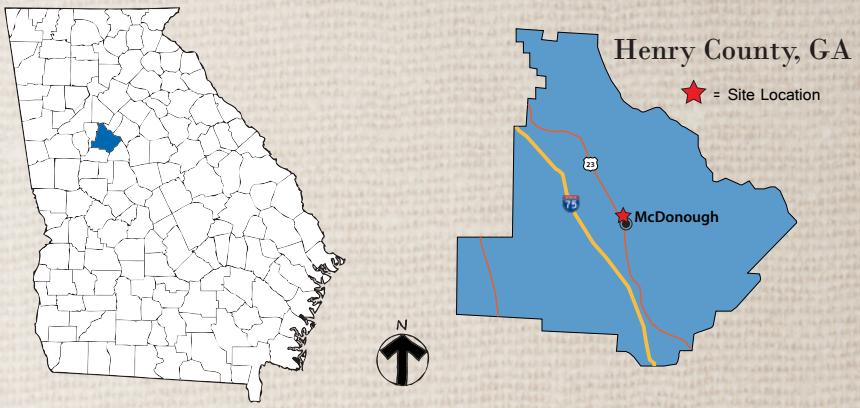


The McDonough Historic District

P.I. #321145

Henry County At a Glance:

Site 9 is located in Henry County, off U.S. 23 / S.R. 42, in McDonough, Georgia. GDOT Project P.I. #321145 implemented a one-way pair system through McDonough, resulting in adverse physical effects to the district's character-defining features.



Historic Resources:

- *The McDonough Historic District*

Resource Construction Date:

- *ca. 1890-1929*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a*

GDOT Construction Type:

- *New Road Construction*

GDOT Construction Completion Date:

- *April 2006*

Adverse Effects:

- *Physical*

**Google Earth, 2013*

The McDonough Historic District

Research

The McDonough Historic District is a residential and commercial district located in downtown McDonough, Georgia, the seat of Henry County. The district was developed between the late nineteenth century and the early twentieth century. Although much of what was developed from the 1820s and 1830s is no longer in place, McDonough still retains its general plan dating from that time period. The plan is anchored by a public square with streets radiating out in the cardinal directions. The 1897 Romanesque Revival Courthouse and its modern annex occupy the lot north of the square, while turn-of-the-century commercial buildings occupy the other three sides. Later commercial and industrial buildings were located on the adjacent blocks, and a variety of residential buildings can be found in the district. Many of the houses in the district date from the early twentieth century and represent both high-style and vernacular architecture. In the Area of Effect of GDOT project P.I. #321145, many of the contributing resources are former residences that are now being used for commercial purposes. Because of the district's residential and commercial history, the landscape is considered Historic Vernacular. The district is eligible for the NRHP under Criterion A for government, transportation, commerce and community planning, and Criterion C for architecture.

Figure 9a

Memorandum of Agreement Landscape Stipulations:

"The FHWA will ensure that a landscape plan is developed and implemented for an informal landscape treatment that will screen both the new-location north tie-in of the north-south one-way pair and the east tie-ins of the east-west one-way pair from view from within the district. The landscape plan will be implemented within DOT rights-of-way as allowed outside the area required for "cut and fill" activities as well as utilities. For adversely affected contributing resources within the McDonough Historic District where DOT right-of-way is not sufficient to implement a landscape plan, the property owners will be contacted and afforded the opportunity to have an informal landscape treatment developed and implemented on private property."

GDOT Project P.I. #321145 involved the construction and conversion of a north-south one-way pair through the McDonough Historic District. It resulted in the demolition of two contributing historic properties to the district. (Project documentation did not specify the use of these properties.) It also changed the character of the district by constructing a heavily travelled road through the former back yards of several contributing resources. The purpose of the project was to separate northbound and southbound traffic to increase efficiency of movement through downtown. The project utilized U.S. 23 / S.R. 42 East / Macon Street for northbound traffic and S.R. 42 West / Griffin Street for southbound traffic. These roads would consist of two 12-ft. lanes with curb and gutter within a 200 ft. right-of-way. The road was designed for a speed limit of 35 miles per hour in a commercial district, which requires a minimum horizontal clearance of 4 ft. between the center of tree and face of curb*. There was a specified 16-ft. clear zone on both sides of the new road.

The Assessment of Effects document, completed in April 1997, stated that the construction of the one-way pair would have an adverse effect on the physical characteristics of the district, due to the demolition of two contributing historic properties. It would also change the character of the district by constructing a heavily travelled road through the former back yards of several contributing resources, an effect that was not addressed in the AOE. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 9a.

The project historian was interviewed regarding the landscape mitigation effort. She stated that there was no public involvement for this landscape mitigation because it was within the right-of-way. She also did not recall there being a formal agreement with the City of McDonough regarding maintenance. She went on to say that one of the successes of this project was that the project historian, landscape architect, and contractor met on-site to mark the right-of-way and determine what could be planted and what existing landscape could be preserved.

The plant schedule was extensive – it called for 28 different species of plants to be installed. The plant selection was fairly appropriate for the

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

area, with the exception of the Hemlock (*Tsuga canadensis*), which does not thrive as far south as McDonough, and Eleagnus (*Eleagnus pungens*), which is invasive. The landscaping was arranged informally along the east and west sides of the northbound portion of U.S. 23 / S.R. 42 (Atlanta Street). The Plant Schedule is located in Figure 9b, and the landscape plan is located in Appendix A of this report.

Site Analysis

A site analysis was conducted on May 22, 2013. Approximately 50 percent of the proposed landscaping was installed; it was not arranged per the landscape plans. Portions of the landscape treatment were in a formal arrangement rather than informal, as stipulated in the MOA (see Page 257, Photo 7). In some areas on the west side of the northbound road, the slope was approximately 2:1 (see Page 261, Photo 11). Such a steep slope can result in severe erosion and soil slipping, which would prevent proposed vegetation from establishing itself. There was evidence of stormwater erosion in these areas (see Page 266, Photo 16). While on-site, the team had the opportunity to interview a maintenance crew. The crew manager stated that they perform maintenance on the landscaping once a week. He also expressed discontent with the slopes of the site, stating that lawnmowers are useless on the steep banks. All of the plant material installed was in good health and well-maintained. The maintenance crew manager stated that the ongoing maintenance was a city initiative; no known maintenance agreement had been set up by GDOT.

On the west side of the northbound road was a small patch of bamboo, which was not originally a part of the landscape plan (see Page 262, Photo 12). On the east side of the northbound road, there was a newly constructed building, that was being leased to a real estate company.

McDonough, GA Courthouse, south of one-way pair. Facing north.

Plant Schedule:

Figure 9b

QTY.	Botanical Name	Common Name	Spacing
3	*Carpinus caroliniana*	American Hornbeam	Per Plans
8	*Crataegus phaenopyrum 'Presidential'*	Presidential Washington Hawthorn	Per Plans
10	*Halesia tetraptera*	Silverbell	Per Plans
3	*Liriodendron tulipifera*	Tulip Poplar	Per Plans
2	*Nyssa sylvatica*	Black Tupela	Per Plans
5	*Oxydendrum arboreum*	Sourwood	Per Plans
3	*Quercus coccinea*	Scarlet Oak	Per Plans
6	*Quercus lyrata*	Overcup Oak	Per Plans
2	*Quercus phellos*	Willow Oak	Per Plans
3	*Quercus shumardii*	Shumard Oak	Per Plans
5	*Taxadium distichum*	Bald Cypress	Per Plans
14	*Ilex opaca*	American Holly	Per Plans
13	*Ilex vomitoria*	Yaupon Holly	Per Plans
10	*Magnolia grandiflora*	Southern Magnolia	Per Plans
7	*Pinus taeda*	Loblolly Pine	Per Plans
8	*Tsuga canadensis*	Hemlock	Per Plans
11	*Amelanchier arborea*	Serviceberry	Per Plans
9	*Aesculus parviflora*	Bottlebrush Buckeye	Per Plans
14	*Cercis canadensis*	Eastern Redbud	Per Plans
10	*Chionanthus virginicus*	White Fringe Tree	Per Plans
16	*Malus 'Callaway'*	Callaway Crabapple	Per Plans
4	*Magnolia virginiana*	Sweetbay Magnolia	Per Plans
24	*Hamamelis virginiana*	Common Witch Hazel	4' O.C.
35	*Calycanthus floridus*	Sweetshrub	4' O.C.
59	*Ilex glabra 'Nigra'*	Nigra Inkberry Holly	4' O.C.
170	*Clethra alnifolia 'Hummingbird'*	Hummingbirg Clethra	3' O.C.
170	*Ilex vomitoria 'Nana'*	Dwarf Yaupon Holly	3' O.C.
208	*Itea virginica 'Henry's Garnet'*	Henry's Garnet Virginia Sweetspire	3' O.C.

Landscaping had been installed along the building's front lawn that did not match the proposed landscape mitigation plans (see Page 264, Photo 14). The construction of the building would have required the removal of any landscape mitigation that may have been installed. The tenants knew nothing of the construction, as they were not leasing at the time of construction.

Towards the northern portion of the site, the landscape treatment was well-established and more effective, due to the flatter terrain and the existing vegetation, which provided shade (see Page 269, Photo 19). This area included Washington Hawthorns (*Crataegus phaenopyrum*), Tulip Poplars (*Liriodendron tulipifera*), Sourwood (*Oxydendrum arboreum*), Scarlet Oaks (*Quercus coccinea*), Willow Oaks (*Quercus phellos*), Bald Cypress (*Taxodium distichum*), American Hollies (*Ilex opaca*), Yaupon Hollies (*Ilex vomitoria*), Sweetbay Magnolias (*Magnolia virginiana*), Loblolly Pines (*Pinus taeda*), Bottlebrush Buckeyes (*Aesculus parviflora*), and Callaway Crabapples (*Malus 'Callaway'*).

Business owners and employees located along the southbound portion of Atlanta Street stated that the landscape mitigation treatment visually buffered their businesses from the northbound travel lanes; however, they felt that providing access to their businesses from the newly constructed roadway would have been more beneficial to them.

Northbound lanes of Atlanta Street. Facing north.

Evaluation

While on-site, the GDOT historian, landscape architect, and contractor discussed proposed plant availability, existing plants to be preserved, and right-of-way constraints. The historian could not recall specific plants that were discussed during the on-site meeting. She did state that she, the landscape architect, and the contractor walked the entire site and staked plant locations according to the right-of-way lines. Due to right-of-way constraints, the landscape

Vintage gasoline pumps in McDonough Historic District. Facing northeast.

treatment could not be installed according to the landscape plans. The historian also stated that, to her knowledge, no coordination occurred between GDOT and the city planning office regarding the development of the new building. Attempts to reach the city planning office were unsuccessful.

Stipulation 5 of the 2003 MOA, which concerns the landscape, states that "the FHWA will ensure that a landscape plan is developed and implemented for an informal landscape treatment that will screen both the new-location north tie-in of the north-south one-way pair." The landscape mitigation treatment is comprised of shrubs and trees that do not effectively screen the road from view or restore the forested character of the historic setting (see Page 260, Photo 10). The new road has an obvious presence in the district and is clearly seen from several of the contributing properties on Atlanta Street and Lawrenceville Street (see Page 256, Photo 6, and Page 263, Photo 13). What is installed on-site is well maintained by the city.

As mentioned previously, the Hemlock and Eleagnus were inappropriate plant choices for this site; however, the rest of the proposed plant selection was appropriate to the site and the region. The planting plan was not reflective of that which existed prior to construction. Planting more of the hardy, sun-loving trees – Tulip Poplars, Magnolias, Loblolly Pines, and Eastern Red Cedars – along both sides of the new corridor would have helped to recreate more of the original forest-like setting that existed prior to construction. The team's field checklist and results are shown in Figure 9c.

Summary

Site Analysis Summary:

- Approximately 50% of the proposed landscaping was installed and was not arranged as per the landscape plans.
- Installed plant material was well maintained and in good health
- Portions of the installed landscape were formally arranged rather than informal as specified in the MOA.
- Evidence of stormwater erosion taking place.
- Steep, 2:1 slopes were on site.
- Police Station not a part of the GDOT roadway construction located on east side of new one-way pair. Landscaping around it did not match the landscape plans as part of the mitigation effort.
- Northern end of the site had shade and healthy plants

Evaluation Summary:

- The trees and shrubs installed do not provide effective buffer between the McDonough Historic District and the new road.
- The planting plan was not reflective of the forest-like setting that existed prior to construction.
- An increase in the number of hardy, sun-loving trees along the corridor would have been an appropriate alternative.

Figure 9c

Field Checklist: The McDonough Historic District

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

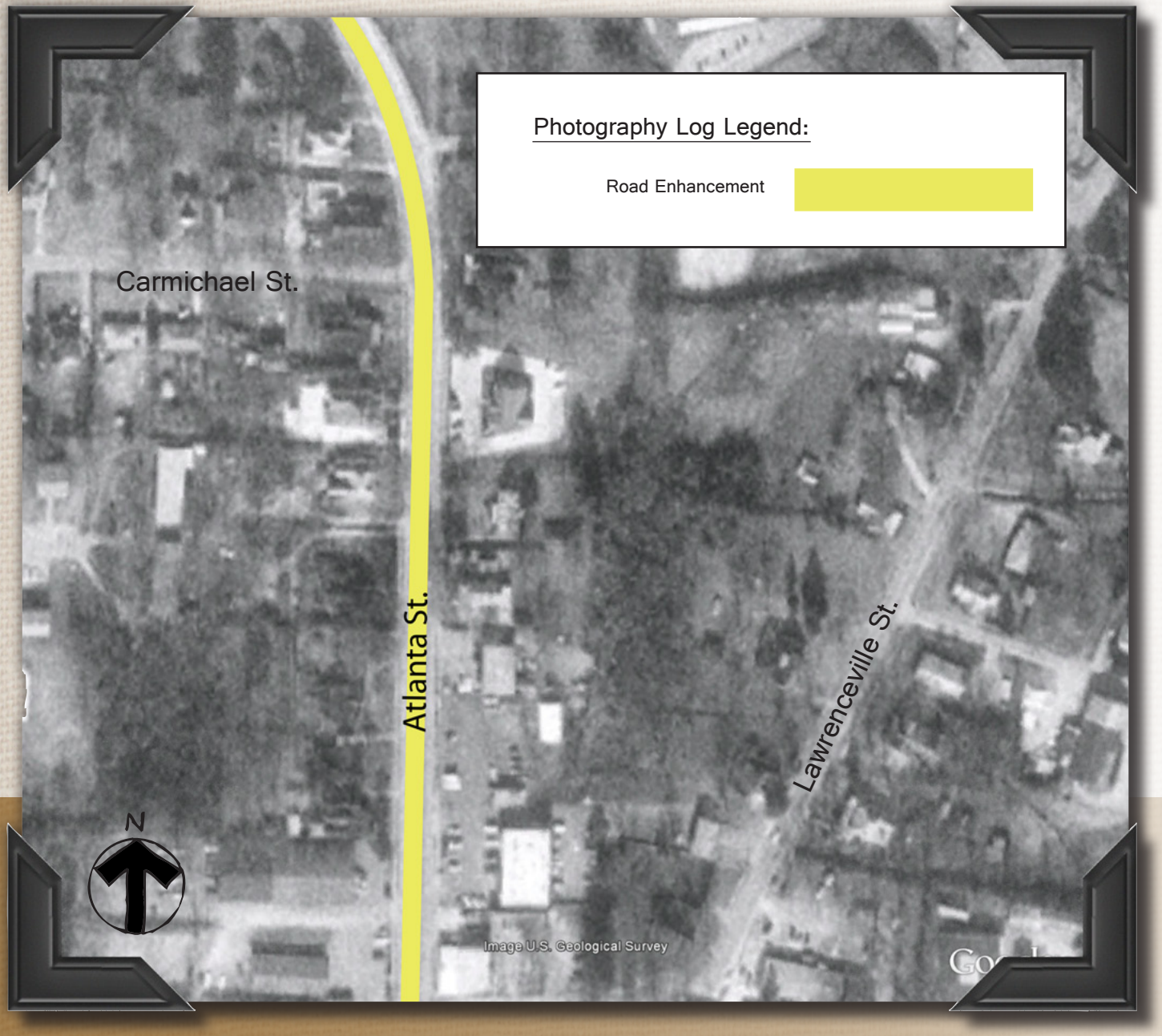
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 50%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

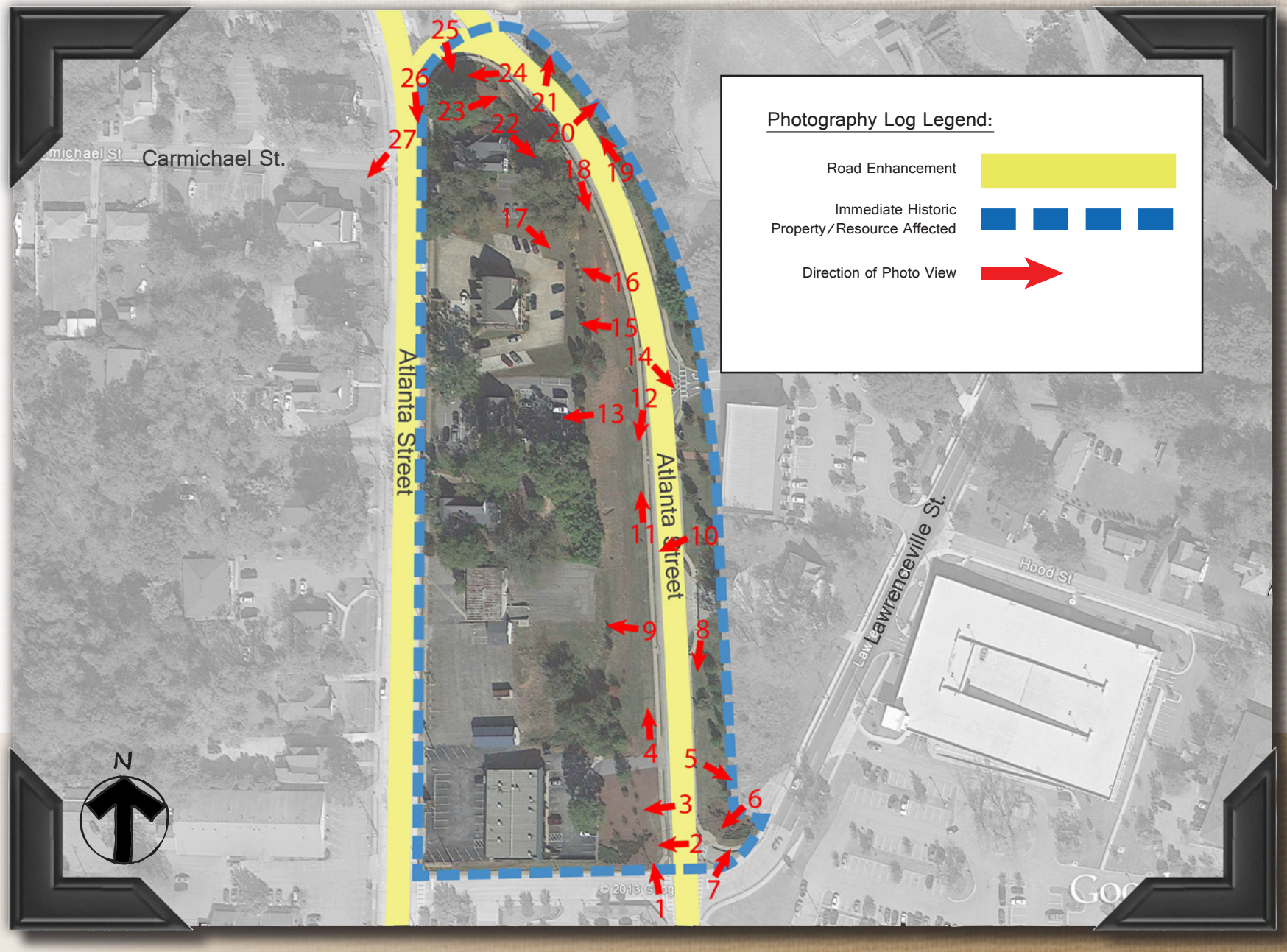
Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The McDonough Historic District, Henry County - P.I. # 321145



*Google Earth, 1993

Post-Construction Aerial and Photo Site Map:
The McDonough Historic District, Henry County - P.I. # 321145



Google Earth, 2013

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 1

Description: Landscape Mitigation Treatment at northwest corner of Lawrenceville St. and northbound Atlanta St. Facing north.

**Post-construction photos taken May 2013.*

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 2

Description: Landscape Mitigation Treatment at northwest corner of Lawrenceville St. and northbound Atlanta St. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 3

Description: Landscape Mitigation Treatment at northwest corner of Lawrenceville St. and northbound Atlanta St. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 4

Description: Sidewalk adjacent to and west of northbound Atlanta St. Facing north.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 5

Description: Landscape Mitigation Treatment at northeast corner of Lawrenceville St. and northbound Atlanta St. Facing southeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 6

Description: Landscape Mitigation Treatment at northeast corner of Lawrenceville St. and northbound Atlanta St. Facing southwest.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 7

Description: Landscape Mitigation Treatment at northeast corner of Lawrenceville St. and northbound Atlanta St. Facing northeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 8

Description: Landscape Mitigation Treatment adjacent to and east of northbound Atlanta Street; View facing south.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 9

Description: Landscape Mitigation Treatment, adjacent to and west of northbound Atlanta St., along back side of commercial lot. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 10

Description: Back of commerical building, adjacent to and west of northbound Atlanta Street. Open view towards south bound lanes and historic district. Facing southwest.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 11

Description: Sidewalk adjacent to and west of northbound Atlanta St. Facing north.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 12

Description: Bamboo growing adjacent to and west of northbound Atlanta Street. Facing south.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 13

Description: Back side of commercial lot, adjacent to and west of northbound Atlanta Street. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 14

Description: Police Department Building built after Landscape Mitigation Efforts, adjacent to and east of northbound Atlanta St. Facing southeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 15

Description: Landscape Mitigation Treatment along back side of commercial lot adjacent to and west of northbound Atlanta St. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 16

Description: Landscape Mitigation Treatment and erosion occurring behind commercial lot adjacent to and west of northbound Atlanta St. Facing northwest.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 17

Description: Landscape Mitigation Treatment along back side of commercial lot adjacent to and west of northbound Atlanta St. - Police Department in the background. Facing southeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 18

Description: Sidewalk adjacent to and west of northbound Atlanta St. Facing south.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 19

Description: Landscape Mitigation Treatment and sidewalk adjacent to and east of northbound Atlanta St. Facing northwest.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 20

Description: Landscaping adjacent to and east of northbound Atlanta St. Facing northeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 21

Description: Landscaping adjacent to and east of northbound Atlanta St. Facing north.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 22

Description: Landscape Mitigation Treatment adjacent to and west of northbound Atlanta St. Facing southeast.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 23

Description: Landscape Mitigation Treatment adjacent to and east of northbound Atlanta St. Facing east.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 24

Description: Landscape Mitigation Treatment at north end of Atlanta St., south of northbound tie-in. Facing west.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 25

Description: Landscape Mitigation Treatment at north end of Atlanta St., south of northbound tie-in. Facing south.

Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 26

Description: Sidewalk adjacent to and east of southbound Atlanta St. Facing south.

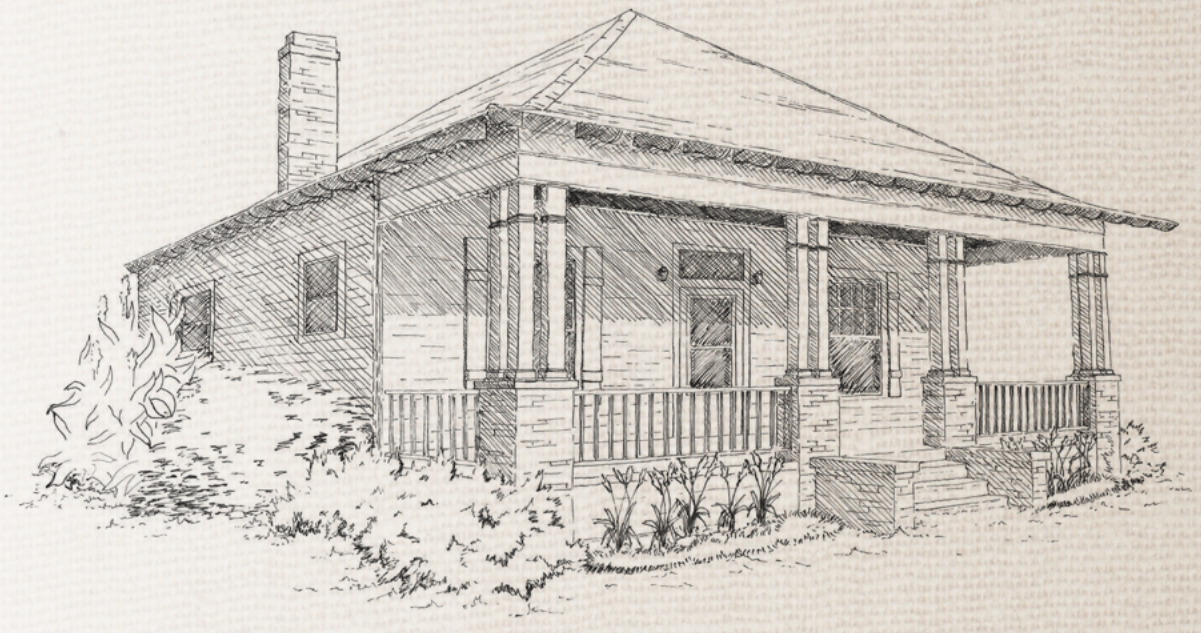
Post-Construction Photographs:
The McDonough Historic District, Henry County - P.I. # 321145

Photo Number: 27

Description: Residences at intersection of Carmichael St. and southbound Atlanta St., adjacent to and west of Atlanta St. Facing southwest.

Laurens County

Site 10

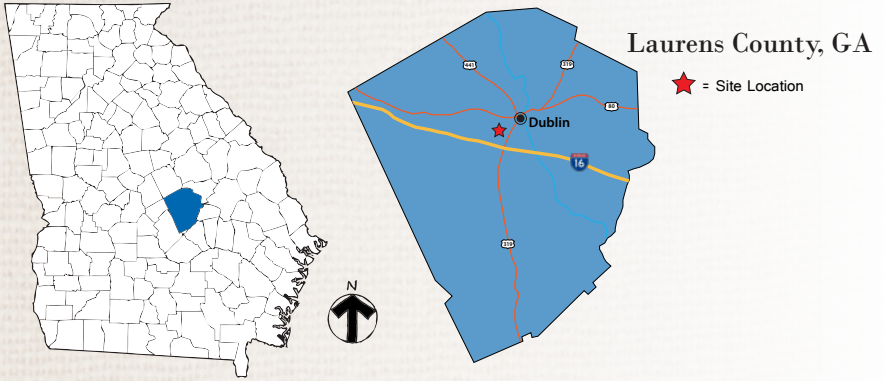


The R.F. Maddox Homeplace

P.I. #262040

Laurens County At a Glance:

Site 10 is located in Laurens County, at the intersection of S.R. 257 and the U.S. 441 Bypass, approximately four miles southwest of Dublin, Georgia. GDOT Project P.I. #262040 was both a widening and new construction project of U.S. 441 / S.R. 31, and it resulted in adverse visual effects to the property, as well as adverse effects to the property's use.



Historic Resources:

- *The R.F. Maddox Homeplace*

Resource Construction Date:

- *Unknown*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a-8b*

GDOT Construction Type:

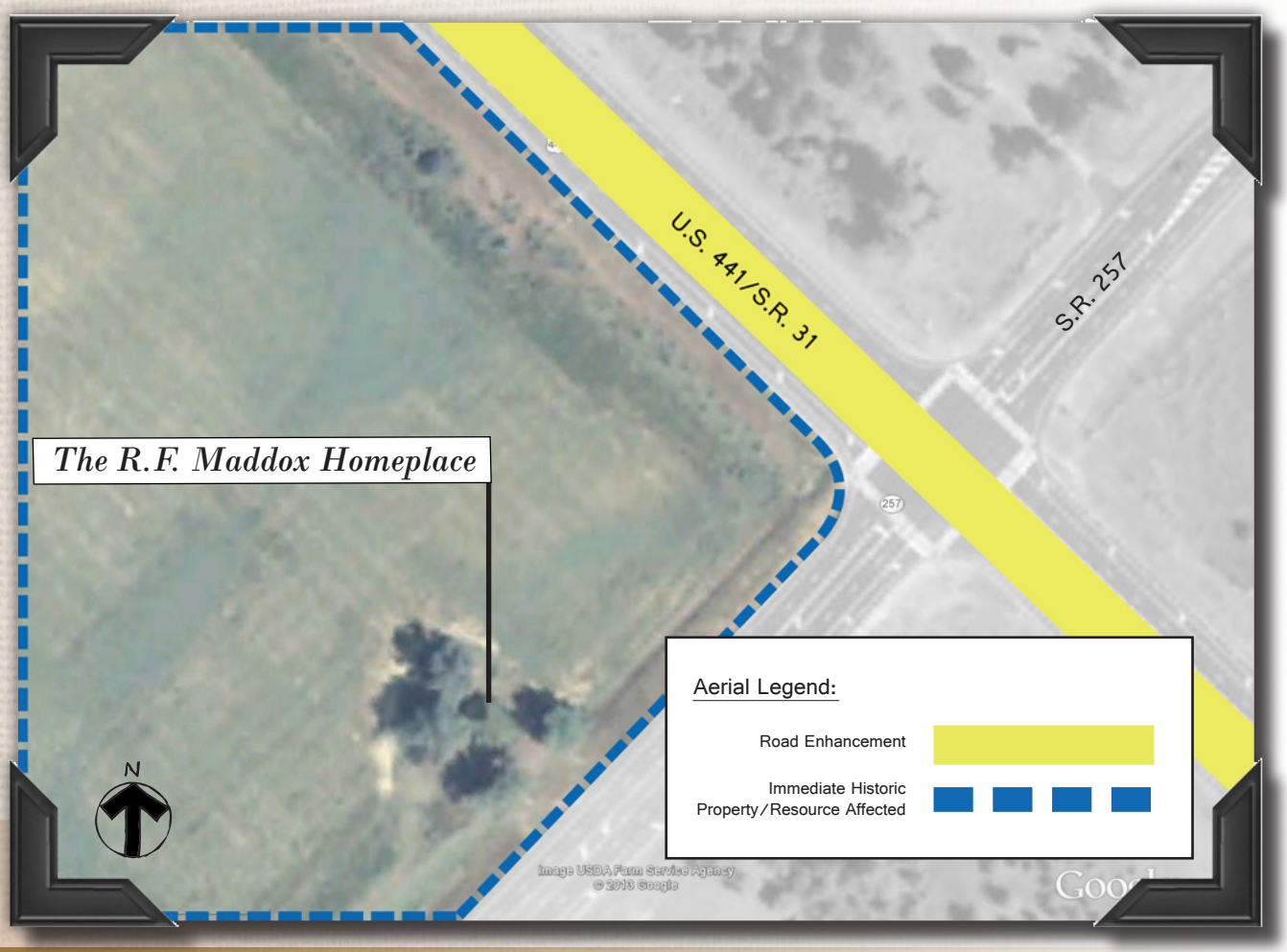
- *New Road Construction*
- *Road Widening*

GDOT Construction Completion Date:

- *July 2010*

Adverse Effects:

- *Character Setting*
- *Visual*



*Google Earth, 2013

The R.F. Maddox Homeplace

Research

The R. F. Maddox Homeplace is located in the southwest quadrant of the intersection of S.R. 257 and the S.R. 117 / U.S. 441 Dublin Bypass. The NRHP-eligible boundary contains approximately 200.5 acres and consists of a circa 1920 house, family cemetery, and agricultural fields. Based on the Historic Survey Report prepared for GDOT Project EDS-442 and P.I. #262040, the R.F. Maddox Homeplace is considered eligible for listing in the NRHP under Criterion A for agriculture and Criterion C for architecture. The property was determined to be a good example of a turn-of-the-century farmstead and a hipped-roof Craftsman Bungalow (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)).

The house associated with the property faces S.R. 257 and is located in the center of a small grassy lawn approximately 150 ft. from the roadway. The lawn is bordered by four mature Pecan trees, one at each corner, and is surrounded on three sides by agricultural fields (see Page 287, Photo 3). The house is a one-story, hipped-roof Bungalow. It sits on a brick pier foundation with concrete block infill. The exterior walls are sheathed in clapboard. The house has an engaged full-width front porch with four multi-columned supports at the corners and flanking the entry steps. The central entry is topped with a transom window. The house features decorative exposed rafter tails with rounded ends under the eaves. There are six-over-one windows on the side elevations, and eight-over-one windows on the façade. The house is currently vacant and is in poor condition. The Maddox family cemetery is located approximately 100 yards to the southwest of the house, adjacent to S.R. 257 (see Page 304, Photo 21). The landscape is considered Historic Vernacular.

Figure 10a

Memorandum of Agreement Landscape Stipulation:

"The FHWA will ensure that a landscape plan is developed and implemented for an informal landscape treatment that will screen the new-location roadway that runs adjacent to the R.F. Maddox Homeplace from view from the associated house. The landscape plan will be implemented within DOT rights-of-way as allowed outside the area required for 'cut and fill' activities as well as utilities. For areas where DOT right-of-way is not sufficient to implement a landscape plan, the property owner will be contacted and afforded the opportunity to have an informal landscape treatment developed and implemented on private property."

Per the Historic Resources Survey report, the R. F. Maddox Homeplace retained integrity in the areas of setting, location, design, materials, workmanship, feeling, and association, as a good intact example of a turn-of-the-century farmstead.

GDOT Project P.I. #262040 involved road widening and new roadway construction of U.S. 441 / S.R. 31. The purpose of the project was to provide an effective bypass to improve traffic flow around and through Dublin, Georgia. The project constructed four 12-ft. travel lanes with a 44-ft. grassed median and 10-ft. shoulders within a 250 ft. right-of-way. The project was designed for a speed limit of 55 miles per hour, which requires all vegetation to be outside of the clear zone. The project documentation did not specify the clear zone requirements for this project.

The Assessment of Effects document determined that construction of the new road would have an adverse effect on the visual characteristics of the house due to the "magnitude of the physical presence of the bypass" (AOE). Additionally, the AOE stated that it was anticipated that the new roadway and subsequent development might threaten the continued agricultural use of the property. As a result, a MOA was developed. The landscape stipulation is listed in Figure 10a.

The GDOT project historian stated that the idea behind this project was to screen not only the historic resource, but the historic landscape as well. There was no maintenance agreement.

The landscape plan proposed an informal arrangement of mature pine and mixed hardwood forest species along U.S. 441 in an effort to

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

screen the new location roadway from the view of the house associated with the R.F. Maddox Homeplace. Plant selection and spacing reflected the mature pine and mixed hardwood species existing in the area prior to construction. The Plant Schedule is shown in Figure 10b, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. At the time of the site visit, the fields associated with the property were still being used agriculturally for cotton crops. The house was vacant, and no additional industrial or residential development had taken place within view of the property. U.S. 441 was visible from the historic resource (see Page 286, Photo 2). The existing landscaping immediately around the R.F. Maddox Homeplace was overgrown (see Page 285, Photo 1, and Page 287, Photo 3). The house itself was abandoned and had no signs of anyone having lived there for some time. The landscape mitigation treatment was sparsely spaced (see Page 291, Photo 8), and a significant amount of the plant material had died due to being run over by maintenance crew mowers (see Page 296, Photo 13). Approximately 50 percent of the proposed landscaping had been installed, half of which was in poor condition or dead (see Page 302, Photo 19). The main contributing factor to these plants' poor health was that they had been mowed over. All species proposed in the plant schedule were represented on-site with the exception of the Red Oak (*Quercus rubra*) and Virginia Pine (*Pinus virginiana*). The Loblolly Pines (*Pinus taeda*) exhibited full branches of needles and were in the best health of any of the plants on-site (see Page 300, Photo 17).

Southeast facade of R.F. Maddox Homeplace. Facing northwest.

Evaluation

The arrangement and maintenance of the plant material was not conducive to creating a visual buffer of the road from the historic resource. Several trees had been cut down, while others were simply folded over on top of one another after being run over by maintenance crews. Additionally, due to the grade change of U.S. 441 / S.R. 31 northwest of the historic resource, any traffic travelling southeast is elevated higher than the R.F. Maddox Homeplace, giving full visibility of the house from the top of the hill (see Page 303, Photo 20). The plant material was spaced far apart and was sparse compared to what was proposed on the landscape plan. While the plant material was appropriate, the repeated use of one plant species along U.S. 441 / S.R. 3 as a visual buffer, such as Pecan or Loblolly Pine, would have been more in keeping with the historic setting, as

Figure 10b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
11	*Amelanchier arborea*	Serviceberry	Per Plans
8	*Cedrus deodara*	Deodar Cedar	Per Plans
12	*Cercis canadensis*	Red Bud	Per Plans
7	*Ilex vomitoria*	Yaupon Holly	Per Plans
9	*Juniperus virginiana*	Eastern Red Cedar	Per Plans
3	*Pinus taeda*	Loblolly Pine	Per Plans
9	*Pinus virginiana*	Virginia Pine	Per Plans
5	*Quercus coccinea*	Scarlet Oak	Per Plans
4	*Quercus rubra*	Red Oak	Per Plans

these species were predominant and thriving in the immediate area surrounding the resource. As an alternative, landscaping closer to the R.F. Maddox Homeplace, immediately northeast of the house, could have visually buffered the road from the historic resource, using significantly less plant material (see Page 292, Photo 9). The team's field checklist and results are shown in Figure 10c.

Southeast and southwest facade of R.F. Maddox Homeplace. Facing north.

Summary

Site Analysis Summary:

- Land is still used for agricultural purposes.
- The house was vacant.
- Approximately 50% of the proposed landscaping had been installed.
- 50% survival rate of the installed landscaping.
- Some installed plant material had been mowed over.
- All proposed species were represented on site

Evaluation Summary:

- The arrangement and maintenance of the plant material did not create a visual buffer between the U.S. 441 and the R.F. Maddox Homeplace.
- Plant material was spaced further apart than what was proposed on the landscape plan.
- The use landscaping closer to the R.F. Maddox Homeplace would have been more in keeping with the historic setting.

Figure 10c

Field Checklist: The R.F. Maddox Homeplace

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- No

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

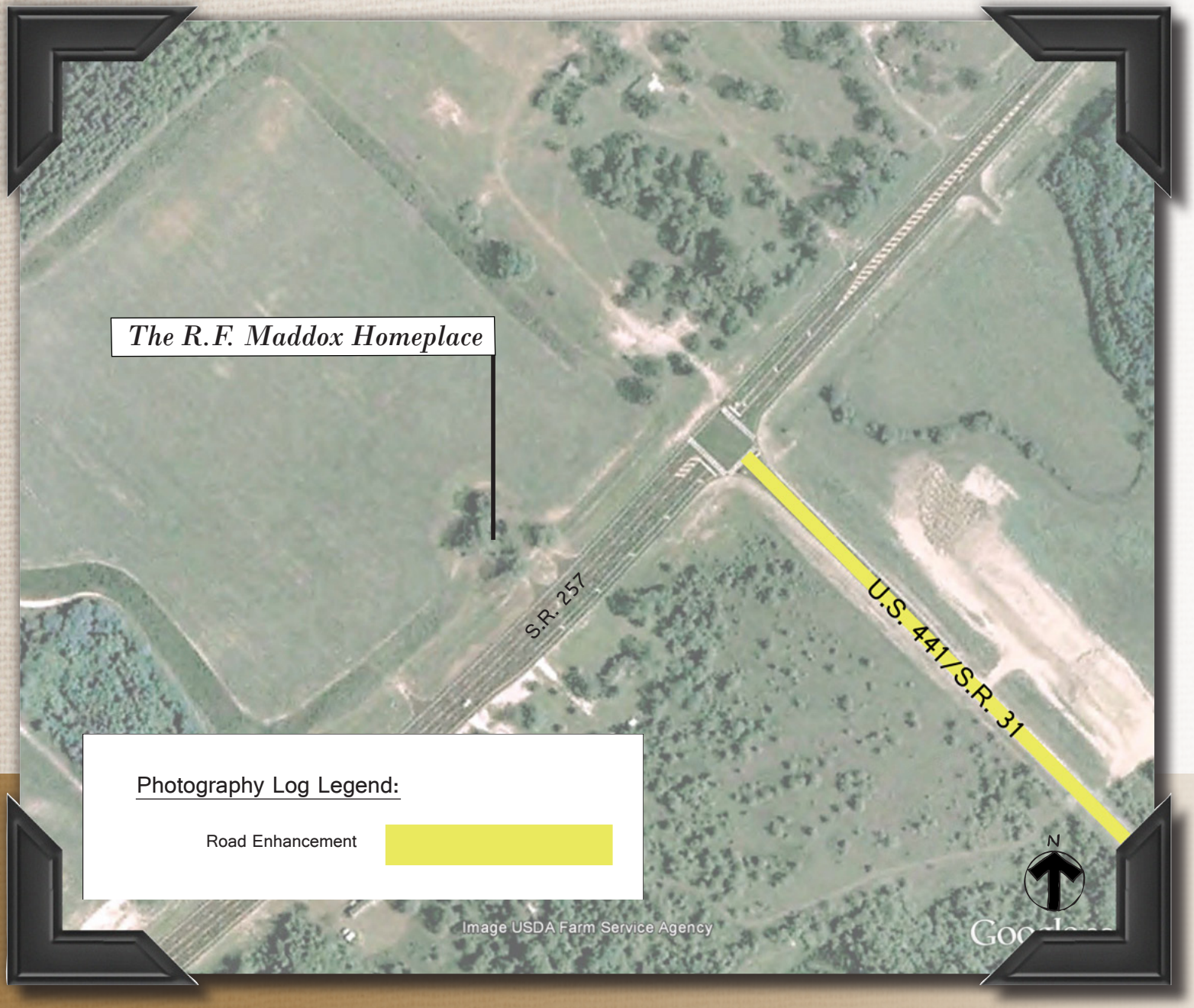
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 50%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

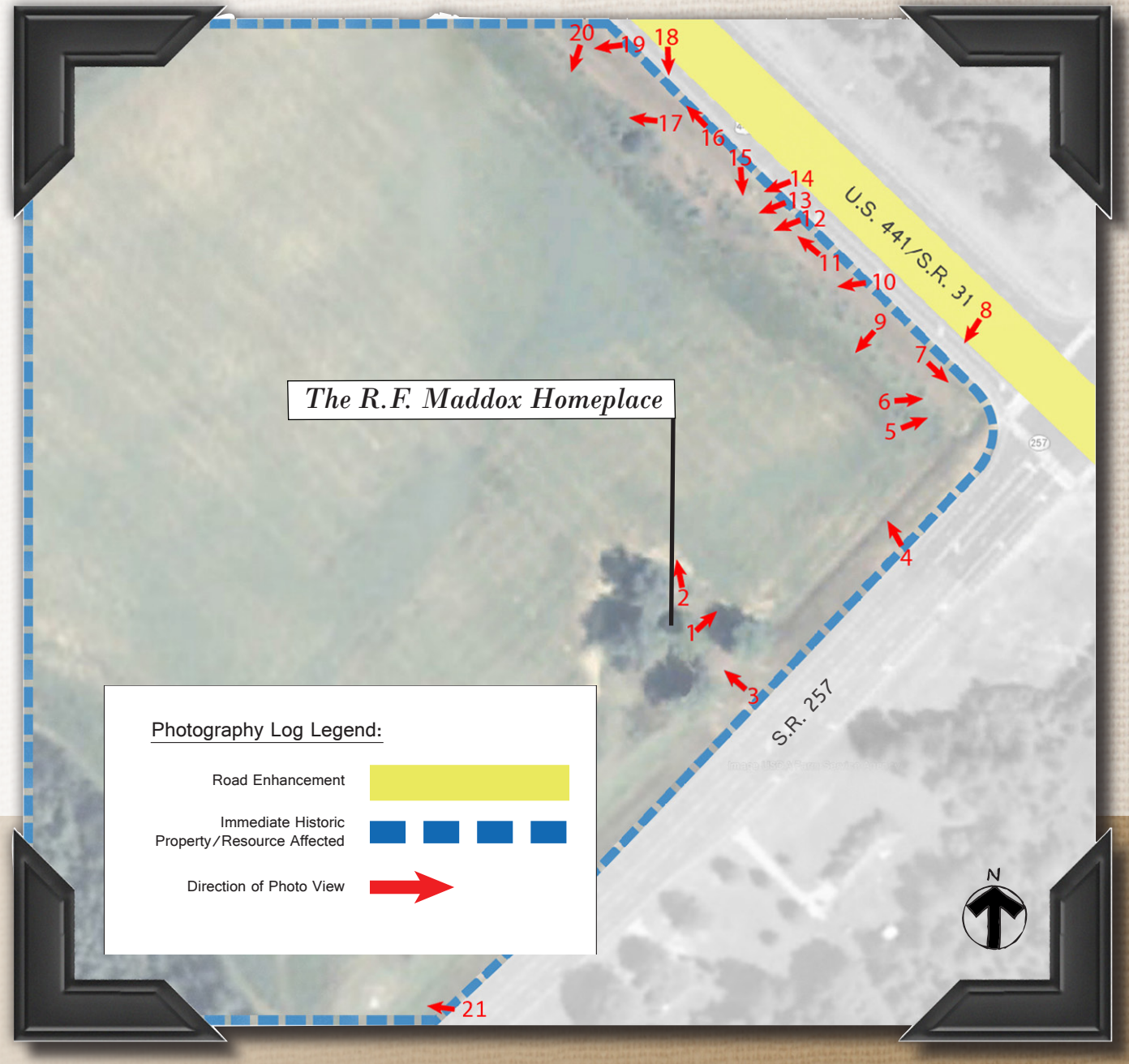
Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040



*Google Earth, 2007

Post-Construction Aerial and Photo Site Map:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040



*Google Earth, 2012

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 1

Description: U.S. 441/S.R. 31 view from porch of R.F. Maddox Homeplace. Facing northeast.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 2

Description: U.S. 441/S.R. 31 view from northeast facade of R.F. Maddox Homeplace. Facing north.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 3

Description: Front/southeast facade of R.F. Maddox Homeplace, adjacent to and northwest of S.R. 257. Facing northwest.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 4

Description: View of U.S. 441/S.R. 31 from S.R. 257. Facing northwest.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 5
Description: Virginia Pine, as part of the Landscape Mitigation Treatment, adjacent to and southwest of U.S. 441. Facing northeast.

Photo Number: 6
Description: Redbud as part of the Landscape Mitigation Treatment, adjacent to and southwest of U.S. 441. Facing east.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 7

Description: Virginia Pine as part of the Landscape Mitigation Treatment, adjacent to and southwest of U.S. 441. Facing southeast.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

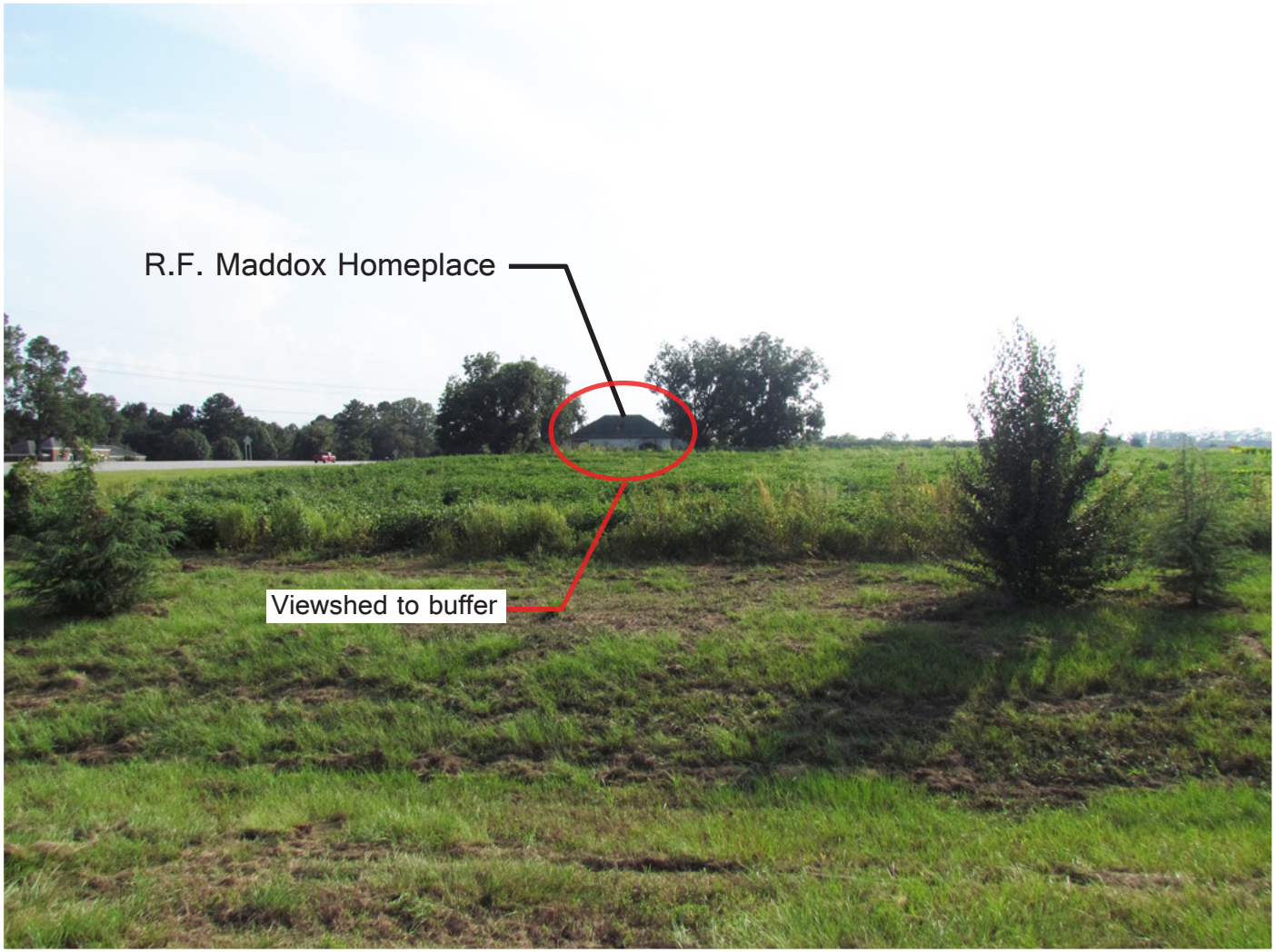
Photo Number: 8

Description: Northeast facade of R.F. Maddox Homeplace from U.S. 441. Facing southwest.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 9

Description: Northeast facade of R.F. Maddox Homeplace, view from southwest side of U.S. 441. Facing southwest.



Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 10

Description: Eastern Red Cedars as part of the Landscape Mitigation Treatment, adjacent to and southwest of U.S. 441. Facing west.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 11

Description: Roadside adjacent to and southwest of U.S. 441. Facing northwest.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 12

Description: Mowed over Landscape Mitigation Treatment adjacent to and southwest of U.S. 441. Facing west.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 13

Description: Mowed over Landscape Mitigation Treatment adjacent to and southwest of U.S. 441. Facing west.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 14

Description: Landscape Mitigation Treatment adjacent to and southwest of U.S. 441. Facing west.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 15

Description: Mowed over Landscape Mitigation Treatment adjacent to and southwest of U.S. 441 - R.F. Maddox Homeplace in background. Facing south.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

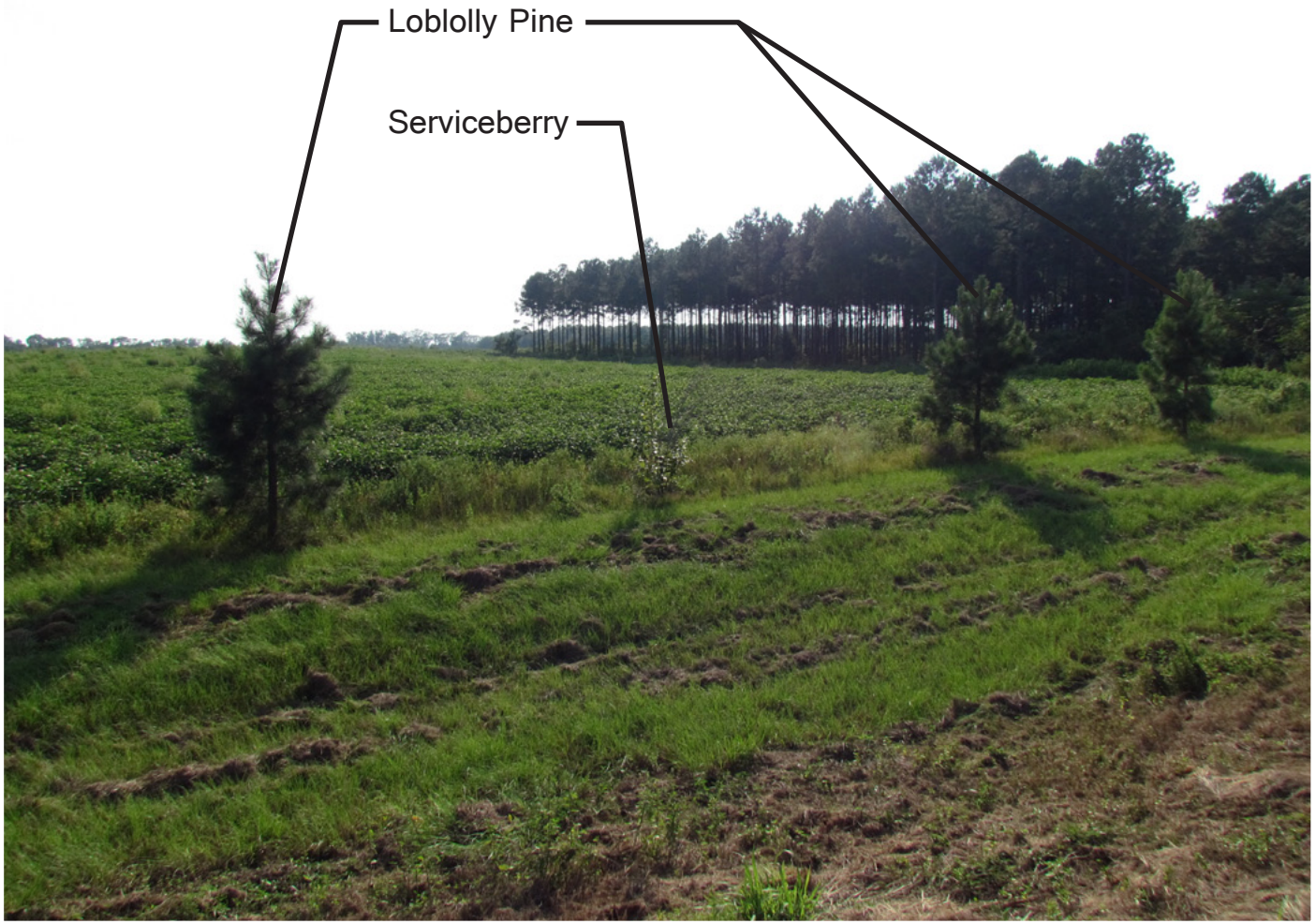
Photo Number: 16

Description: Existing vegetation adjacent to and southwest of U.S. 441. Facing northwest.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 17

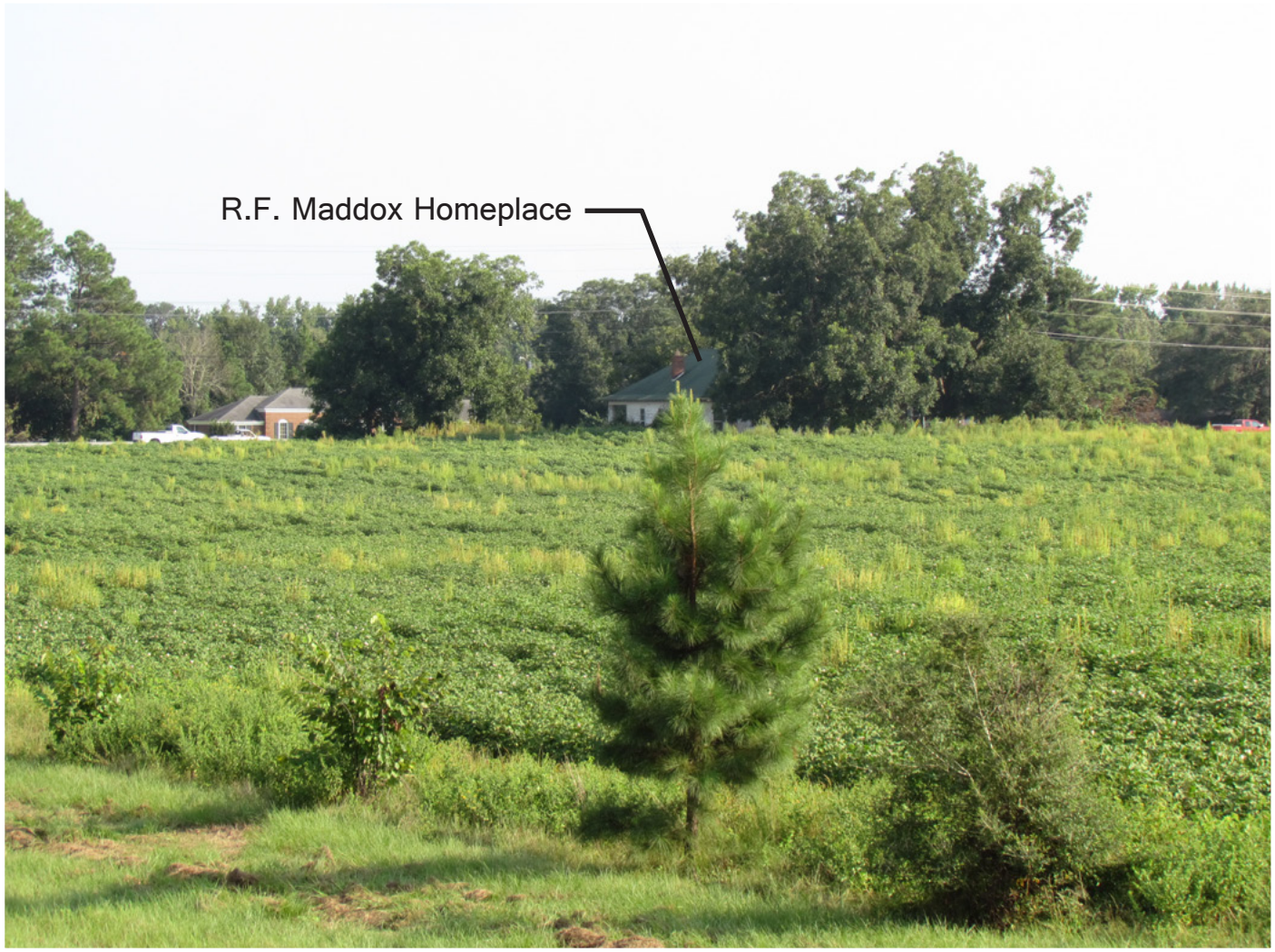
Description: Loblolly Pines and Serviceberry as part of Landscape Mitigation Treatment, adjacent to and southwest of U.S. 441. Facing west.



Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 18

Description: Landscape Mitigation Treatment adjacent to and southwest of U.S. 441 - R.F. Maddox Homeplace in background. Facing south.



Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 19

Description: Serviceberry in poor health, adjacent to and southwest of U.S. 414. Facing west.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 20

Description: Landscape Mitigation Treatment adjacent to and southwest of U.S. 441 - R.F. Maddox Homeplace in background. Facing south.

Post-Construction Photographs:
The R.F. Maddox Homeplace, Laurens County - P.I. # 262040

Photo Number: 21

Description: The Maddox Cemetery adjacent to and west of S.R. 257. Facing west.

Pulaski County

Site 11

The Bembry Farm, The Daniels-Haden-Bobo Farm, The Daniels-Hardy House, The Sapp House, The Williamson-Stuckey House and Pecan Orchards

P.I. #322180

Pulaski County At a Glance:

Site 11 is located in Pulaski County, along U.S. 341 /S.R. 27, approximately 3 miles east of Hawkinsville, Georgia. The historic resources adversely affected by GDOT Project P.I. 322180 were The Bembry Farm, the Daniels-Haden-Bobo Farm, the Daniels-Hardy House, the Sapp House, and the Williamson-Stuckey House / Pecan Orchards. GDOT Project P.I. #322180 was a road widening and reconstruction on U.S. 341, beginning at S.R. 257 and ending west of Sugar Creek near Eastman in Dodge County, Georgia. The project resulted in adverse visual and physical effects to the resources.

Historic Resources:

- *The Bembry Farm*
- *The Daniels-Haden-Bobo Farm*
- *The Daniels-Hardy House*
- *The Sapp House (non-extant)*
- *The Williamson-Stuckey House and Pecan Orchards (non-extant)*

Resource Construction Date:

- *1900-1917*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a-8b*

GDOT Construction Type:

- *Road Widening*

GDOT Construction Completion Date:

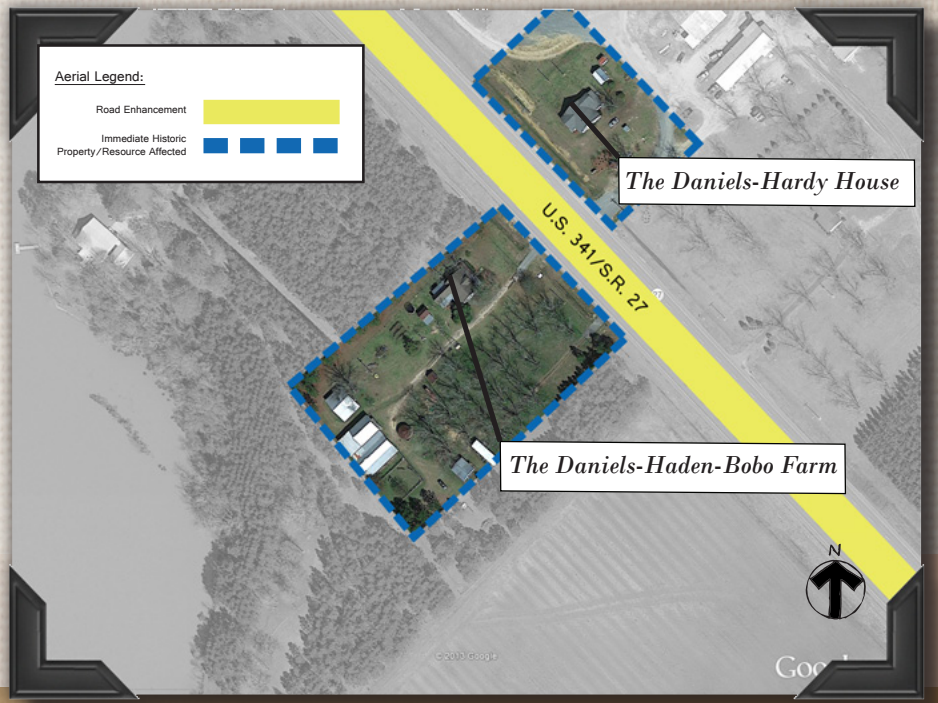
- *August 2006*

Adverse Effects:

- *Character Setting*
- *Visual*

Pulaski County, GA

★ = Site Location



The Bembry Farm

Research

The Bembry Farm is a large, early-twentieth-century agricultural property consisting of approximately 1,120 acres located along both sides of U.S. 341 / S.R. 27, southeast of Hawkinsville, Georgia. The Bembry Farm main house, located near the north edge of the property boundary, is a circa 1905 New South Cottage (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). This house exhibits a one-story square building core with a central hallway. Three gabled-roofed projections result in the characteristic irregular plan shape. A hipped porch surrounds the house on three sides. The house sits on a brick pier foundation, with clapboard exterior walls. The house retains architectural integrity; no significant alterations have been made. Four historic outbuildings surround the house, including a large barn, a cotton house (for cotton storage), a dilapidated chicken house, and a dilapidated shed. Two tenant houses that existed at the time the property was surveyed in July of 1992 are no longer extant. Several other structures were originally a part of this complex, but have deteriorated or been removed.

The informal landscape of the property features hickory (*Carya spp.*), Pecan (*Carya illinoinensis*), oak (*Quercus spp.*), and Magnolia (*Magnolia spp.*) trees. Across U.S. 341 from the main house is a hay field flanked by pine trees (see Page 317, Photo 8). Because of its agricultural setting, the landscape is considered Historic Vernacular. Although no formal discussion of integrity regarding the Bembry Farm was found in the project documentation, the resource retains integrity of setting, feeling, and association as a turn-of-the-century agricultural property.

Figure 11a

Memorandum of Agreement Landscape Stipulations:

"A landscape plan will be developed in order to mitigate, to the extent possible, the removal of vegetation within the proposed National Register boundary. Species comparable to those existing on the property will be utilized in the development of the plan. The landscape plan will be submitted to the SHPO for review and comment."

The Bembry Farm is considered eligible for the NRHP under Criteria A for agriculture and Criterion C for architecture.

GDOT Project P.I. #322180 involved the widening of U.S. 341 / S.R. 27. The project began at S.R. 257 and continued for 15.8 miles, ending past Sugar Creek near Eastman, Georgia. The purpose of the project was to provide multi-lane access to areas of the state not served by the interstate system. This corridor is a major travel corridor that serves the central and southeastern sections of Georgia between I-75 and I-95. It is part of the Governor's Road Improvement Program (GRIP). The project added two parallel lanes northbound and southbound, providing a total of four travel lanes, with a 14-ft. median in between. The proposed right-of-way was a minimum 200 ft. The project was designed for a speed limit of 65 miles per hour, which requires all vegetation to be outside of the clear zone*. The project documentation specified 15 to 35 ft. for clear zone requirements.

The Assessment of Effects document determined that the road widening would have an adverse effect on the visual and physical characteristics of the Bembry Farm, due to the taking of additional right-of-way and the removal of two trees, a hickory tree and a cherry tree, adjacent to, and northeast of, U.S. 341. As a result, a MOA was established. The landscape stipulation from this MOA is listed in Figure 11a.

The project manager for this project was contacted. While he did not recall any details regarding the historic resource, he did state that no maintenance agreement was set up for GDOT Project P.I. #322180. The landscape plan for the Bembry Farm proposed to "mitigate, to the extent possible, the removal of vegetation within the proposed National Register boundary. Species comparable to those existing on the property will be utilized in the development of the plan." The resulting landscape plan only addressed the main house; it called for the removal and in-kind replacement of two trees, a Pignut hickory (*Carya glabra*) and a Black cherry (*Prunus serotina*), that flank the

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

driveway. The removal of the trees was deemed necessary in order to upgrade the shoulders and facilitate the clear zone requirements. No maintenance agreement was developed for these two trees. The plant schedule is shown in Figure 11b, and the landscape plan is located in Appendix A of this report.

Figure 11b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
1	*Carya glabra*	Hickory	Per Plans
1	*Prunus serotina*	Black Cherry	Per Plans

Site Analysis

A site analysis was conducted on September 5, 2013. Although the road is approximately the same distance from the house as it was before project implementation, the view from the property has changed from a two-lane road to a four-lane road, with a large, grassed median (see Page 320, Photo 11). There was no planting in the median other than grass.

The original Black cherry and Pignut hickory trees were not removed as stipulated in the MOA (see page 315, photo 5). Both trees still stand in their original locations; both trees were in the clear zone. The cherry tree was in noticeably poor health, as very few leaves remained on the bare, drooping branches (see Page 316, Photo 6). The hickory was in good health (see Page 316, Photo 7); its branches exhibited a full canopy of green leaves and were bearing fruit (see Page 319, Photo 10).

Evaluation

At the Bembry Farm, the landscape plan that was developed as a mitigation effort was not implemented. The road was constructed without removing the original trees on the property; therefore, no replacement trees were installed. It is unknown why the trees were not removed to accommodate clear zone requirements. However, the trees need to be removed from their original location, as they now pose a safety hazard. In-kind replacement outside of the clear zone, as the MOA stipulates, would have helped to preserve the pre-existing conditions of the historic site, while also improving safety of the U.S. 341 roadway improvements. Removal and in-kind replacement of the Pignut hickory tree and the Black cherry tree outside of the clear zone is the most appropriate option for landscape mitigation. The team's field checklist and results are shown in Figure 11c.

Summary

Site Analysis Summary:

- Removal and in-kind replacement of the cherry and hickory trees did not occur.
- Both trees were in the clear zone.
- The Cherry tree was in poor health.
- The Hickory Tree was in good health.

Evaluation Summary:

- The trees should be removed from the clear zone.
- In-kind replacement outside the clear zone is an appropriate solution, as the MOA stipulated.

Figure 11c

Field Checklist: The Bembry Farm

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- N/A

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- N/A

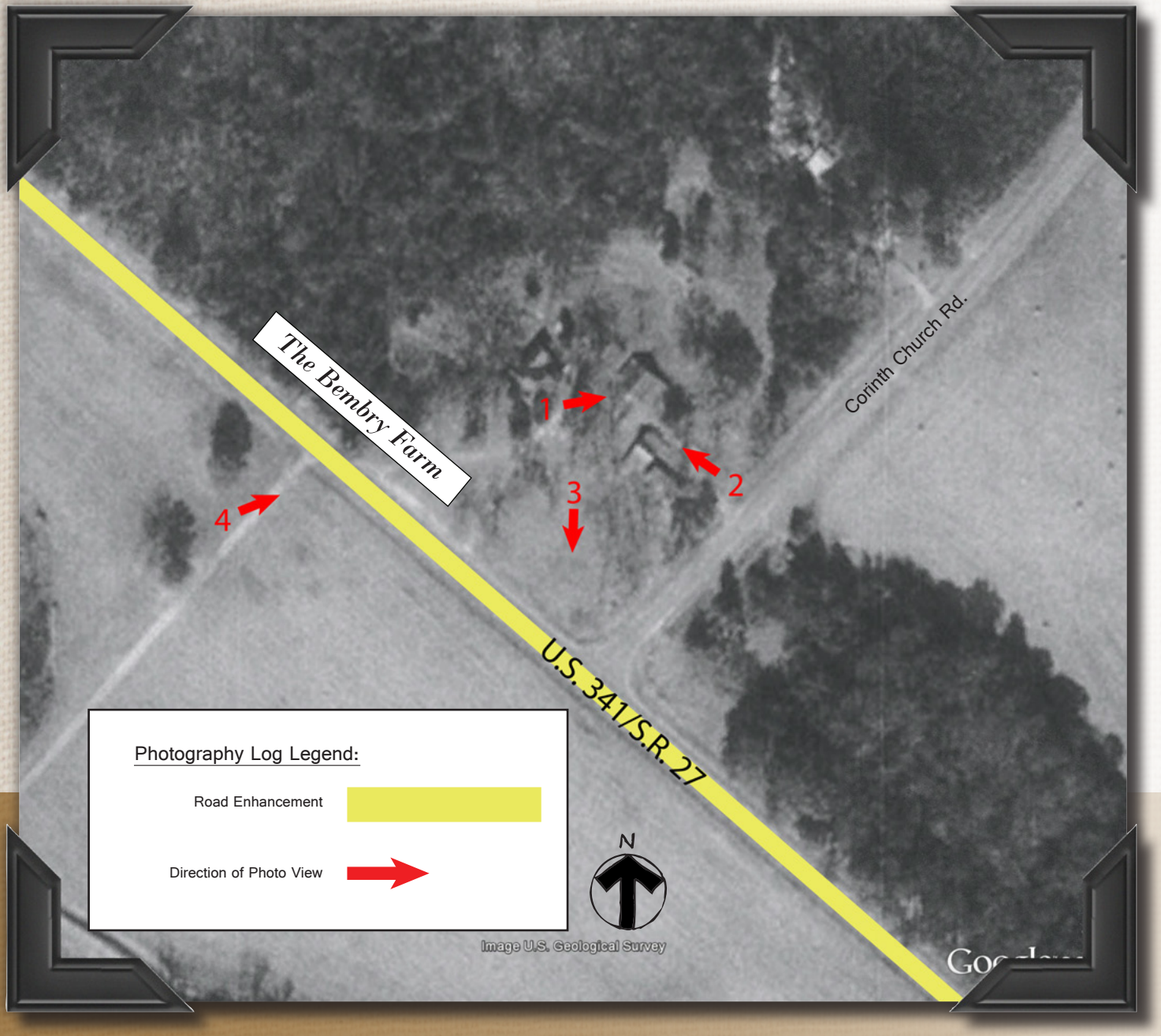
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 0%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map:
The Bembry Farms, Pulaski County - P.I. # 322180



*Google Earth, 1993

Pre-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 1

Description: Bembry Farm barn prior to road construction. Facing east.

**Pre-construction photos taken ca. 1992.*

Pre-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 2

Description: Bembry Farm barn and cotton house from Corinth Rd. prior to road construction. Facing northwest.

Pre-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 3

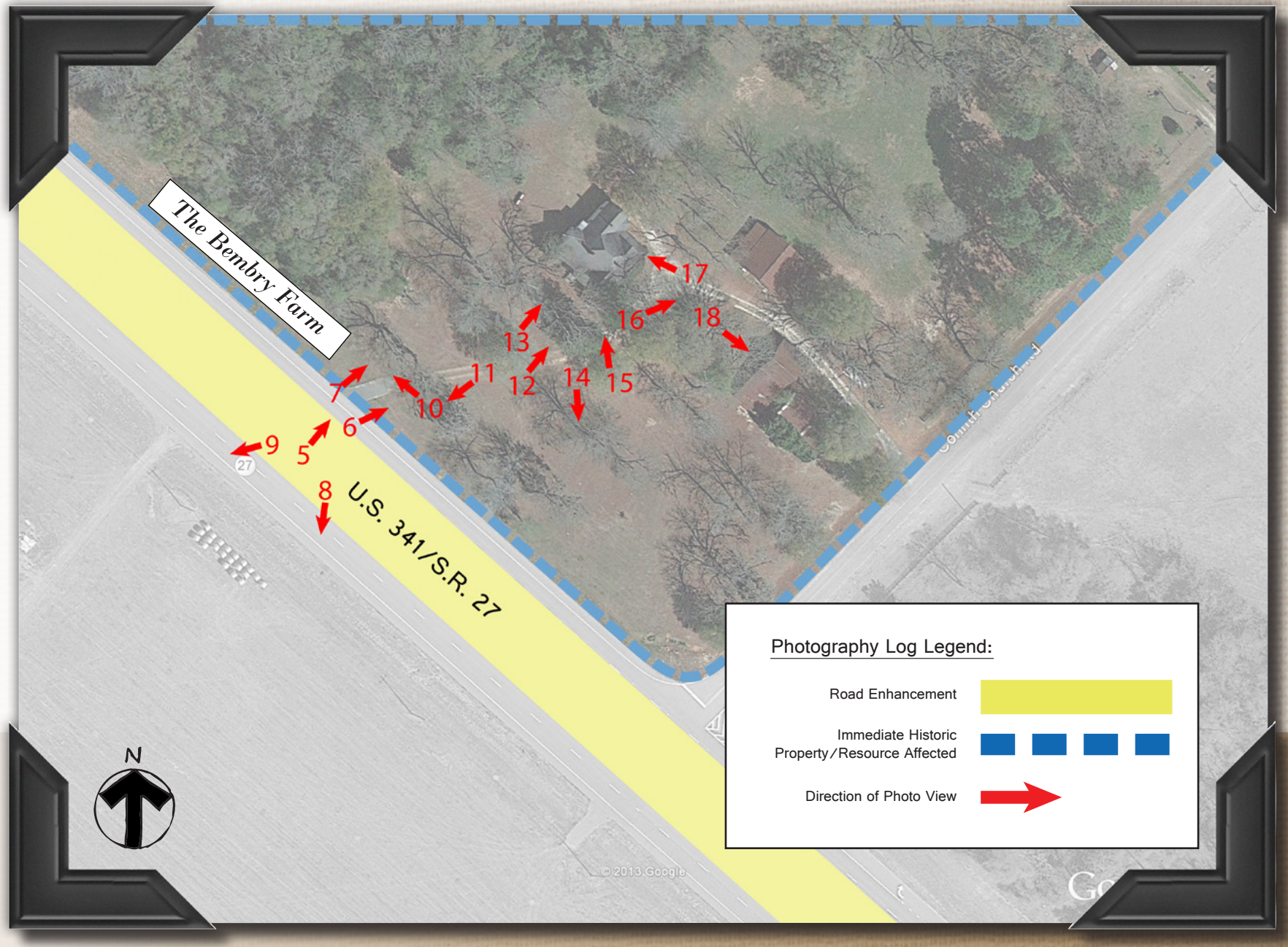
Description: View of U.S. 341/S.R. 27 from Bembry House prior to road construction. Facing south.

Pre-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 4

Description: View towards Bembry House from dairy house, southwest of U.S. 341/S.R. 27 prior to road construction. Facing northwest.

Post-Construction Aerial and Photo Site Map:
The Bembry Farms, Pulaski County - P.I. # 322180



*Google Earth, 2013

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 5

Description: Driveway entrance to Bembry House on northeast side of U.S. 341 - Pignut hickory tree on left, Black cherry on right. Facing northeast.

**Post-construction photos taken September 2013.*

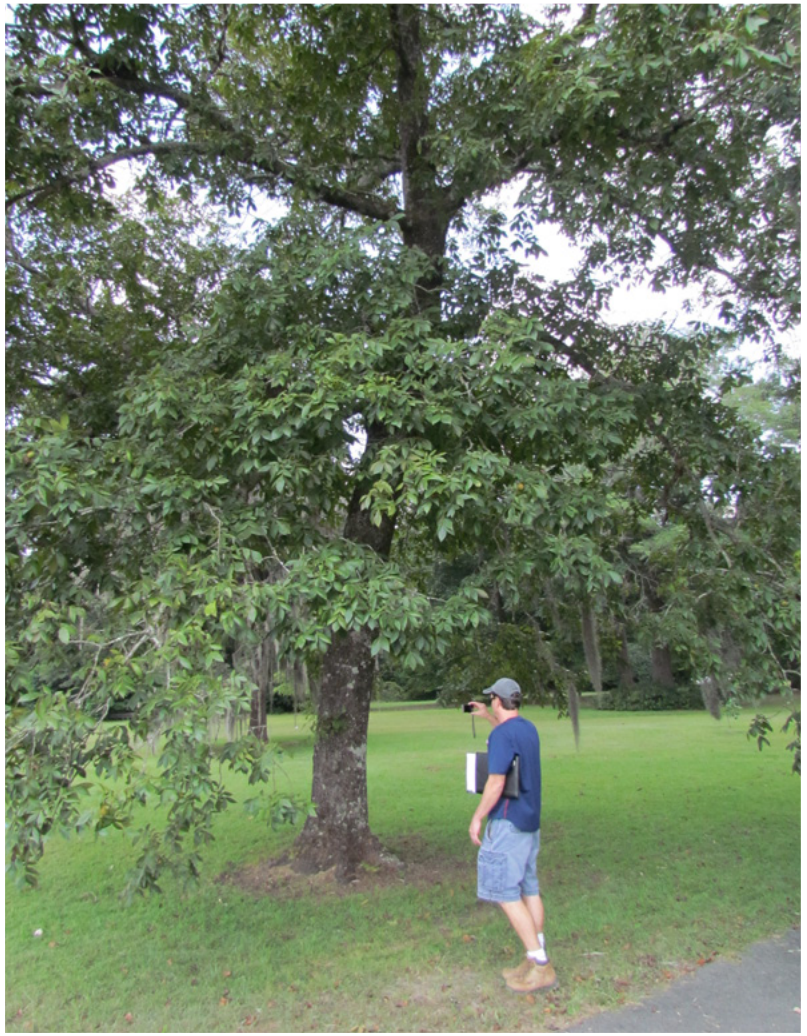
Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 6

Description: Existing Black cherry tree, southeast of driveway, adjacent to and northeast of U.S. 341. Facing southeast.

Photo Number: 7

Description: Existing Pignut hickory tree, northwest of driveway, adjacent to and northeast of U.S. 341. Facing northeast.



Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 8

Description: Open field adjacent to and southwest of U.S. 341/S.R. 27 across from the Bembry Farm. Facing south.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 9

Description: Old dairy barn adjacent to and southwest of U.S. 341/S.R. 27 across from the Bembry House. Facing southwest.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 10

Description: Pignut hickory tree bearing fruit. Facing northwest.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 11

Description: Oak tree with Spanish Moss south of Bembry House driveway. Facing southwest.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 12

Description: Magnolia tree in front yard southwest of Bembry House. Facing northeast.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 13

Description: Bembry House front/southwest facade. Facing northeast.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 14

Description: View of U.S. 341/S.R. 27 from southwest of Bembry House. Facing south.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 15

Description: The Bembry House southwest and southeast facade. Facing south.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 16

Description: Bembry Farms barn; View facing northeast.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 17

Description: Back porch/northeast facade of Bembry House. Facing northwest.

Post-Construction Photographs:
The Bembry Farms, Pulaski County - P.I. # 322180

Photo Number: 18

Description: Bembry Farms cotton house. Facing southeast.

The Daniels-Haden-Bobo Farm

Research

The circa 1905 Daniels-Haden-Bobo Farm, located on the south side of U.S. 341 / S.R. 27, contains approximately 9 acres and includes a main house, multiple outbuildings, a windmill, agricultural fields, and a Pecan orchard. The Daniels-Haden-Bobo Farm was not originally included as an eligible resource in this project, but as a result of a letter from the homeowner outlining the property's history, GDOT consulted with the Georgia SHPO, and the property was determined eligible for listing in the NRHP under Criterion A in the area of agriculture. Although there was no formal discussion of integrity found in the project documentation, the Daniels-Haden-Bobo Farm appears to retain integrity as a rural, single-family, agricultural property. The property is set in an informal wooded lot and features a small Pecan grove immediately east of the house. The agricultural history associated with the historic resource classifies the landscape as Historic Vernacular.

The GDOT project added two parallel lanes northbound and southbound, providing a total of four travel lanes with a 14-ft. median in between. The proposed right-of-way was 200 ft. The project was designed for a speed limit of 65 miles per hour, which requires all vegetation to be outside of the clear zone*. The Landscape plans specified a 30-ft. clear zone for this project.

The Assessment of Effects document determined that the road widening would have an adverse effect on the visual and physical characteristics of the Daniels-Haden-Bobo Farm, due to acquisition of approximately 1.3 acres of land and the removal of several historic oak and Pecan trees. The edge-of-pavement would move approximately 30 ft. closer to the house as a result of project implementation. Roughly ten Pecan trees were removed from the grove situated to the south of the house, and a mature oak tree was removed from the front of the house. Additionally, the setting and view from the property changed from a two-lane road to a four-lane road with a large, grassed median. As a result, a MOA was established. The landscape stipulation from this MOA is listed in Figure 11d.

The property owner, Ms. Betty Bobo, informed the team that the original roadway plan had the widened road cutting through most of the front yard of the Daniels-Haden-Bobo House, right up to its front door. Ms. Bobo stated that she and her family got the Georgia SHPO involved to have the proposed road moved farther away from the house in an effort to save four historic oak trees that had been planted by her great-grandfather. Ms. Bobo said that eventually GDOT agreed to move the road farther away from the house; however, the four historic oak trees were not salvaged. She stated that GDOT planted pine trees all around the house. The pine trees were planted in an attempt to provide a buffer between the house and the widened roadway. She did not like these pine trees because of falling limbs and cones. Ms. Bobo would have preferred flowering trees planted instead.

According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

Figure 11d

Memorandum of Agreement Landscape Stipulations:

"A landscape plan consisting of the replanting of trees removed will be developed in order to minimize the visual effects to the resources. The plan will be submitted to the SHPO for review and comment."

Northeast / Front facade of Daniels-Haden-Bobo House. Facing south.

The project manager confirmed what Ms. Bobo had stated. He mentioned that the Bobos attended public meetings to insist that the road be realigned farther away from the Daniels-Haden-Bobo House. He stated that once he awarded the project for construction, he was no longer involved on the project and knew nothing more about the landscape mitigation efforts. As mentioned in the Bembry Farms section of this site analysis, the project manager stated that no landscape maintenance agreement was established.

The landscape plan called for informal groupings of pine and mixed hardwood species along the roadside of U.S. 341 in front of the Daniels-Haden-Bobo House. The landscape plan also called for two Water Oaks (*Quercus nigra*) to be installed inside of the fence in front of the house. Several Pecan trees (*Carya illinoinensis*) were to be installed at the front of the property in a grid pattern, replicating the pattern of the existing Pecan grove. The plantings proposed in the landscape plan were in keeping with what was present on site before the road widening. They are appropriate for the region. The plant spacing in the landscape plan was too close. The plant schedule is shown in Figure 11e, and the landscape plan is located in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. Not all of the proposed plant material had been installed (see Page 344, Photo 12), including the two Water Oaks and five Pecan trees proposed in front of the house. Loblolly Pine (*Pinus taeda*) and Scarlet Oak (*Quercus coccinea*) were the only two species present on-site that were proposed in the plant list. In addition to these plant species, White Oaks (*Quercus alba*), Shumard Oaks (*Quercus shumardii*), and Willow Oaks (*Quercus phellos*) were present on-site. Most notable was the small pine forest, which had grown up on the northwestern side of the house (see Page 336, Photo 4). This mostly young-growth forest was installed by GDOT as part of the mitigation effort to visually screen U.S. 341 from the house but was not shown on the landscape plan. Of the plant material proposed, approximately 30 percent was installed on-site, but was not arranged in informal groupings as outlined in the landscape plan. The landscape mitigation treatment that was installed featured Loblolly Pines and Scarlet Oaks planted in a linear fashion along U.S. 341, but not directly in front of the Daniels-Haden-Bobo House (see Pages 346, Photos 14). All species associated with the mitigation effort were in good health.

Figure 11e

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
10	*Quercus lyrata*	Overcup Oak	not specified
56	*Pinus taeda*	Loblolly Pine	10' O.C.
2	*Quercus nigra*	Water Oak	not specified
5	*Carya illinoinensis*	Pecan	not specified
8	*Quercus coccinea*	Scarlet Oak	not specified

Evaluation

The landscape plan developed for the Daniels-Haden-Bobo Farm called for several “islands” of pines and oaks to be planted inside the right-of-way, but outside of the 30-ft. clear zone. The planted trees that were installed are fewer than prescribed and spaced much more regularly along the road, rather than in groupings. Although there are a few oaks mixed in, the overwhelming majority of trees that were planted are pines. While the pine trees were appropriate

Roadside south of U.S. 341. View facing southeast.

to the site and serve as an effective visual buffer of the road from the house, the excessive amount of pines are not in keeping with the historic character of the setting.

As seen in other case studies, such as the Bartlett House in Burke County (P.I. #222100) and the Reynolds Historic District in Taylor County (P.I. 363140), the property owner expressed a desire to have ornamental plants rather than plants that fit the historic context. This presents a conflict between meeting the requests of the property owner and upholding compliance with the Section 106 Process. In the case of the Daniels-Haden-Bobo House, a mixed-hardwood forest specimen, such as the Sweetbay Magnolia (*Magnolia virginiana*), would have fit the historic context of the setting. While this specimen is not present on-site, the species is present in the region. The Sweetbay Magnolia also provides an ornamental bloom, which could have accommodated the property owner's desire for an ornamental planting. Water Oaks and Pecan trees would also be appropriate plant choices for the site, as these species were on the property prior to construction.

An alternative would be to replant Water Oaks, Pecan trees, and Sweetbay Magnolias informally inside the right-of-way. This combination of plants would provide an effective visual buffer between the road and the historic resource, while at the same time replicating the physical characteristics of the site prior to construction. The team's field checklist and results are shown in Figure 11f.

Summary

Site Analysis Summary:

- Approximately 30% of the proposed landscape was installed. All appeared in good health.
- Hundreds of pines were planted around the Daniels-Haden-Bobo House. This was not a part of the landscape plan.
- Vegetation was installed along south side of U.S. 341, but not as per the landscape plans.
- Few oaks were installed. Majority of installed planting were pine trees

Evaluation Summary:

- The pines did serve as an effective visual buffer between the house and the road, but the excessive amount of pines was not in keeping with the historic setting.
- An appropriate alternative would be planting three or four different hardwood forest species in the right-of-way. One of these species could be ornamental, as desired by the homeowner.

Figure 11f

Field Checklist: The Daniels-Haden-Bobo Farm

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- No

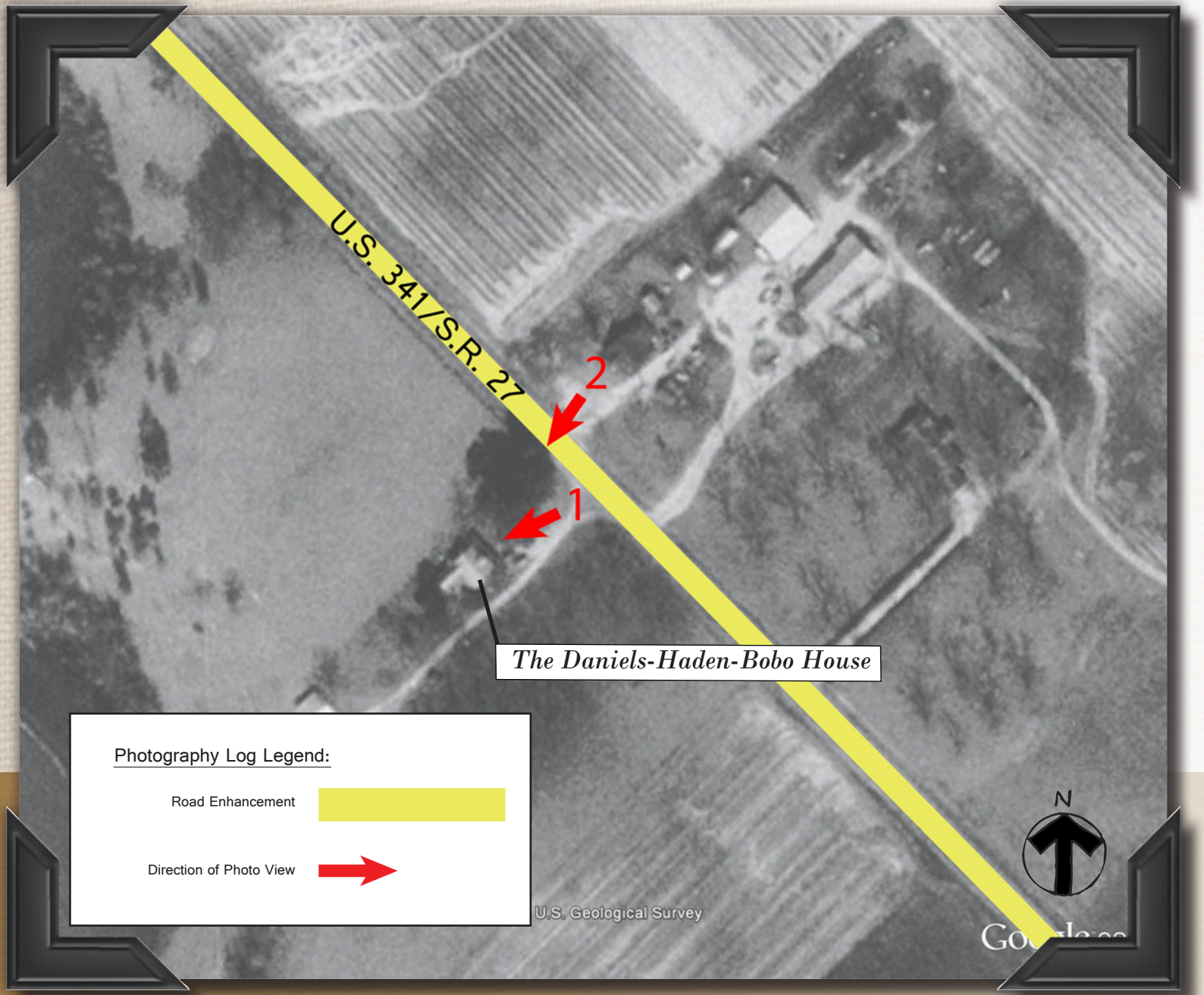
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 99%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Daniels-Haden-Bobo House, Pulaski County - P.I. # 322180



*Google Earth, 1993

Pre-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 1

Description: Daniels-Haden-Bobo House front/northeast facade, prior to road construction, adjacent to and southwest of U.S. 341. View from north of U.S. 341. Facing southwest.

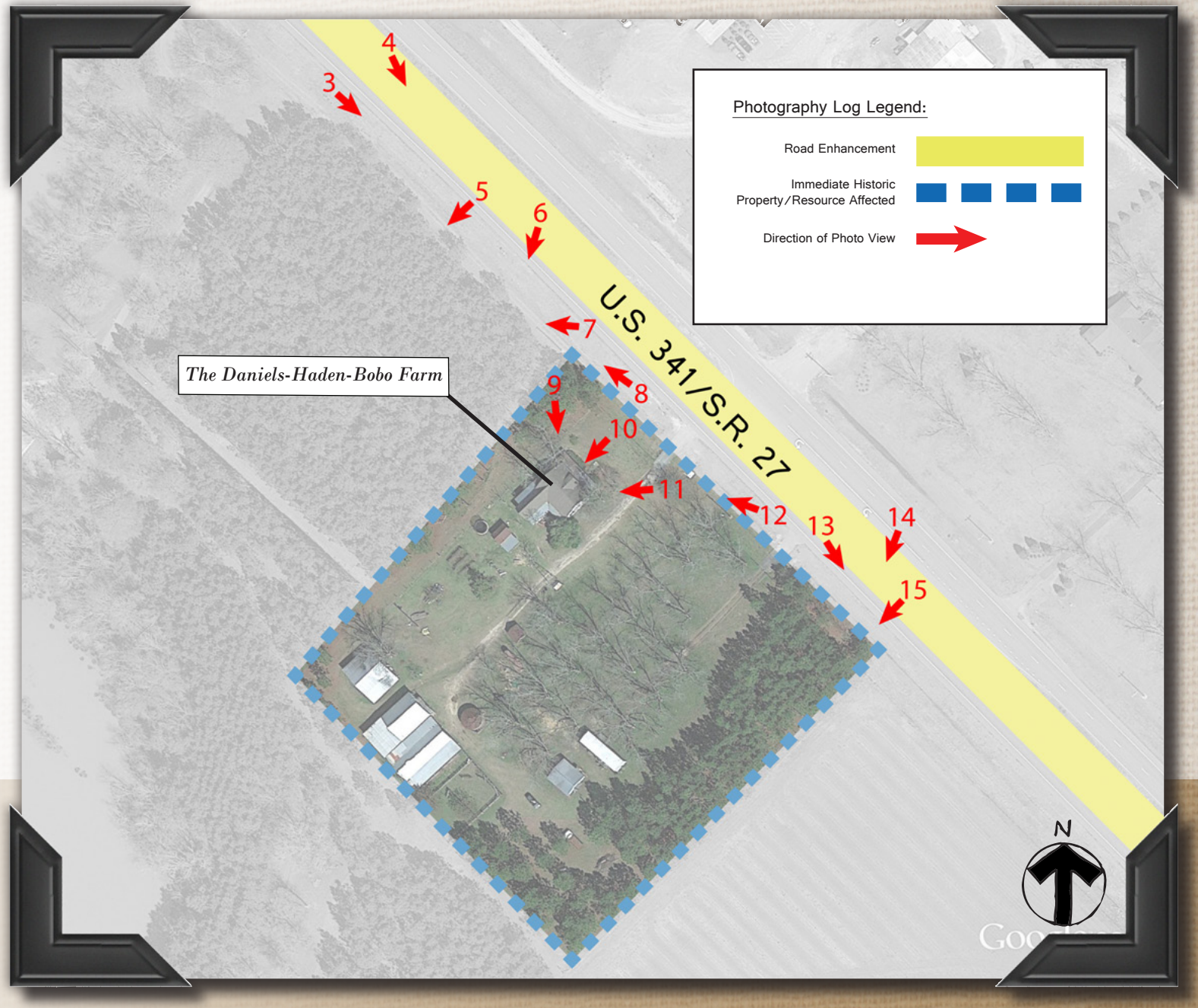
**Pre-construction photos taken ca. 1992.*

Pre-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 2

Description: Daniels-Haden-Bobo House front/northeast facade prior to road construction, adjacent to and southwest of U.S. 341. Facing southwest.

Post-Construction Aerial and Photo Site Map:
The Daniels-Hardy House, Pulaski County - P.I. # 322180



*Google Earth, 2013

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 3

Description: Pine trees adjacent to and northwest of Daniels-Haden-Bobo House along U.S. 341. Facing southeast.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 4

Description: Pine trees adjacent to and northwest of Daniels-Haden-Bobo House along U.S. 341. View from the median. Facing southeast.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 5

Description: Pine trees adjacent to and southwest of U.S. 341, northwest of Daniels-Haden-Bobo House. Facing southwest.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 6

Description: Pine trees adjacent to and southwest of U.S. 341, northwest of Daniels-Haden-Bobo House. Facing south.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 7

Description: Pine trees adjacent to and southwest of U.S. 341, northwest of Daniels-Haden-Bobo House. Facing west.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 8

Description: Pine trees adjacent to and southwest of U.S. 341, northwest of Daniels-Haden-Bobo House. Facing northwest.

Post-Construction Photographs:
The Daniels-Haden-Bobo House, Pulaski County - P.I. # 322180

Photo Number: 9

Description: Daniels-Haden-Bobo House front/northeast facade, adjacent to and southwest of U.S. 341. Facing southeast.

Post-Construction Photographs:
The Daniels-Haden-Bobo House, Pulaski County - P.I. # 322180

Photo Number: 10

Description: Daniels-Haden-Bobo House front/northeast facade adjacent to and southwest of U.S. 341. Facing southwest.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 11

Description: Daniels-Haden-Bobo House front/northeast facade adjacent to and southwest of U.S. 341. Facing west.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 12

Description: U.S. 341 roadside adjacent to and northeast of Daniels-Haden-Bobo House. Facing northwest.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 13

Description: Loblolly Pine trees and Scarlet Oak adjacent to and south-east of Daniels-Haden-Bobo House along U.S. 341. Facing southeast.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 14

Description: Loblolly Pine trees and Scarlet Oaks adjacent to and south-east of Daniels-Haden-Bobo House along U.S. 341. Facing southwest.

Post-Construction Photographs:
The Daniels-Haden Bobo House, Pulaski County - P.I. # 322180

Photo Number: 15

Description: Loblolly Pine trees and Scarlet Oak adjacent to and south-east of Daniels-Haden-Bobo House along U.S. 341. Facing southwest.

The Daniels-Hardy House

Research

The circa 1916 Daniels-Hardy House is located on the north side of U.S. 341 / S.R. 27, across the road from the Daniels-Haden-Bobo Farm. The property contains approximately 4.75 acres. Like the Daniels-Haden-Bobo Farm located directly across U.S. 341 / S.R. 27, the Daniels-Hardy House is significant in the areas of agriculture local history for its role in the history of Pulaski County. The main structure is a cross-gable Bungalow (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house is one story with an irregular floor plan and a projecting partial-width, gable-front porch with decorative knee bracing. A historic shed is located behind the house. There are several non-historic pre-fabricated metal structures on the property that are associated with a peanut processing facility at the location. Although the house itself retains a high level of architectural integrity, the presence of the non-historic metal buildings has diminished its integrity in the areas of setting, feeling, and association as a rural, single-family, agricultural property. Because of its agricultural setting, the landscape is considered Historic Vernacular. The house is eligible for the NRHP under Criterion A for agricultural and Criterion C for architecture.

The Assessment of Effects document determined that the road widening would have an adverse effect on the visual and physical characteristics of the site, due to the requirement of an additional 30 ft. of right-of-way from the eligible NRHP boundary, and the fact that the roadway would be 40 ft. closer to the house. The proposed right-of-way was 200 ft. The project was designed for a speed limit of 65 miles per hour, which requires all vegetation to be outside of the clear zone*.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Figure 11g

Memorandum of Agreement Landscape Stipulations:

"A landscape plan consisting of the replanting of trees removed will be developed in order to minimize the visual effects to the resources. The plan will be submitted to the SHPO for review and comment."

Four historic Pecan trees (*Carya illinoinensis*) were removed as result of the widening. Additionally, the view from the property changed from a two-lane road to a four-lane road with a large, grassed median. As a result, a MOA was established. The landscape stipulation from this MOA is listed in Figure 11g.

The project manager for this project was contacted. While he did not recall any details regarding this historic resource, he did state that no maintenance agreement was ever established.

The landscape plan called for the removal and in-kind replacement of four Pecan trees located at the front (southwestern) edge of the property, along U.S. 341 / S.R. 27. No maintenance agreement was developed. The plant schedule is shown in Figure 11h, and the landscape plans are located in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 5, 2013. The existing Pecan trees had been removed, but they had not been replaced (see Page 355, Photo 4). In the area of the Daniels-Hardy House driveway, there was a small informal aesthetic landscape treatment that included Crepe Myrtle (*Lagerstroemia indica*), Fringe Flower (*Loropetalum chinense*), Rose Shrub (*Rosa spp.*), Pampas Grass

Southwest / Front facade of Daniels-Hardy House. Facing north.

(*Cortaderia selloana*), and Daffodils (*Narcissus spp.*) (see Page 354, Photo 3); however, these were planted by the owner. While on-site, the team spoke with the property owner, Mr. Alex Hardy. He stated that, while he did remember the road widening, he did not remember GDOT removing or replacing any of the Pecan trees, nor did he remember being contacted regarding the removal of the trees.

Evaluation

The landscape mitigation plan for the Daniels-Hardy House was not implemented; the exact reasoning for this is unknown. During the project design phase, the Daniels-Haden-Bobo House was considered eligible for the NRHP as a contributing historic resource. U.S. 341 / S.R. 27 was realigned, bringing it closer to the Daniels-Hardy House in order to minimize impact on the Daniels-Haden-Bobo House across the street. This realignment may have provided insufficient planting space on the north side of U.S. 341 / S.R. 27 and may explain why the landscape mitigation was not implemented. At a mature height, Pecan trees would have undoubtedly interfered with the overhead utilities on the north side of the road (see Page 356, Photo 5, and Page 358, Photo 7). This would pose a safety hazard and require frequent maintenance to prevent limbs from interfering with lines. An alternative solution would have been to replace the removed Pecan trees with Sweetbay Magnolias (*Magnolia virginiana*). While these trees are very different from Pecan trees, they are appropriate for the region. The Sweetbay Magnolia would fit within the historic context of the site, and it would not grow tall enough to interfere with the overhead utilities. The team's field checklist and results are shown in Figure 11i.

Summary

Site Analysis Summary:

- Pre-existing Pecan trees had been removed, but were not replaced.

Evaluation Summary:

- Most likely, the trees were not replaced due to their possible interference with overhead utilities.
- An appropriate alternative would have been to plant hardwood forest trees, which reach a mature height that is short of the overhead utilities.

Plant Schedule:

Figure 11h

QTY.	Botanical Name	Common Name	Spacing
4	*Carya illinoinensis*	Pecan	Per Plans

Figure 11i

Field Checklist: The Daniels-Hardy House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- N/A

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- N/A

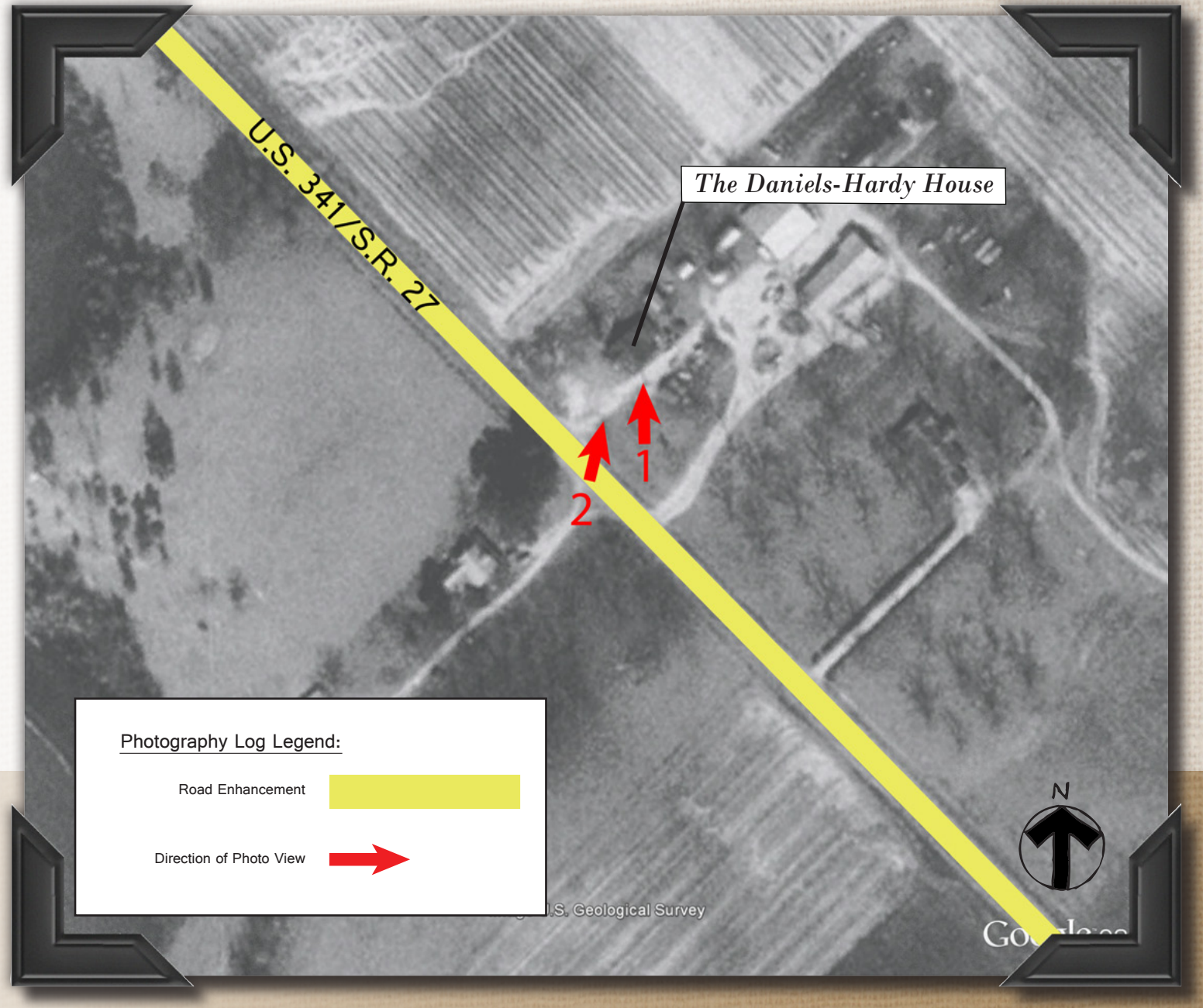
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 0%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Daniels-Hardy House, Pulaski County - P.I. # 322180



*Google Earth, 1993

Pre-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 1

Description: Daniels-Hardy House front/southeast facade, prior to road construction, adjacent to and northeast of U.S. 341. Facing north.

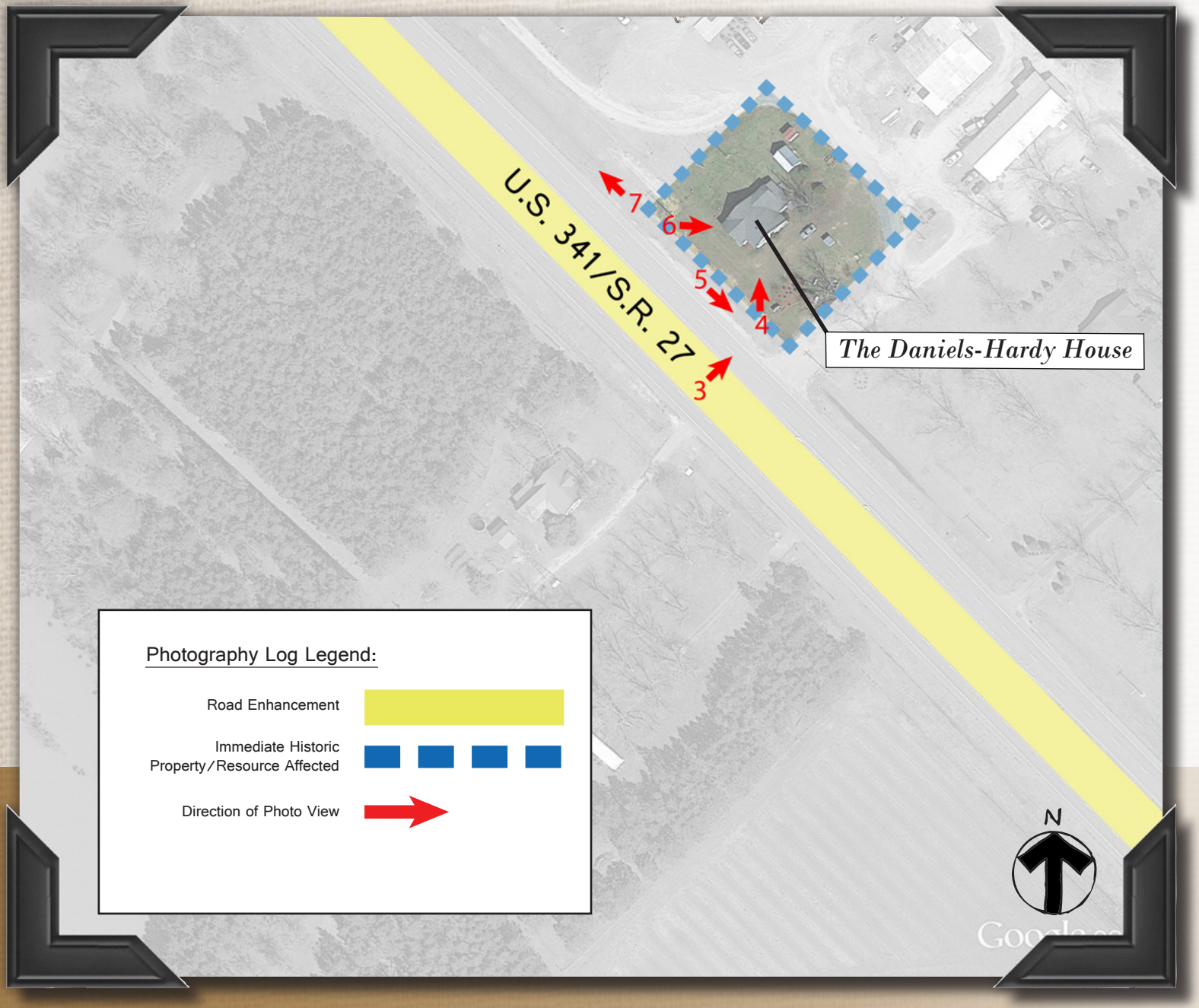
**Pre-construction photos taken ca. 1992.*

Pre-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 2

Description: Daniels-Hardy House front/southeast facade, prior to road construction, adjacent to and northeast of U.S. 341. View from south of U.S. 341. Facing north.

Post-Construction Aerial and Photo Site Map:
The Daniels-Hardy House, Pulaski County - P.I. # 322180



*Google Earth, 2013

Post-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 3

Description: Driveway to the Daniels-Hardy House on northeast side of U.S. 341. Facing northeast.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 4

Description: Front/southwest facade of Daniels-Hardy House adjacent to and northeast of U.S. 341. Facing north.

Post-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 5

Description: U.S. 341 roadside adjacent to and southwest of the Daniels-Hardy House; Facing southeast.

Post-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 6

Description: Front/southwest facade of Daniels-Hardy House adjacent to and northeast of U.S. 341. Facing northeast.

Post-Construction Photographs:
The Daniels-Hardy House, Pulaski County - P.I. # 322180

Photo Number: 7

Description: U.S. 341 roadside adjacent to and southwest of Daniels-Hardy House. Facing northwest.

The Sapp House and the Williamson-Stuckey House and Pecan Orchards

Research

The Sapp House was located 5.25 miles southeast of Hawkinsville, Georgia in Pulaski County. Prior to project implementation, it contained approximately 10.25 acres on the southwest side of U.S. 341 / SR 27, with an additional 0.35 acres on the northeast side, which contains a family cemetery. This historic cemetery's earliest dated grave is that of Caroline Francis Bohannon Sapp, born in March 1835. She died in 1922. The circa 1905 Sapp House was a one-story, side-gable, Central Hallway type house with a rear ell (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). Its associated historic outbuildings, a historic barn and shed, were demolished. Because of its agricultural setting, the landscape is considered Historic Vernacular. The Sapp House was considered eligible for the NRHP under Criterion C for architecture.

The Assessment of Effects document determined that the road widening would have an adverse effect on the Sapp House, due to the need to relocate the house. As a result, a MOA was established. The landscape stipulation from this MOA is listed in 11j.

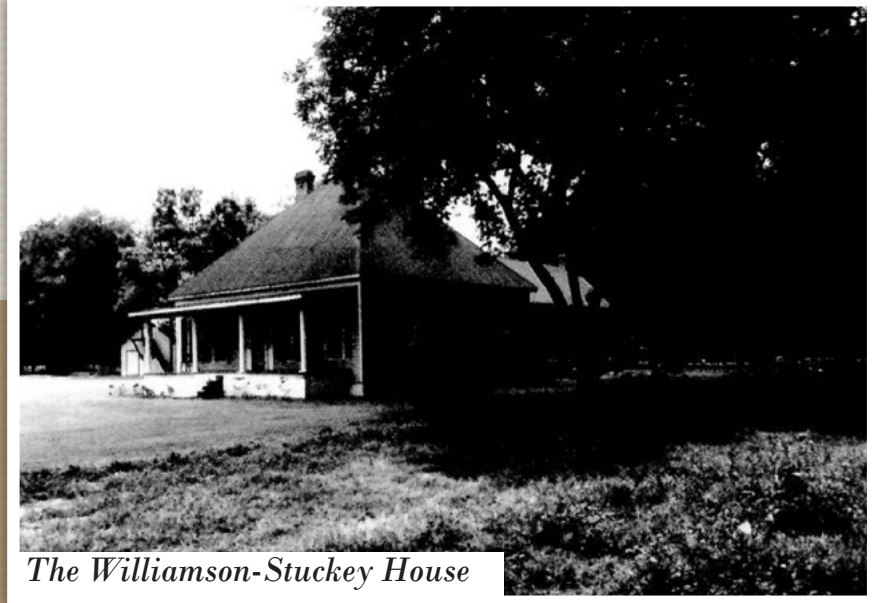
In the case of the Sapp House, the house and its associated outbuildings were demolished during GDOT construction. The 10-acre property was reduced by 2 acres as a result of project implementation. Construction in the area of the historic family cemetery, located on the north side of U.S. 341 / SR 27, took place within the existing right-of-way.
Jerry David, of the Heart of Georgia Cotton Gin in Hawkinsville, Georgia, informed the team that a Mr. Lancaster had been the owner of the Sapp House. The property was torn down before the resource was acquired by GDOT.

Figure 11j

Memorandum of Agreement Landscape Stipulations:

"A landscape plan will be developed for the relocated Sapp House site. Planting species common to the property and the area would be used. The landscape plan will be submitted to the property owners and the SHPO for review and approval."

The Sapp House



The Williamson-Stuckey House

The Williamson-Stuckey House and Pecan Orchards property is located near the intersection of U.S. 341 / S.R. 27 and County Road 78, approximately 3 miles west of Eastman, Georgia in Dodge County. The property contains 306.72 acres and was determined eligible for listing at the local level under Criterion A in the areas of agriculture, local history, and commerce, due to its association with the Stuckey Family and the Stuckey Restaurant chain. The Williamson-Stuckey main house was also determined eligible under Criterion C for architecture. A circa 1910 Georgian Cottage, it was located on County Road 78, approximately 1000 ft. north of U.S. 341 / S.R. 27 (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house had the characteristic central hall plan, flanked by two rooms on either side. It was topped with a pyramidal roof with a full-width shed front porch and large, gabled extension in the rear. At the time of the 1992 survey, the only other structure on the property was a large, non-historic storage building. According to aerial photography, the house was removed between September 2006 and December 2007, after the survey and before GDOT construction. It is unknown whether it was demolished or relocated. Because of its agricultural setting, the landscape is considered Historic Vernacular. The Williamson-Stuckey House and Pecan Orchards was eligible for the NRHP under Criterion A for agricultural and Criterion C for architecture.

The Assessment of Effects document determined that the road widening would have an adverse physical effect on the Williamson-Stuckey House and Pecan Orchards, due to right-of-way acquisition and the removal of a portion of the Pecan tree grove. The view from the property changed from a two-lane road to a four-lane road with a large median. As a result, a MOA was established. The landscape stipulation from this MOA is listed in 11k.

Site Analysis

During a site visit on September 5, 2013, the team discovered that the Sapp House had been demolished and the Williamson-Stuckey main house was no longer extant. Attempts to contact the property owners were unsuccessful.

Evaluation

No landscape plan was ever developed for the Sapp House due to its demolition. However, if the house had been relocated, a landscape plan would have been necessary to recreate the historic setting of the resource. The MOA also appropriately specified that species common to the setting be used in the plan.

In the case of the Williamson-Stuckey House and Pecan Orchards, GDOT was to contact the owner and offer to replace any Pecan trees that were removed as a result of project implementation, at a location specified by the owner. It is unknown whether or not the owner was contacted, or if the Pecan trees that were removed were replaced.

Figure 11k

Memorandum of Agreement Landscape Stipulations:

"In order to minimize the alteration of the proposed National Register boundary and the removal of Pecan trees, the Department (GDOT) will contact the owner and offer to replace the Pecan trees to be removed and replant them within the proposed National Register boundary wherever the owner desires."

Sumter County

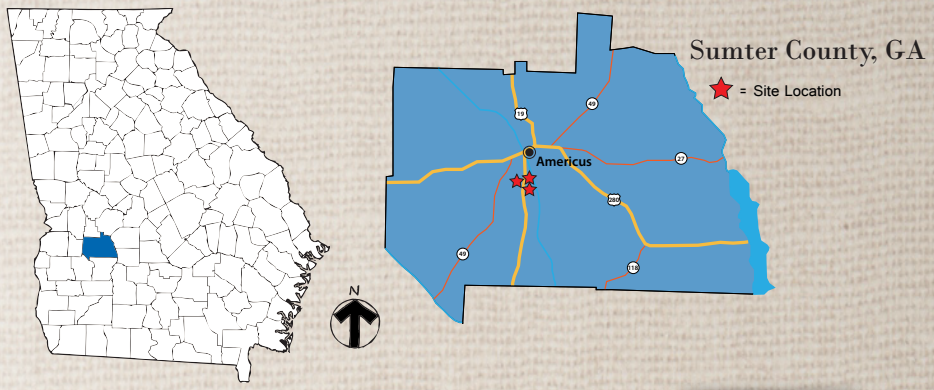
Site 12

The Rodgers-Buchanan Farm, The Sumter Crossroads Historic District, The Webb Family Farms

P.I. #322195

Sumter County At a Glance:

Site 12 is located in Sumter County along U.S. 19 / S.R. 3, approximately 10 miles south of Americus, Georgia. The historic resources affected are the Webb Family Farms, the Sumter Crossroads Historic District, and the Rodgers-Buchanan Farm. GDOT Project P.I. # 322195 was a road-widening project, along U.S. 19, which adversely impacted these NRHP-eligible resources, both physically and visually, by altering the property's character-defining features.



Historic Resources:

- *The Rodgers-Buchanan Farm*
- *The Sumter Crossroads Historic District*
- *The Webb Family Farms*

Resource Construction Date:

- *1856-1903*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a-8b*

GDOT Construction Type:

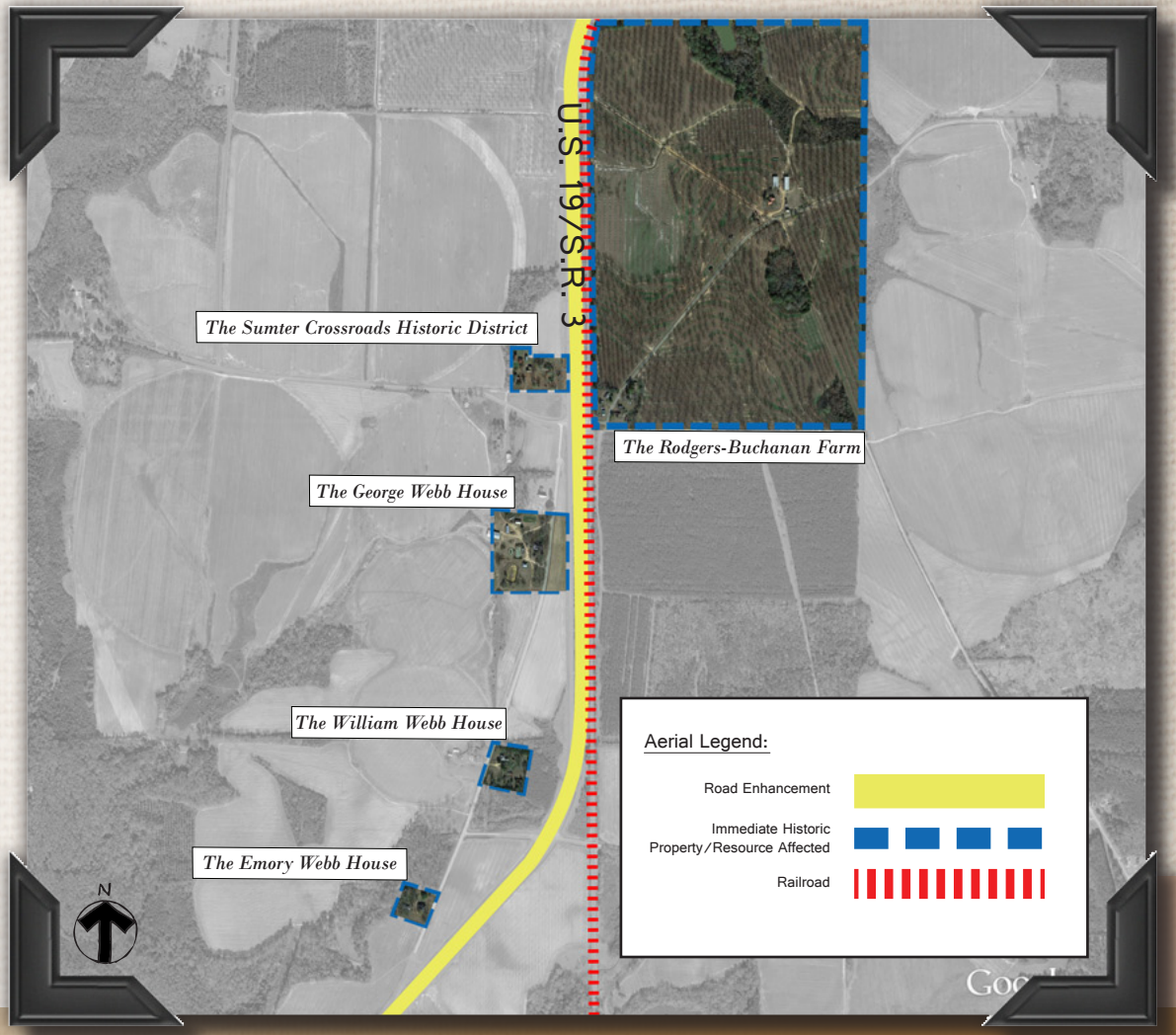
- *New Road Construction*
- *Road Widening*

GDOT Construction Completion Date:

- *November 2010*

Adverse Effects:

- *Character Setting*
- *Physical*
- *Visual*



**Google Earth, 2013*

The Rodgers-Buchanan Farm

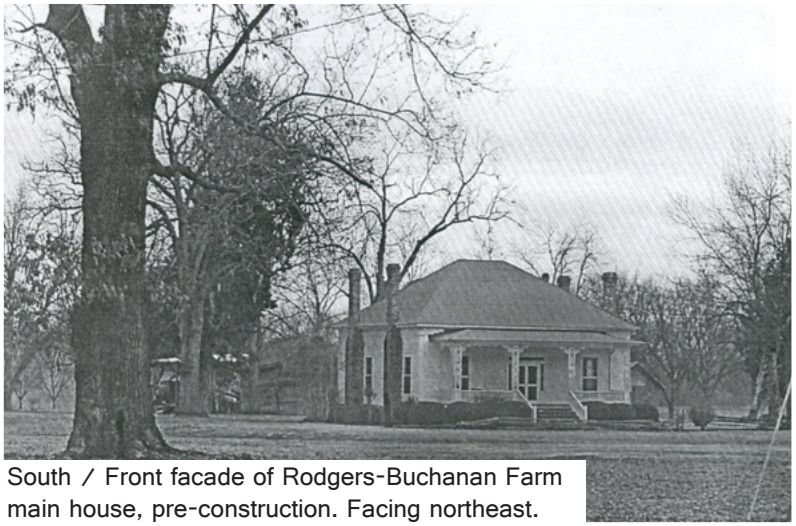
Research

The Rodgers-Buchanan Farm is a rural agricultural property located on both sides of U.S. 19, approximately eight miles south of Americus, Georgia. The proposed NRHP-eligible boundary is L-shaped and encompasses 455 acres, most of which are occupied by Pecan groves. At the center of the property is a circa 1856 Georgian Cottage (see Page 368, Photo 1). It exhibits the characteristic single-story central hall plan, with two rooms on either side of the hall (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The house has a semi-detached kitchen addition in the rear. The kitchen is separated from the main house by a 7-ft.-wide porch. Detailing on the house is in the Folk Victorian style, with gingerbread detailing on the porch supports and brackets. There are balustrades on the porches that are located on the front and side elevations. At the time of the Historic Resources Survey, other structural resources on the property included two tenant houses, two barns, a smokehouse, a tractor shed, and a pumphouse. All of these structures are historic, dating back to the late nineteenth or early twentieth century. One of the tenant houses is no longer extant; however, the chimney is still standing (see Page 374, Photo 6). The buildings are surrounded by an extensive grove of Pecan trees, continuously cultivated since the mid-1920s.

Although James M. Rodgers first purchased the property in 1860, it was George E. Buchanan, who married Rodgers's daughter Kate, that was responsible for planting the Pecan trees. The original trees were gently terraced, following the curvature of the land, but more recently planted sections follow a strict grid pattern. Because of its agricultural history, the landscape is considered Historic Vernacular. The farm is eligible for the NRHP under Criterion A for agriculture and Criterion C for architecture.

GDOT Project P.I. #322195 was a road-widening and reconstruction project of U.S. 19 / S.R. 3, beginning at Goodman Road and continuing just south of C.R. 4, north of Smithville, Georgia. The preferred alternative would have razed the William Webb House and its outbuildings, but a new alignment option was developed in 2002 that shifted the entire four-lane road to the east, leaving the house intact. The purpose of this project was to support state and regional economic development goals and to correct roadway deficiencies in an effort to provide a safer road for travelers on U.S. 19 / S.R. 3. The project widened U.S. 19 / S.R. 3 from two to four lanes. A 44-ft. grassed median would be used for the majority of the corridor, but occasionally a 32-ft. grassed median or a 20-ft. raised median would be used

*According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6



South / Front facade of Rodgers-Buchanan Farm main house, pre-construction. Facing northeast.

Figure 12a

Memorandum of Agreement Landscape Stipulations:

"GDOT shall develop a landscape plan for the areas within the proposed median of the improved U.S. Route 19 facility in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroad and Webb Family Farms Historic Districts and the Rodgers-Buchanan Farm Historic Property. The landscaping will include the use of indigenous (native) species common to the area that will be low enough to obscure the view of additional pavement but not the overall landscape viewscape. The proposed landscaping plan will be submitted to the other signatories to this MOA, the Savannah District and the GASHPO, for review and comment prior to its implementation."

where needed. The proposed right-of-way was 200 ft. The corridor was designed for a speed limit of 65 miles per hour, which requires all vegetation to be installed outside of the clear zone*. The project documents did not specify a clear zone for this project.

The Assessment of Effects document, completed in May 2005, determined that the road widening and reconstruction would have an adverse effect on the visual and physical characteristics of the Rodgers-Buchanan Farm, due to the taking of a strip of land approximately 200 to 300 ft. wide from within the NRHP-eligible boundary. As a consequence, a large area of cultivated Pecan orchards, adjacent to U.S. 19, was removed in order to facilitate construction and to meet clear zone requirements. Prior to construction, U.S. 19 / S.R. 3 was a two-lane road. Visually, the road-widening project adversely affected the Rodgers-Buchanan Farm by introducing a large-scale, four-lane modern roadway that is out of character with the historic setting. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 12a.

The GDOT project historian informed the team that this project started in the 1980s. She said that there was a great deal of public involvement, but that she was not employed by GDOT at that time. She stated that the AOE document was submitted in May of 2001. After the AOE was submitted, in July of 2002, GDOT designers developed a new alignment for the relocation of U.S. 19 farther east of the Webb Family Farms and the original location of U.S. 19. This realignment was developed to alleviate the need to raze or remove the residential dwellings and outbuildings associated with the Webb Family Farms. This altered the AOE; however, land would still be taken from within the historic district and the road would still be considered a visual adverse effect. As a result of this new alignment change, the SHPO requested that GDOT make revisions to the MOA to add stipulations for Historic American Buildings Survey (HABS) documentation, the potential relocation of Sumter Crossroads District Buildings, and landscape mitigation for the majority of the corridor. This updated MOA was ratified in May of 2005.

The landscape plan was developed for areas within the proposed median of the improved U.S. Route 19. The vegetation was to provide a visual buffer between the added lanes of U.S. 19 and the NRHP-eligible resources. Per the MOA, the plan was to include indigenous species common to the area that would remain low enough to obscure the view of the additional pavement, but not the overall landscape. The resulting landscape involved approximately 3.5 miles of U.S. 19. The plan called for shrubs, including Beautyberry (*Callicarpa americana*), Virginia Sweetspire (*Itea virginica*), Yaupon Holly (*Ilex vomitoria*), Wax Myrtle (*Myrica cerifera*), and Switchgrass (*Panicum virgatum*). Within the median, planted sections, 300 ft. to 1500 ft. in length, would alternate with sections of no plantings. The plant schedule is shown in Figure 12b, and the landscape plan can be found in Appendix A of this report.

The landscaping was proposed to be located within the median of the improved U.S. 19 in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroads area, the Webb Family Farms, and the Rodgers-Buchanan Farm. The intent of this mitigation was to provide a visual break in the widened road. Due to several factors, the landscape plan was implemented without sufficient review time by GDOT design and maintenance experts. Plantings were origi-

Plant Schedule:

Figure 12b

QTY.	Botanical Name	Common Name	Spacing
400	*Callicarpa americana*	American Beautyberry	6' O.C.
237	*Ilex glabra*	Inkberry	5' O.C.
111	*Ilex vomitoria*	Yaupon Holly	7' O.C.
365	*Itea virginica*	Virginia Sweetspire	5' O.C.
63	*Myrica carifera*	Wax Myrtle	8' O.C.
1173	*Panicum virgatum*	Switchgrass	2' O.C.

nally proposed for the entire width of the median, with a grass buffer along the length of the median. It became evident during construction that maintenance of the landscaping would be an issue. The lack of proper drainage in the depressed median caused the landscape to washout. Shortly after construction, it was agreed that plantings would be removed from the center of the median to allow proper drainage. Several other problems persisted: the median area could not be mowed due to the arrangement and type of plants; the bark mulching around the plants had allowed weeds to grow amongst the planted shrubs; rain had accelerated the erosion in areas of grade change; and the plantings had become overgrown, creating sight distance issues.

The GDOT area engineer and GDOT historians performed a site visit to Sumter County in July of 2009 to assess the landscape mitigation efforts. They discussed alternative strategies on how to solve the erosion and drainage issues. These strategies included:

- Leaving the landscape as it was
- Paving the ditch bottom to control erosion
- Removing the landscape from the median and planting in the right-of-way adjacent to, and west of, U.S. 19
- Removing the landscape from the medians and replacing with grass.

In September of 2009, GDOT and the Georgia SHPO held a meeting to discuss these alternative strategies. It was determined that the landscape could be removed if necessary and that a grassed median would provide a sufficient visual buffer of the pavement. Both organizations agreed that the historic resources were sufficiently screened from the improved U.S. 19 by distance, existing vegetation, and topography.

In October of 2013, the GDOT District Three Engineer informed the team that maintenance of the median is an extremely difficult and dangerous task for the maintenance crews. He said that far too many plants were installed and that their growth is out of control. He stated that the landscape plans were not available at final field plan review but if they had been, he would have denied the plans. The District Engineer revealed that he has recently received permission from the SHPO to remove the plants from the median permanently.

Site Analysis

A site analysis was conducted on September 4, 2013. The landscape mitigation treatment was not visible from the Rodgers-Buchanan Farm. The Rodgers-Buchanan main house

South / Front facade of Rodgers-Buchanan Farm main house. Facing northeast.

Historic outbuilding associated with the Rodgers-Buchanan Farm. Facing north.

was still in excellent condition, as was the Pecan orchard in which the house was set (see Page 375, Photo 7, and Page 377, Photo 9). Several of the historic outbuildings remained on-site as well (see Page 372, Photo 4). The main house is located over 1,800 ft. away from the edge of pavement of U.S. 19 / S.R. 3. This setback, combined with the extensive Pecan orchard and the existing vegetation flanking a railroad to the west of the site, makes U.S. 19 / S.R. 3 impossible to view from the main house.

Evaluation

There was little-to-no adverse visual effect on the Rodgers-Buchanan Farm after project implementation. The resource is visually shielded by existing vegetation growing along both sides of the railroad, as well as a Pecan orchard that stretches 1,800 ft. between the main house and U.S. 19 / S.R. 3 (see Page 373, Photo 5). Because of their distance from the road, none of the historic outbuildings were affected by the project. As stated in the September 2009 Georgia SHPO meeting, "distance, existing vegetation, and topography" effectively screen the historic resource from the roadway improvements. Considering the pre-existing distance and visual obstructions between U.S. 19 / S.R. 3 and the Rodgers-Buchanan Farm, there was no landscape mitigation necessary for this historic resource. The team's field checklist and results are shown in Figure 12c.

Summary

Site Analysis Summary:

- U.S. 19 was not visible from the Rodgers-Buchanan Farm.
- The landscape mitigation treatment was not visible from the Rodgers-Buchanan Farm.
- Outbuildings remained on site.
- The main house is located over 1,800 ft. away from U.S. 19.

Evaluation Summary:

- There was little to no visual adverse effect on the Rodgers-Buchanan Farm.
- Distance, existing vegetation, and topography effectively screen the roadway improvements from the historic property.

Figure 12c

Field Checklist: The Rodgers-Buchanan Farm

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- No

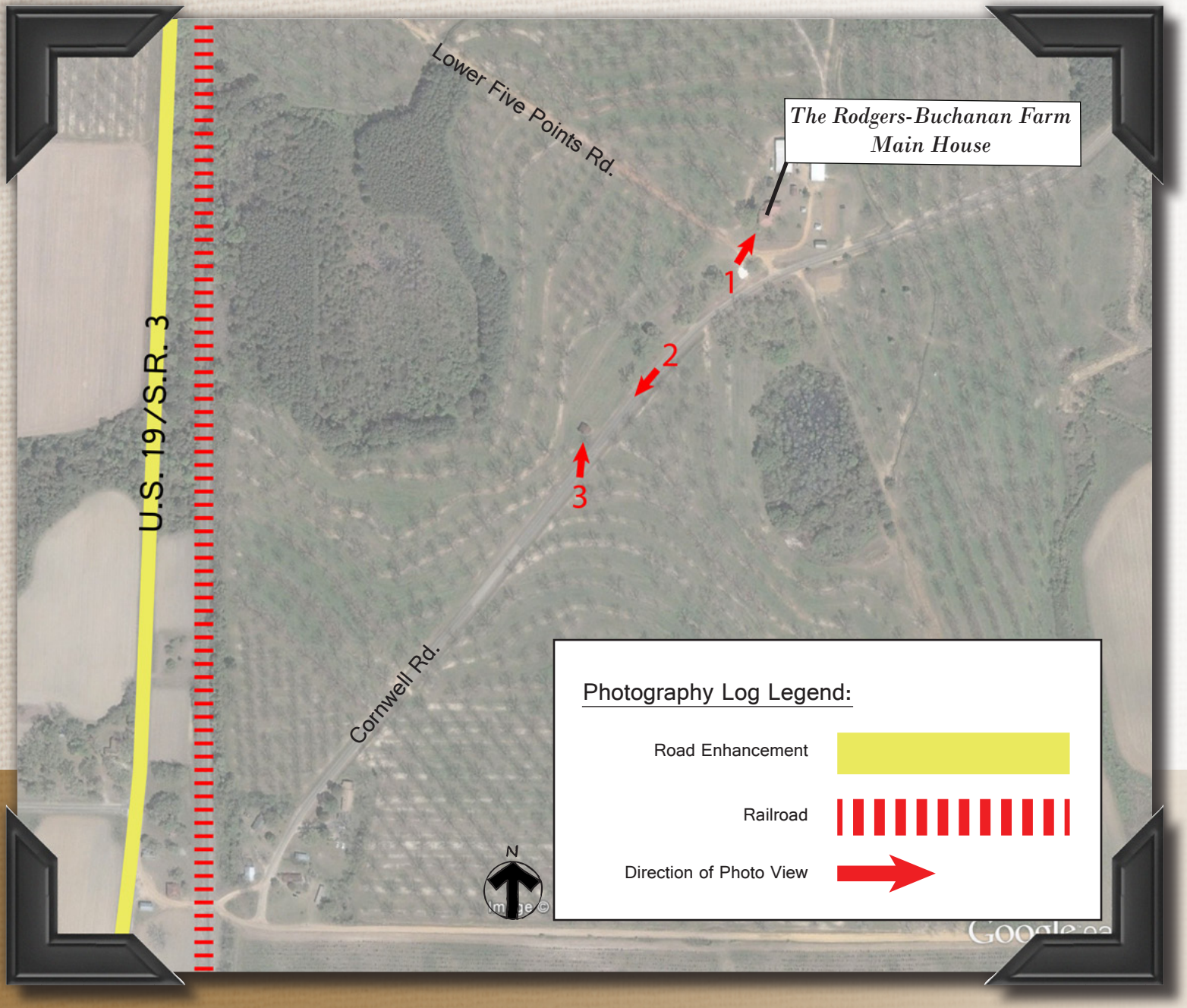
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 90%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Yes

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195



*Google Earth, 2006

Pre-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 1

Description: Front/south facade of Rodgers-Buchanan main house, prior to road construction. Facing northeast.

**Pre-construction photos taken ca. 2005.*

Pre-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 2

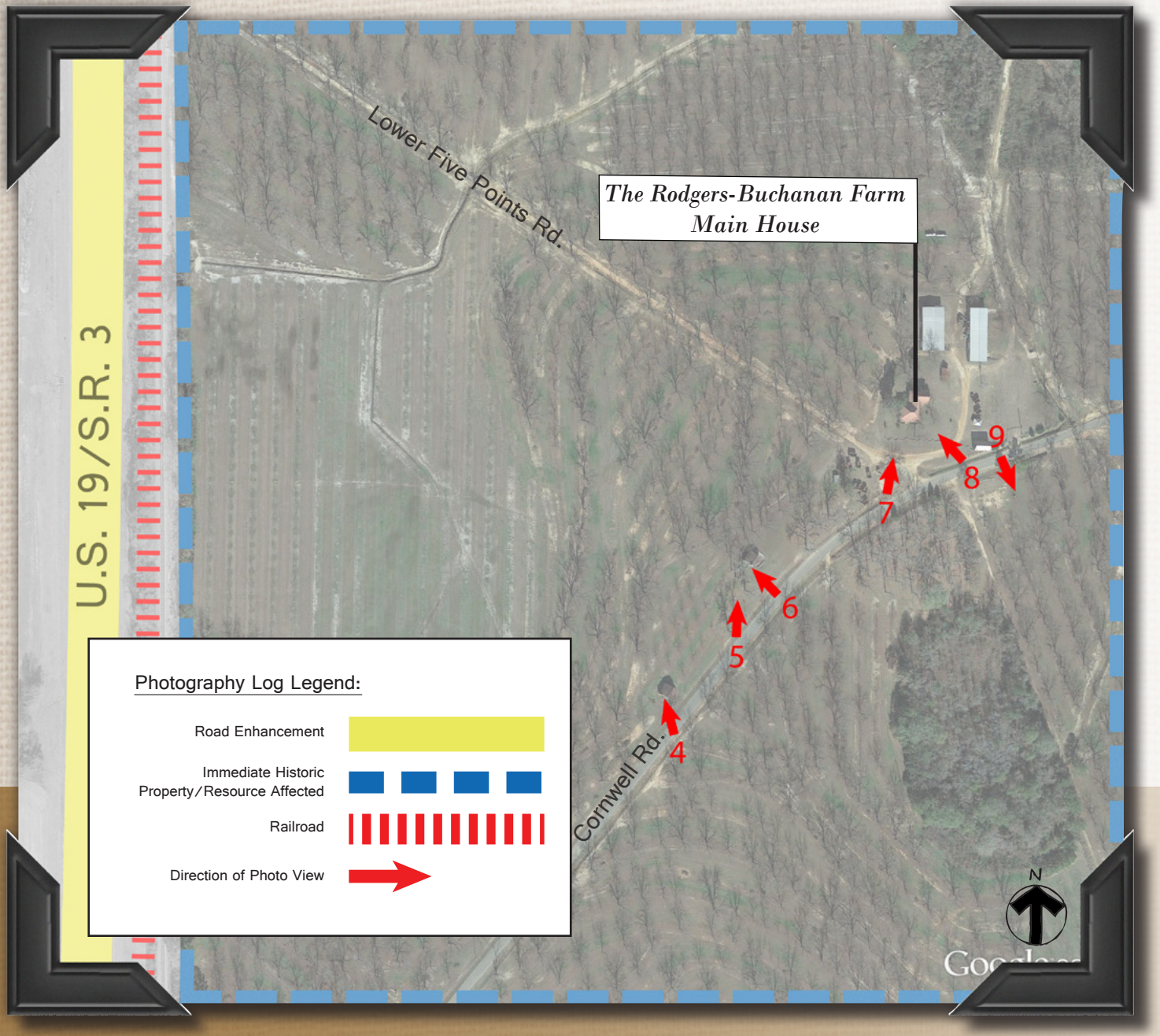
Description: Cornwell Rd. Driveway from Rodgers-Buchanan main house, prior to road construction. Facing southwest.

Pre-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 3

Description: Rodgers-Buchanan Farm out-building, adjacent to and northwest of Cornwell Rd. prior to road construction. Facing north.

Post-Construction Aerial and Photo Site Map:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195



*Google Earth, 2013

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 4

Description: Rodgers-Buchanan Farm out-building adjacent to and northwest of Cornwell Rd. Facing north.

**Post-construction photos taken September of 2013.*

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 5

Description: Remnants of an out-building in Pecan grove, adjacent to and northwest of Cornwell Rd. Facing north.

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 6

Description: Remaining chimney of out-building in Pecan grove, adjacent to and northwest of Cornwell Rd. Facing northwest.

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 7

Description: Front/south facade of Rodgers-Buchanan main house. Facing north.

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 8

Description: South and east facade of Rodgers-Buchanan main house. Facing northwest.

Post-Construction Photographs:
The Rodgers-Buchanan Farm, Sumter County - P.I. # 322195

Photo Number: 9

Description: Rodgers-Buchanan Farm Pecan grove, east of Cornwell Rd. Facing southwest.

The Sumter Crossroads Historic District

Research

The Sumter Crossroads Historic District is located just to the south of the Rodgers-Buchanan Farm, on both sides of U.S. 19. It was a rural crossroads community consisting of single-family residences, several commercial buildings, and a church, all of which are historic. Sumter Crossroads first appears on a map in 1864 and was likely established as a rail stop on the Georgia and Florida Railroad (later Southwestern Railroad). In 2005, the eligible district was comprised of historic buildings, including five commercial buildings, a filling station, a cotton gin, a seed house, several houses, and Liberty Primitive Baptist Church and cemetery. It was significant as an example of a rural community that served the farming families in this area of Sumter County. Because of its agricultural and commercial history, the landscape is considered Historic Vernacular. The district was considered eligible under Criterion A for commerce and C for architecture. The district was also listed eligible under Criterion B, although the report did not specify what qualified the property under this criterion. As a result of the GDOT project, several contributing buildings were removed or demolished.

The project resulted in the removal of 6 of the 10 buildings that contributed to the district. Four of these buildings were relocated to a lot in the northeast section of the district, destroying the original layout of the crossroads community. Visually, the road-widening project adversely affected the Sumter Crossroads by introducing a large-scale modern roadway that is out of character with the historic setting. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 12d.

The landscape plan was developed for areas within the proposed median of the improved U.S. 19. The vegetation was to provide a visual buffer between the added lanes of U.S. 19 and the NRHP-eligible resources. Per the MOA, the plan was to include indigenous species common to the area that would remain low enough to obscure the view of the additional pavement, but not the overall landscape. The resulting landscape involved approximately 3.5 miles of U.S. 19. The plan called for shrubs, including Beautyberry (*Callicarpa americana*), Virginia Sweetspire (*Itea virginica*), Yaupon Holly (*Ilex vomitoria*), Wax Myrtle (*Myrica cerifera*), and Switchgrass (*Panicum virgatum*). Within the median, planted sections, 300 ft. to 1500 ft. in length, would alternate with sections of no plantings. The plant schedule is shown in Figure 12e, and the landscape plan can be found in Appendix A of this report.

Relocated historic structure associated with the Sumter Crossroads Historic District. Facing southwest.

Figure 12d

Memorandum of Agreement Landscape Stipulations:

"GDOT shall develop a landscape plan for the areas within the proposed median of the improved U.S. Route 19 facility in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroad and Webb Family Farms Historic Districts and the Rodgers-Buchanan Farm Historic Property. The landscaping will include the use of indigenous (native) species common to the area that will be low enough to obscure the view of additional pavement but not the overall landscape viewscape. The proposed landscaping plan will be submitted to the other signatories to this MOA, the Savannah District and the GASHPO, for review and comment prior to its implementation."

Site Analysis

A site analysis was conducted on September 4, 2013. The remainder of the Sumter Crossroads District had all been relocated in a formal arrangement on approximately 2 acres of land on the west side of U.S. 19. The buildings were approximately 350 ft. from the edge of pavement of the road (see Post-contruction Aerial and Photo Site Map, Page 385). The landscape in the area of the relocated buildings featured existing mature mixed hardwood species (see Page 388, Photo 7, and Page 389, Photo 8). The improved U.S. 19 was barely visible from the new location of the Sumter Crossroads due to pre-existing vegetation that had grown up between the road and the relocated buildings (see Page 390, Photo 9).

Plant Schedule:

Figure 12e

QTY.	Botanical Name	Common Name	Spacing
400	*Callicarpa americana*	American Beautyberry	6' O.C.
237	*Ilex glabra*	Inkberry	5' O.C.
111	*Ilex vomitoria*	Yaupon Holly	7' O.C.
365	*Itea virginica*	Virginia Sweetspire	5' O.C.
63	*Myrica carifera*	Wax Myrtle	8' O.C.
1173	*Panicum virgatum*	Switchgrass	2' O.C.

Evaluation

The landscape mitigation treatment does not serve to alleviate the adverse effects of the widening of U.S. 19 on the historic district. The loss of six buildings in the district, as well as the relocation of the remaining four structures, resulted in irreparable damage to the integrity of the historic resource. The landscaped median is largely invisible from the new location of the Sumter Crossroads Historic District due to pre-existing vegetation that has grown up in the area. The team's field checklist and results are shown in Figure 12f.

Summary

Site Analysis Summary:

- U.S. 19 was not visible from the relocated Sumter Crossroads Historic District.
- The landscape mitigation treatment was not visible from the relocated Sumter Crossroads Historic District.

Evaluation Summary:

- The landscape mitigation does not serve to alleviate the adverse effects
- Pre-existing vegetation buffers the remainder of the structures from U.S. 19

Figure 12f

Field Checklist: The Sumter Crossroads Historic District

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- No

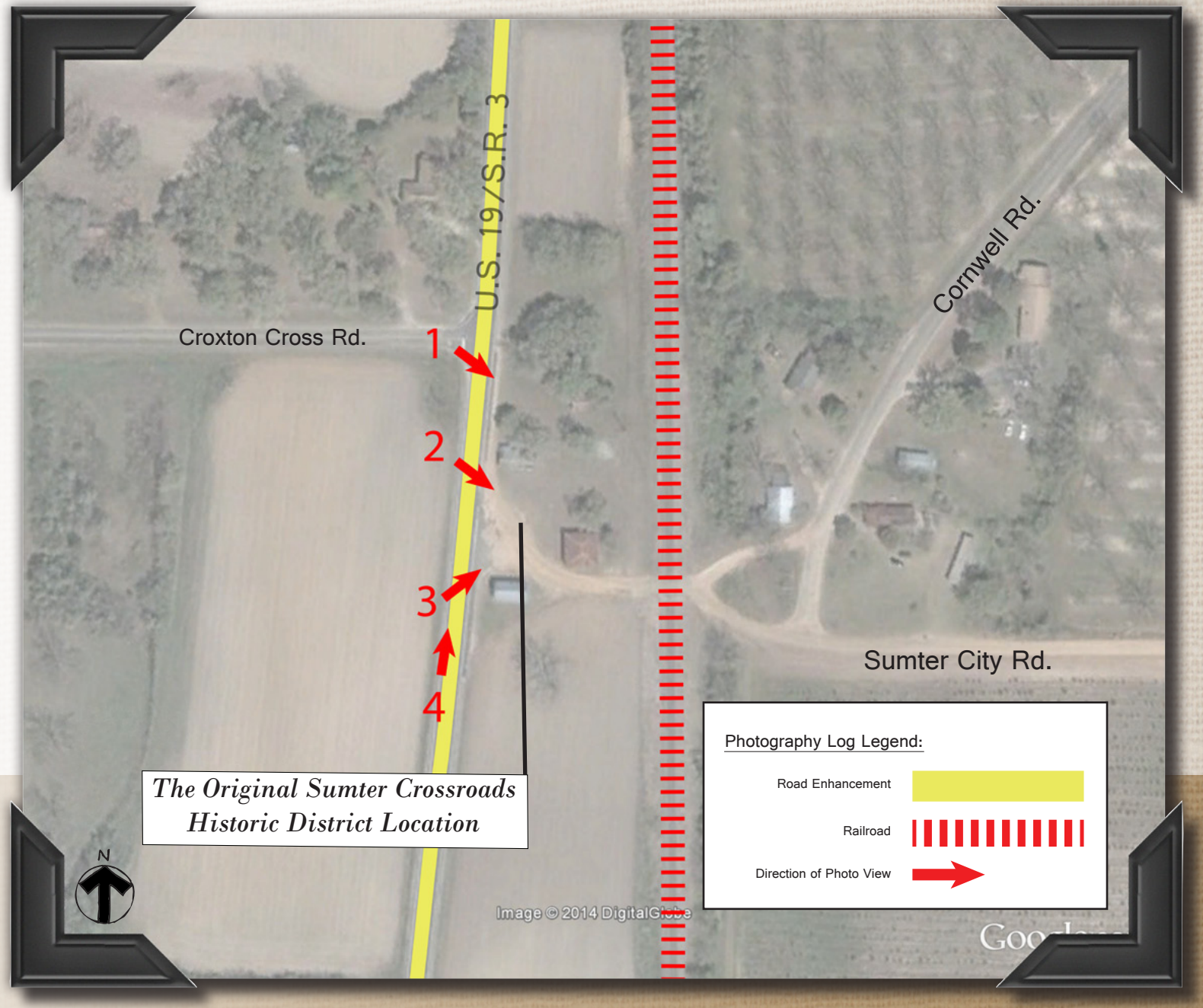
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 90%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Yes

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195



*Google Earth, 2006

Pre-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 1

Description: Sumter Crossroads Historic District buildings, southeast of intersection at Croxton Cross Road and U.S. 19, prior to road construction. Facing southeast.

**Pre-construction photos taken ca. 2005.*

Pre-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 2

Description: Sumter Crossroads Historic District buildings, adjacent to and east of U.S. 19, prior to road construction. Facing southeast.

Pre-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 3

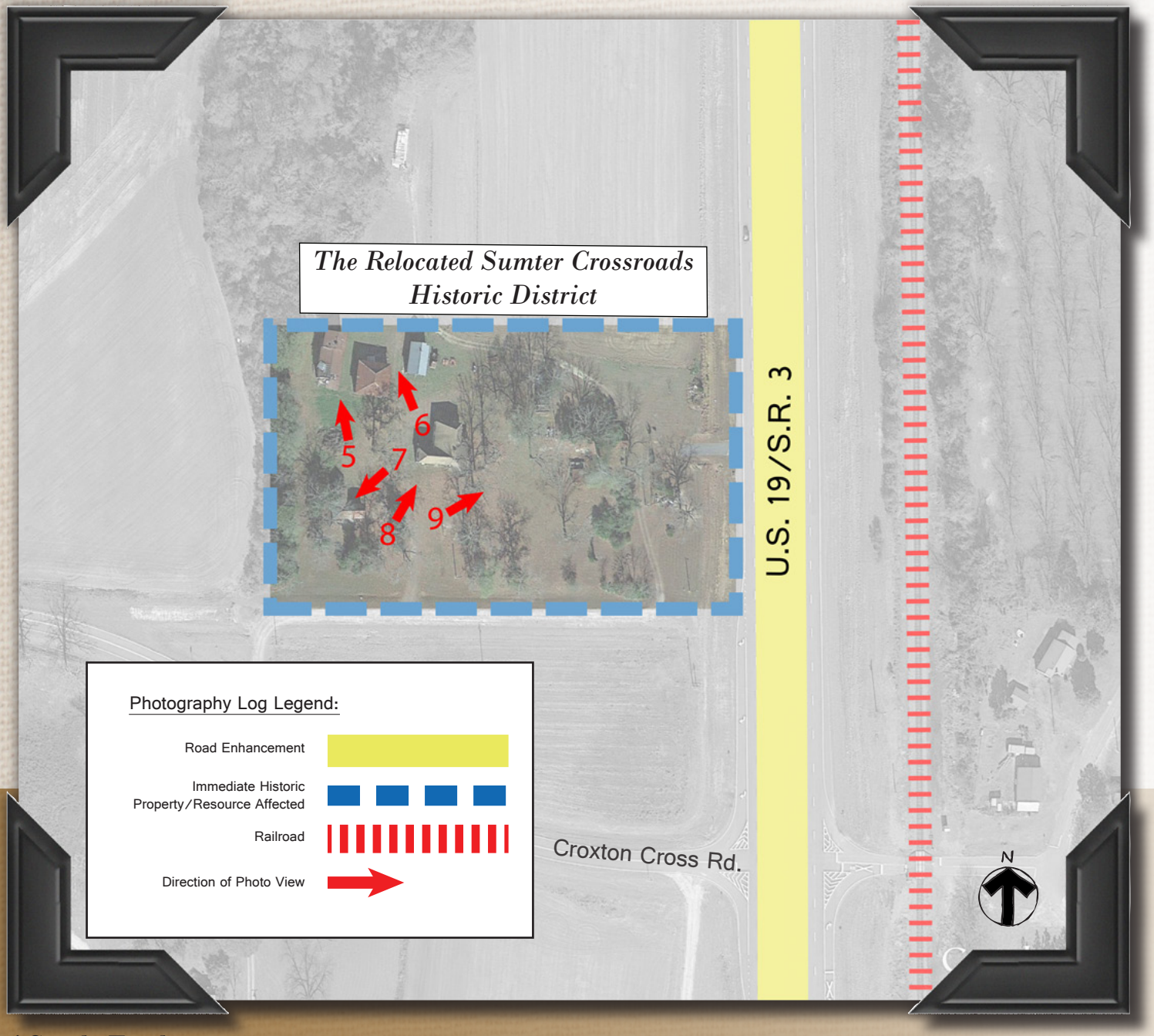
Description: Sumter Crossroads Historic District buildings, adjacent to and east of U.S. 19, prior to road construction. Facing northeast.

Pre-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 4

Description: Roadside, adjacent to and west of U.S. 19, prior to road construction. Facing north.

Post-Construction Aerial and Photo Site Map:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195



*Google Earth, 2013

Post-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 5

Description: Sumter Crossroads Historic District building, at northwest corner of relocation site. Facing north.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 6

Description: Sumter Crossroads Historic District building, at northwest corner of relocation site. Facing northwest.

Post-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 7

Description: Sumter Crossroads Historic District building, at southwest corner of relocation site. Facing southwest.

Post-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 8

Description: Sumter Crossroads Historic District building, at center of relocation site. Facing northeast.

Post-Construction Photographs:
The Sumter Crossroads Historic District, Sumter County - P.I. # 322195

Photo Number: 9

Description: View towards U.S. 19 from Sumter Crossroads Historic District relocation site. Facing northeast.

The Webb Family Farms

Research

Webb Family Farms Historic District is a NRHP-listed district located to the south of the Sumter Crossroads Historic District on both sides of U.S. 19. The district encompasses approximately 800 acres, with three historic family farmhouses, their associated historic outbuildings, and agricultural fields. The land was farmed as one unit from the mid-1800s until John Ronaldson Webb's death in 1900, when the 800-acre property was divided amongst his seven sons.

The 1901 George Webb House, on the east side of Webb Farms Road (old U.S. 19) (see Page 399, Photo 4), is located in the northern section of the district. The house is a Central Hallway type with elements of the Queen Anne style, featuring a turret, wraparound porch, bay windows, stained glass windows, corbelled chimneys, and intricate woodwork detailing (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). A small historic barn is located behind the house.

The 1875 William A. Webb House is located a third of a mile south of the George Webb House. It is located on the east side of Webb Farms Road (old U.S. 19) (see Page 411, Photo 14). The original portion of the house was built as a one-room-deep, Central Hallway house type in 1875; it was enlarged in 1903 (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). The property includes a collection of historic, wood-framed outbuildings, including a mule barn, smokehouse, wash house, chicken house, and commissary.

The third family farmhouse is the Emory Webb property, located in the southern portion of the district, on the west side of Webb Farms Road (old U.S. 19) (see Page 418, Photo 19). The historic house is eclectic in form and is very similar to the George Webb house in its ornamentation, with spindle work, fish scaling in the gables, and stained glass windows. The complex also contains other historic outbuildings, including a smoke house, small barn, chicken house, two cribs, and a windmill.

The Webb Family Farms Historic District was listed in the NRHP in 1995. The farmhouses are good examples of the Victorian Eclectic style, and the outbuildings are representative of typical nineteenth and early-twentieth-century farm buildings. In the area of agriculture, the Webb Family Farms Historic District is significant as an example of a turn-of-the-century cotton farming operation. The district is also significant for its association with the Webb Family, which has had a

East / Front facade of George Webb House. Facing northwest.

Figure 12g

Memorandum of Agreement Landscape Stipulations:

"GDOT shall develop a landscape plan for the areas within the proposed median of the improved U.S. Route 19 facility in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroad and Webb Family Farms Historic Districts and the Rodgers-Buchanan Farm Historic Property. The landscaping will include the use of indigenous (native) species common to the area that will be low enough to obscure the view of additional pavement but not the overall landscape viewscape. The proposed landscaping plan will be submitted to the other signatories to this MOA, the Savannah District and the GASHPO, for review and comment prior to its implementation."

long presence in the Sumter community. The Webb Family Farms District is eligible for the NRHP under Criteria A for agriculture and C for architecture. The district was also listed eligible under Criterion B, although the report did not specify what qualified the property under this criterion. Because of its agricultural history, the landscape is considered Historic Vernacular.

The Assessment of Effects document, completed in May 2005, determined that the road widening and reconstruction would have an adverse visual effect on the Webb Family Farms, due to the introduction of a large-scale modern roadway that is out of character with the historic setting. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 12g

At the team's September 2013 site visit, the Webb family patriarch, Mr. Dewitt Webb, expressed his approval of the roadway project as well as the landscape mitigation. Initially, Mr. Webb had fought the project, but he stated that he liked the road being farther away from the houses, as well as the vegetative buffer in the median blocking the sound and sight of the traffic. Mr. Webb did mention that there was a sight distance issue caused by the sharp curve in U.S. 19 north of the intersection of Three Bridges Road and U.S. 19 /S.R 3. He did not feel like the landscaping interfered with sight distance.

The landscape plan was developed for areas within the proposed median of the improved U.S. 19. The vegetation was to provide a visual buffer between the added lanes of U.S. 19 and the NRHP-eligible resources. Per the MOA, the plan was to include indigenous species common to the area that would remain low enough to obscure the view of the additional pavement, but not the overall landscape. The resulting landscape involved approximately 3.5 miles of U.S. 19. The plan called for shrubs, including Beautyberry (*Callicarpa americana*), Virginia Sweetspire (*Itea virginica*), Yaupon Holly (*Ilex vomitoria*), Wax Myrtle (*Myrica cerifera*), and Switchgrass (*Panicum virgatum*). Within the median, planted sections, 300 ft. to 1500 ft. in length, would alternate with sections of no plantings. The plant schedule is shown in Figure 12h, and the landscape plan can be found in Appendix A of this report.

Site Analysis

A site analysis was conducted on September 4, 2013. At both the George Webb House and the Emory Webb House, the landscaping in the median was visible and buffered the view of the northbound lanes (see Page 401, Photo 6 and Page 421, Photo 22). There was a noticeable reduction of traffic noise and visibility from these historic resources as vehicles passed behind the vegetation in the median. However, at the William Webb House, there was existing on-site vegetation behind the house that visually buffered all of the improved U.S. 19 from view of the property (see Page 411, Photo 14). The landscape mitigation treatment was not visible from the William Webb House.

The landscaping in the median was overgrown and exceptionally dense (see Page 425, Photo 26). The plant species present on-site that had been proposed in the plant schedule included Beautyberry (*Callicarpa americana*), Inkberry (*Ilex glabra*), Yaupon Holly (*Ilex vomitoria*), and Wax Myrtle (*Myrica cerifera*). The Beautyberries and Wax Myrtles were the most dominant species, reaching close to 6 ft. tall (see Page 424, Photo 25). Approximately 80 percent of the landscape treatment had been installed; all installed treatment was in good health.

Plant Schedule:

Figure 12h

QTY.	Botanical Name	Common Name	Spacing
400	*Callicarpa americana*	American Beautyberry	6' O.C.
237	*Ilex glabra*	Inkberry	5' O.C.
111	*Ilex vomitoria*	Yaupon Holly	7' O.C.
365	*Itea virginica*	Virginia Sweetspire	5' O.C.
63	*Myrica carifera*	Wax Myrtle	8' O.C.
1173	*Panicum virgatum*	Switchgrass	2' O.C.

Evaluation

The landscape treatment in the median provided an effective visual screening of the northbound lanes from both the George Webb House and the Emory Webb House, leaving only two lanes of traffic visible from the houses (see Page 403, Photo 8, and Page 422, Photo 23). Both houses are located on the west side of U.S. 19 / S.R. 3 and have extensive views of the road from the front porches. The landscape mitigation effort was unnecessary for the William Webb House. Existing vegetation east and behind the house effectively screened the new U.S. 19 from the historic resource.

The plant selection for the landscape mitigation effort was appropriate. The species selected will thrive in this region, and can survive in the wet soils of a depressed median. The landscape mitigation provided an effective visual buffer for the George Webb House and the Emory Webb House. However, a more cost-effective alternative could have been to plant the median with a GDOT approved mixture of riparian seed grass. Seeding the median instead of planting it with shrubbery could result in a cost differential of approximately $185,000 less than what was originally spent. Riparian grasses thrive in moist soil settings, present in the depressed median on U.S. 19, and would provide less of a site distance issue than actual shrubs. The grasses would fit the historic context of the site, provide erosion control, require low maintenance, and serve as an effective visual buffer of the additional two lanes from the resources. The team's field checklist and results are shown in Figure 12i.

Summary

Site Analysis Summary:

- The landscape mitigation treatment was visible from both the George Webb House and the Emory Webb House.
- Neither U.S. 19 nor the landscape mitigation treatment was visible from the William Webb House.
- The landscape treatment was overgrown

Evaluation Summary:

- The landscape mitigation treatment effectively screened the northbound lanes from the George Webb House and the Emory Webb House.
- The landscape mitigation treatment was successful
- Successful mitigation could have been achieved with a grassed median as well.

Figure 12i

Field Checklist: The Sumter Crossroads Historic District

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- No

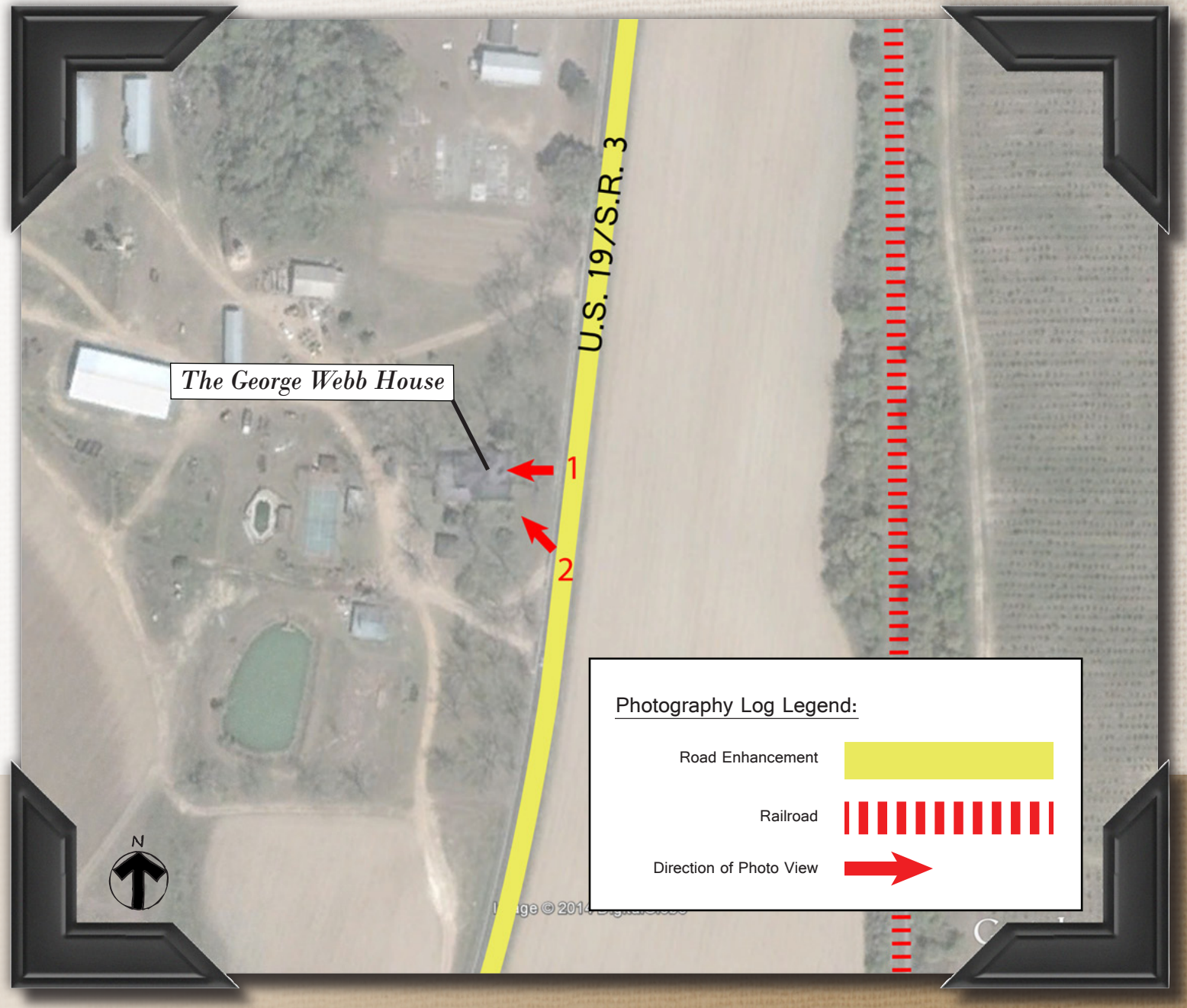
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 90%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Yes

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map:
The George Webb House, Sumter County - P.I. # 322195



*Google Earth, 2006

Pre-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 1

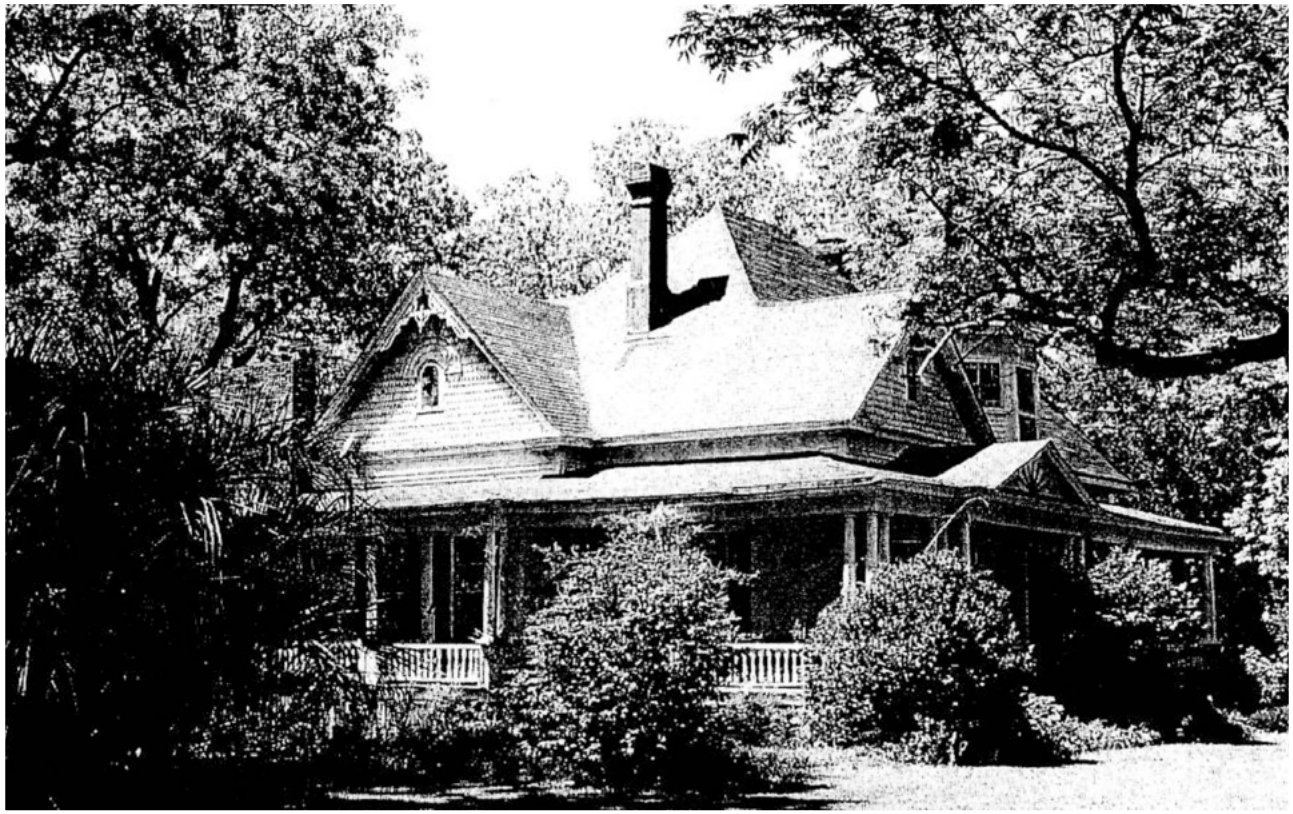
Description: Front/east facade of the George Webb House, adjacent to and west of U.S. 19, prior to road construction. Facing west.

**Pre-construction photos taken ca. 2005.*

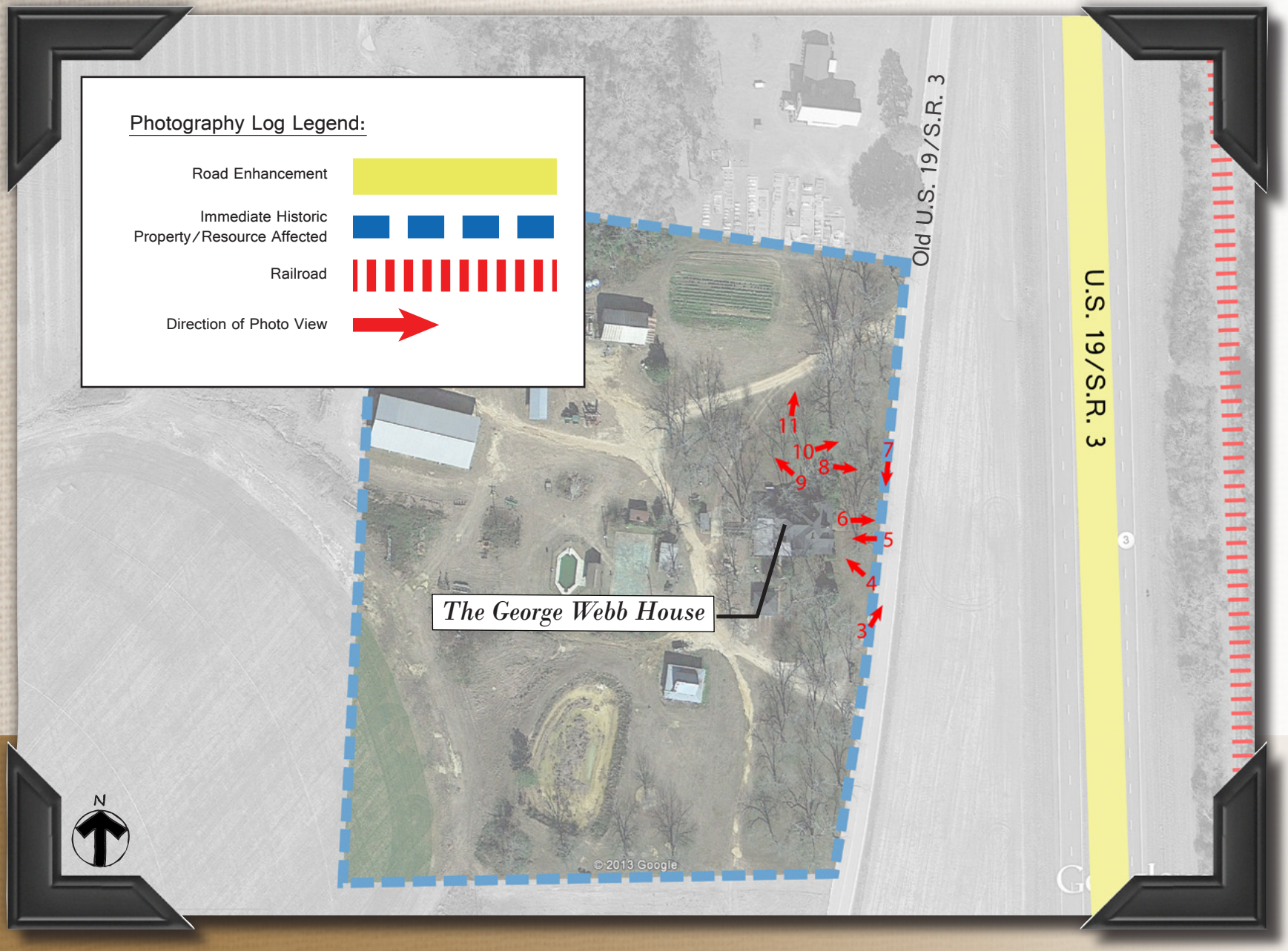
Pre-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 2

Description: South and east facade of the George Webb House, adjacent to and west of U.S. 19, prior to road construction. Facing northwest.



Post-Construction Aerial and Photo Site Map: The George Webb House, Sumter County - P.I. # 322195

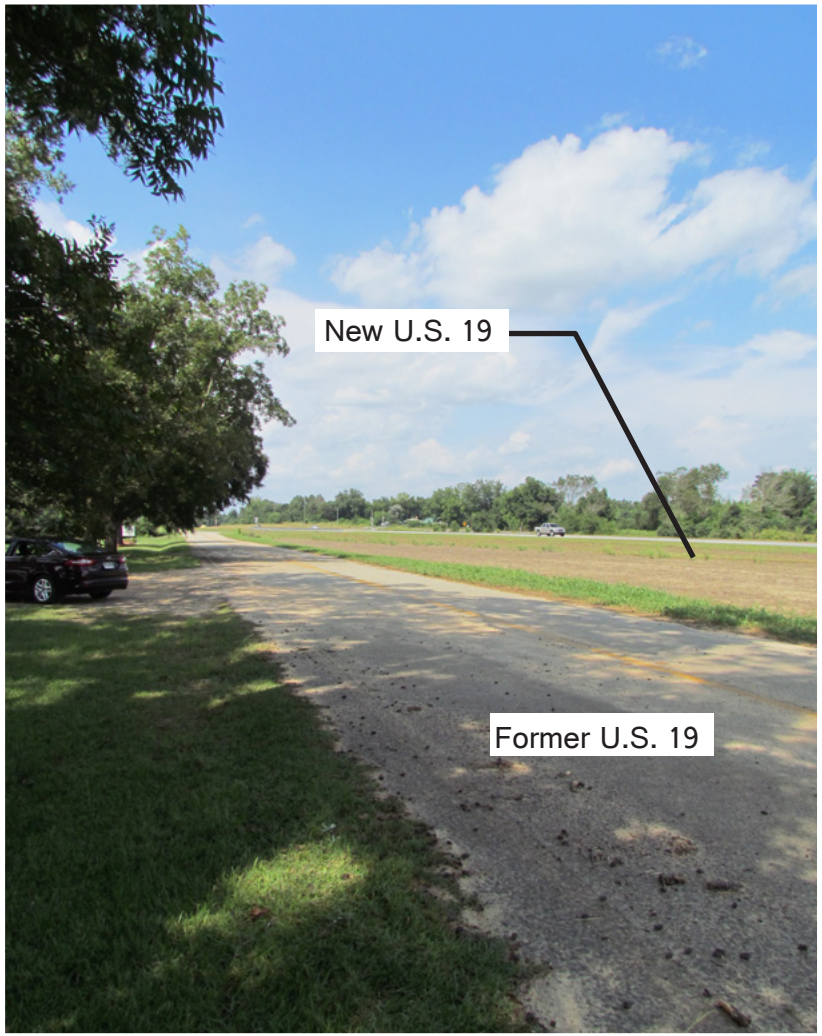


*Google Earth, 2013

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 3

Description: View of New U.S. 19 from George Webb House, adjacent to and west of former U.S. 19. Facing northwest.



**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 4

Description: South and east facade of the George Webb House, adjacent to and west of U.S. 19. Facing northwest.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 5

Description: Front/east facade of the George Webb House, adjacent to and west of U.S. 19. Facing west.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

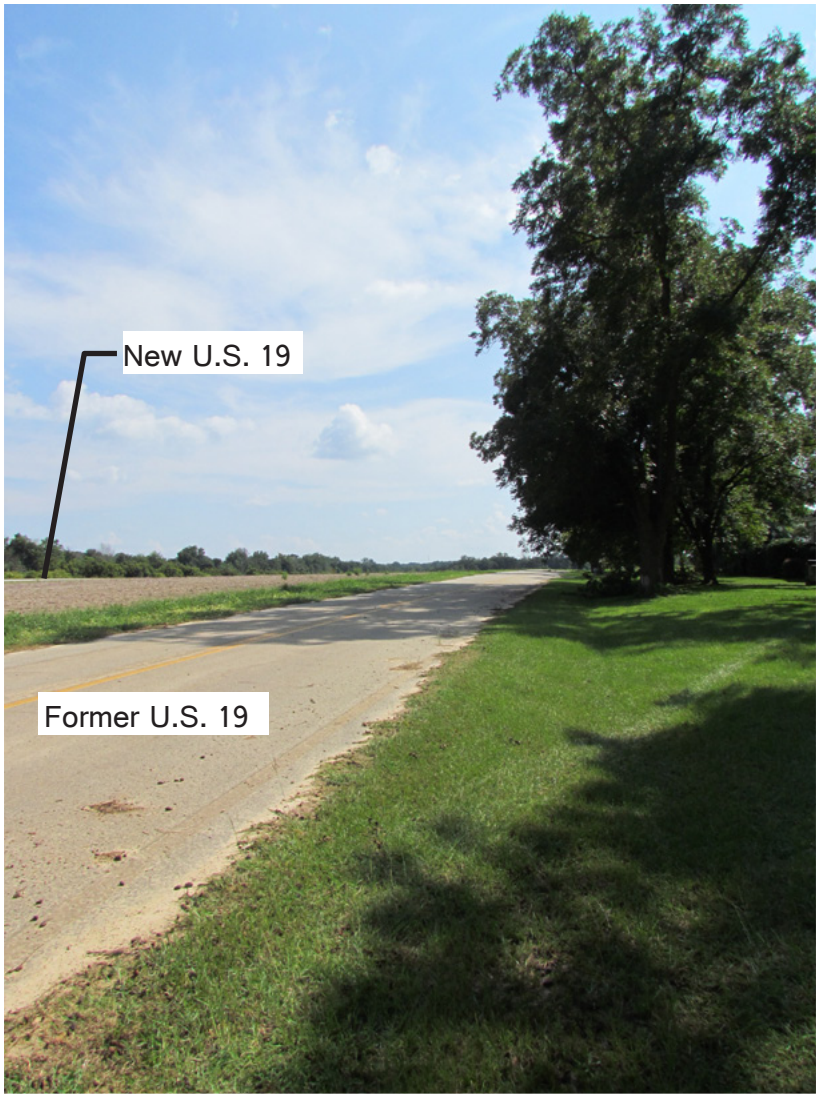
Photo Number: 6

Description: View of U.S. 19 and Landscape Mitigation Treatment from George Webb House, adjacent to and west of U.S. 19. Facing east.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 7

Description: View of U.S. 19 from George Webb House, adjacent to and west of former U.S. 19. Facing south.



Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 8

Description: View of U.S. 19 and Landscape Mitigation Treatment from George Webb House, adjacent to and west of U.S. 19. Facing east.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 9

Description: Out-building associated with the George Webb House. Facing northwest.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 10

Description: View of U.S. 19 and Landscape Mitigation Treatment from George Webb House, adjacent to and west of U.S. 19. Facing northeast.

Post-Construction Photographs:
The George Webb House, Sumter County - P.I. # 322195

Photo Number: 11

Description: View of Church adjacent to and north of the George Webb House. Facing northeast.

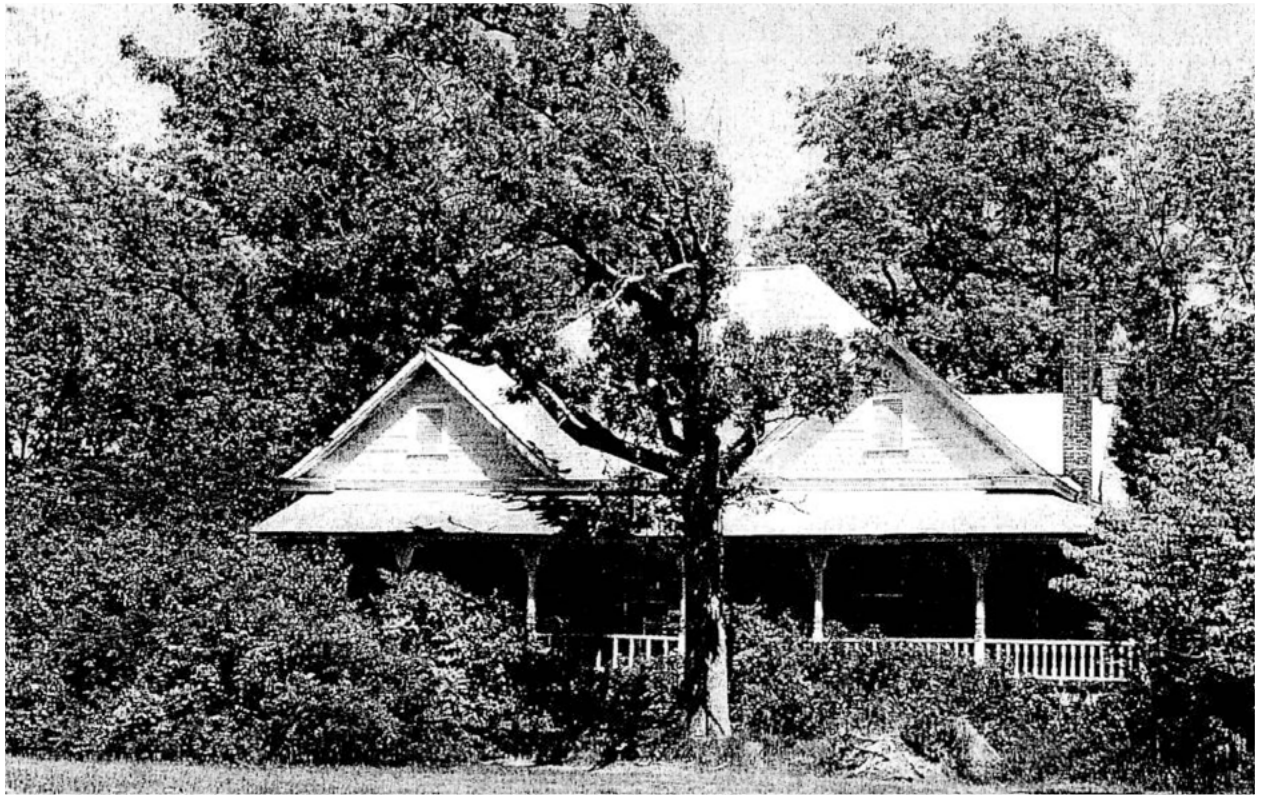
Pre-Construction Aerial and Photo Site Map:
The William Webb House, Sumter County - P.I. # 322195

*Google Earth, 2006

Pre-Construction Photographs:
The William Webb House, Sumter County - P.I. # 322195

Photo Number: 12

Description: Front/west facade of the William Webb House, adjacent to and east of U.S. 19, prior to road construction, Facing northeast.

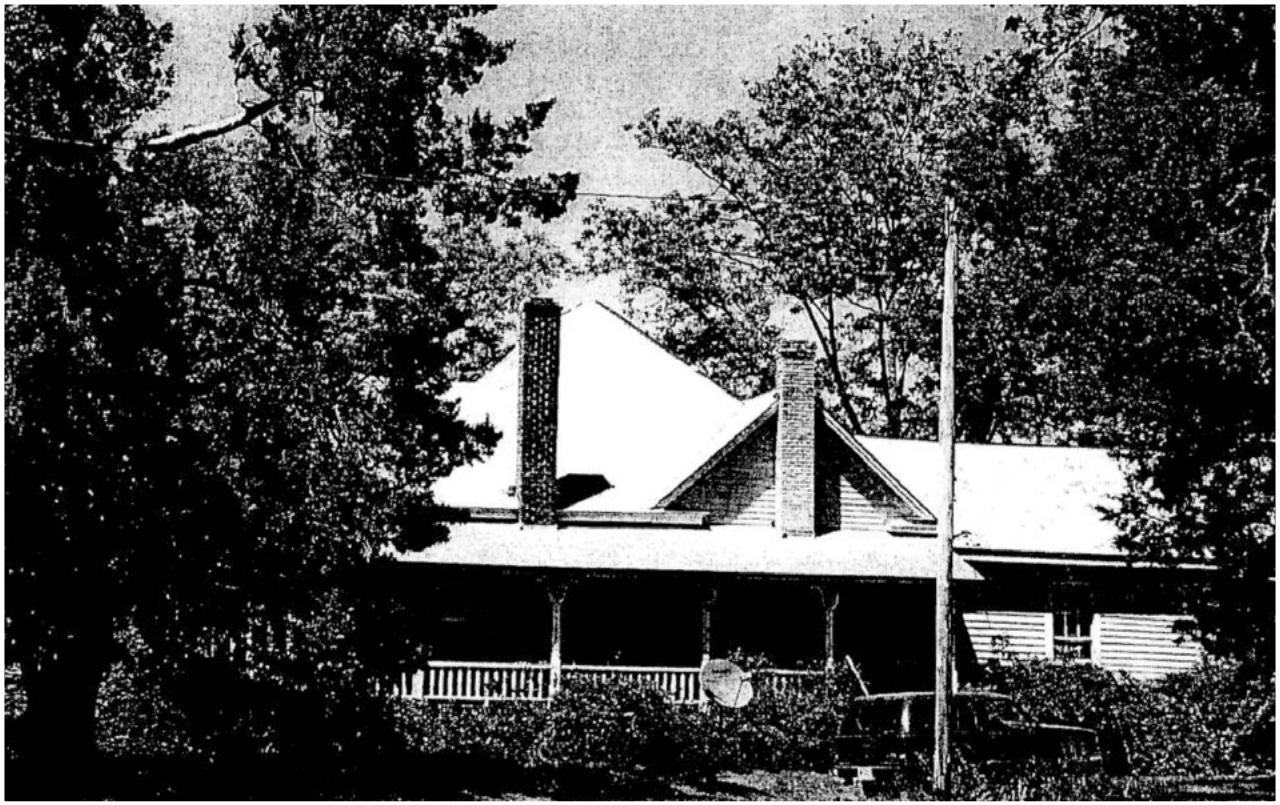


**Pre-construction photos taken ca. 2005.*

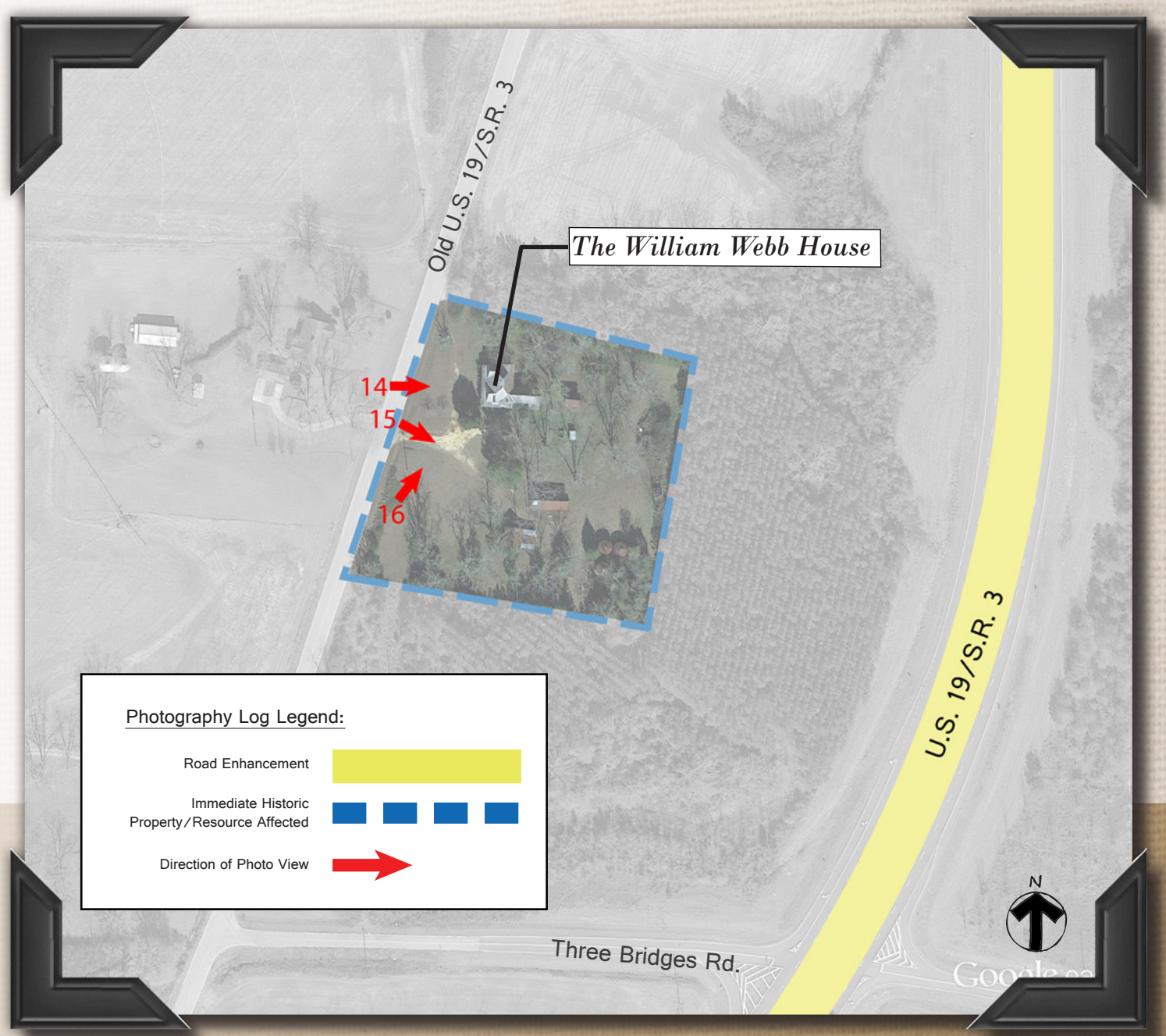
Pre-Construction Photographs:
The William Webb House, Sumter County - P.I. # 322195

Photo Number: 13

Description: South facade of the William Webb House, prior to road construction. Facing northeast.



Post-Construction Aerial and Photo Site Map:
The William Webb House, Sumter County - P.I. # 322195



*Google Earth, 2013

Post-Construction Photographs:
The William Webb House, Sumter County - P.I. # 322195

Photo Number: 14

Description: Front/west facade of the William Webb House, adjacent to and east of former U.S. 19. Facing east.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The William Webb House, Sumter County - P.I. # 322195

Photo Number:15

Description: Driveway of the William Webb House facing towards new U.S. 19. Facing southeast.

Post-Construction Photographs:
The William Webb House, Sumter County - P.I. # 322195

Photo Number: 16

Description: South facade of the William Webb House. Facing northeast.

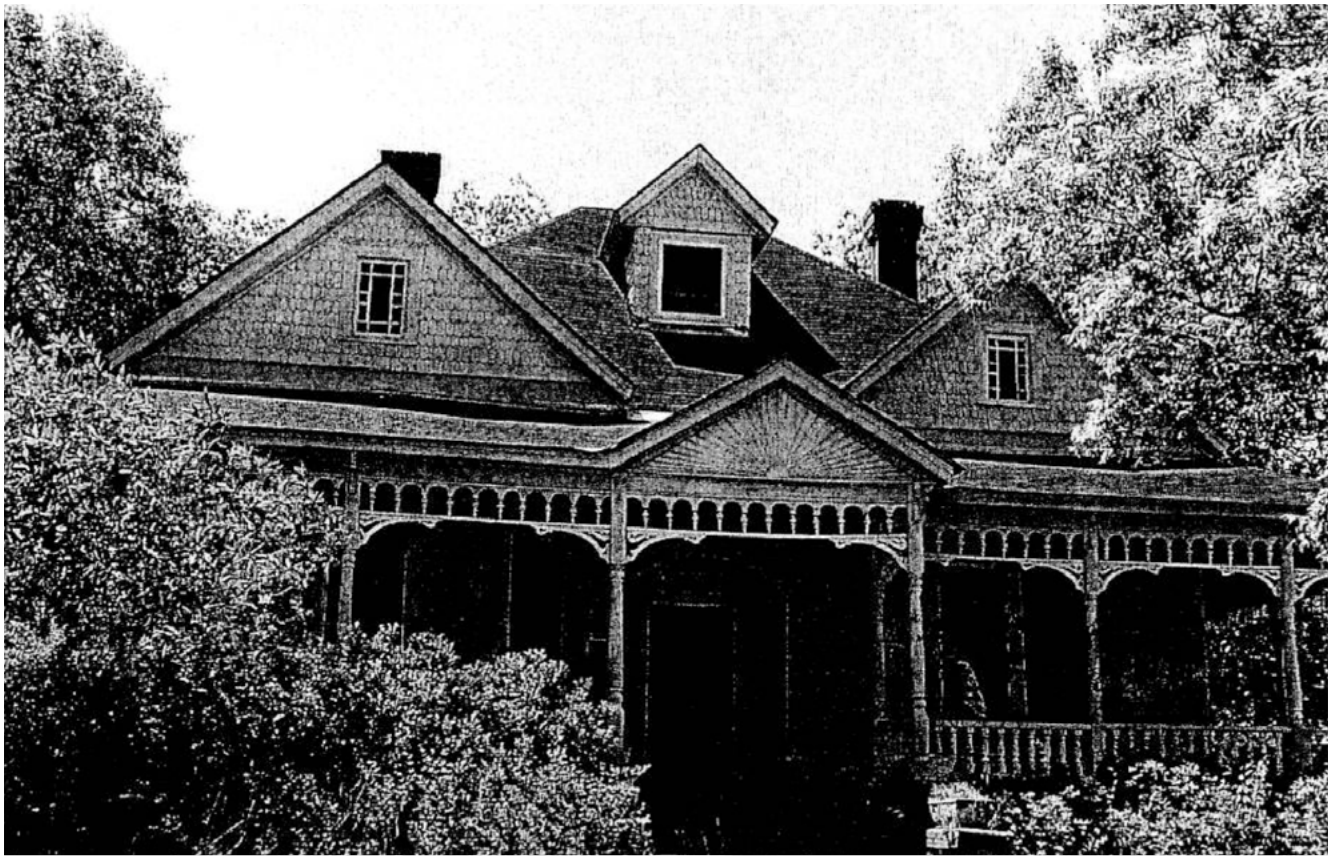
Pre-Construction Aerial and Photo Site Map:
The Emory Webb House, Sumter County - P.I. # 322195

*Google Earth, 2006

Pre-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 17

Description: Front/east facade of the Emory Webb House, adjacent to and west of U.S. 19. Facing northwest.

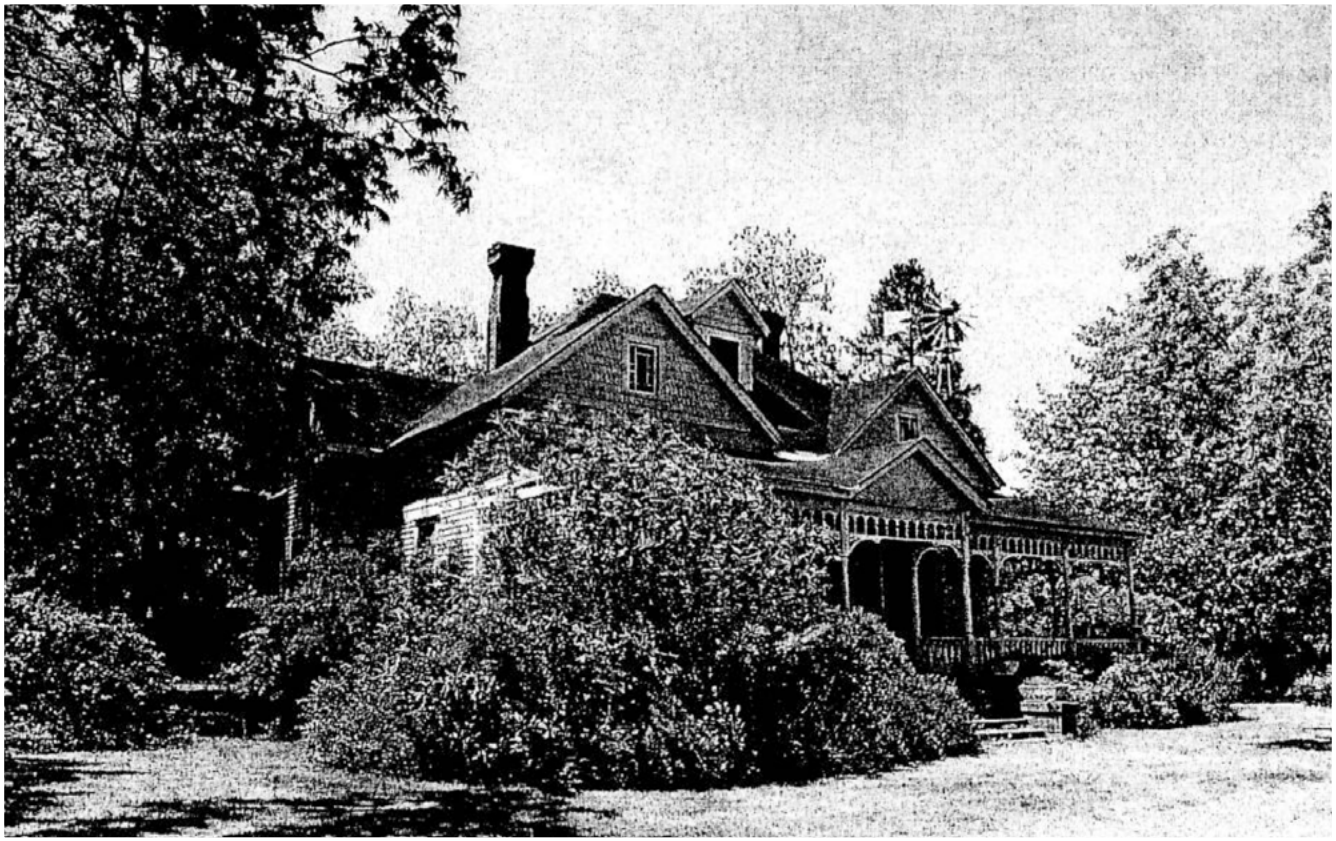


**Pre-construction photos taken ca. 2005.*

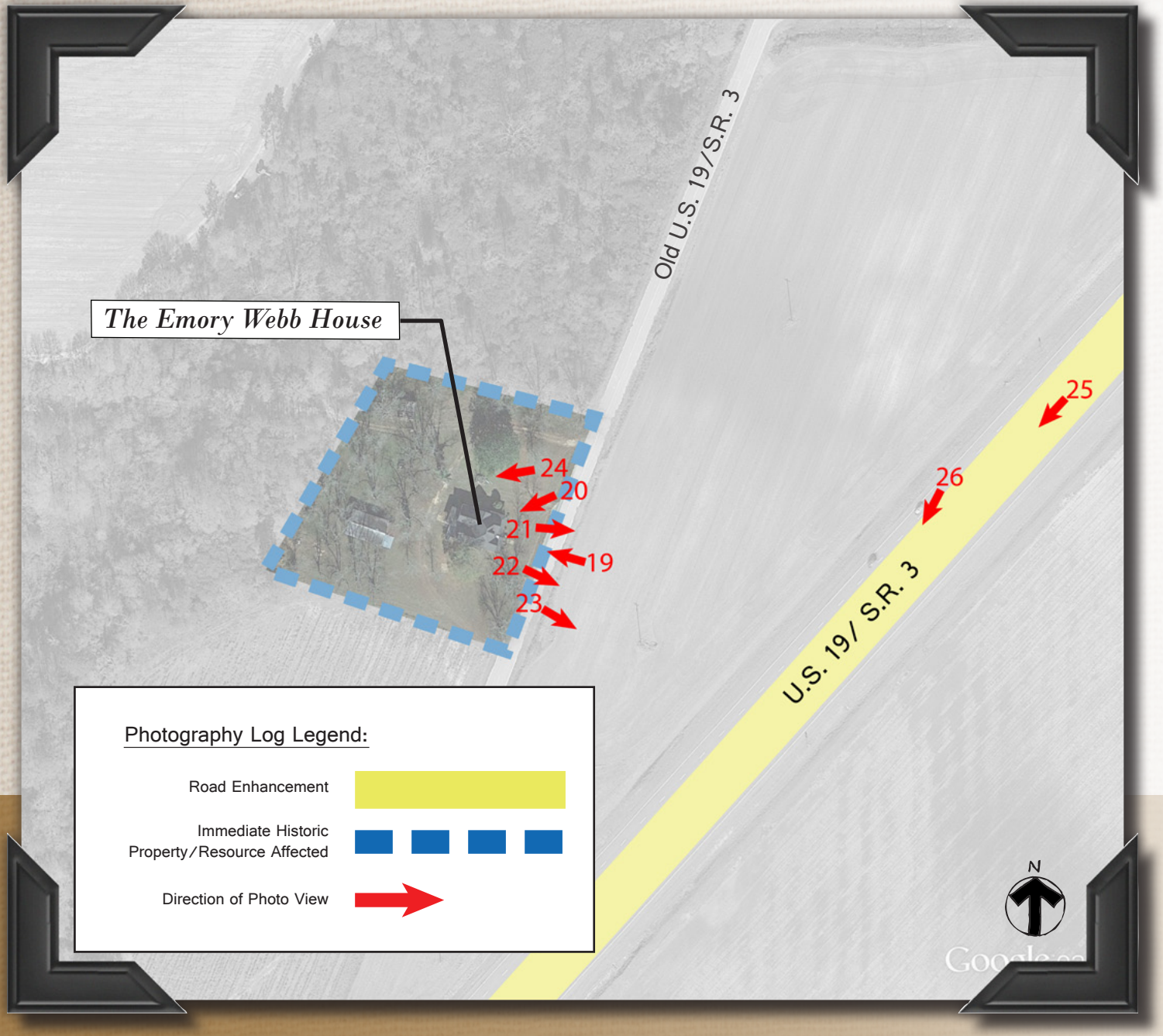
Pre-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 18

Description: Front/east facade of the Emory Webb House and front yard, adjacent to and west of U.S. 19. Facing northwest.



Post-Construction Aerial and Photo Site Map:
The Emory Webb House, Sumter County - P.I. # 322195



*Google Earth, 2013

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 19

Description: Front/east facade of the Emory Webb House, adjacent to and west of former U.S. 19. Facing northwest.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 20

Description: East and north facade of the Emory Webb House. Facing southwest.

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 21

Description: View of U.S. 19 and Landscape Mitigation Treatment from the Emory Webb House. Facing east.

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 22

Description: View of U.S. 19 and Landscape Mitigation Treatment from the Emory Webb House. Facing southeast.

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 23

Description: View of new U.S. 19 and Landscape Mitigation Treatment from former U.S. 19. Facing southeast.

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 24

Description: Windmill present on property, north of the Emory Webb House. Facing west.

Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 25

Description: Landscape Mitigation Treatment in median of U.S. 19. Facing southwest.

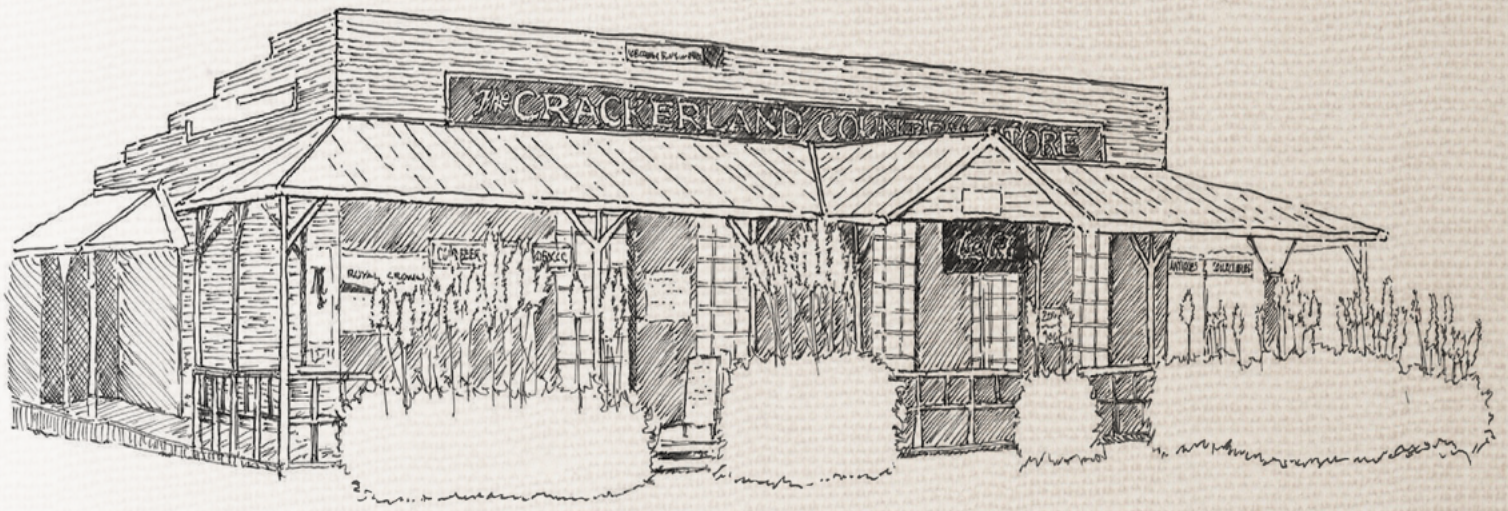
Post-Construction Photographs:
The Emory Webb House, Sumter County - P.I. # 322195

Photo Number: 26

Description: Landscape Mitigation Treatment in median of U.S. 19. View facing southwest.

Taylor County

Site 13



The Dicks-Culverhouse House, The Howard Historic District

P.I. #321975

Taylor County At a Glance:

Site 13 is located in Taylor County, on S.R. 96 in the city of Howard, Georgia. GDOT Project P.I. #321975 was a road-widening and reconstruction project on S.R. 96, and had visual adverse effects on the NRHP-eligible Dicks-Culverhouse House and Howard Historic District. Both of these resources are eligible for the NRHP under Criterion A for agriculture and Criterion C for architecture and landscape architecture.

Historic Resources:

- *The Dicks-Culverhouse House*
- *The Howard Historic District*

Resource Construction Date:

- *1880-1930*

Historic Landscape Type:

- *Historic Vernacular*

USDA Hardiness Zone:

- *8a*

GDOT Construction Type:

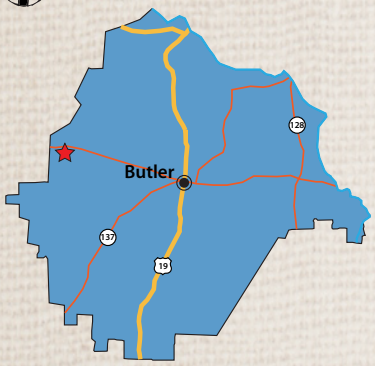
- *Road Widening*

GDOT Construction Date:

- *September 2004*

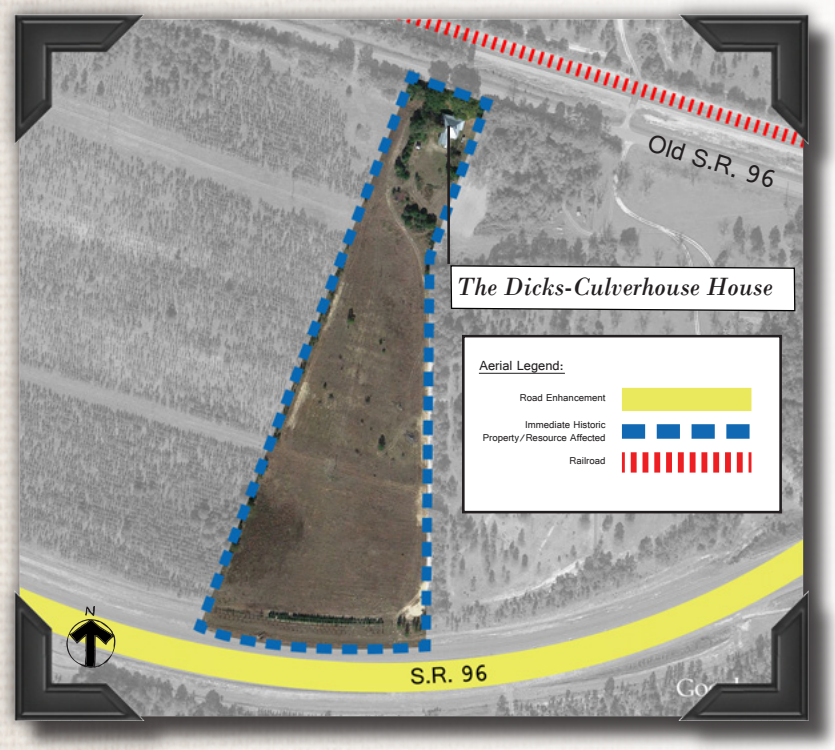
Adverse Effects:

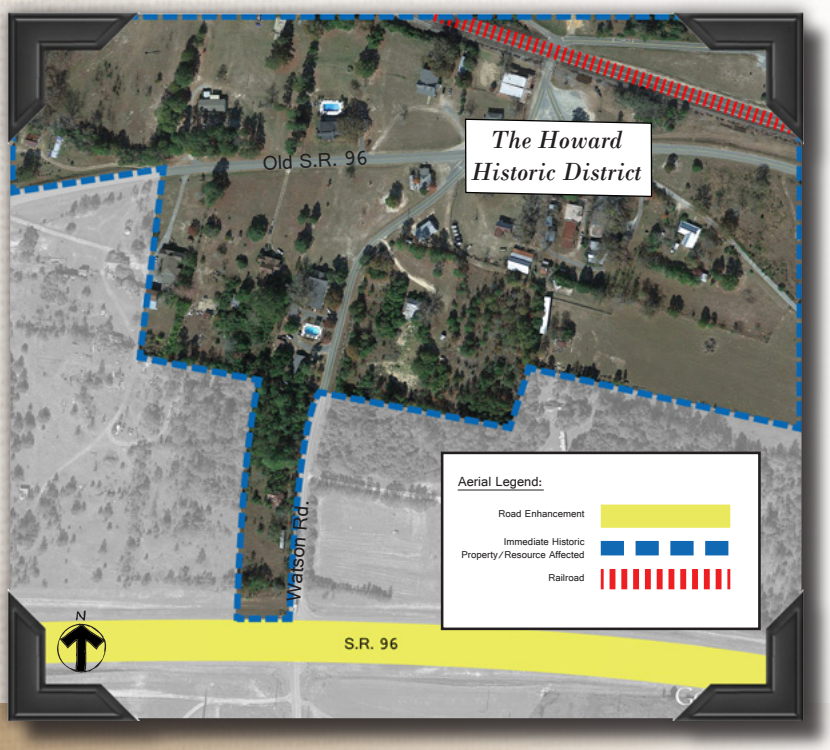
- *Visual*



Taylor County, GA

= Site Location





**Google Earth, 2013*

The Dicks-Culverhouse House

Research

The circa 1918 Dicks-Culverhouse House is located in Taylor County, on the old alignment of S.R. 96, to the east of the City of Howard Historic District. It is a Georgian Cottage house type, one-story and nearly square in plan, with a central hall and two rooms on either side (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). It has a hipped roof with a rear ell and a wraparound front porch. The house possesses elements of the Craftsman style, with tapered columns on brick bases supporting the porch and exposed rafter tails. The house is set back approximately 50 ft. from the road, with a very large Water Oak located in the front yard. Several historic outbuildings are no longer extant on the property. The setting of the property is rural with a flat and sandy terrain. The NRHP-eligible boundary contains approximately 76 acres; it is a visual boundary that consists of only a portion of the property's 377 acres. This visual boundary does not adhere to the legal boundary of the property, but does include all of the character-defining features within the property. The Dicks-Culverhouse House is eligible for the NRHP under Criterion A for agriculture and Criterion C for architecture. Because of its agricultural setting, the landscape is considered Historic Vernacular.

GDOT Project P.I. # 321975 was a road-widening and reconstruction project of an 18.3-mile stretch of S.R. 96 between Geneva, Georgia, and Butler, Georgia. The purpose of this project was to provide a quicker and safer route between Geneva and the western terminus of the Butler Bypass. This stretch of road was identified as part of the Governor's Road Improvement Program (GRIP), which sought to improve economic development in areas lagging growth by improving particular road systems in Georgia. The project widened the road to consist of four 12-ft. travel lanes with 10-ft. shoulders and a 44-ft. depressed grass median. The proposed right-of way was 250 ft. Additionally, S.R. 96 was realigned to bypass the Howard Historic District. The project was designed for a 55 mile per hour speed limit, which requires all of the vegetation to be outside of the clear zone*. The project documents did not specify the clear zone requirement for this project.

The Assessment of Effects document stated that the road widening and reconstruction would have an adverse effect on the visual characteristics of the house, due to the introduction of visual elements that were out of character with the resource. Although the house itself is approximately 1,400 ft. from the new alignment, the resource would be visible from the road, located south of the house. As a result, a MOA was established. The stipulation concerning the landscape from this MOA is listed in Figure 13a.

According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6

Figure 13a

Memorandum of Agreement Landscape Stipulations:

"In order to minimize the adverse visual effects of the roadway on the City of Howard Historic District and the Dicks-Culverhouse House, a hedgerow of deciduous trees and shrubs not taller than 3.1 meters (10 feet) will be planted within the right-of-way south of the historic structures. The landscape plan for the hedgerow and construction plans of the proposed project, with vertical sections of the roadway, will be submitted to the SHPO for review and comment prior to project implementation."

North / Front facade of Dicks-Culverhouse House. Facing south.

The landscape plan proposed an informal linear arrangement of plant species appropriate to the sandhill setting just south of the historic resource, to provide a visual buffer of the road from the historic resource. However, several of the plant species will reach a mature height that is greater than the 10-ft. minimum set forth by the MOA. The landscape plans called for Bluejack Oak (*Quercus incana*), English Hawthorne (*Crataegus laevigata*), Longleaf Pine (*Pinus palustris*), Turkey Oak (*Quercus laevis*), Blue Wild Indigo (*Baptisia australis*), and Dwarf Liatris (*Liatris microcephela*). There was no landscape maintenance agreement described in the project documents. The plant schedule is shown in Figure 13b, and the landscape plan can be found in Appendix A of this report.

Figure 13b

Plant Schedule:

QTY. Dicks-Culverhouse	Botanical Name	Common Name	Spacing
16	*Quercus incana*	Bluejack Oak	10' O.C.
18	*Pinus palustris*	Longleaf Pine	10' O.C.
22	*Quercus laevis*	Turkey Oak	10' O.C.
8	*Baptisia australis*	Blue Wild Indigo	12"-18" O.C.
12	*Liatris microcephala*	Dwarf Liatris	12"-18" O.C.

Site Analysis

A site analysis was conducted on September 4, 2013. The Dicks-Culverhouse House was not visible from the road, due in part to distance, topography of the site, and the landscape mitigation treatment. The landscape plan called for a hedgerow several hundred feet in length to be installed. The shrubs and trees were installed, although about 1,000 ft. to the west, in a different location than that called for in the landscape plan (see Page 435, Photo 3). This was most likely due to an embankment in the area of the proposed landscape plan (see Page 440, Photo 8). Approximately 80 percent of the proposed landscaping was installed; the survival rate was approximately 75 percent. The Turkey Oaks were in poor health (see Page 437, Photo 5). Additionally, the property owner had planted a hedge of Leyland Cypress directly behind the mitigation treatment (see Page 437, Photo 5). This was not a part of the landscape mitigation effort. Lack of maintenance contributed to the poor health of the vegetation.

Evaluation

The plant selection for the Dicks-Culverhouse House was appropriate, as all specimens typically thrive in the sandhill region. However, the Turkey Oaks on-site were not in good condition; this is due to a lack of maintenance. The linear arrangement of the plant material did provide an effective visual buffer between the house and the road (see Page 436, Photo 4). The Leyland Cypress hedge directly behind the landscape mitigation treatment also helped to visually buffer the road from the resource, even though this was not a part of the mitigation effort (see Page 437, Photo 5). Distance, topography, and existing vegetation helped to screen the road from the resource as well, although not completely.

Landscape mitigation adjacent to, and north of, S.R. 96. Facing north.

An alternative solution would have been to plant the landscape mitigation treatment closer to the house, within the historic boundary. Landscape mitigation efforts are not necessarily required to be installed along the edge of the historic boundary and as close to the road as possible. This alternative would require consent from the property owner. By planting vegetation closer to the resource, new landscaping can better blend into the existing landscape, because there are more trees in the fields associated with the historic resource than there are next to the road. The team's field checklist and results are shown in Figure 13c.

Summary

Site Analysis Summary:

- Dicks-Culverhouse House was not visible from the road due to distance, topography, and the landscape mitigation treatment.
- Approximately 80% of landscape plan was installed.
- Approximately 75% survival rate of installed plant material. Turkey Oaks in poor health.
- A hedgerow of Leyland Cypress was installed on the property behind the installed vegetation.

Evaluation Summary:

- Landscape mitigation was successful at screening the house and property.
- The hedge of Leyland Cypress provided additional visual screening.
- Alternate solution would be to install plant material on property closer to Dicks-Culverhouse House.

Figure 13c

Field Checklist: The Dicks-Culverhouse House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- Yes

Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 75%

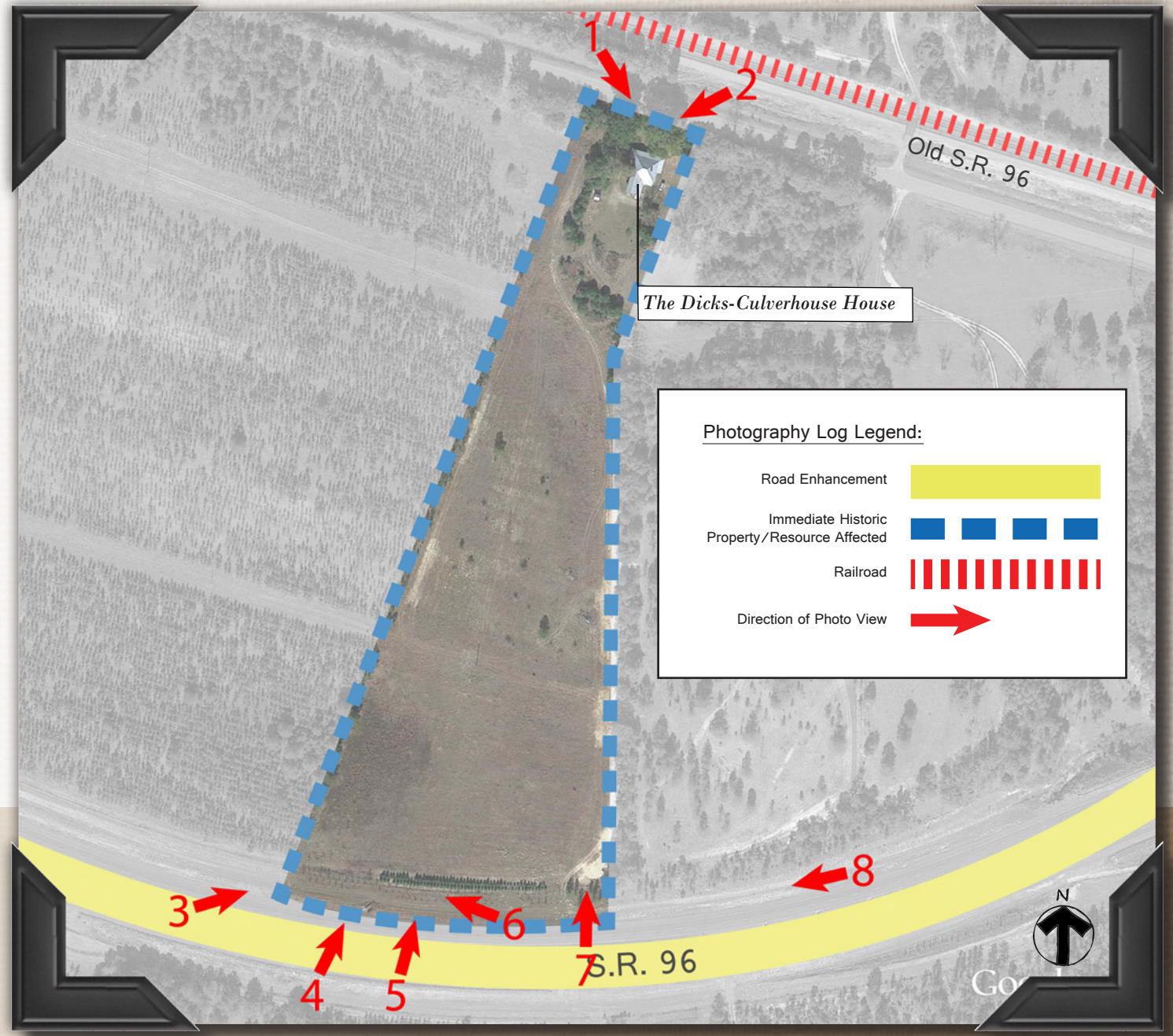
Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- Unavailable

Overall, were the landscape mitigation efforts successful?
- Yes

Pre-Construction Aerial and Photo Site Map:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

*Google Earth, 1993

Post-Construction Aerial and Photo Site Map:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975



*Google Earth, 2013

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 1

Description: The Dicks-Culverhouse House front/north facade, adjacent to and south of Old S.R. 96. Facing southeast.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 2

Description: The Dicks-Culverhouse House front/north facade, adjacent to and south of Old S.R. 96. Facing southwest.

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 3

Description: Landscape Mitigation Treatment adjacent to and north of S.R. 96. Facing northeast.

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

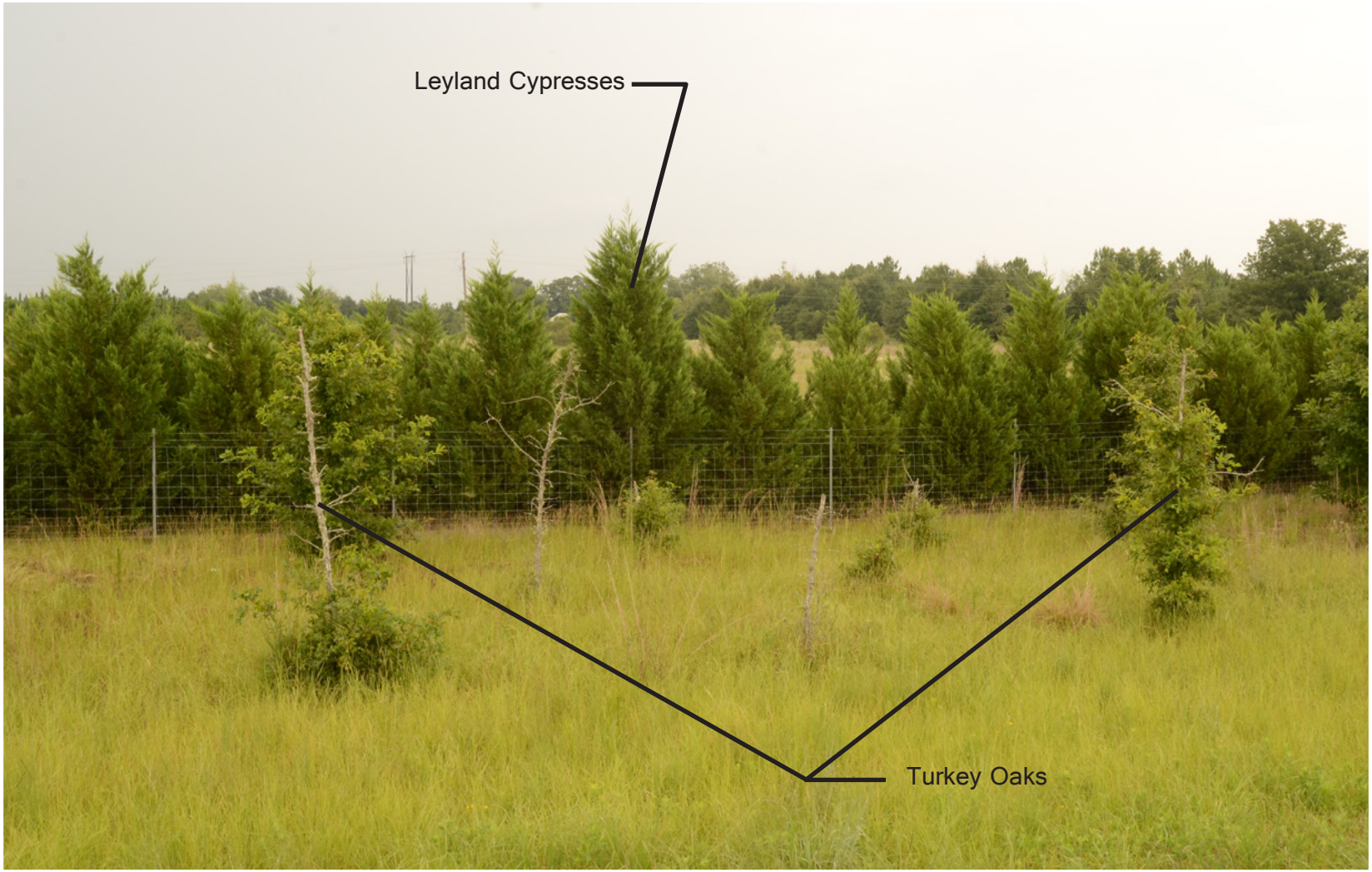
Photo Number: 4

Description: Landscape Mitigation Treatment adjacent to and north of S.R. 96. Facing north.

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 5

Description: Turkey Oaks in poor health and Leyland Cypresses behind Landscape Mitigation Treatment, adjacent to and north of S.R. 96. Facing northeast.



Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

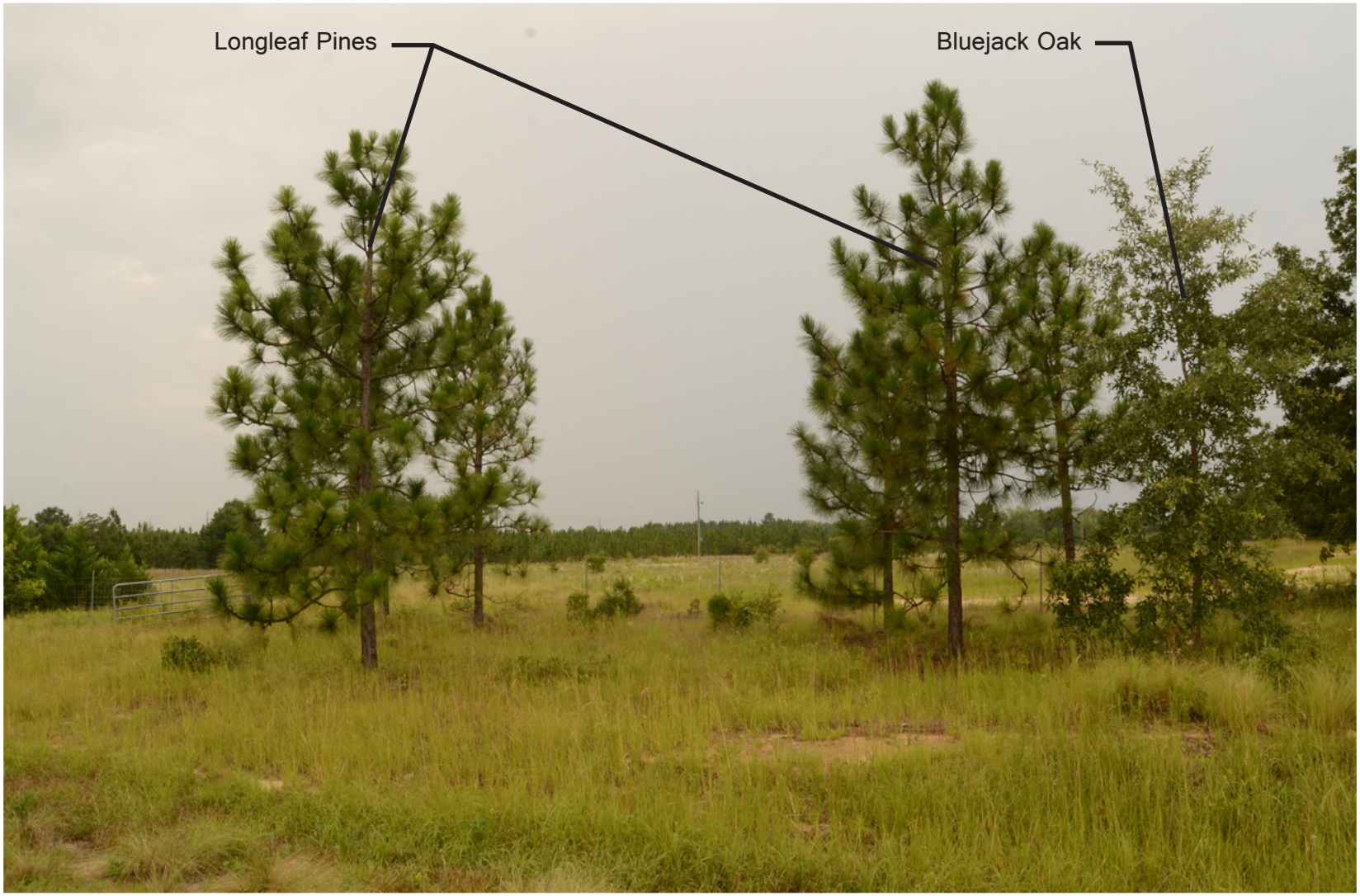
Photo Number: 6

Description: Landscape Mitigation adjacent to and north of S.R. 96. Facing west.

Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 7

Description: Longleaf Pines and Bluejack Oak. Facing north.



Post-Construction Photographs:
The Dicks-Culverhouse House, Taylor County - P.I. # 321975

Photo Number: 8

Description: Embankment adjacent to and north of S.R. 96. Facing west.

The Howard Historic District

Research

The City of Howard Historic District is located approximately 10 miles west of Butler, in Taylor County in central west Georgia. The eligible boundary of the district contains 112.83 acres, all to the north of the new alignment of S.R. 96. The railroad and the old alignment of S.R. 96 run through the center of the district in an east-west direction. The district contains both historic residential and commercial structures that date from 1880 to 1930. There are 14 contributing houses in the Howard Historic District; all are historic, one-story-frame buildings in a range of house types, including Hall-Parlor, Double Pen, and Queen Anne Cottage, among others (Georgia's Living Places: Historic Houses in Their Landscaped Settings (1991)). Howard also has three historic commercial buildings, all one story in height, along with a historic church, a cemetery, and several agricultural resources. The railroad depot is no longer extant. The Howard Historic District is eligible under Criterion A for its association with railroad, commerce, and agriculture. It is also eligible under Criterion C for architecture. Although there was no formal discussion of integrity in the project documentation, it appears from the available resources that the Howard Historic District retained integrity of setting, feeling, and association of an unplanned small rural residential community.

Figure 13d

Memorandum of Agreement Landscape Stipulations:

"In order to minimize the adverse visual effects of the roadway on the City of Howard Historic District and the Dicks-Culverhouse House, a hedgerow of deciduous trees and shrubs not taller than 3.1 meters (10 feet) will be planted within the right-of-way south of the historic structures. The landscape plan for the hedgerow and construction plans of the proposed project, with vertical sections of the roadway, will be submitted to the SHPO for review and comment prior to project implementation."

The Howard Historic District is also notable for its unique flora. Howard is set in a Dwarf Oak forest, described by Dr. Charles H. Wharton in The Natural Environments of Georgia, as "an open canopy forest usually on conspicuous sandhills and deep sands on ridge tops. It is an extremely dry forest of small deciduous oaks seldom over 15 feet high." Because of the district's agricultural setting, the landscape is considered Historic Vernacular.

The GDOT project widened the road to consist of four 12-ft. travel lanes with 10-ft. shoulders and a 44-ft. depressed grass median. The proposed right-of-way was 250 ft. Additionally, S.R. 96 was realigned to bypass the Howard Historic District. The project was designed for a 55 mile per hour speed limit, which requires all of the vegetation to be outside of the clear zone*. The clear zone requirement for this project was 25 ft. with a 250-ft. right-of-way for the new location of this road.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Local store in Howard Historic District. Facing west.

The Assessment of Effects document determined that the road widening and reconstruction would have an adverse effect on the visual characteristics of the historic district, due to the introduction of visual elements that were out of character with the resource. The bulk of the district is north of the GDOT project. The district's nearest contributing building to the new alignment is approximately 1,000 ft. to the north. The irregular-shaped boundary has a small rectangular projection on the southwest corner, and it is only this small portion on the extreme southern edge that is adjacent to the new road. As a result, a Memorandum of Agreement was established. The stipulation concerning the landscape is listed in Figure 13d.

A landscape plan was developed for the City of Howard Historic District that called for the installation of several trees and shrubs between an existing fence line and a 25-ft. setback from the S.R. 96, on both sides of S.R. 70, at its intersection with the new alignment of S.R. 96 at the southern end of the district. The landscape plan proposed an informal linear arrangement of plant species appropriate to the sandhill setting just south of the historic district, to provide a visual buffer of the road from the district. However, several of the plant species will reach a mature height that is greater than the 10-ft. minimum set forth by the MOA. There was no landscape maintenance agreement described in the project documents. The plant schedule is shown in Figure 13e, and the landscape plan can be found in Appendix A of this report.

Figure 13e

Plant Schedule:

QTY. Howard	Botanical Name	Common Name	Spacing
42	*Quercus incana*	Bluejack Oak	10' O.C.
17	*Crataegus laevigata*	English Hawthorn	10' O.C.
37	*Pinus palustris*	Longleaf Pine	10' O.C.
34	*Quercus laevis*	Turkey Oak	10' O.C.
24	*Baptisia australis*	Blue Wild Indigo	12"-18" O.C.
24	*Liatris microcephala*	Dwarf Liatris	12"-18" O.C.

Site Analysis

A site analysis was conducted on September 4, 2013. While on-site, the team spoke with a Ms. Marie Brown at her house. Ms. Brown stated that neither she nor anyone else in the community had been consulted or notified of the landscape installation along S.R. 96. Ms. Brown also pointed out that, when installing plants in South Georgia, one must take into account that the soil in that region is very sandy, and drains very quickly. If not properly cared for, the plants will not succeed. After speaking with Ms. Brown, the team went to the landscape mitigation site to assess the plants that were installed. This site was located one-quarter of a mile south of the Historic Howard District.

Of the specified plants from the landscape plan, only eight Longleaf Pines (*Pinus palustris*) were growing within the right-of-way. (see Page 456, Photo 11, and Page 457, Photo 12). Approximately 5 percent of what was proposed was represented on-site. Additional weeds and other growth had sprouted along the roadside (see Page 455, Photo 10). Pre-existing oaks (*Quercus spp.*) and pines (*Pinus spp.*) were located outside of the right-of-way (see Page 453, Photo 8, and Page 454, Photo 9). The closest contributing structure to the road was a vacant house overgrown with vegetation (see Page 452, Photo 7).

Contributing building in Howard Historic District. Facing southwest.

Evaluation

In the case of the City of Howard Historic District, the landscape mitigation at the intersection of S.R. 70 and S.R. 96 was unnecessary. The project had very little visual effect on the district as a whole. The majority of the district is to the north of the new roadway alignment, not adjacent to it. The closest contributing resource to the new S.R. 96 is several hundred feet away and is not visible from the road because of pre-existing tall vegetation. The team's field checklist and results are shown in Figure 13f.

Summary

Site Analysis Summary:

- Only eight pine trees installed inside of right-of-way
- Pre-existing vegetation buffer historic district and closest contributing building

Evaluation Summary:

- Ecological Succession would be an appropriate landscape mitigation
- No designed landscape mitigation necessary.

Figure 13f

Field Checklist: The Dicks-Culverhouse House

Does the landscape plan reflect the defined historic landscape?
- Yes

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- Yes

Is the spacing of the plant material appropriate?
- Yes

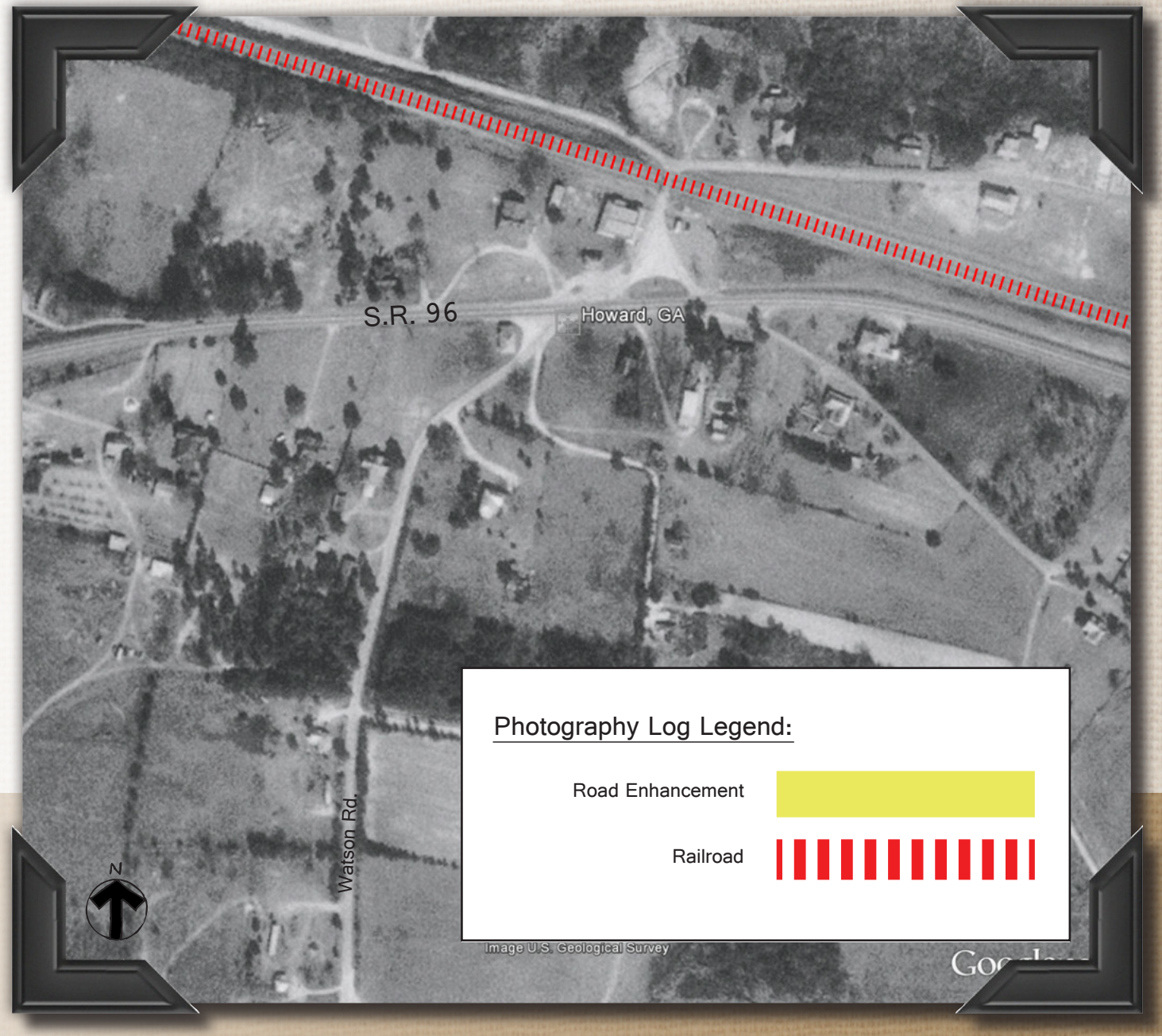
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 20%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

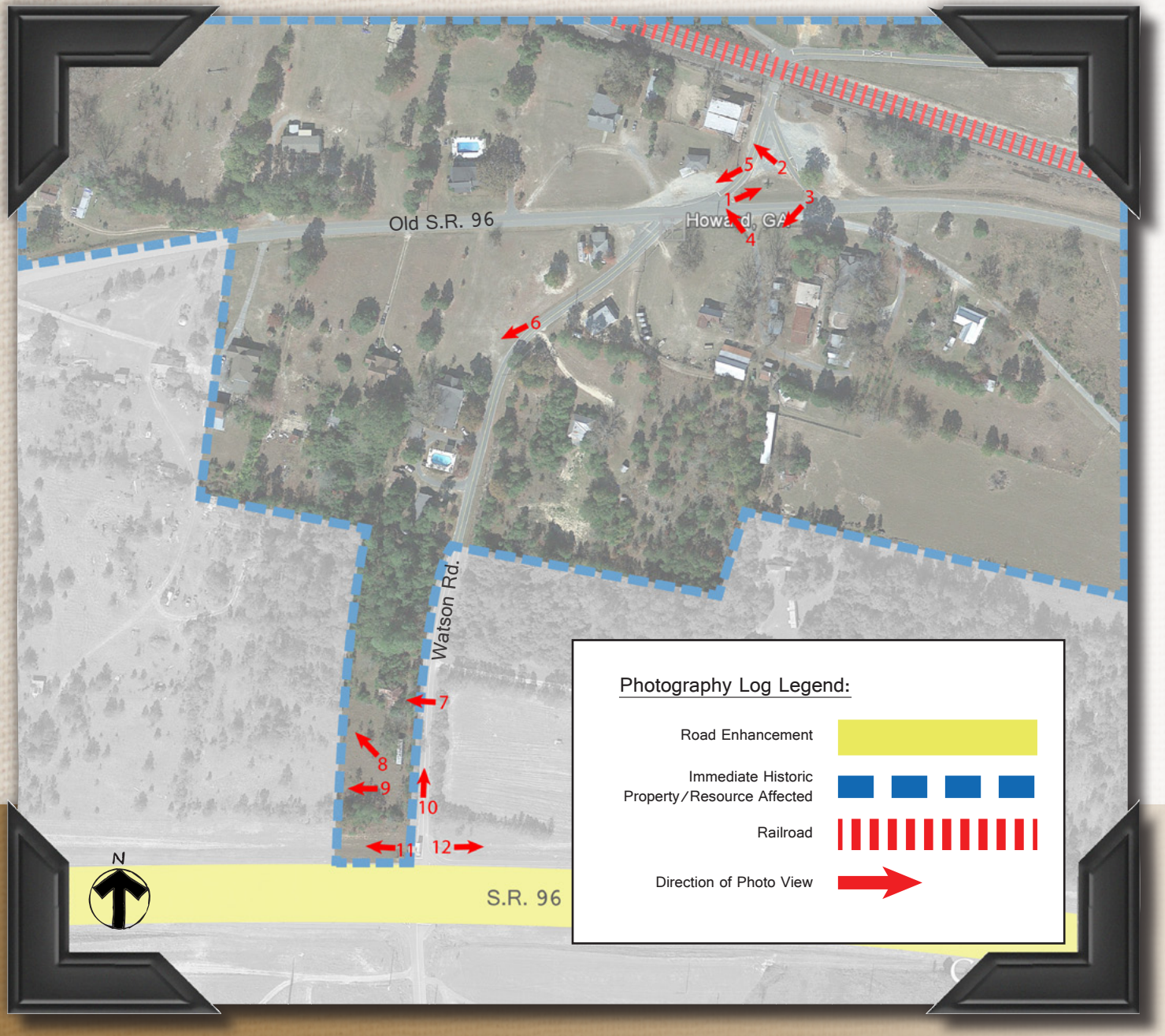
Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map: The Howard Historic District, Taylor County - P.I. # 321975



*Google Earth, 1993

Post-Construction Aerial and Photo Site Map:
The Howard Historic District, Taylor County - P.I. # 321975



*Google Earth, 2013

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 1

Description: Howard, GA welcome sign, adjacent to and north of Old S.R. 96. Facing east.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 2

Description: Local store in Howard Historic District, adjacent to and south of rail road tracks. Facing northwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 3

Description: Contributing building located in Howard Historic District, south of Old S.R. 96. Facing southwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 4

Description: Post Office in Howard Historic District, adjacent to and north of Old S.R. 96. Facing northwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 5

Description: Non-contributing building located in Howard Historic District west of intersection of Watson Rd. and Old S.R. 96. Facing southwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 6

Description: Non-contributing residences in Howard Historic District, adjacent to and west of Watson Rd. Facing southwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 7

Description: Contributing building adjacent to and west of Watson Rd. south of Howard Historic District. Facing west.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 8

Description: View of existing landscape behind Landscape Mitigation Treatment, adjacent to and west of Watson Road, and north of S.R. 96. Facing northwest.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 9

Description: View of existing landscape behind Landscape Mitigation Treatment, adjacent to and west of Watson Road, and north of S.R. 96. Facing west.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

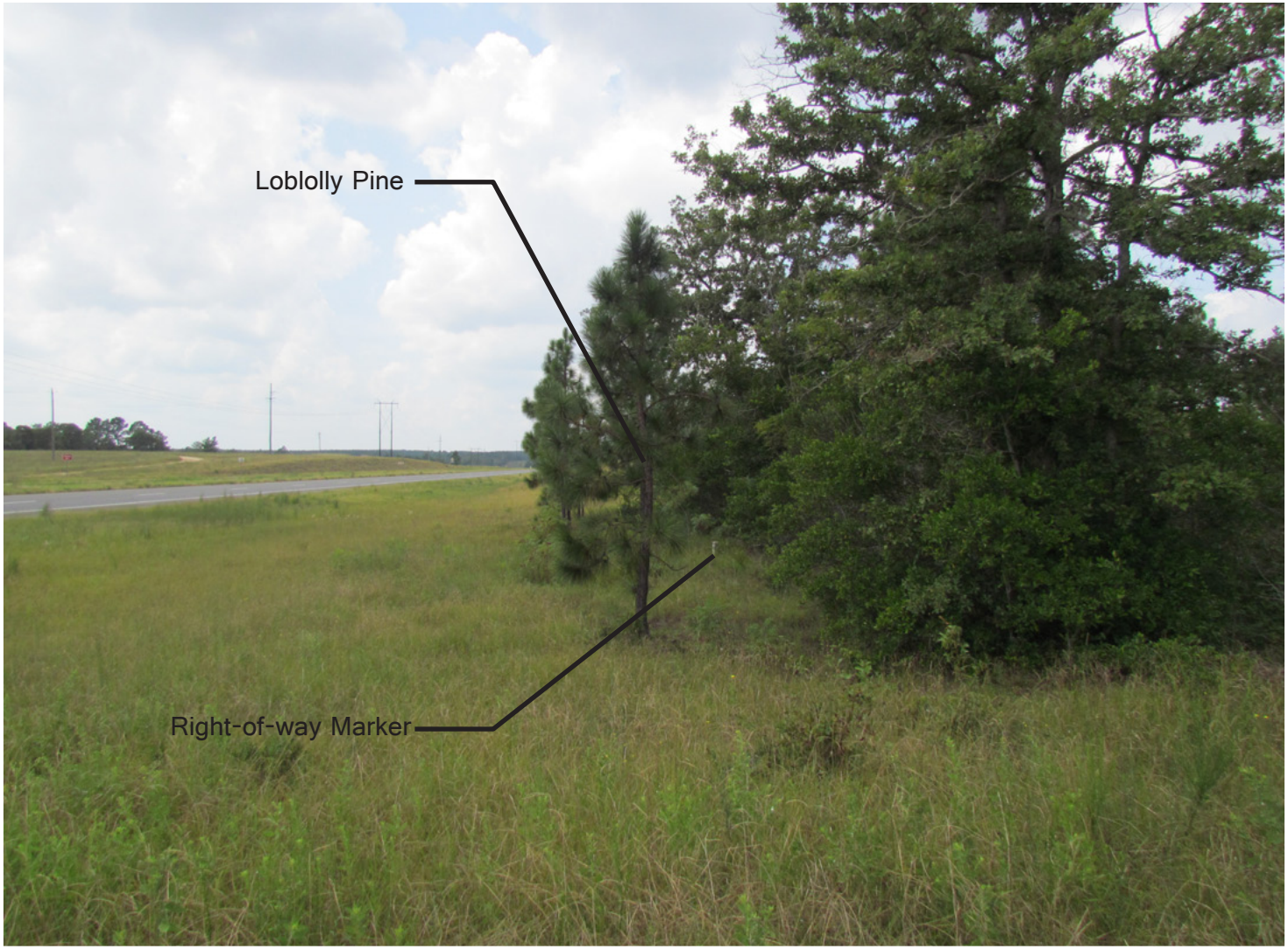
Photo Number: 10

Description: View of Watson Road (northbound) towards Howard Historic District. Facing north.

Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

Photo Number: 11

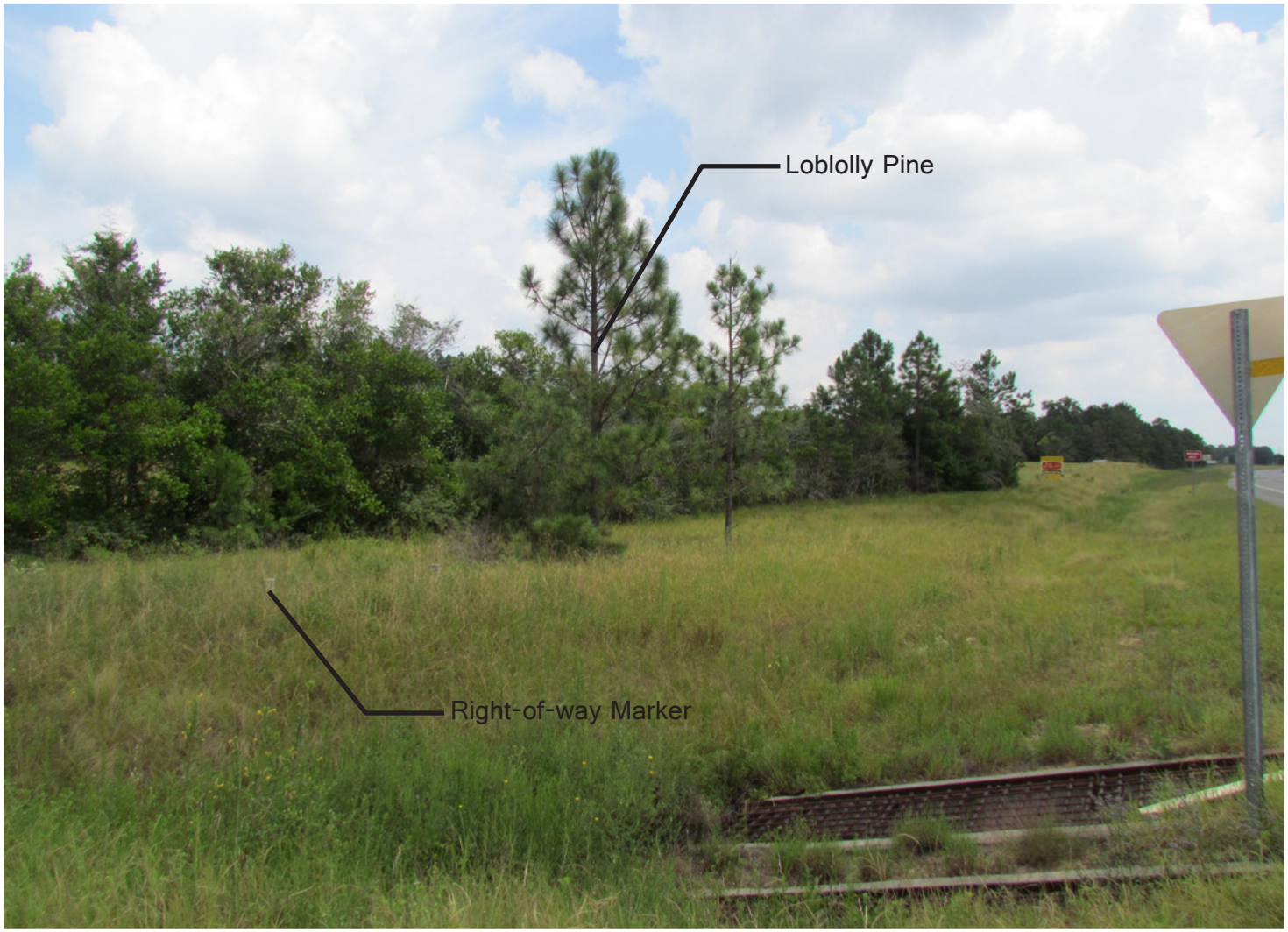
Description: Roadside, adjacent to and north of S.R. 96, west of Watson Rd. Loblolly Pine located within right-of-way. Facing west.



Post-Construction Photographs:
The Howard Historic District, Taylor County - P.I. # 321975

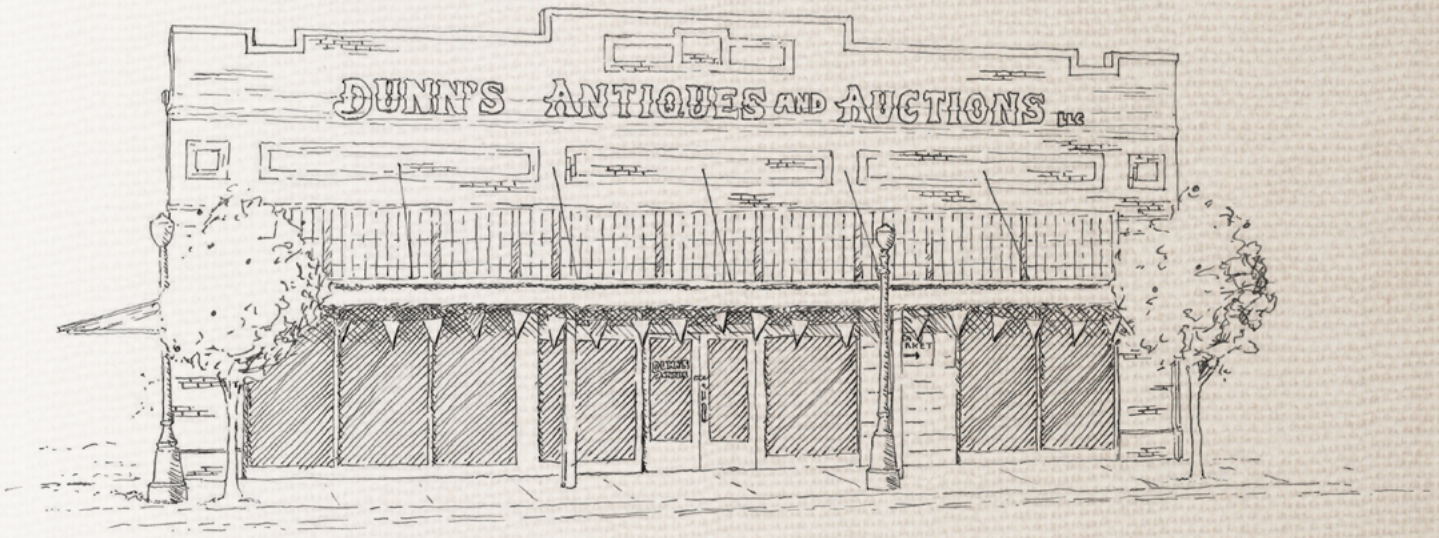
Photo Number: 12

Description: Roadside adjacent to and north of S.R. 96, east of Watson Rd. Loblolly Pine located within right-of-way. Facing east.



Taylor County

Site 14



The Reynolds Historic District

P.I. #363140

Taylor County At a Glance:

Site 14 is located in Taylor County, off of S.R. 96 / Marion Street in Reynolds, Georgia. GDOT Project P.I. #363140 was a road-widening and reconstruction project on S.R. 96, and it adversely impacted the NRHP-eligible Reynolds Historic District, both physically and visually, by altering the district's character-defining features. The district is eligible for the NRHP under Criteria A for commerce and C for architecture.

Historic Resources:
- *The Reynolds Historic District*

Resource Construction Date:
- *1853*

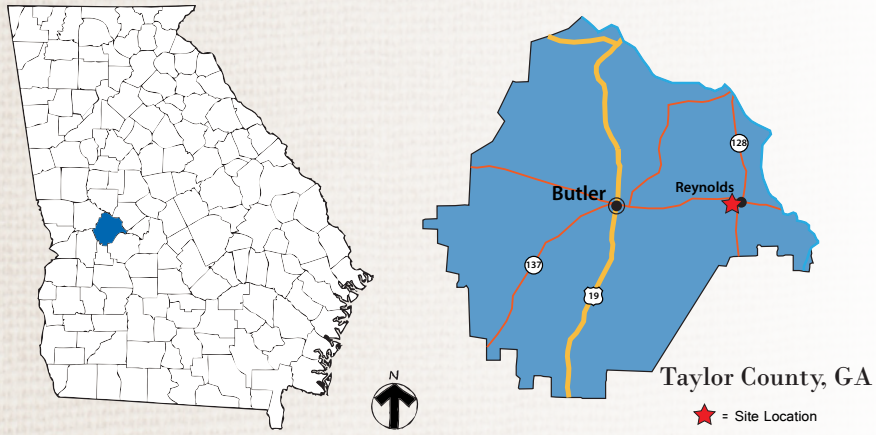
Historic Landscape Type:
- *Historic Vernacular*

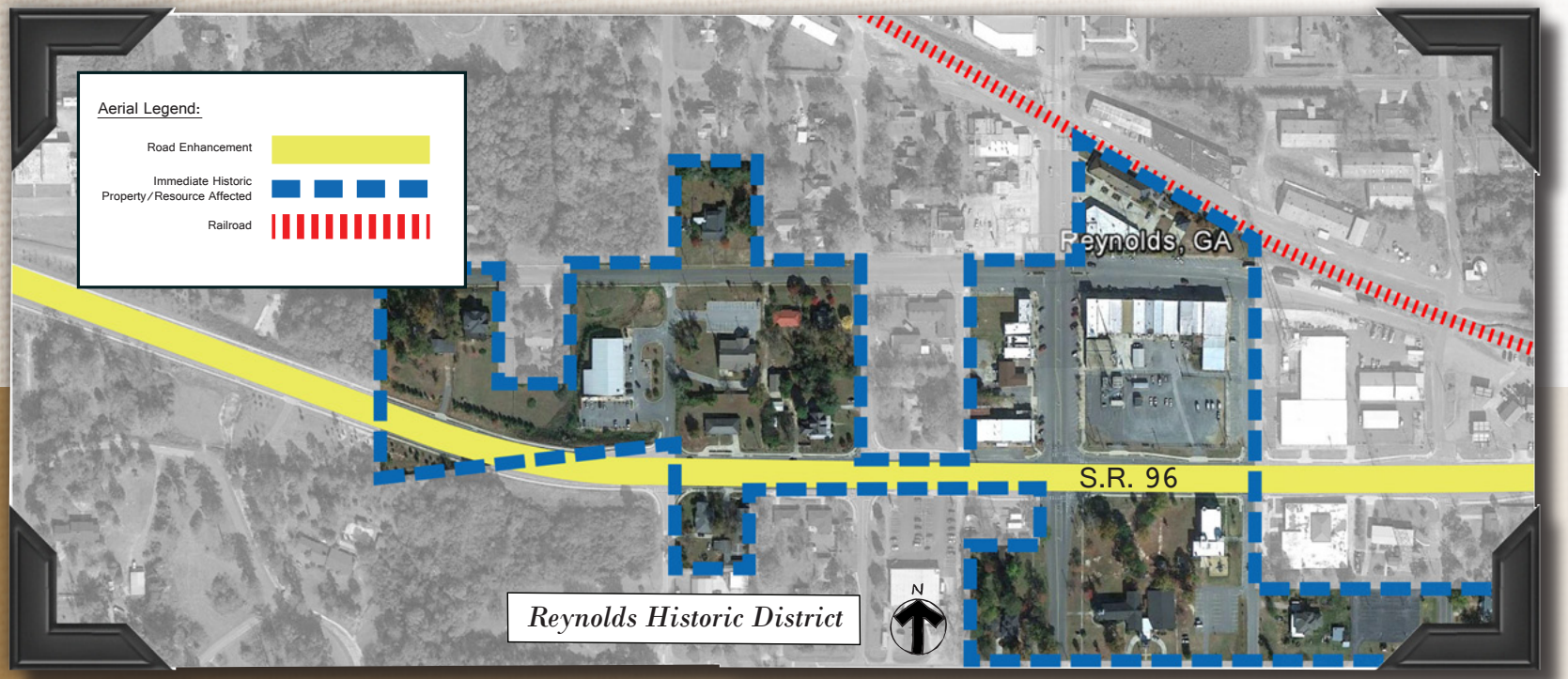
USDA Hardiness Zone:
- *8a*

GDOT Construction Type:
- *New Road Construction*
- *Road Widening*

GDOT Construction Date:
- *February 2010*

Adverse Effects:
- *Character Setting*
- *Physical*
- *Visual*





*Google Earth, 2013

The Reynolds Historic District

Research

The Reynolds Historic District is located in the Town of Reynolds in Taylor County, Georgia. The district contains approximately 83.73 acres situated to the north and south of S.R. 96 / Marion Street, the main thoroughfare running through the town in an east-west direction. The district is composed of three distinct historic sections: a commercial downtown consisting of three blocks of contributing and non-contributing commercial buildings along S.R. 96; an adjacent block containing two churches – one historic and one non-historic – and a park; and a large residential district that is comprised of both contributing and non-contributing houses, located to the south and west of the commercial portion of the district. The contributing resources within the district date from the mid-1800s through the 1940s. The town retains the same general pattern of the original 1852 town plan, which called for square blocks with a 124-ft. right-of-way along the streets, beyond the edge of pavement, to be treated as park/public space. These rights-of-way are still intact and visible on the streets south of S.R. 96, although some individual property owners have incorporated these right-of-way areas in their private landscaping efforts. Historic oak trees are located throughout the district. The Reynolds Historic District is eligible for the NRHP under Criterion A for its association with the railroad, commerce, and nineteenth-century community planning and development. It is also eligible under Criterion C in the area of architecture. Because of the district's association with commerce and agriculture, the landscape is considered Historic Vernacular.

Figure 14a

Memorandum of Agreement Landscape Stipulations:

• "A landscape plan will be developed for the area along the sides of the expanded facility to buffer historic impacts as right-of-way permits and/or consultation with property owners allows."

GDOT Project P.I. #363140 involved widening and reconstruction of S.R. 96 / Marion Street from the east end of the Butler Bypass to just west of the Crawford County / Taylor County line. This stretch of road was identified as part of the Governor's Road Improvement Program (GRIP) which sought to improve economic development in areas lagging growth by improving particular road systems in Georgia. The project widened the road to four 12-ft. travel lanes in either direction, with a 12-ft. shared turn lane between the two lanes in the Reynolds Historic District. The proposed right-of-way would vary between 88 to 100 ft. The roadway project was designed for a speed limit of 35 miles per hour in a commercial zone, which requires a minimum horizontal clearance of 4 ft. between the center of tree and the face of curb*. The project documentation did not specify a clear zone requirement for this project.

The Assessment of Effects document determined that the road widening and reconstruction would have an adverse effect on the visual and physical characteristics of the district, due to the acquisition of 1.4 acres from the NRHP-eligible boundary and the widening of Marion Street, the town's main thoroughfare. The project also resulted in the loss of approximately 10 to 15 of the historic oak and Pecan trees in the district. As a result, a Memorandum of Agreement was established. The landscape stipulation is listed in Figure 14a.

**According to GDOT Publications Policies & Procedures, 6755-9-Policy for Landscaping and Enhancements on GDOT Right of Way, Georgia Department of Transportation, 2012, p. 6*

Local store in Reynolds Historic District. Facing northwest.

The landscape plan called for plantings along an approximately 2,000-ft. section of S.R. 96, within the proposed historic district boundary. Along the section of new alignment, the MOA stipulated that the landscape plan buffer historic impacts as right-of-way constraints permitted and/or consultation with property owners allowed. The plan in these areas used both deciduous and evergreen trees and shrubs, including Dogwoods (*Cornus spp.*), Redbuds (*Cercis canadensis*), Red Cedar (*Juniperus virginiana*), Yaupon Holly (*Ilex vomitoria*), and Southern Red Oak (*Quercus falcata*), in tight configurations to screen the properties. In the residential portion of the project area, the plan called for smaller, mulch-covered islands to be installed along the sidewalks. The plant material featured in these areas was Formosa Azaleas (*Rhododendron simsii*). The commercial portion of the project area featured generously spaced Hawthornes (*Crataegus spp.*) and oaks (*Quercus spp.*). The plant schedule is shown in Figure 14b, and the landscape plan is located in Appendix A of this report.

Through a chain of email correspondences between Reynolds resident Gene Hodges, GDOT Historian Jeff Carr, and District Three Construction Engineer Lamar Pruitt, it was learned that the landscape treatment had been installed incorrectly by the contractor. The contractor had informed Mr. Hodges that the budget had run out and that he was losing money on the installation. Additionally, the residents along the S.R. 96 / Marion Street corridor did not like the landscaping that was placed in front of their houses, and several of them removed the vegetation, particularly the Inkberries (*Ilex glabra*), from their properties. Mr. Hodges requested a meeting with Mr. Pruitt to discuss what needed to be done to ensure that the landscaping would be installed correctly. Discussions with construction personnel, district residents, GDOT, and GASHPO led to an agreement that modifications to the plan were necessary. Some residents opposed the Inkberries, stating that they did not like the shrub's showy black berries; in some cases, the residents mowed them down. The modifications, recommended by the construction project engineer, Tim Tooney, involved replacement of all Inkberries with Azaleas (*Rhododendron spp.*) and an application for a property easement for the Scarlet Oak trees (*Quercus coccinea*) that would be installed on the Reynolds Methodist Church Property. Overhead utility lines were an obstacle in the installation of Southern Red Oaks shown on the original plan. These were proposed on the north side of S.R. 96 in the commercial portion of the district.

The project historian, Mr. Carr, stated that the utilities interfered with the landscape mitigation treatment, which resulted in plant locations not matching what was on the plans. He also stated that there was a lack of property owner input at the beginning. Concerning the installation, the historian believed that the contractor was not suf-

Figure 14b

Plant Schedule:

QTY.	Botanical Name	Common Name	Spacing
22	*Cornus florida*	Flowering Dogwood	Per Plans
70	*Crataegus phaenopyrum*	Washington Hawthorn	Per Plans
44	*Cercis Canadensis*	Redbud	Per Plans
51	*Juniperus virginiana*	Eastern Red Cedar	Per Plans
20	*Ilex vomitoria*	Yaupon Holly	Per Plans
13	*Quercus falcata*	Southern Red Oak	Per Plans
23	*Quercus hemisphaerica*	Laurel Oak	Per Plans
173	*Rhododendron indica*	Formosa Azalea	4' O.C.
246	*Ilex glabra*	Inkberry Holly	6' O.C.

Reynolds Methodist Church. Facing southwest.

ficiently supervised, as the contractor's overall attitude was to install the plant material wherever possible, even if it was not in keeping with the landscape plans.

Site Analysis

A site analysis was conducted on September 4, 2013. Approximately 40 percent of the proposed landscaping had been installed; however, it was not in the correct location based on the landscape plans. Scott Jones, the City's Public Works Director, explained that the city installed water spigots on each private residence's water line, in front of their water meter. This would allow residents to water the landscape mitigation treatment without having to personally pay for the additional water use. He stated that the residents were displeased with the landscaping that was installed in front of their houses.

The team walked the S.R. 96 / Marion Street corridor with town resident Gene Hodges. Mr. Hodges explained that Marion Street used to be a quiet residential street with many historic street trees. He stated that he originally had a historic tree in his front yard. It was removed as a result of the road widening. Mr. Hodges stated that he had reached out to GDOT several times to request that they remove the tree's stump; however, he never received a response. Mr. Hodges paid to have it removed. He also mentioned that when the road was constructed and the landscape mitigation treatment was being installed, he had to personally approach the contractor and demand that his yard be planted with the proposed landscape treatment. According to Mr. Hodges, the proposed oak trees on the Reynolds Methodist Church property had been installed; however, they eventually died. Mr. Hodges explained that most plants were not installed according to the landscape plans. Much of the plant material was installed towards the west end of the project corridor (see Page 506, Photo 43, and Page 516, Photo 53); steep slopes prevented the implementation of the landscape on the west end of the commercial district. Some areas adjacent to commercial businesses were paved over to provide parking, leaving no area for planting. He stated that the reasoning behind this was that the landscape plans did not account for a massive grade change between the road elevation and the Dollar General Store parking lot (see Page 503, Photo 40). The plants that had been proposed in this area were consequently relocated towards the west end, where right-of-way and topography were more conducive to vegetation installation. Mr. Hodges's belief was that the attitude of the contractor was simply to install all the plants on the project corridor regardless of location. Approximately 60 percent of all installed plant material was planted on the western end of the corridor. The Redbuds and Azaleas in front of the residences were in good health, although they were not arranged in accordance with the landscape plan (see Page 494, Photo 31). In some places, there was evidence of plant material that had been removed (see Page 485, Photo 22). Mr. Hodges stated that the Dogwoods that were installed had not survived due to lack of shade. He believed that the Washington Hawthornes (*Crataegus phaenopyrum*) and Redbuds were unfitting to the historic context of the site, as these species were never present in the community prior to the GDOT roadway project.

Evaluation

The landscaping efforts were unsuccessful in mitigating the adverse effects of the road on the Reynolds Historic District, because the plant material was not installed in the appropriate areas. Grading issues were not addressed early on in the design process. The mitigation effort was most successful on properties on which the owners had taken an interest in maintaining the plants (see Page 492, Photo 29, and Page 494, Photo 31). On many residential lots, plantings have died (see Page 486, Photo 23). It is recommended that the project landscape architect and project historian perform a site visit prior to design. This would give them an opportunity to observe site conditions and determine existing topography, vegetation, and sunlight patterns. Additionally, it is recommended the project landscape architect and project historian meet with the contractor prior to installation to collaborate and address any foreseeable issues that may come up. The project landscape architect could also reach out to the public to ensure that they are aware of the landscaping options. Periodic site visits during construction by the landscape architect and

historian would also provide an opportunity to ensure plant material is being installed correctly.

In general, the proposed plant selection was appropriate, with the exception of the Dogwood. As seen in the Bibb County case study (P.I. #351110 & #351120) and the DeKalb case study (P.I. # 752900), Dogwood trees do not establish well when planted in full sunlight. The Hawthorne and Redbud trees were not in the area prior to construction; while these plants were in good health, they did not fit within the historic context of the site. Most of the trees installed on the west end of the corridor, although installed at the wrong location, were in excellent health (Page 504, Photo 41). The diverse plant palette has resulted in a distracting visual element that is out of character with the historic resource. An appropriate alternative would have been to narrow the plant list down to three or four plant species that were pre-existing to the site, and provide landscape mitigation for only the four contributing resources located along S.R. 96 / Marion St. The original vegetation of the historic district was not as diverse as that of the proposed landscape plan; a simplified plant palette would help create a consistent landscape throughout the corridor. Public input could be used to inform the plant selection. The team's field checklist and results are shown in Figure 14c.

Summary

Site Analysis Summary:

- Approximately 40% of proposed landscape installed.
- Majority of plant material installed on west end of corridor.
- Significant topography changes throughout corridor.

Evaluation Summary:

- More public input and support was needed
- Diverse plant palette is out of character with the historic district.
- Landscape mitigation is unsuccessful due to plant material being installed in incorrect locations.

Figure 14c

Field Checklist: The Reynolds Historic District

Does the landscape plan reflect the defined historic landscape?
- No

Is the plant selection appropriate?
- Yes

Does the landscape plan meet the mitigation stipulations set forth by the MOA?
- No

Is the spacing of the plant material appropriate?
- Yes

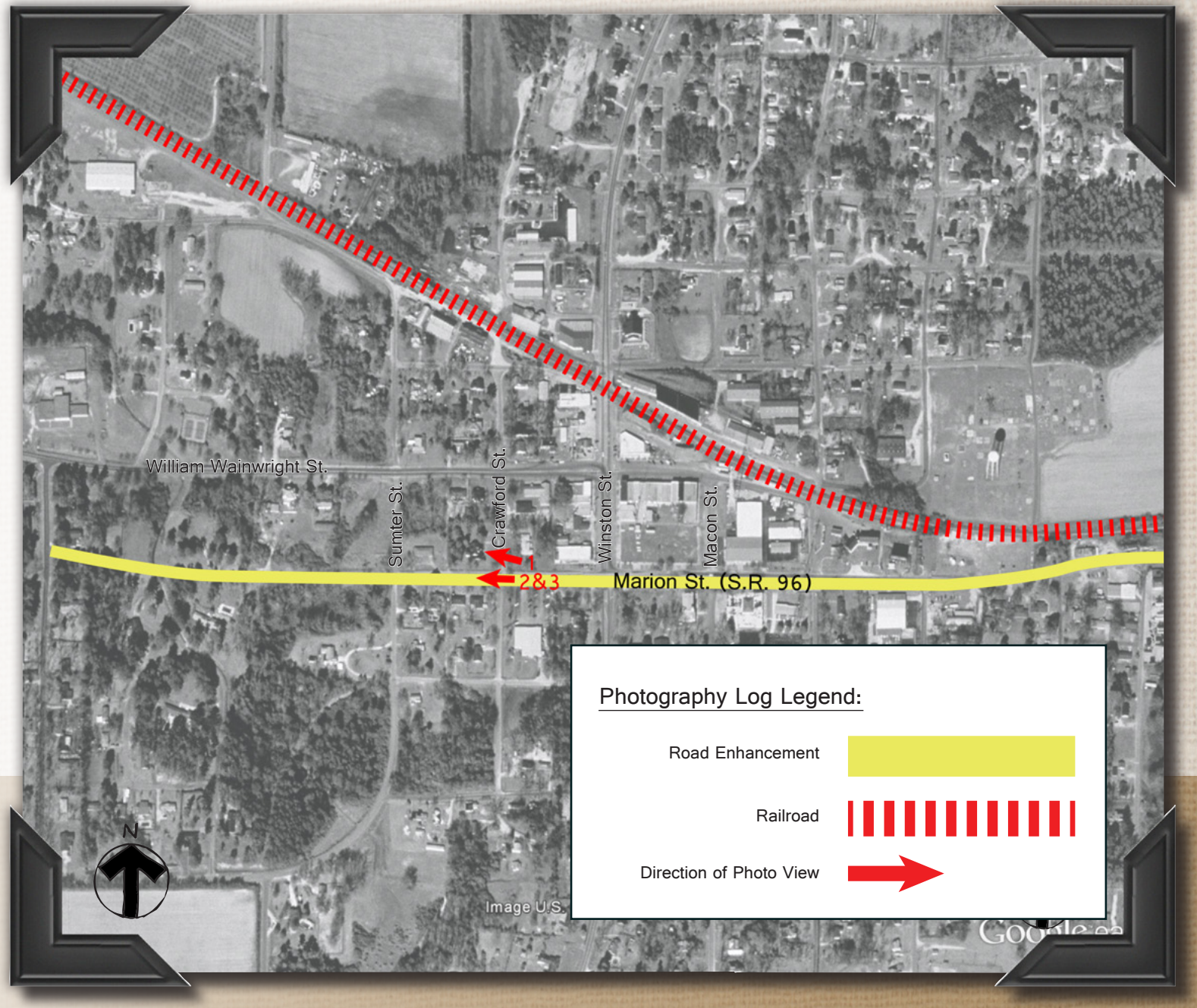
Is the plant material installed as shown per the landscape plans?
- No

What was the survivability of the installed landscape?
- 65%

Does the landscaping meet the stakeholder's expectations for a successful mitigation?
- No

Overall, were the landscape mitigation efforts successful?
- No

Pre-Construction Aerial and Photo Site Map:
The Reynolds Historic District, Taylor County - P.I. # 363140



*Google Earth, 1999

Pre-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 1

Description: Historic oak tree adjacent to and north of Marion St. (S.R. 96), and east of Crawford St. Facing west.

Photo Numbers: 2 & 3

Description: Northeast corner at intersection of Crawford St. and Marion St. (S.R. 96). Facing west.

**Pre-construction photos taken ca. 2002.*

Post-Construction Aerial and Photo Site Map:
The Reynolds Historic District, Taylor County - P.I. # 363140

**Google Earth, 2013*

Photography Log Legend:

- Road Enhancement
- Immediate Historic Property/Resource Affected
- Railroad
- Direction of Photo View

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 4

Description: Downtown Reynolds Shop at northwest corner of Winston St. and Marion St. (S.R. 96). Facing west.

**Post-construction photos taken September 2013.*

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 5

Description: Sidewalk, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Macon St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 6

Description: Sidewalk, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Macon St. Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 7

Description: Sidewalk, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Macon St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 8

Description: Reynolds Methodist Church, adjacent to and south of Marion St. (S.R. 96). Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 9

Description: Reynolds Methodist Church, adjacent to and south of Marion St. (S.R. 96). Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 10

Description: Downtown Reynolds Shop at northwest corner of Winston St. and Marion St. (S.R. 96). Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 11

Description: Existing Water Oak near Reynolds Methodist Church, adjacent to and south of Marion St. (S.R. 96). Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 12

Description: Redbuds, as part of the Landscape Mitigation, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Macon St. Facing northeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 13

Description: Veteran's Memorial at southeast corner of Marion St. (S.R. 96) and Winston St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 14

Description: Tree guying left on Redbud Tree at northwest corner of Marion St. (S.R. 96) and Winston St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 15

Description: Parking lot for Downtown Shop at northwest corner of Marion St. (S.R. 96) and Winston St. Facing northeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 16

Description: Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 17

Description: Grassed roadside, adjacent to and south of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 18

Description: Naturally occurring Post Oak, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 19

Description: Entrance to grocery store, adjacent to and south of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 20

Description: Grocery store adjacent to and south of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 21

Description: Redbud with tree guying still attached, adjacent to and north of Marion St. (S.R. 96), between Winston St. and Crawford St. Facing north.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 22

Description: Remnants of a tree ring in front of Grocery store between entrances, adjacent to and south of Marion St. (S.R. 96). Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 23

Description: Landscape Mitigation Treatment at northeast corner of Crawford St. and Marion St. (S.R. 96). Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 24

Description: Landscape Mitigation Treatment at northeast corner of Crawford St. and Marion St. (S.R. 96). Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 25

Description: Landscape Mitigation Treatment at southeast corner of Crawford St. and Marion St. (S.R. 96). Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 26

Description: Landscape Mitigation Treatment at northwest corner of Crawford St. and Marion St. (S.R. 96). Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 27

Description: Landscape Mitigation Treatment at northeast corner of Crawford St. and Marion St. (S.R. 96). Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 28

Description: Landscape Mitigation Treatment at northwest corner of Crawford St. and Marion St. (S.R. 96). Facing south.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 29

Description: Landscape Mitigation Treatment at northwest corner of Crawford St. and Marion St. (S.R. 96). Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 30

Description: Existing Bald Cypress at 209 Marion St., adjacent to and south of Marion St. (S.R. 96). Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 31

Description: Landscape Mitigation Treatment at 207 Marion St., adjacent to and south of Marion St. (S.R. 96). Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 32

Description: Landscape Mitigation Treatment at 3 N Crawford St., adjacent to and north of Marion St. (S.R. 96), between Crawford St. and Sumter St. Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 33

Description: Tree in poor health at residence (address unavailable), adjacent to and north of Marion St. (S.R. 96), between Crawford St. and Sumter St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 34

Description: Azaleas as part of the Landscape Mitigation Treatment at residence (address unavailable), adjacent to and north of Marion St. (S.R. 96), between Crawford St. and Sumter St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 35

Description: Landscape Mitigation Treatment at northeast corner of Sumter St. and Marion St. (S.R. 96). Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 36

Description: Landscape Mitigation Treatment at northeast corner of Sumter St. and Marion St. (S.R. 96). Facing northeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 37

Description: Landscape Mitigation Treatment at 211 Marion St. at southeast corner of Sumter St. and Marion Street (S.R. 96). Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 38

Description: The southwest corner of Sumter St. and Marion St. (S.R. 96). Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 39

Description: Existing vegetative growth, adjacent to and south of Marion St. (S.R. 96). Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 40

Description: Landscaping along embankment at northwest corner of Sumter St. and Marion St. (S.R. 96). Facing east.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 41

Description: Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 42

Description: Sidewalk and grass strip, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 43

Description: Landscape Mitigation Treatment, adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 44

Description: Landscape Mitigation Treatment, adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 45

Description: 311 W William Wainwright St., adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 46

Description: Landscape Mitigation Treatment adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 47

Description: Landscape Mitigation Treatment adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing west.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 48

Description: Culvert, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 49

Description: Culvert, adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing south.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 50

Description: Sidewalk and Landscape Mitigation Treatment, adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 51

Description: Sidewalk and Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 52

Description: Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 53

Description: Landscape Mitigation Treatment and Culvert, adjacent to and south of Marion St. (S.R. 96), west of Sumter St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 54

Description: Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 55

Description: Landscape Mitigation Treatment, adjacent to and north of Marion St. (S.R. 96), west of Sumter St. Facing northwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 56

Description: Downtown Reynolds shop at the southwest corner of Wainwright St. and Winston St. Facing southwest.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 57

Description: Downtown Reynolds shop at the southeast corner of Wainwright St. and Winston St. Facing south.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 58

Description: Downtown Reynolds shops, adjacent to and south of Wainwright St., between Winston St. and Macon St. Facing southeast.

Post-Construction Photographs:
The Reynolds Historic District, Taylor County - P.I. # 363140

Photo Number: 59

Description: Downtown Reynolds, adjacent to and north of Wainwright St., between Winston St. and Macon St. Facing west.

Executive Summary

Study Findings:

In order to provide a working paradigm for the improvement of future Georgia Department of Transportation (GDOT) landscape mitigation projects, the team has developed a project framework analysis that includes Project Principles, Primary Phases, and Recommended Practices and Procedures. The four Project Principles provide a standard structure of professional ideologies upon which the landscape mitigation effort should be based. The three Primary Phases are the overall stages in the development of a landscape mitigation plan. The ten Recommended Practices and Procedures provide a thorough, methodical, approach for landscape implementation.

The case studies from this document show that the landscape mitigation efforts were unsuccessful. The most common contributing factor to the failure of the mitigation efforts was a lack of coordination between all parties involved. These parties included, but were not limited to: the project historian, the project landscape architect, the project manager, the GDOT landscape architect, the construction engineer, the contractor, utility companies, local governments, district engineers, and the public. The findings in this report reveal that there was little coordination between the project manager, the project historian, and the project landscape architect.

Only two projects in the case studies specified maintenance agreements beyond the installation period, and there was very little coordination with property owners.

The fundamental lesson learned from the case studies is that there needs to be greater collaboration between all the parties involved in the landscaping effort so as to ensure a successful outcome. The historian and landscape architect should be in communication throughout the process.

Project Principles

These four principles are professional ideologies recommended by the project evaluation team for professionals involved in historic landscape mitigation. Observance of these principles will promote safety, historic preservation, environmental responsibility, and transparency to the general public.

1) All recommendations should promote the health, safety, and welfare of the public

As prescribed by the American Society of Landscape Architects (ASLA) Code of Professional Ethics, it is the duty of all Landscape Architects to provide a "dedication to the public health, safety, and welfare and recognition and protection of the land and its resources." This refers to aspects of Landscape Architecture that provide beneficial effects to site users, including physical and psychological well-being, promote environmental health, and prevent accidental injury or death among site users. All recommendations made by the Landscape Architect regarding design, landscape, hardscape, and programming should always put the users' needs and safety first and never put the users at risk.

2) Preserve, promote, and protect the historic resource

All features and characteristics of a historic resource that qualify the resource as eligible to the National Register of Historic Places should be respected. The Mitigation Team, including the landscape architect, the historian, and the contractor, should also implement practices during landscape installation to protect the historic resource from damage or destruction.

3) Preserve the integrity of ecological processes

The design and landscape installation should be sensitive to the natural environment and natural ecological processes.

4) Promote education and awareness of project needs, purposes, and effects

Stakeholders and the public should be engaged during the process. Proper consultation regarding the project, the site history, and the needs of the historic resource should be provided to the public.

Primary Phases

A methodical process is required in order to successfully plan, design, and install vegetation and hardscape elements on a project site. The Primary Phases to this process can be visualized as a three-legged stool; one leg representing the intent, the second representing the landscape design, and the third representing the implementation. Successful execution of all three phases is vital to the success of the landscape mitigation. If one phase is not properly executed during the process, the mitigation effort will likely fail, regardless of the success of the other two phases. The historian, the landscape architect, and the contractor need to be held accountable. The phases and their definitions are listed below:

Intent – the idea, and the approach, behind the mitigation effort as set forth in the Memorandum of Agreement (MOA).

In this phase, it has become apparent that mitigation will be necessary, and an appropriate approach to the design of the landscape mitigation should be established. The approach should be sensitive to the historic resource, and the context of the site. The mitigation should address the adverse finding(s) from the Assessment of Effects (AOE) document.

The Historian (Primary Role)
- Recognize the need for landscape mitigation
- Draft necessary and appropriate MOA stipulations

The Landscape Architect (Secondary Role)
- Aid in MOA landscape stipulation development

Landscape Design – the visualization of the intent through the use of landscape design.

During this phase, the landscape mitigation treatment is to be designed by the landscape architect in consultation with the project historian, State Historic Preservation Office (SHPO), the project manager, and GDOT Utilities.

The Landscape Architect (Primary Role)
- Design landscape plan in accordance with MOA
- Provide historic context sensitive design

The Historian (Secondary Role)
- Aid in historic context sensitive design

The Project Manager (Secondary Role)

Utilities (Secondary Role)

Implementation – the adaptation of the landscape plans into a fully constructed site.

All landscape and hardscape mitigation efforts should be properly, and fully, installed.

The Contractor (Primary Role)
- Provide project installation as per landscape plans

The Landscape Architect and Historian (Secondary Role)
- Oversee installation
- Provide final inspection and project closeout

Recommended Practices and Procedures

The GDOT Offices of Environmental Services (OES) and Maintenance (Landscape Architects) met in July of 2011 to discuss reoccurring problems associated with the Department's environmental landscaping processes. From the discussions of the methods used by various environmental specialties and communication errors, a six stage protocol was agreed upon to alleviate these persisting issues.

The stages of the protocol were: Early Consultation; Initial Assessment; Development of Draft Landscape Plan; Review of Draft Landscape Plan; Final Landscape Plan; and Implementation, Scheduling, and Monitoring During Construction.

This protocol would allow GDOT landscape architects time to review the existing site conditions and determine if a landscape plan was warranted prior to selecting a landscape architect consultant. The GDOT landscape architects could also determine if a consultant was needed, or if the plan could be developed in-house. The protocol also mandated that at least one site visit would be made during the development of the landscape plan, and that the plan would have to be reviewed by GDOT landscape architects, utilities design, engineering services, and the assigned project manager prior to the inclusion of the landscape plans in the preliminary plans and/or final plans. During construction and landscape installation, the project manager would be required to ensure that necessary inspections and vegetation replacements are completed and that the contractor provides evidence of success or failure of the landscape plan via written and photographic correspondence. The complete version of this protocol is located in Appendix C of this report. This protocol established in the 2011 meeting is in line with the findings of this report. The following Recommended Practices and Procedures provide a detailed approach to a successful landscape mitigation project outcome.

1) All MOA recommendations regarding landscape mitigation should be developed with the assistance of a landscape architect

A GDOT landscape architect should collaborate with the historian to develop the appropriate mitigation. The GDOT landscape architect may or may not become the project landscape architect who will design the landscape treatment to serve as the mitigation effort, but they will need to have a good understanding of the historic resource and the site in order to aid in the development of proper MOA stipulations. Involvement of the landscape architect this early in the project process provides the historian with the opportunity to educate the landscape architect on the history of the resource, the context of the historic setting, and the significance of the historic resource within the community. The landscape architect should review site photos, resource history and historic photos, GDOT roadway project plans, topography plans, utility plans, and any other information that is available at that time to garner the best possible understanding of potential impacts to the site.

2) The GDOT Historian and GDOT Landscape Architect shall make a site visit together to perform site inventory and analysis.

On-site inventory and analysis is an imperative step for any landscape design process. It provides the landscape designer with the opportunity to observe the real world conditions of the site. Even though the GDOT landscape architect may not ultimately design the landscape treatment, they will be laying the framework for design in the stipulations set forth in the MOA. The GDOT historian should also accompany the landscape architect on-site so as to discuss the most practical and effective approaches to the landscape mitigation. While on-site, field notes and photographs of the site and resource should be taken.

3) The GDOT landscape architect should support the GDOT historian in the development of appropriate MOA landscape mitigation stipulations which address the adverse effects.

After the data has been collected from the site inventory and analysis, the GDOT landscape architect and GDOT historian should discuss which landscaping measures would be most appropriate for mitigation of the adverse effects. These measures are to be developed into stipulations for the MOA and should provide a general foundation for the development and design of the landscape treatment. The stipulations should specify the kind of historic landscape the treatment should reflect (Designed, Ethnographic, or Vernacular), what kind of plant material is most appropriate for the project, and the location of the landscape treatment on site. The MOA stipulations should address whether or not the landscape project will take place within the right-of-way. If the project will require encroachment upon private property, it should be specified whether or not private property will be purchased or if temporary access to the private property will be obtained by way of an easement. Additionally, if the treatment is to take place on private property by way of an easement, the use of landscaping as a mitigation effort should be provided as an option to the property owner, but not required.

4) The GDOT historian and project landscape architect should conduct at least one meeting with the property owner prior to finalizing the landscape plan.

The purpose of this consultation is to help the property owner understand what design strategies would be most fitting for the context of the historic resource, while also meeting his or her aesthetic desires for the property. However, a landscape treatment that concedes to every desire of a property owner who lacks the expertise of a landscape architect is subject to failure and may result in a landscape treatment that is more detrimental to the site than the adverse effects of the GDOT roadway project. In cases that involve more than one property owner, or an entire district, a public forum should be held.

5) The project landscape architect should provide a landscape plan that considers public input and is within the parameters set forth in the MOA stipulations.

Once the public input has been received, the project landscape architect should start to develop the landscape plan. The landscape architect should visit the site before beginning the landscape design. The design of the landscape plan should be in accordance with the stipulations set forth in the MOA. All landscape material should be capable of growing in the appropriate hardiness zone and should be appropriate to the historic context of the site. Non-native plants should be allowed, depending on the historical context of the site, and the parameters established in the MOA.

6) Both the GDOT historian and GDOT landscape architect should review, comment on, and approve the proposed landscape plan prior to submittal to the State Historic Preservation Office (SHPO).

Once the landscape architect has finalized a design, they should submit the landscape plan to the GDOT landscape architect for review, comment, and approval. (If the project landscape architect is a GDOT landscape architect, they should submit the plan to another GDOT landscape architect for peer review.) Once the GDOT landscape architect has approved the landscape plan, the historian should review the plans and provide any comments. The landscape plan would then be submitted to the SHPO for approval.

7) A meeting should be held among the GDOT historian, the project landscape architect, and the assigned GDOT inspector / construction manager prior to construction.

After the landscape plan has been approved by the SHPO, and prior to construction, a meeting to discuss project intent, best management practices, and feasibility should be held between the GDOT historian, the project landscape architect, and the GDOT project manager. The overall goal of this meeting is to establish installation standards and discuss the strategies intended to mitigate the

adverse effects of the GDOT roadway project. During this meeting, the construction manager should discuss their project schedule and specific milestone dates, and how those match the proposed landscaping.

8) **The project landscape architect should conduct a minimum of one (1) site visit during construction to observe plant quality and installation. All field observations by the landscape architect would be submitted to the contractor.**

During construction of the project, the landscape architect should visit the site to check the quality of the plant material and record field observations of the landscape treatment installation. The landscape architect should be present when the plant material arrives and should inspect the quality of the plants to ensure that all specimens are in good health. If the plant material exhibits poor health or poor quality upon initial inspection, the supplying nursery should be contacted immediately to determine the cause of these issues and arrange for the plants to be replaced with healthier specimens. If the plant material is somehow damaged during the installation at the fault of the installation crew, the contractor should be held responsible for replacement of the damaged materials. Additionally, the landscape architect should be present to observe plant installation to record whether or not the plant material is installed as prescribed by the landscape plans. All field observations and change orders should be recorded by the landscape architect and submitted to the contractor. The GDOT historian should accompany the landscape architect for one site visit towards the end of construction to view the progress of the installation.

9) **The project landscape architect should conduct a minimum of one (1) site visit at project substantial completion.**

At the end of the project, the landscape architect should visit the site for inspection. The landscape architect should create a list of any errors in the landscape installation. The contractor will be held responsible for these errors before his or her work is accepted. The landscape architect will return to the site to perform another inspection to approve or deny the corrections.

10) **The project or GDOT landscape architect should conduct a site inspection prior to plant warranty expiration (no sooner than two [2] months prior to expiration).**

Prior to the expiration of the plant warranty, GDOT should send the project landscape architect and/or a GDOT landscape architect to inspect plant and hardscape material for any defects. This phase should be initiated no sooner than two months prior to warranty expiration to ensure that any plant or hardscape deficiencies that appear after project completion are addressed prior to their warranty expiration. Upon recognition of any deficiencies, the landscape architect should notify the contractor of such defects and arrange to inspect the site in person with the contractor. After these issues have been brought to the contractor's attention, it is their responsibility to correct the deficiencies according to the warranty agreement. The landscape architect should inspect the material again before and after the installation.

Conclusion

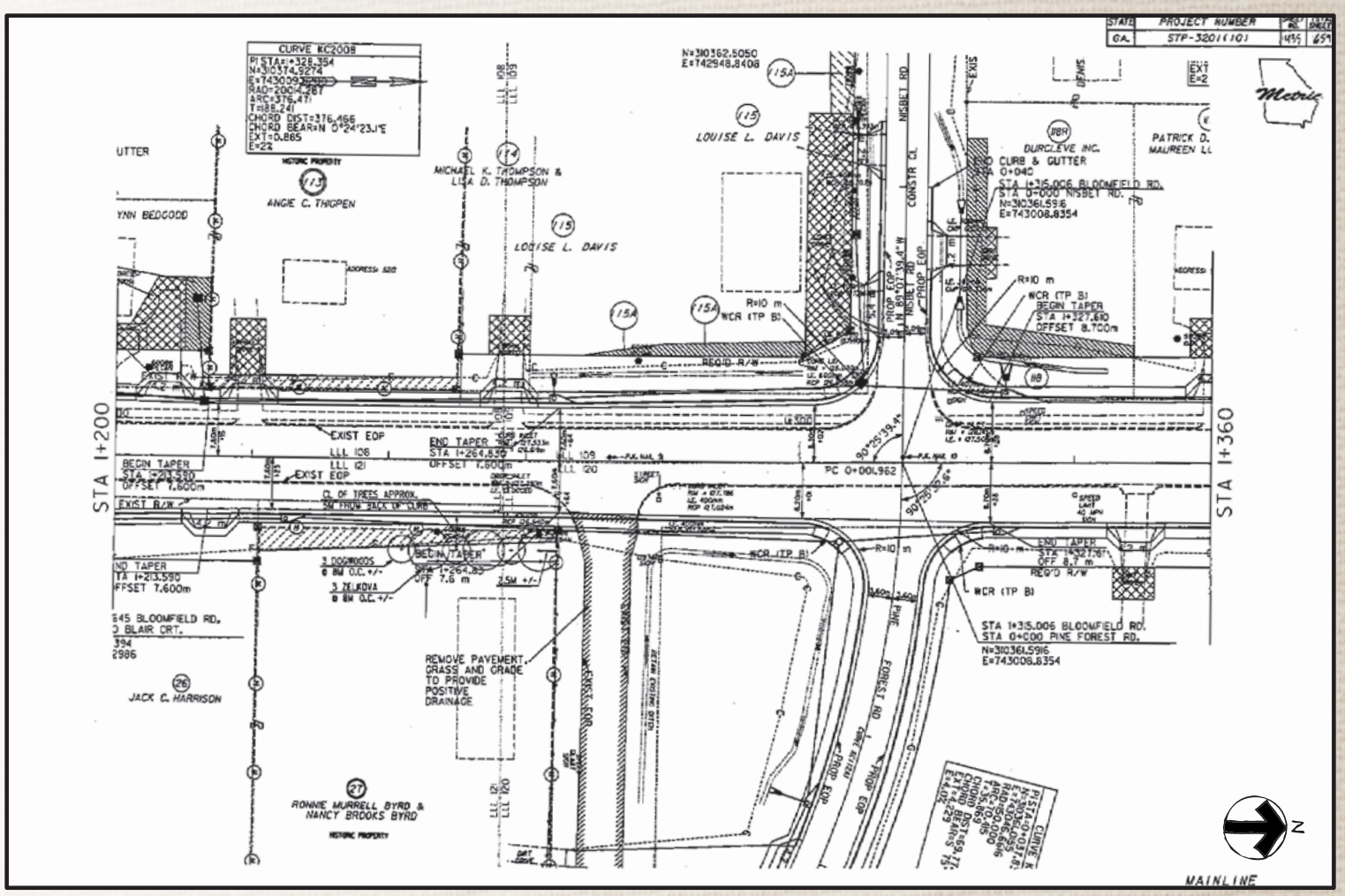
Agencies who wish to improve the success and efficiency of their historic landscape mitigation process should incorporate all four Principles, three Primary Phases, and ten Recommended Practices and Procedures as prescribed by this document. Incorporation of this paradigm into practice will help achieve a more thorough, practical, and defensible landscape mitigation effort.

However, it is important to understand that each historic resource is unique and may require creative and innovative solutions in order for any adverse effect to be effectively mitigated. This study finds that mitigation by means of landscape design and installation is a valid and effective strategy for alleviating adverse effects of roadway construction laid upon historic resources. This study also seeks to provide a framework for a more effective landscape mitigation development process that promotes collaboration and accountability among professionals (e.g., historian, engineer, landscape architect, contractor) involved in this process and results in economically efficient and effective preservation of our Historic Resources.

Appendix A

Landscape Plans as Originally Proposed

Bibb County P.I. #351110 - The Byrd House Landscape Plans

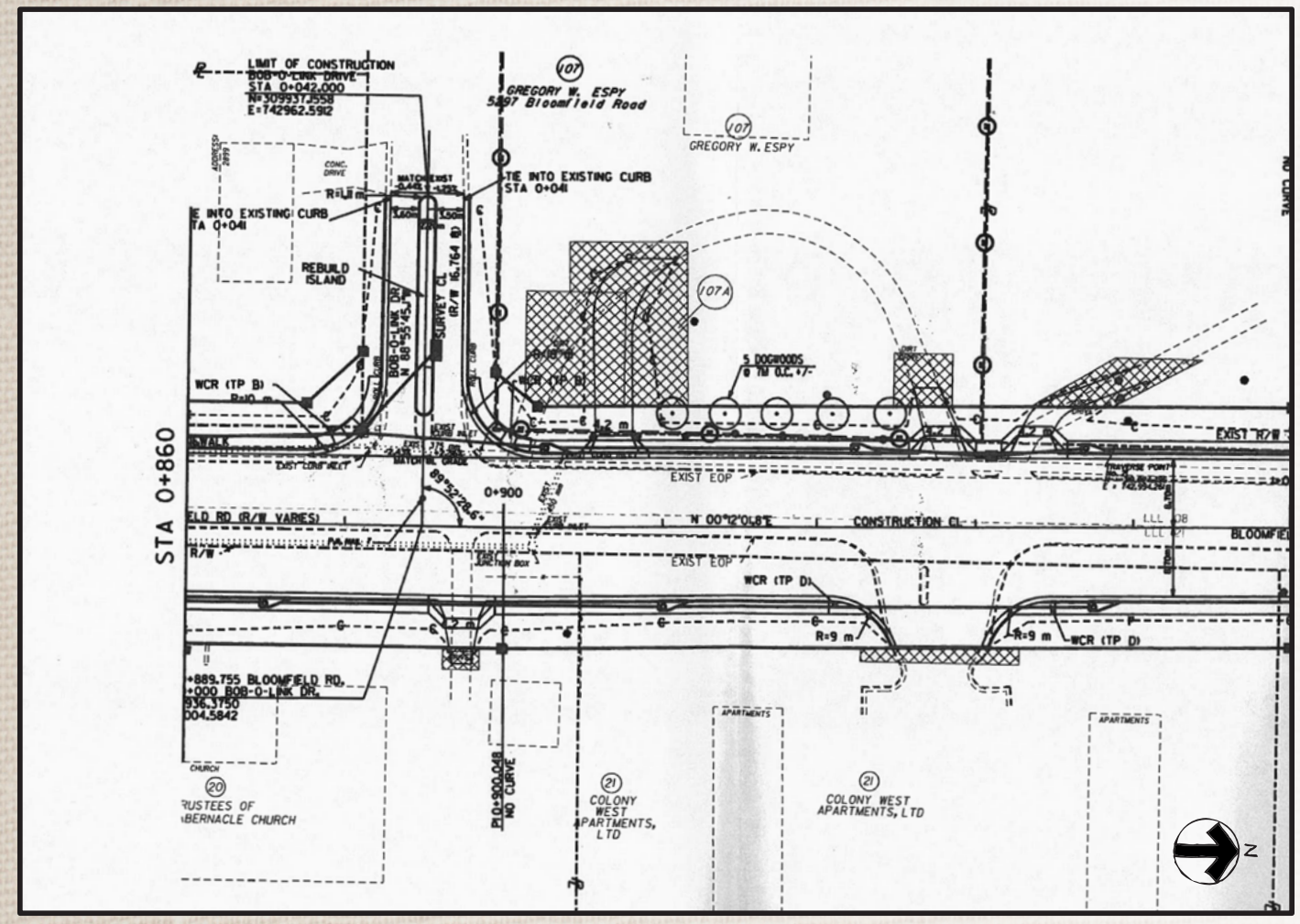


not to scale

Bibb County P.I. #351110 - The Byrd House Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
3	*Cornus florida*	Flowering Dogwood	Per Plan
3	*Zelkova serrata*	Zelkova	Per Plan

Bibb County P.I. #351120 - The Espy House Landscape Plans

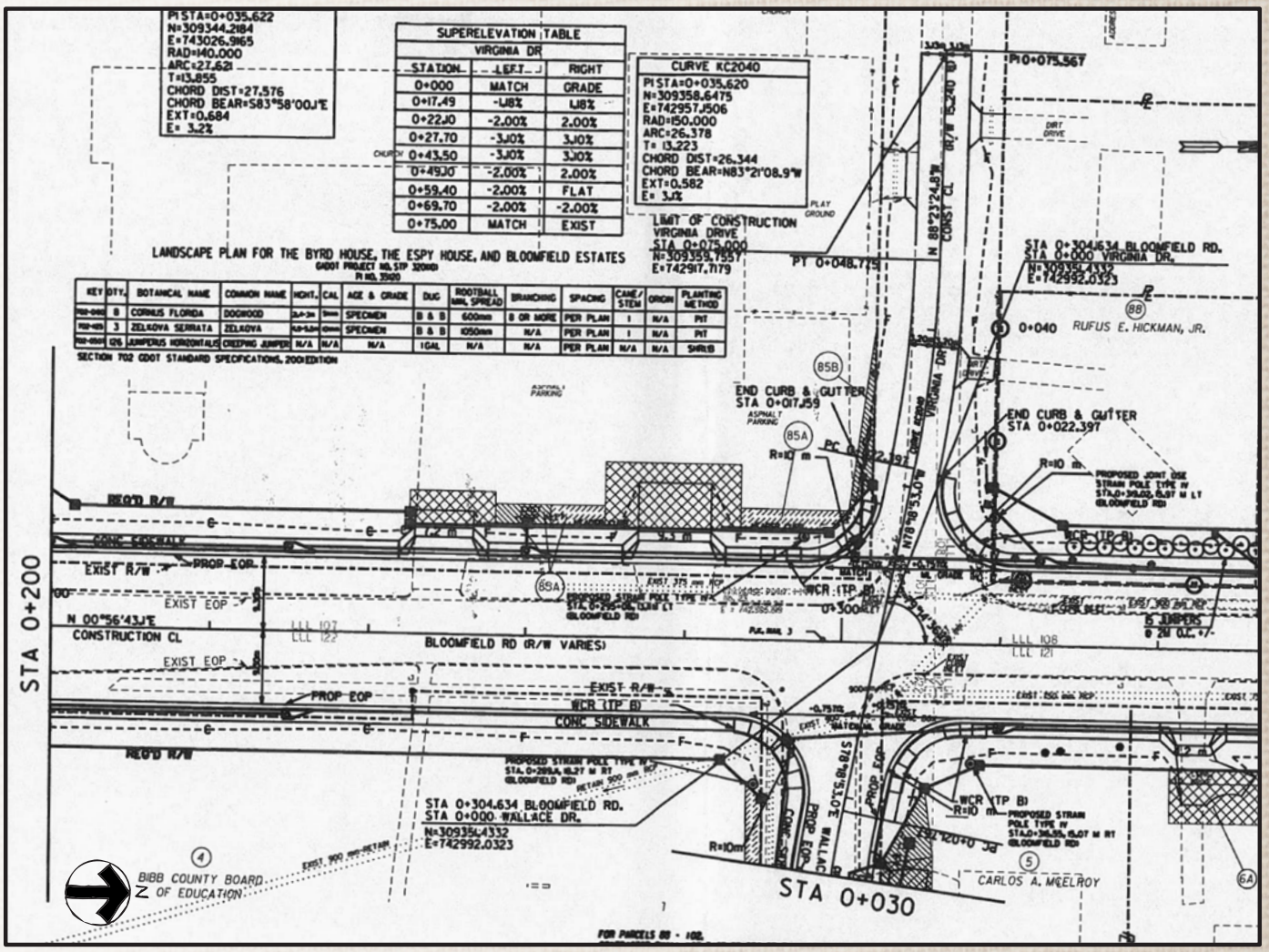


not to scale

Bibb County P.I. #351120 - The Espy House Plant Schedule

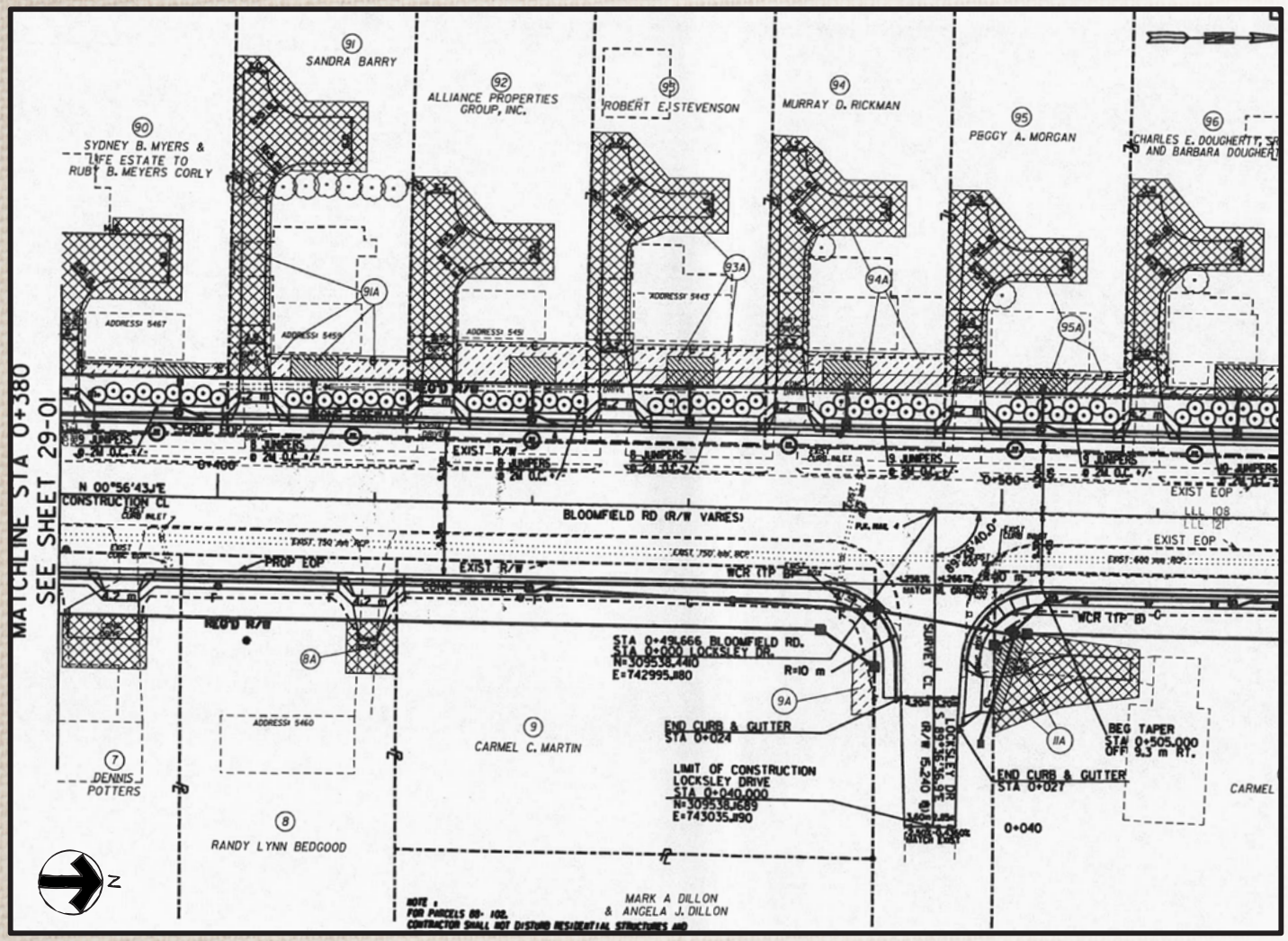
QTY.	Botanical Name	Common Name	Spacing
5	*Cornus florida*	Flowering Dogwood	Per Plan

Bibb County P.I. #351120 - The Bloomfield Subdivision Landscape Plans



not to scale

Bibb County P.I. #351120 - The Bloomfield Subdivision Landscape Plans



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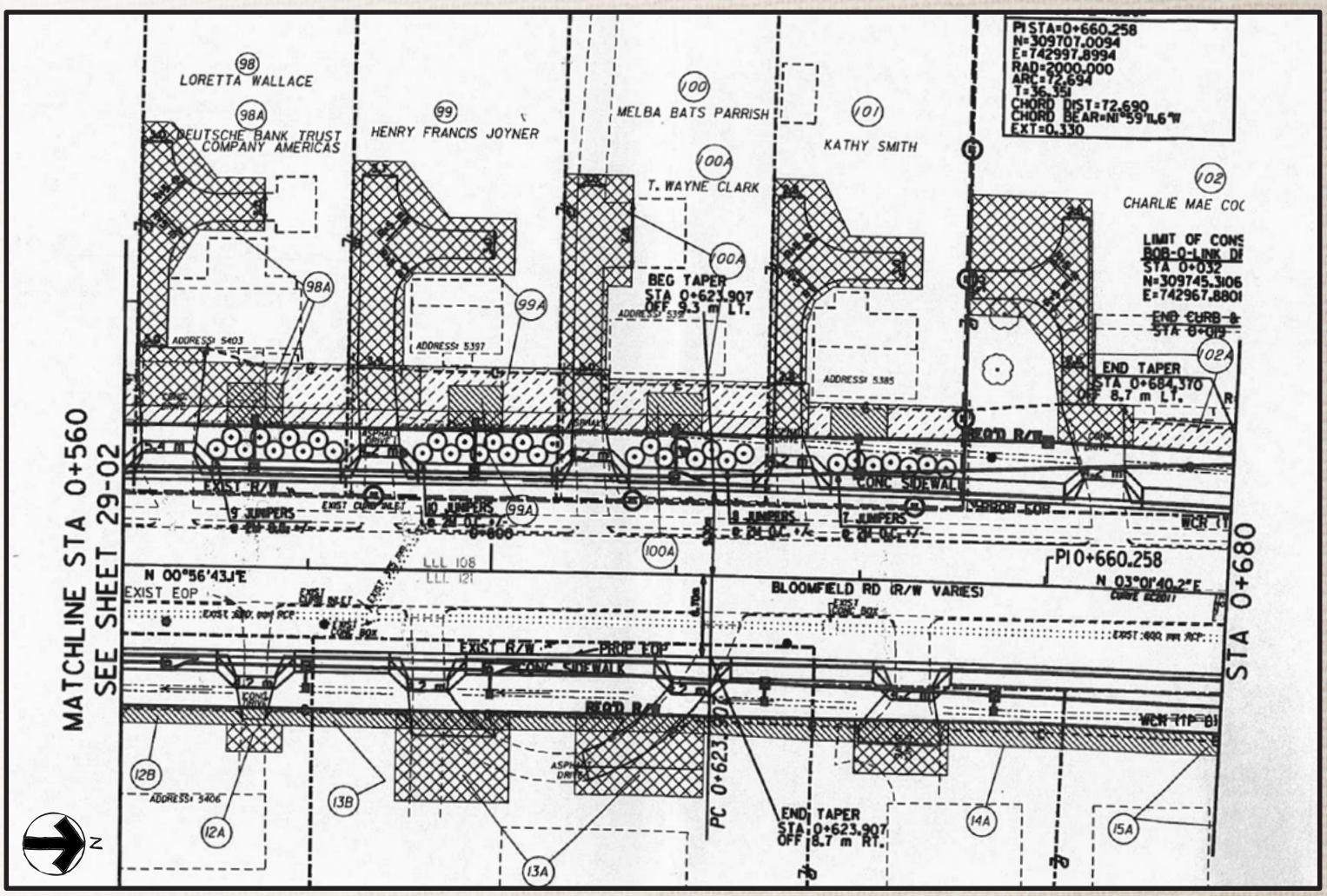
Bibb County P.I. #351120 - The Bloomfield Subdivision Landscape Plans

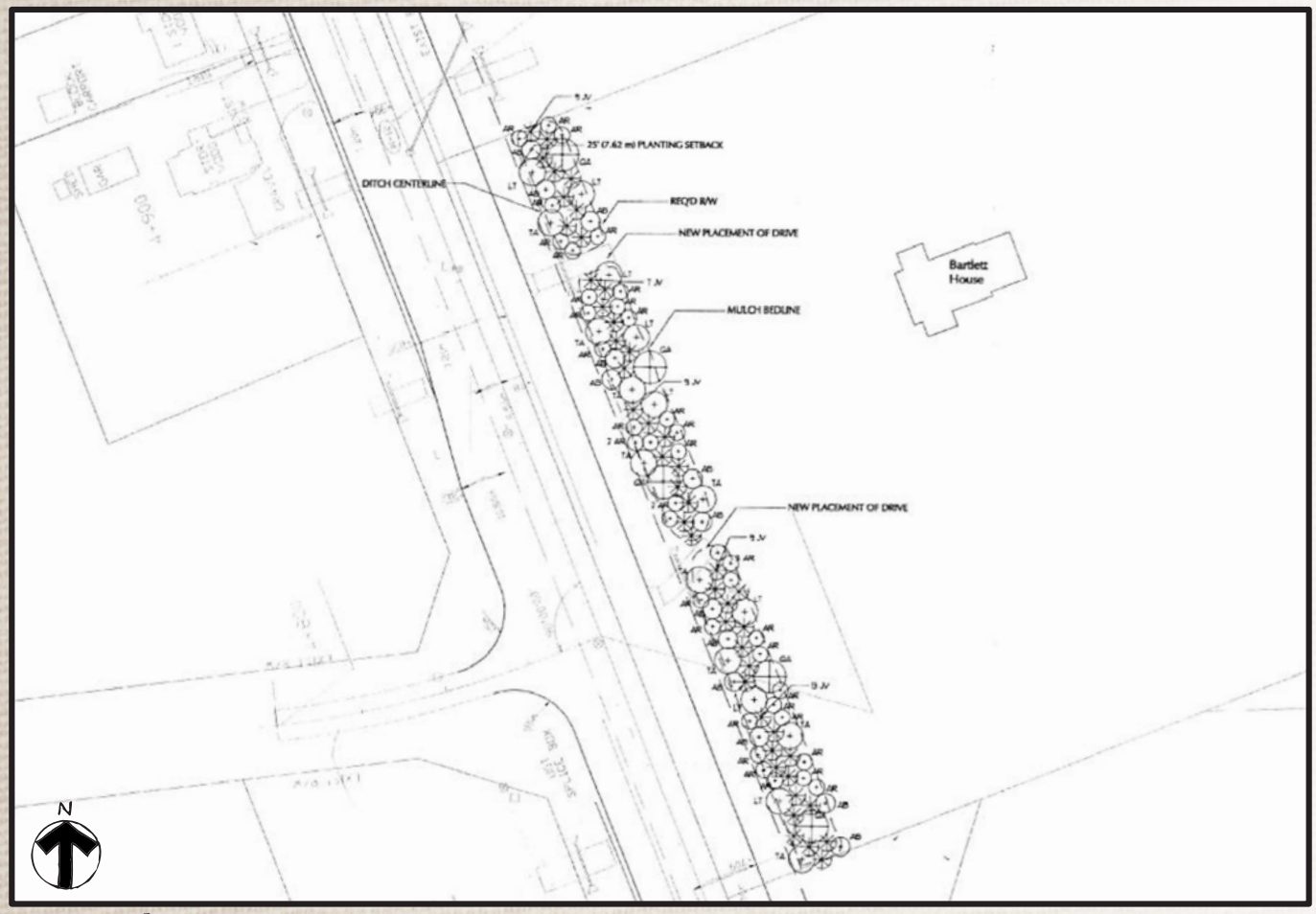


not to scale

Bibb County P.I. #351120 - The Bloomfield Subdivision Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
126	*Juniperus horizontalis*	Creeping Juniper	Per Plan

Bibb County P.I. #222100 - The Bartlett House Landscape Plan

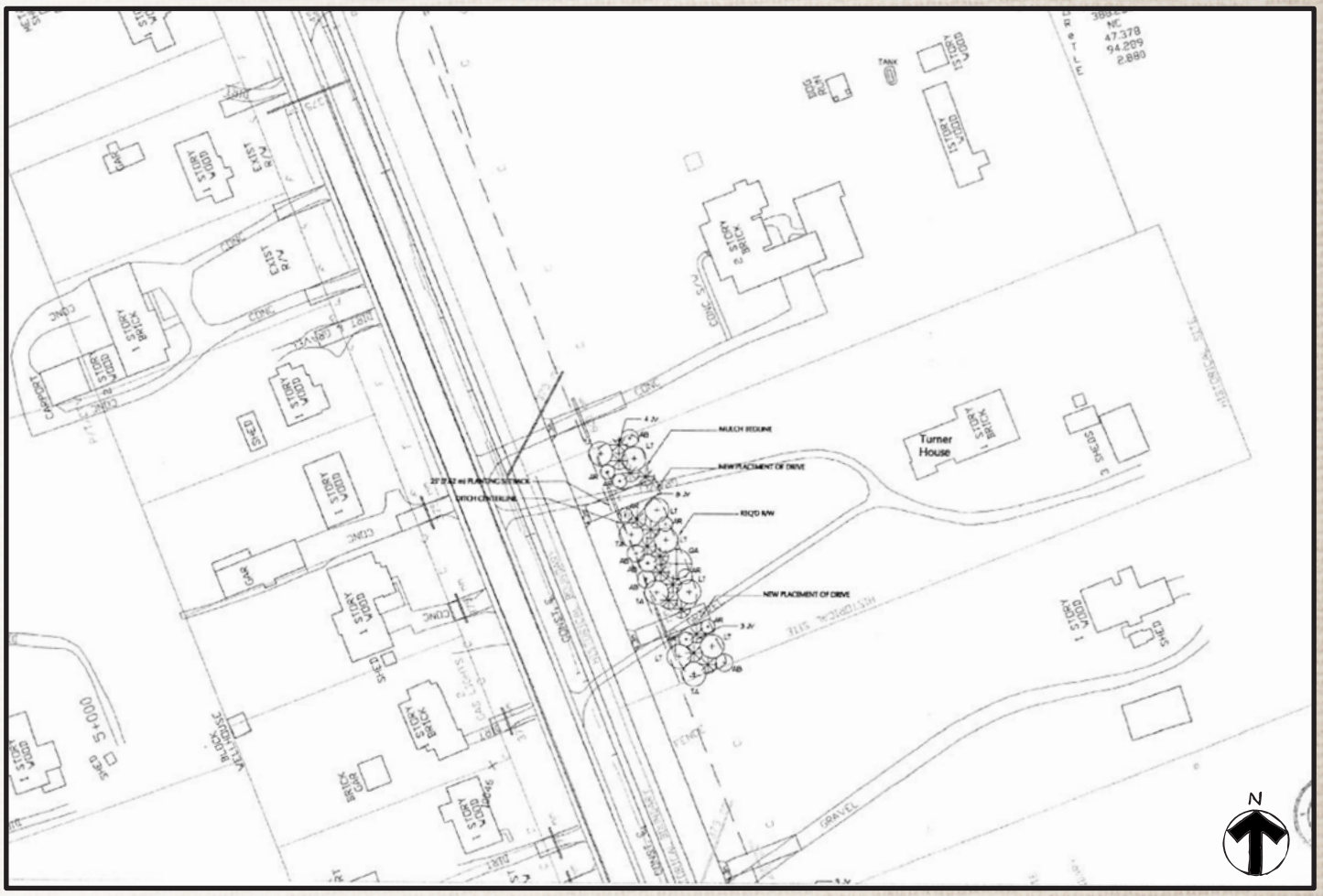


not to scale

Burke County P.I. #222100 - The Bartlett and Turner House Plant Schedule

QTY. Turner	QTY. Bartlett	Botanical Name	Common Name	Spacing
5	13	*Acer floridanum*	Souther Sugar Maple	Per Plan
7	38	*Acer rubrum*	Red Maple	Per Plan
15	47	*Juniperus virginiana*	Red Cedar	Per Plan
6	8	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
1	5	*Quercus alba*	White Oak	Per Plan
4	9	*Tilia americana*	Basswood	Per Plan

Burke County P.I. #222100 - The Turner House Landscape Plan

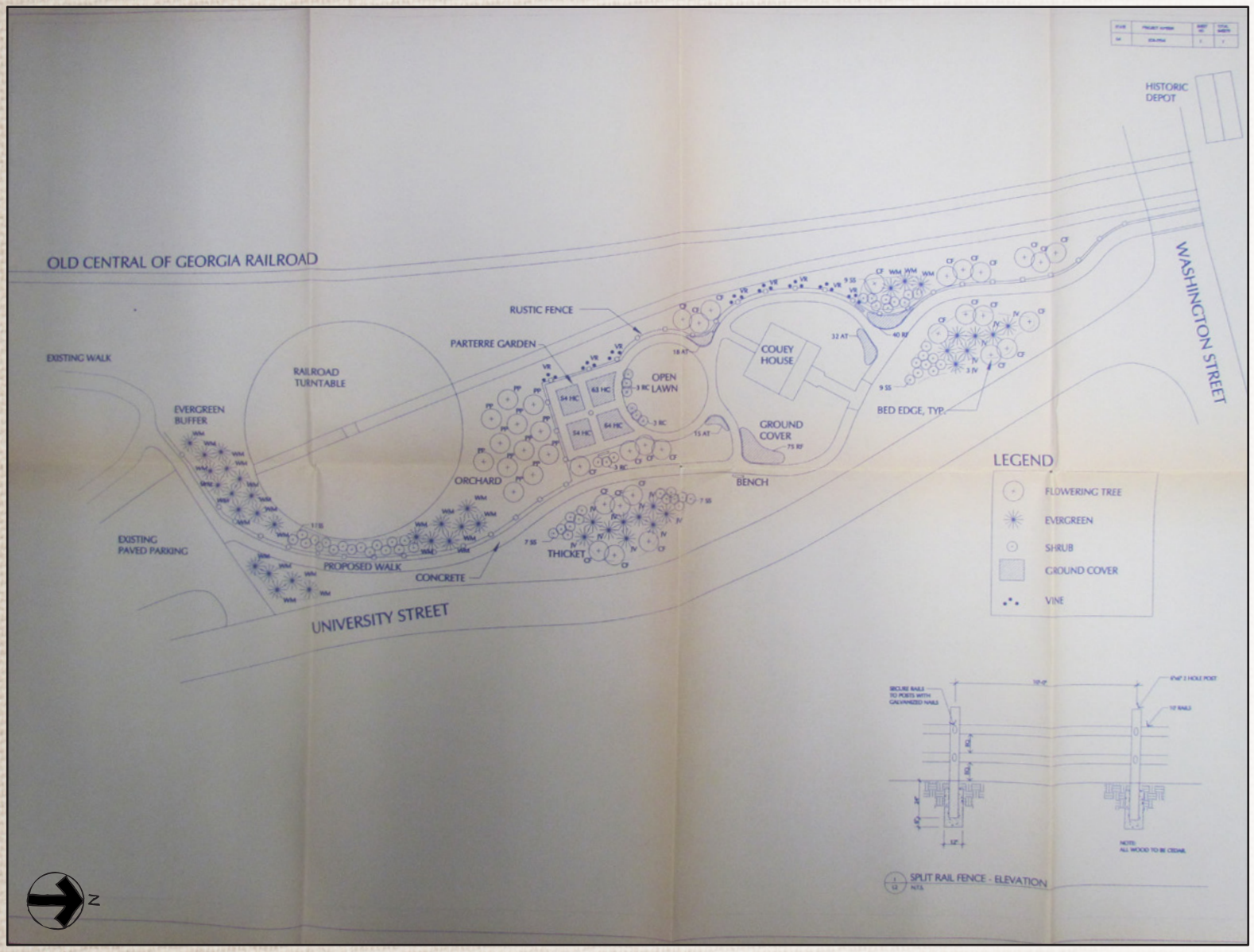


not to scale

Burke County P.I. #222100 - The Bartlett and Turner House Plant Schedule

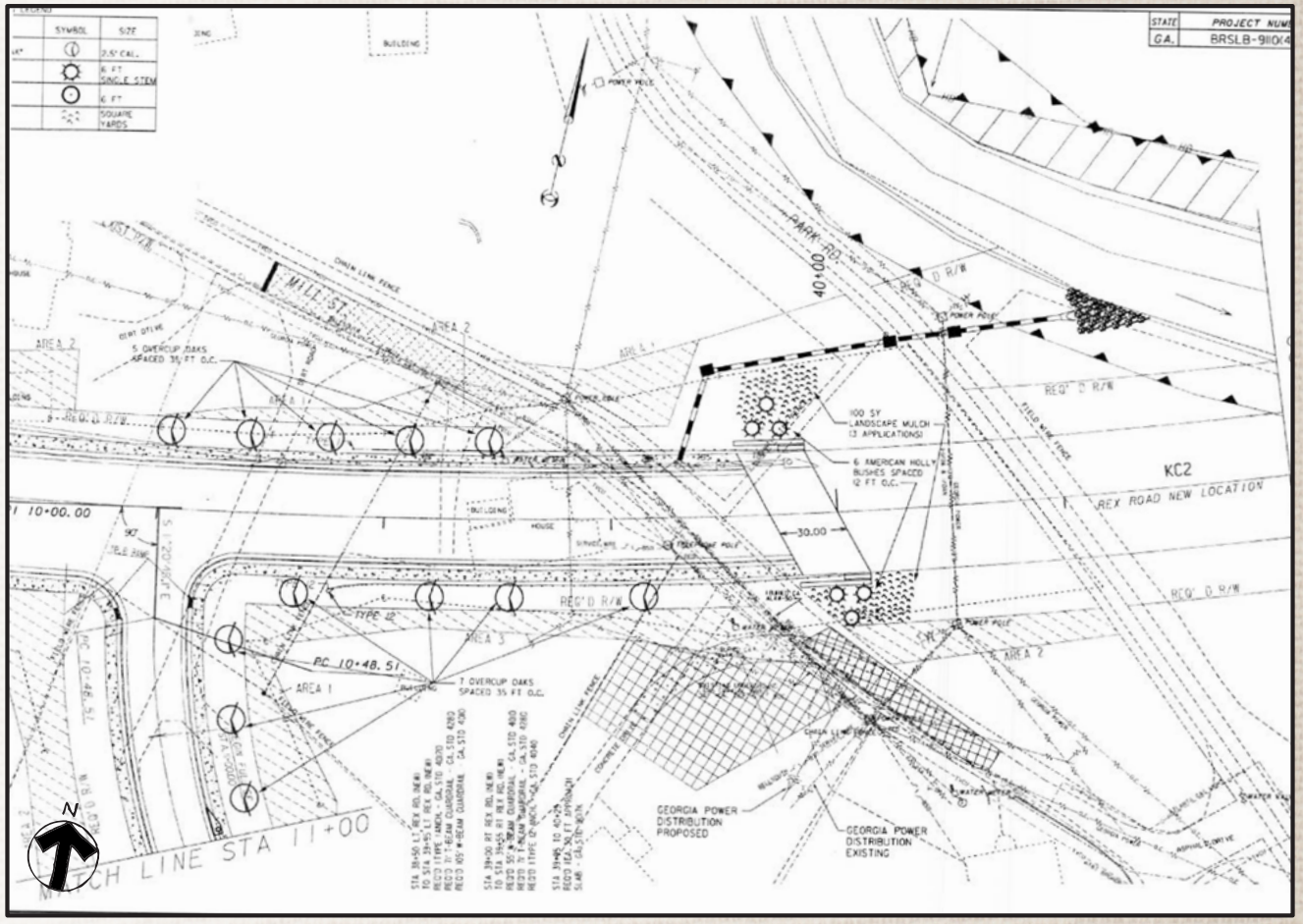
QTY. Turner	Botanical Name	Common Name	Spacing
5	*Acer floridanum*	Souther Sugar Maple	Per Plan
7	*Acer rubrum*	Red Maple	Per Plan
15	*Juniperus virginiana*	Red Cedar	Per Plan
6	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
1	*Quercus alba*	White Oak	Per Plan
4	*Tilia americana*	Basswood	Per Plan

Chattooga County P.I. #621070 - The Couey-Owings-Knowles House Landscape Plan



not to scale - no plant schedule available

Clayton County P.I. #753010 - The Rex Industrial/Commercial Historic District Landscape Plan



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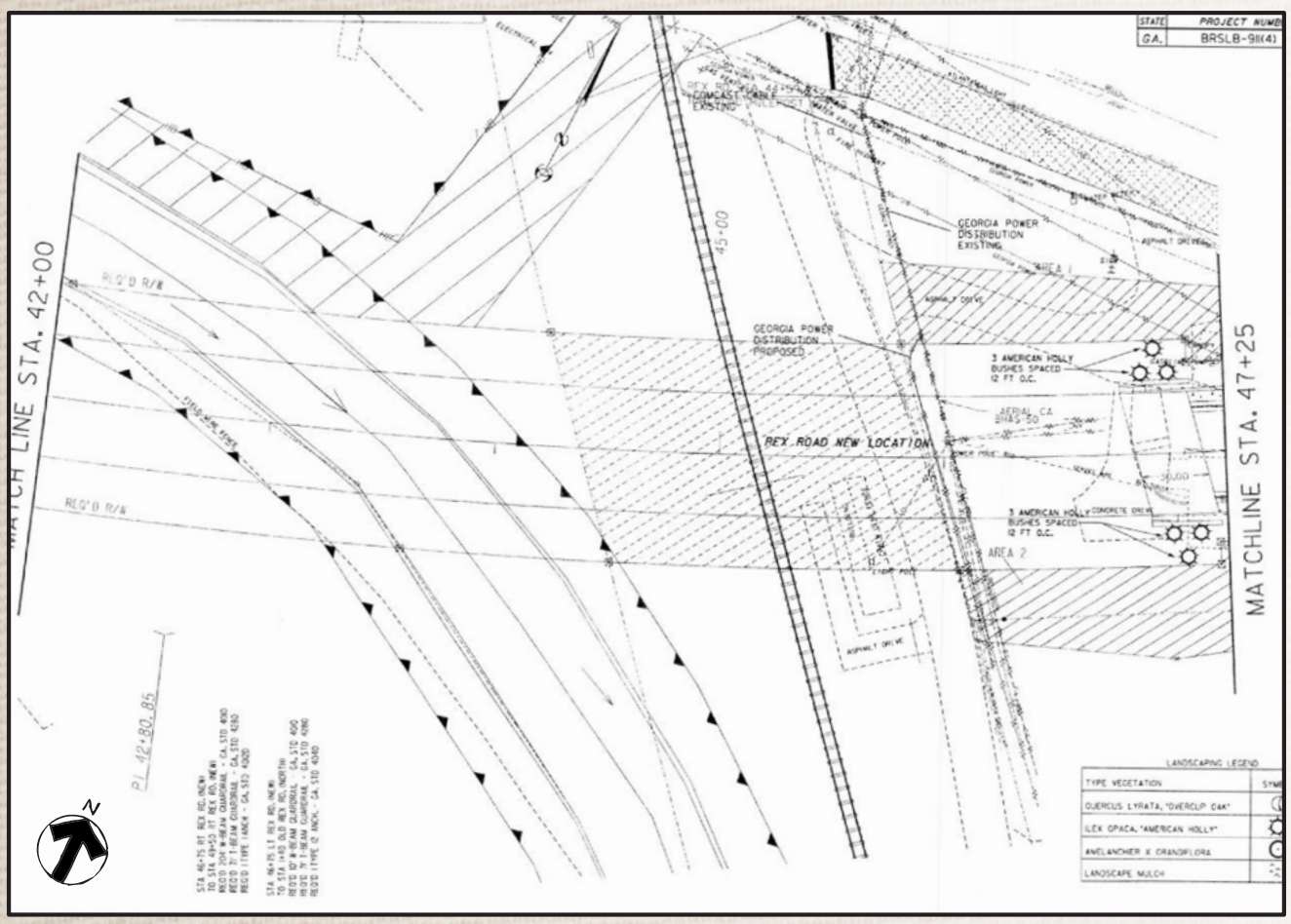
Clayton County P.I. #753010 - The Rex Industrial/Commercial Historic District Landscape Plan



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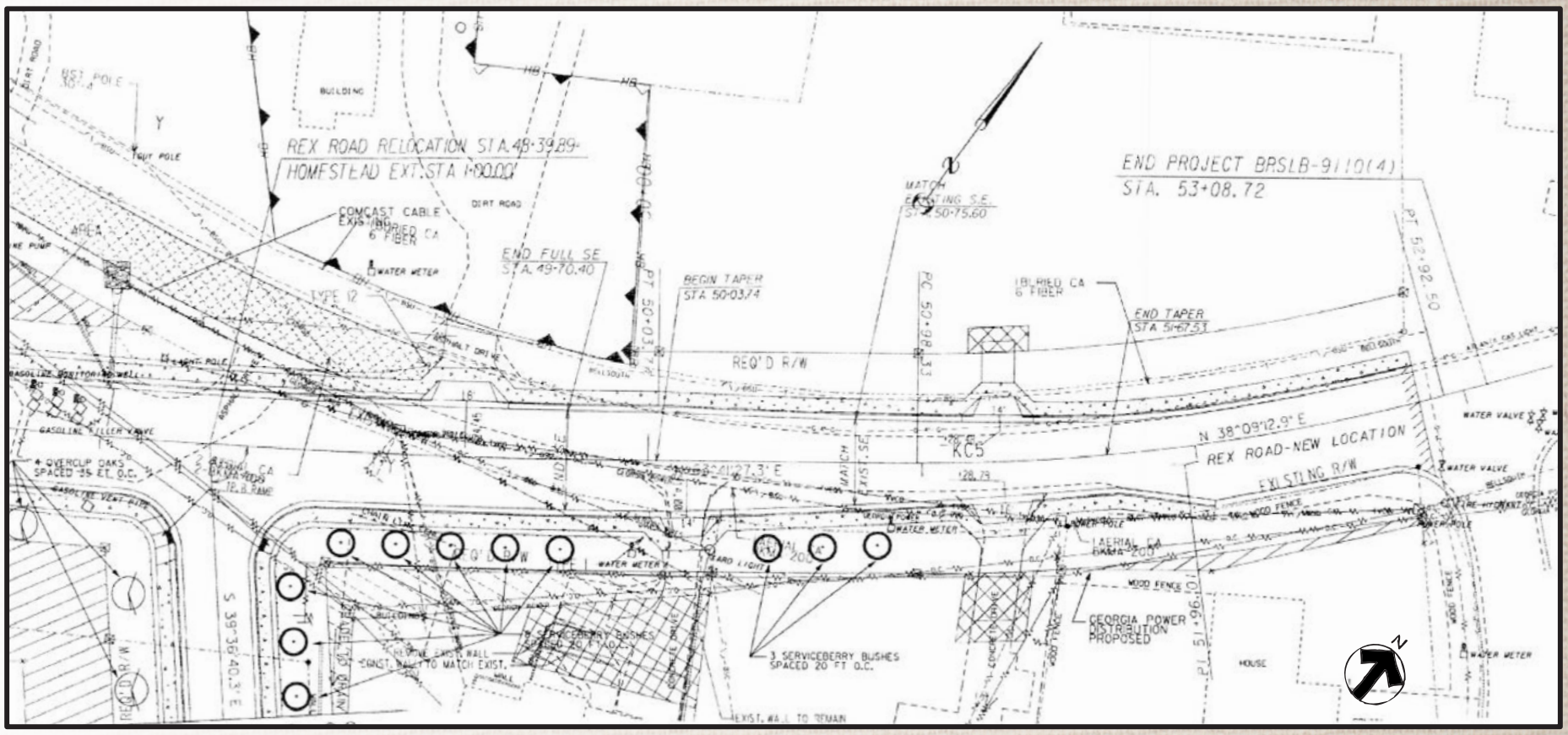
Clayton County P.I. #753010 - The Rex Industrial/Commercial Historic District Landscape Plan

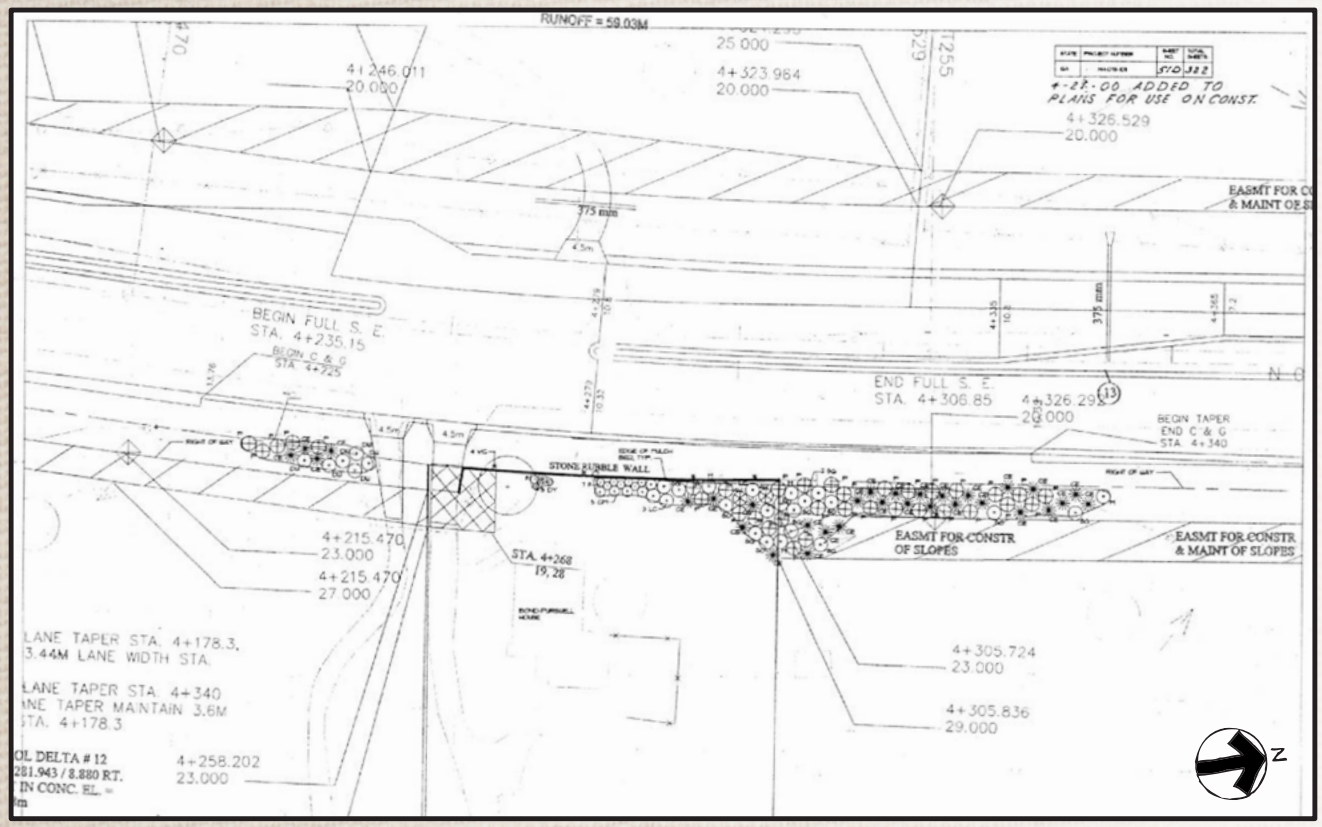


not to scale

Clayton County P.I. #753010 - The Rex Industrial/Commercial Historic District Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
16	*Quercus lyrata*	Overcup Oak	35' O.C.
12	*Ilex opaca*	American Holly	12' O.C.
11	*Amelanchier x grandiflora*	Serviceberry	20' O.C.

DeKalb County P.I. #721535 - The Bond-Purswell House Landscape Plan



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DeKalb County P.I. #721535 - The Bond-Purswell House Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
5	*Acer rubrum*	Red Maple	12' O.C.
6	*Cornus florida*	Flowering Dogwood	12' O.C.
2	*Ilex opaca*	American Holly	not specified
31	*Juniperus virginiana*	Red Cedar	12' O.C.
7	*Liquidambar styraciflua*	Sweetgum	12' O.C.
34	*Pinus taeda*	Loblolly Pine	12' O.C.
4	*Prunus caroliniana*	Carolina Cherry Laurel	not specified
6	*Quercus coccinea*	Scarlet Oak	12' O.C.
8	*Forsythia intermedia*	Forsythia	not specified
5	*Ilex vomitoria "nana"*	Dwarf Yaupon Holly	7' O.C.
5	*Lagerstroemia indica*	Crepe Myrtle	not specified
4	*Perthenicissus quinquefolia*	Virginia Creeper	not specified

DeKalb County P.I. #721535 - The Bond-Purswell House E-mail Correspondence

From: Richard Cloues
To: internet:gail.davino@dot.state.ga.us
Date: 4/22/99 7:52am
Subject: SR 124--Bond-Purswell House--DeKalb Co.

Gai' -I have a question about the widening of SR 124 in DeKalb County whi is going on right now. We reviewed the project several years ago; your project numbers are STP-078-1 (18) (19) (20) (21), P. I. nos. 721330, 121720, 721530, 721535 (our project number is HP950502-001). I'm not sure which of your numbers go with which stretches of this projec (I think it's STP-078-1 (21)), but the property I'm interested in is the "Bond-Purswell House." It's located on the east side of the highway, fairly close to the road (about 50' between the house and the edge of pavement). The house was considered eligible, and the project was considered to have no adverse effect since all construction was going to take place within the existing right-of-way and the edge of pavement was not going to move any closer to the house (widening was to take place on the opposite side of the highway). However, in driving by this house the other day, I noticed that a wider right-of-way appears to have been cleared of fairly substantial trees along the entire east side of the highway, on either side (to the north and south) of the Bond-Purswell property, although nothing has been done on the historic property iteself. I would estimate that the right-of-way has been cleared back about 50 feet; the "clear zone" now lines up with the front of the house. The net result is that the house and its historic front yard now "stick out" into the newly cleared, wider right-of-way, and the views from the house looking up and down the highway have been opened up when before they were blocked by the adjacent trees. My first impression is that this has caused an adverse effect. Could you check into this and let me know if the project has changed in the vicinity of this house or if the documentation we reviewed several years ago did not accurately convey the extent to which the right-of-way would be widened to either sid of this historic house? I would appreciate it. (So would the property owners as they are now interested in nominating the property.) Thanks.

CC: Jeff Durbin

DeKalb County P.I. #721535 - The Bond-Purswell House E-mail Correspondence

From: "D'Avino, Gail" <Gail.Davino@dot.state.ga.us>
To: "Richard Cloues (E-mail)" <richard_cloues@mail.dnr...
Date: 4/29/99 2:26pm
Subject: DOT stuff

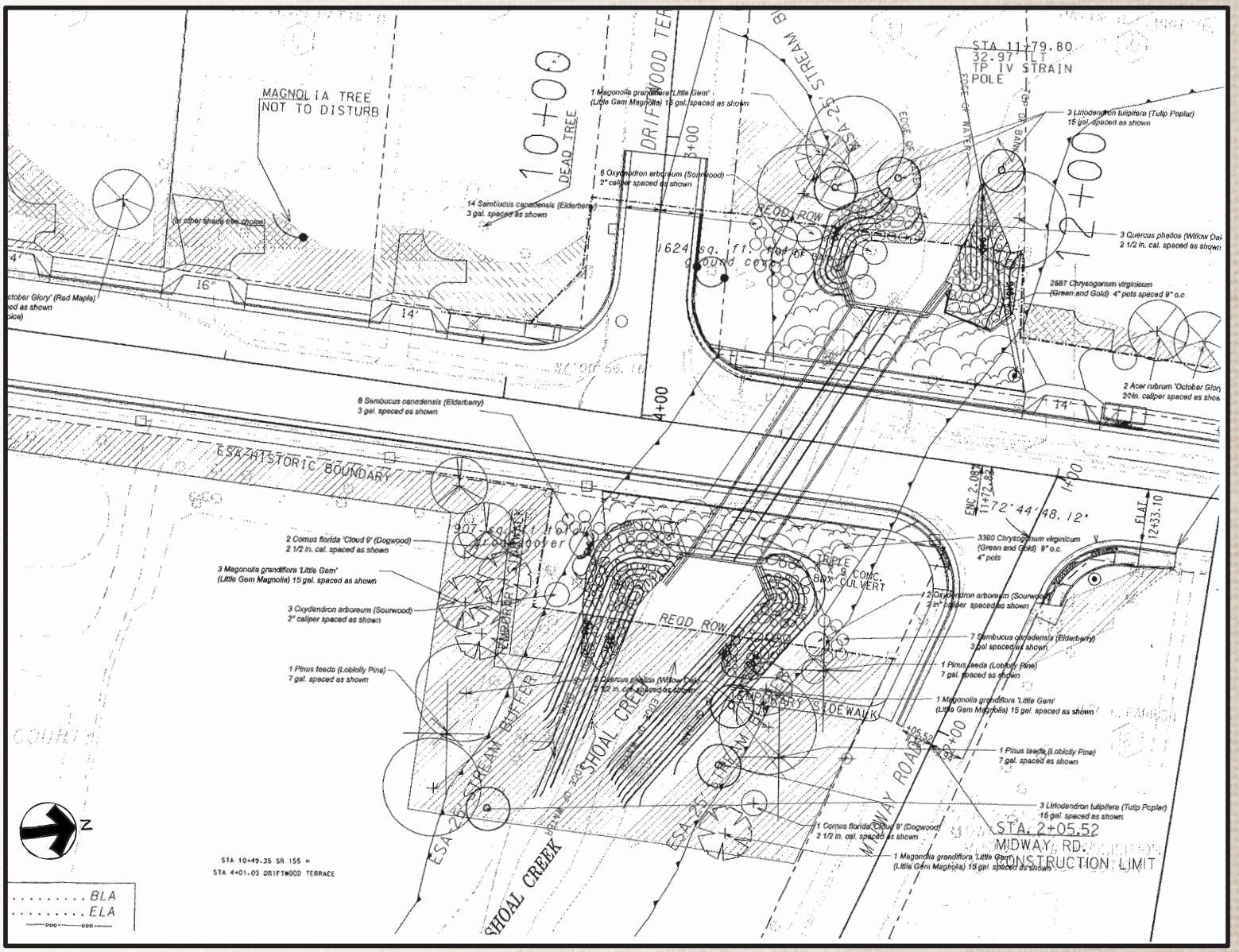
Hi R hard,

I received your message on SR 124, Bond-Purswell in Gwinnett. There was a concept change requiring right-of-way from the adjoining properties but continuing to not require any from the historic resource; I suspect that we (DOT historians) would not have recognized this as being a big change. I am going to go out there next Tuesday morning to see it and see what lessons can be learned from our apparent error. Perhaps Tuesday the 11th we can talk about it further.

Onto Columbus; Virginia Peebles at Historic Columbus is convinced that our 4th Avenue overpass will have major effects on the Uptown Historic District. We have done a 106 assessment on the one property within the APE; she is convinced that there are others. Laurie has been down there with an engineer to visit with Mrs. Sampson in the one house being affected. Laurie does not believe that the other resources will be affected. Would you be agreeable to a joint site visit to Columbus to see this part of town?

Thanks, Gail

DeKalb County P.I. #752900 - The College Heights Historic District Landscape Plan



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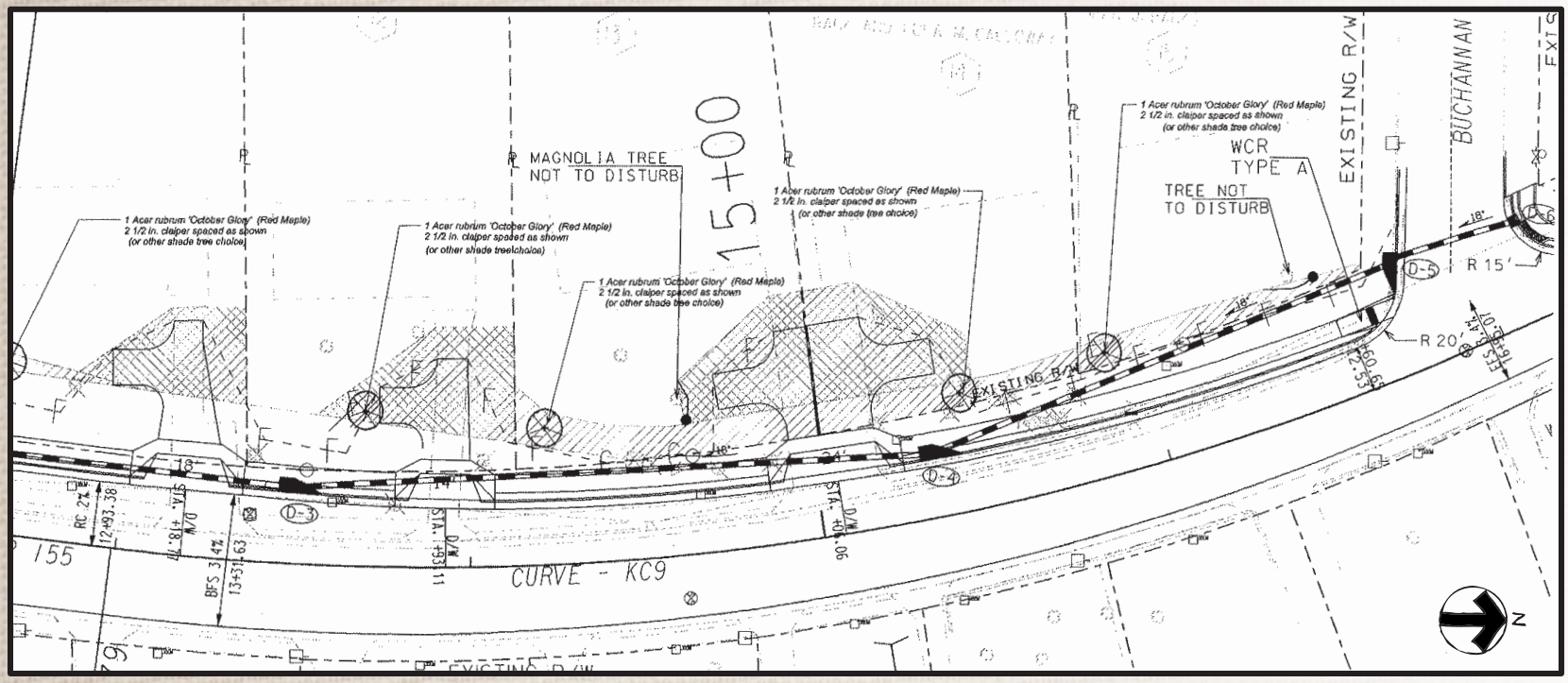
DeKalb County P.I. #752900 - The College Heights Historic District Landscape Plan



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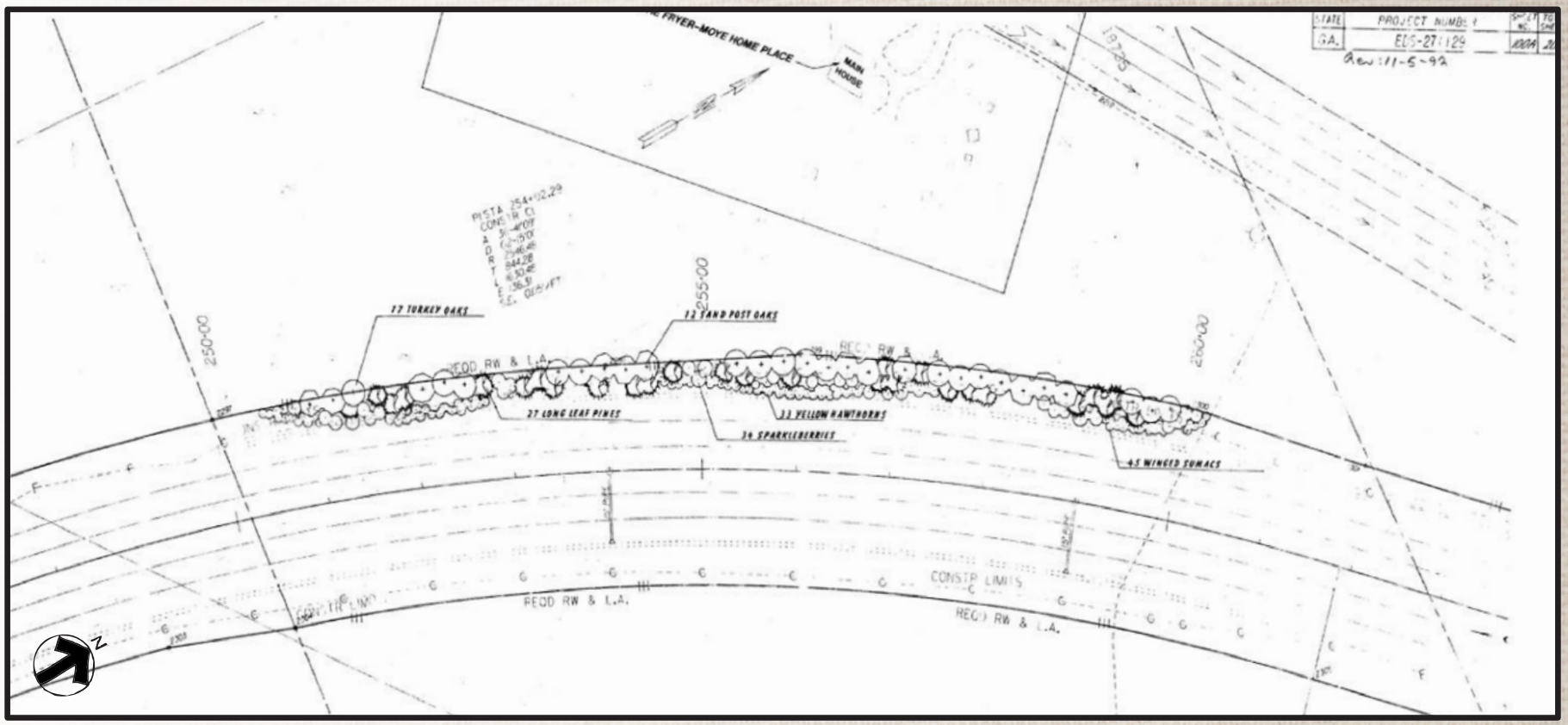
DeKalb County P.I. #752900 - The College Heights Historic District Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
8	*Acer rubrum 'October Glory'*	October Glory Red Maple	Per Plan
6277	*Chrysogonum virginicum*	Green and Gold	Per Plan
3	*Cornus florida 'Cloud Nine'*	Cloud Nine' Dogwood	Per Plan
6	*Liriodendron tulipifera*	Tulip Poplar	Per Plan
5	*Magnolia grandiflora 'Little Gem'*	Little Gem Magnolia	Per Plan
11	*Oxydendron arboreum*	Sourwood	Per Plan
3	*Pinus taeda*	Loblolly Pine	Per Plan
6	*Quercus phellos*	Willow Oak	Per Plan
29	*Sambucus canadensis*	Elderberry	Per Plan

Early County P.I. #462430 - The Fryer-Moye Homeplace Landscape Plan



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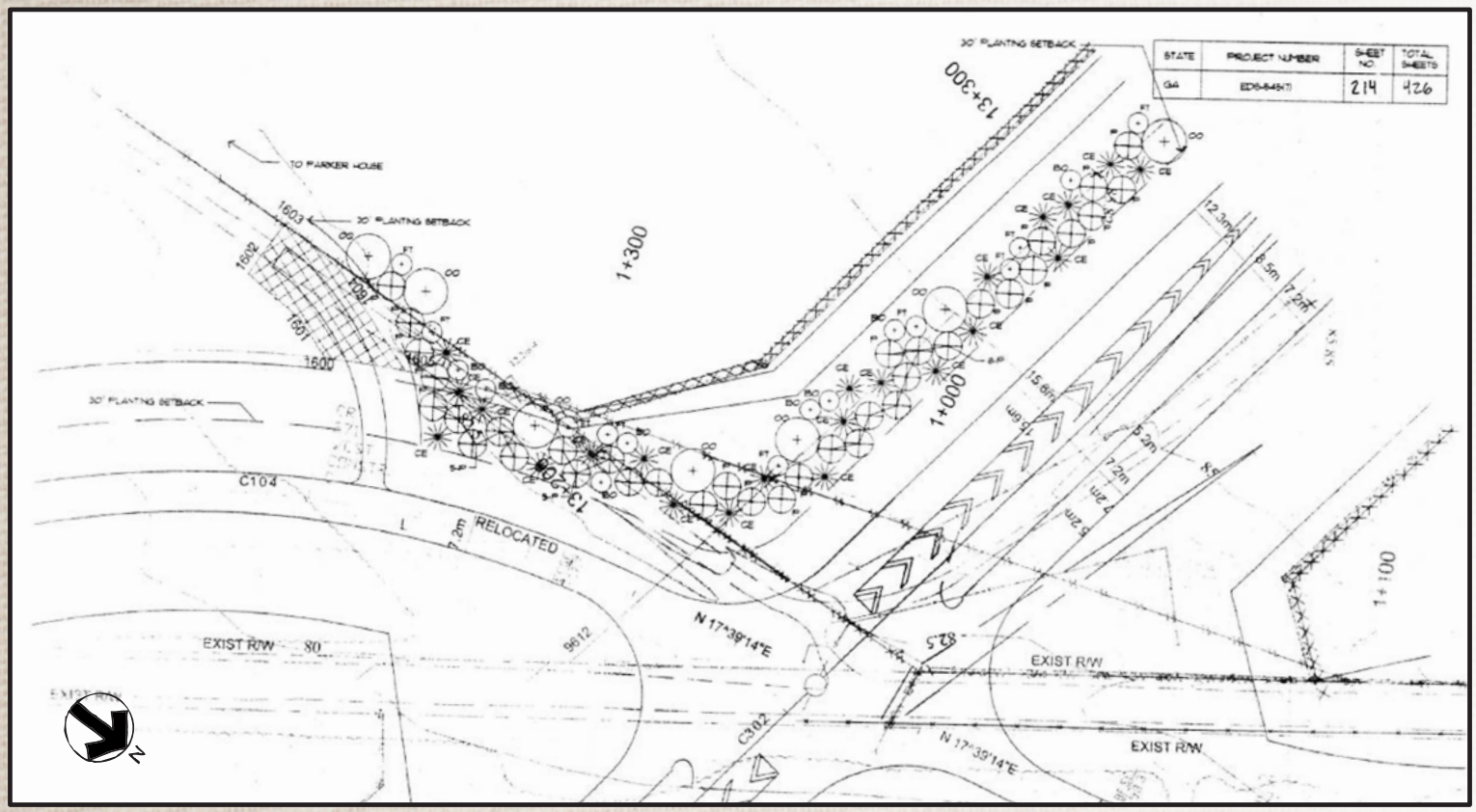
Early County P.I. #462430 - The Fryer-Moye Homeplace Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
17	*Quercus laevis*	Turkey Oak	Per Plan
12	*Quercus margaretta*	Sand Post Oak	Per Plan
27	*Pinus palustris*	Longleaf Pine	Per Plan
34	*Vaccinium arboreum*	Sparkleberry	Per Plan
33	*Crataegus flava*	Yellow Hawthorn	Per Plan
45	*Rhus copallina*	Winged Sumac	Per Plan

Emanuel County P.I. #262395 - The Parker House Landscape Plan



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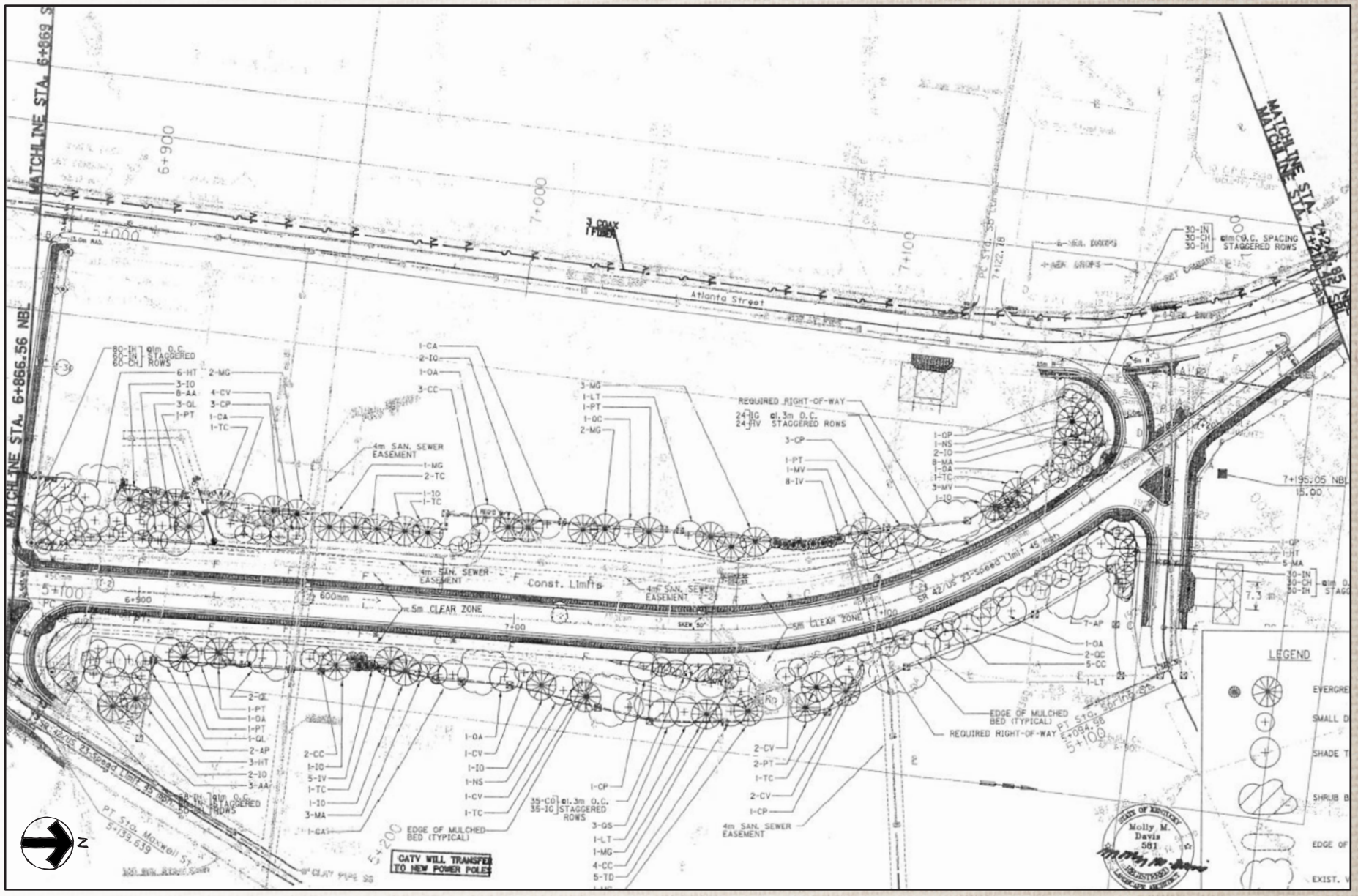
Emanuel County P.I. #262395 - The Parker House Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
7	*Quercus lyrata*	Overcup Oak	not specified
36	*Pinus taeda*	Loblolly Pine	15' O.C.
8	*Quercus marilandica*	Blackjack Oak	not specified
22	*Juniperus virginiana*	Eastern Red Cedar	not specified
9	*Chionanthus virginicus*	Fringe Tree	not specified

Henry County P.I. #321145 - The McDonough Historic District Landscape Plan



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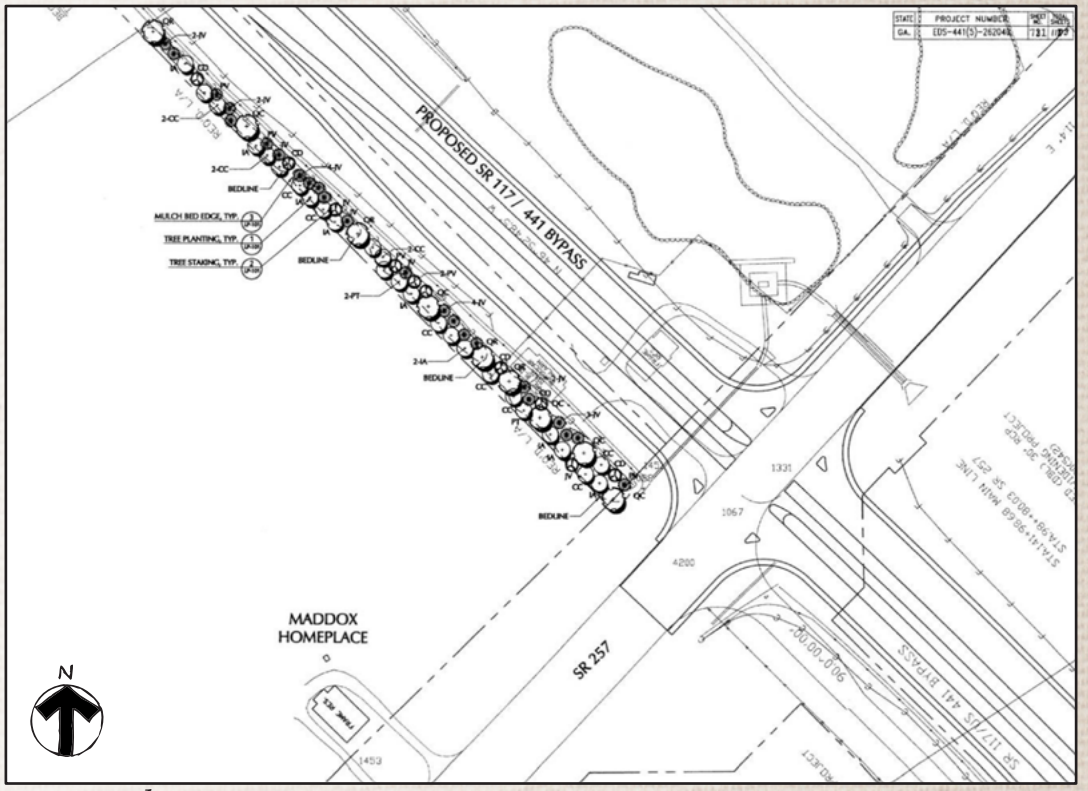
Henry County P.I. #321145 - The McDonough Historic District Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
3	*Carpinus caroliniana*	American Hornbeam	Per Plans
8	*Crataegus phaenopyrum 'Presidential'*	Presidential Washington Hawthorn	Per Plans
10	*Halesia tetraptera*	Silverbell	Per Plans
3	*Liriodendron tulipifera*	Tulip Poplar	Per Plans
2	*Nyssa sylvatica*	Black Tupela	Per Plans
5	*Oxydendrum arboreum*	Sourwood	Per Plans
3	*Quercus coccinea*	Scarlet Oak	Per Plans
6	*Quercus lyrata*	Overcup Oak	Per Plans
2	*Quercus phellos*	Willow Oak	Per Plans
3	*Quercus shumardii*	Shumard Oak	Per Plans
5	*Taxadium distichum*	Bald Cypress	Per Plans
14	*Ilex opaca*	American Holly	Per Plans
13	*Ilex vomitoria*	Yaupon Holly	Per Plans
10	*Magnolia grandiflora*	Southern Magnolia	Per Plans
7	*Pinus taeda*	Loblolly Pine	Per Plans
8	*Tsuga canadensis*	Hemlock	Per Plans
11	*Amelanchier arborea*	Serviceberry	Per Plans
9	*Aesculus parviflora*	Bottlebrush Buckeye	Per Plans
14	*Cercis canadensis*	Eastern Redbud	Per Plans
10	*Chionanthus virginicus*	White Fringe Tree	Per Plans
16	*Malus 'Callaway'*	Callaway Crabapple	Per Plans
4	*Magnolia virginiana*	Sweetbay Magnolia	Per Plans
24	*Hamamelis virginiana*	Common Witch Hazel	4' O.C.
35	*Calycanthus floridus*	Sweetshrub	4' O.C.
59	*Ilex glabra 'Nigra'*	Nigra Inkberry Holly	4' O.C.
170	*Clethra alnifolia 'Hummingbird'*	Hummingbirg Clethra	3' O.C.
170	*Ilex vomitoria 'Nana'*	Dwarf Yaupon Holly	3' O.C.
208	*Itea virginica 'Henry's Garnet'*	Henry's Garnet Virginia Sweetspire	3' O.C.

Laurens County P.I. #262040 - The R.F. Maddox Homeplace Landscape Plan



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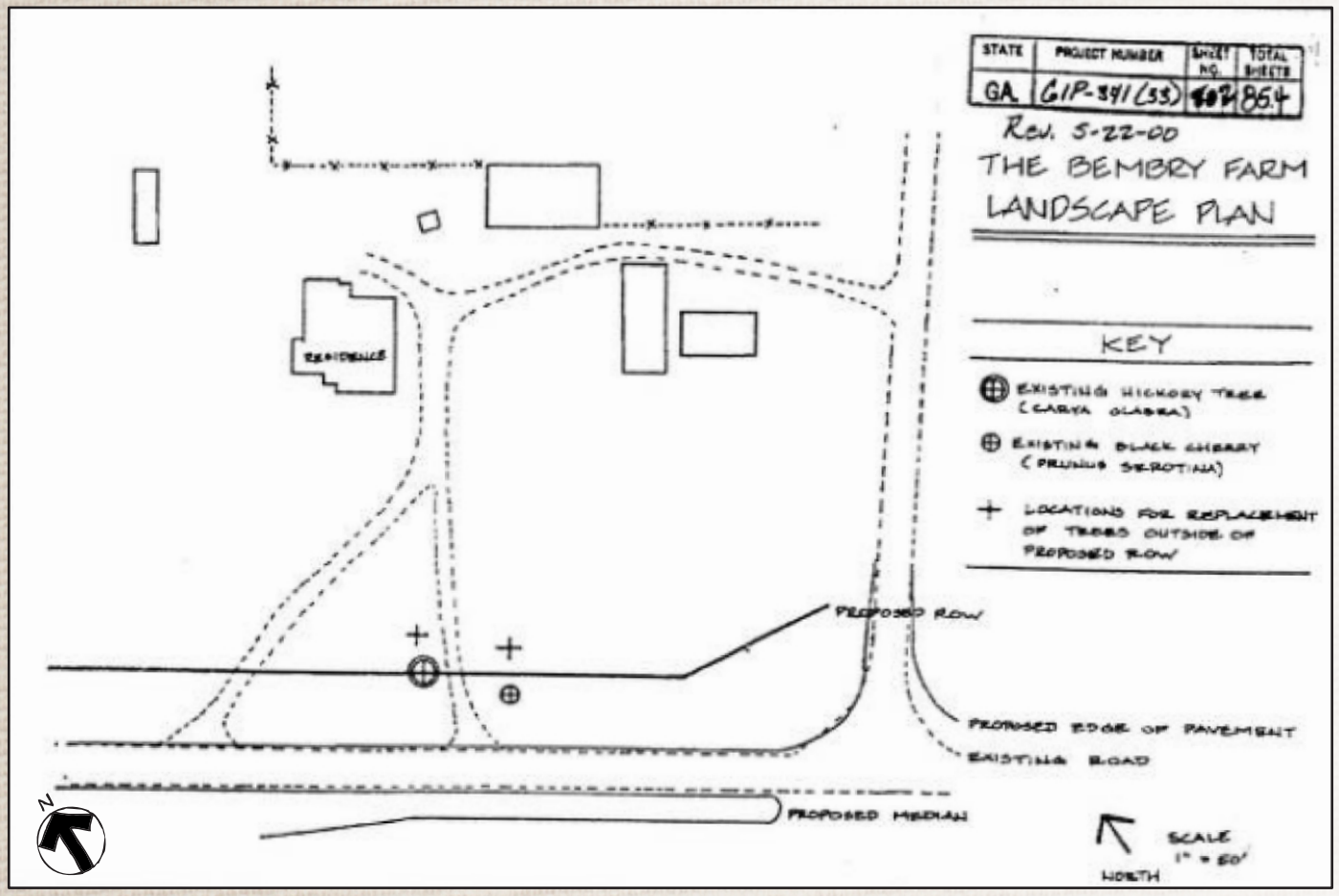
Laurens County P.I. #262040 - The R.F. Maddox Homeplace Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
11	*Amelanchier arborea*	Serviceberry	Per Plans
8	*Cedrus deodara*	Deodar Cedar	Per Plans
12	*Cercis canadensis*	Red Bud	Per Plans
7	*Ilex vomitoria*	Yaupon Holly	Per Plans
9	*Juniperus virginiana*	Eastern Red Cedar	Per Plans
3	*Pinus taeda*	Loblolly Pine	Per Plans
9	*Pinus virginiana*	Virginia Pine	Per Plans
5	*Quercus coccinea*	Scarlet Oak	Per Plans
4	*Quercus rubra*	Red Oak	Per Plans

Pulaski County P.I. #322180 - The Bembry Farms Landscape Plan



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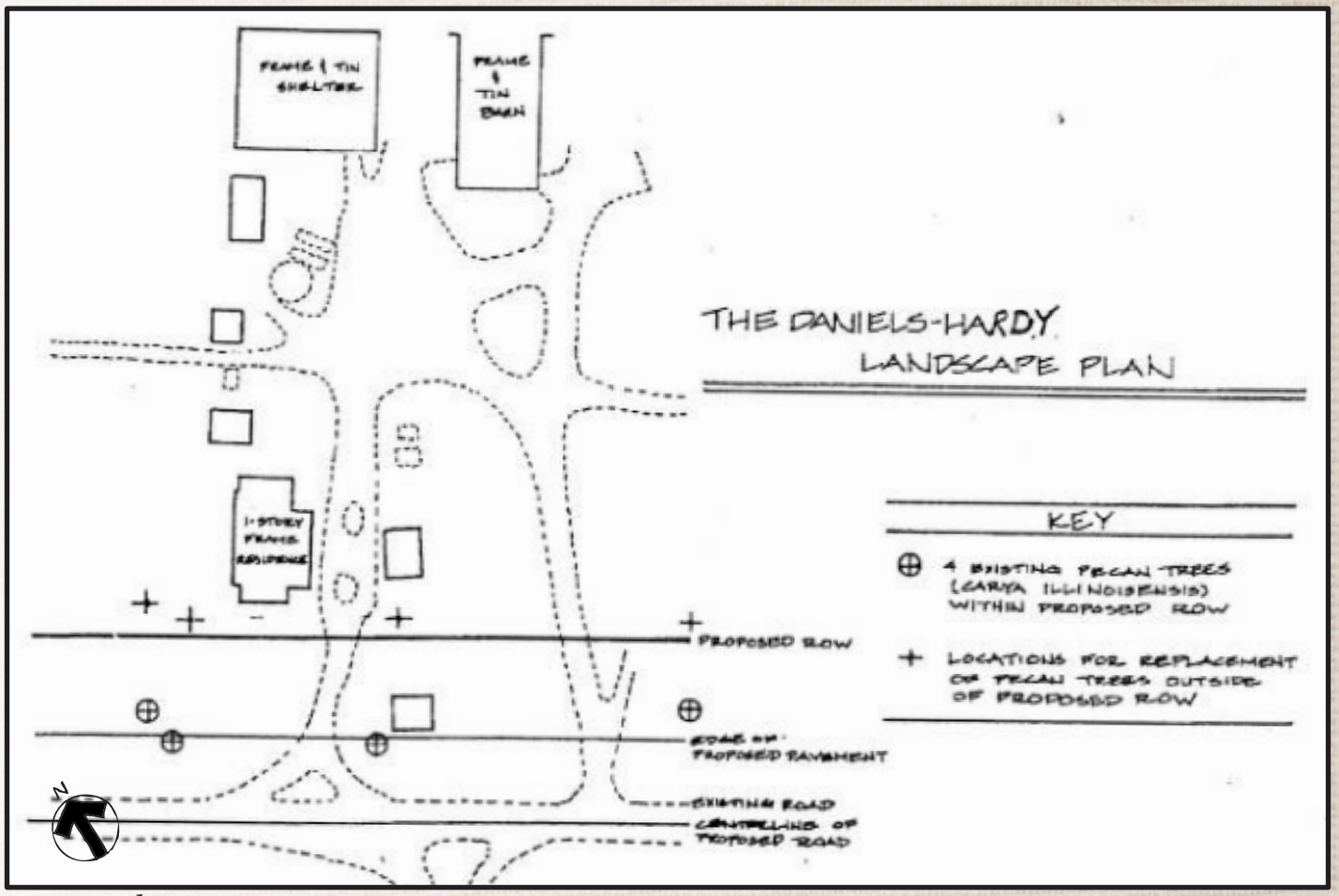
Pulaski County P.I. #322180 - The Bembry Farms Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
1	*Carya glabra*	Hickory	Per Plans
1	*Prunus serotina*	Black Cherry	Per Plans

Pulaski County P.I. #322180 - The Daniels-Hardy House Landscape Plan



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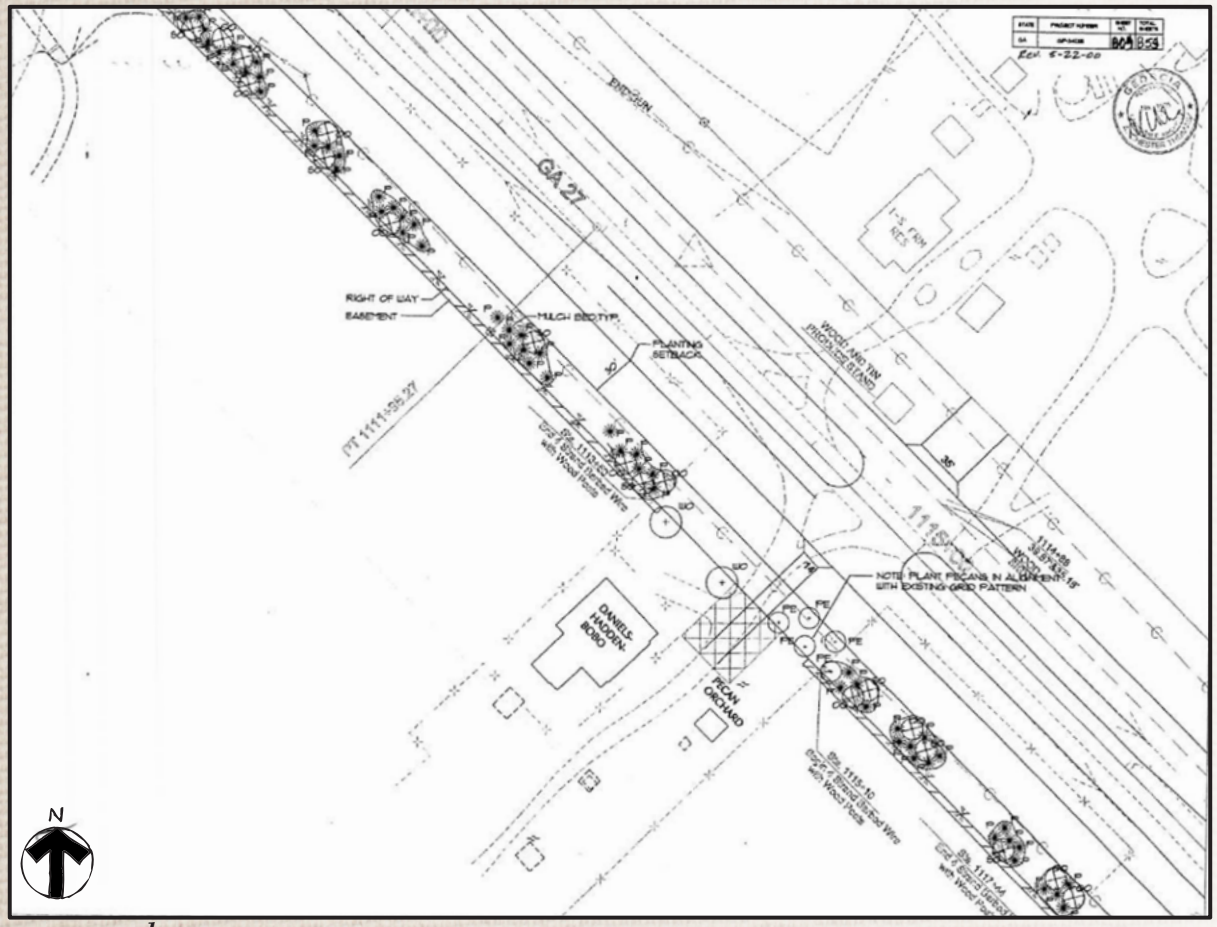
Pulaski County P.I. #322180 - The Daniels-Hardy House Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
4	*Carya illinoinensis*	Pecan	Per Plans

Pulaski County P.I. #322180 - The Daniels-Haden-Bobo Farm Landscape Plan



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Pulaski County P.I. #322180 - The Daniels-Haden-Bobo Farm Landscape Plan

QTY.	Botanical Name	Common Name	Spacing
10	*Quercus lyrata*	Overcup Oak	not specified
56	*Pinus taeda*	Loblolly Pine	10' O.C.
2	*Quercus nigra*	Water Oak	not specified
5	*Carya illinoinensis*	Pecan	not specified
8	*Quercus coccinea*	Scarlet Oak	not specified

Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan

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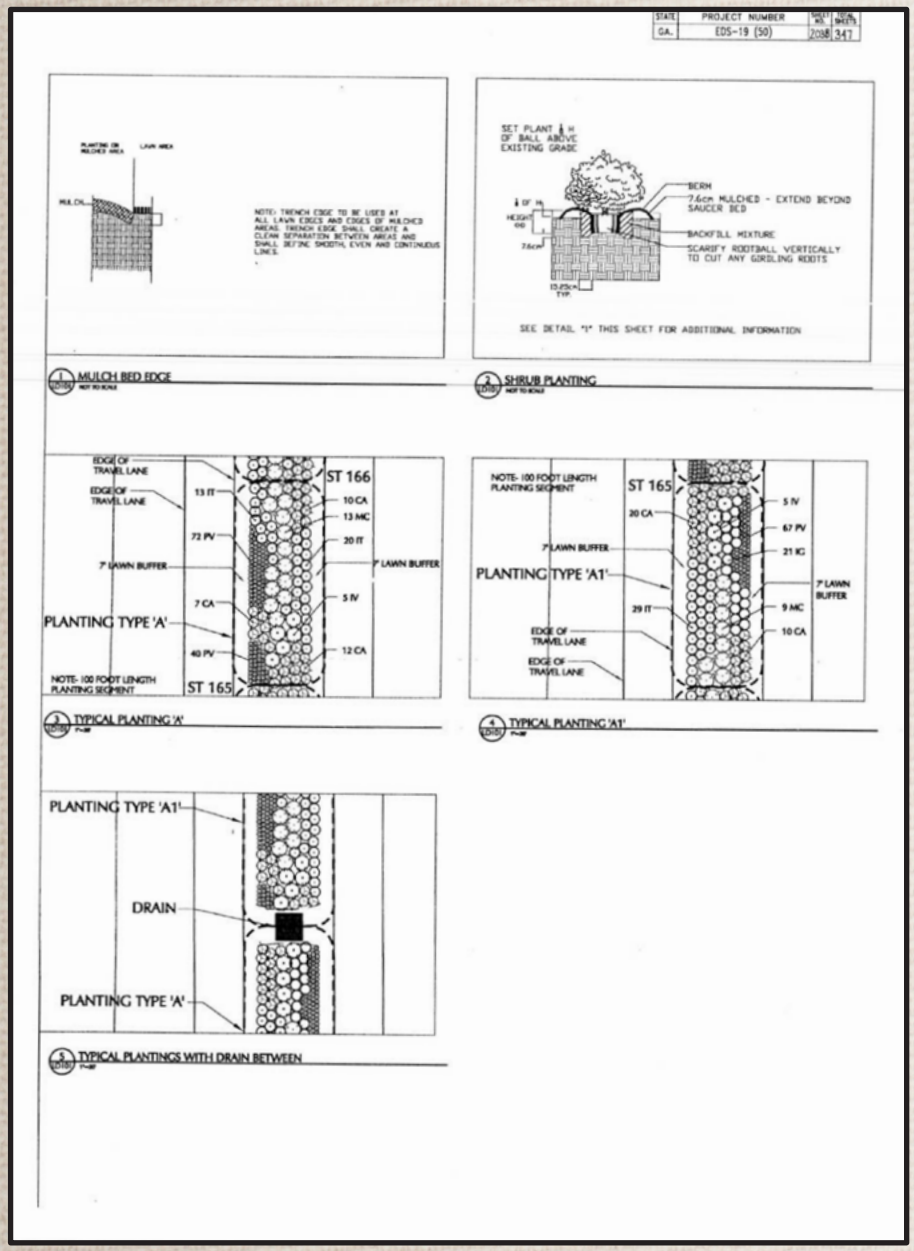
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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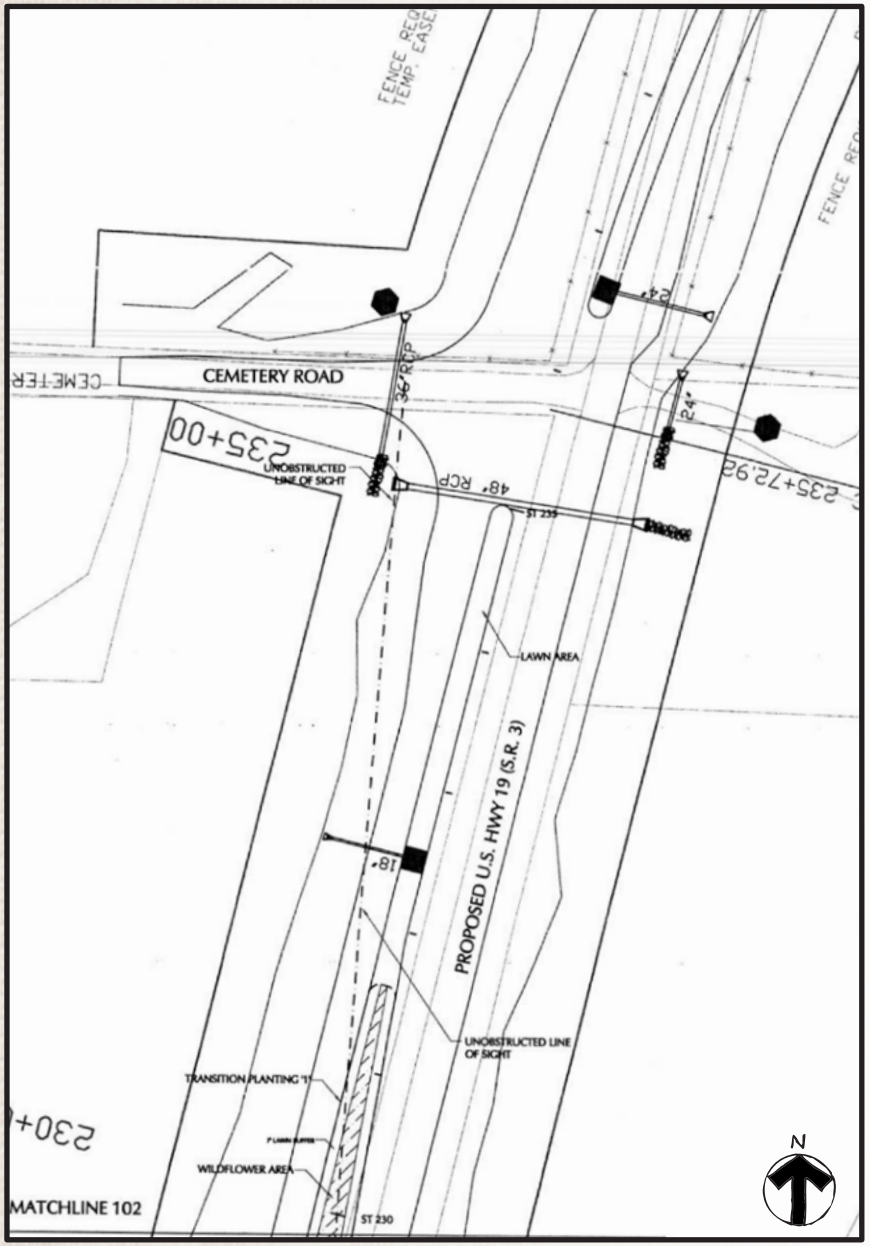

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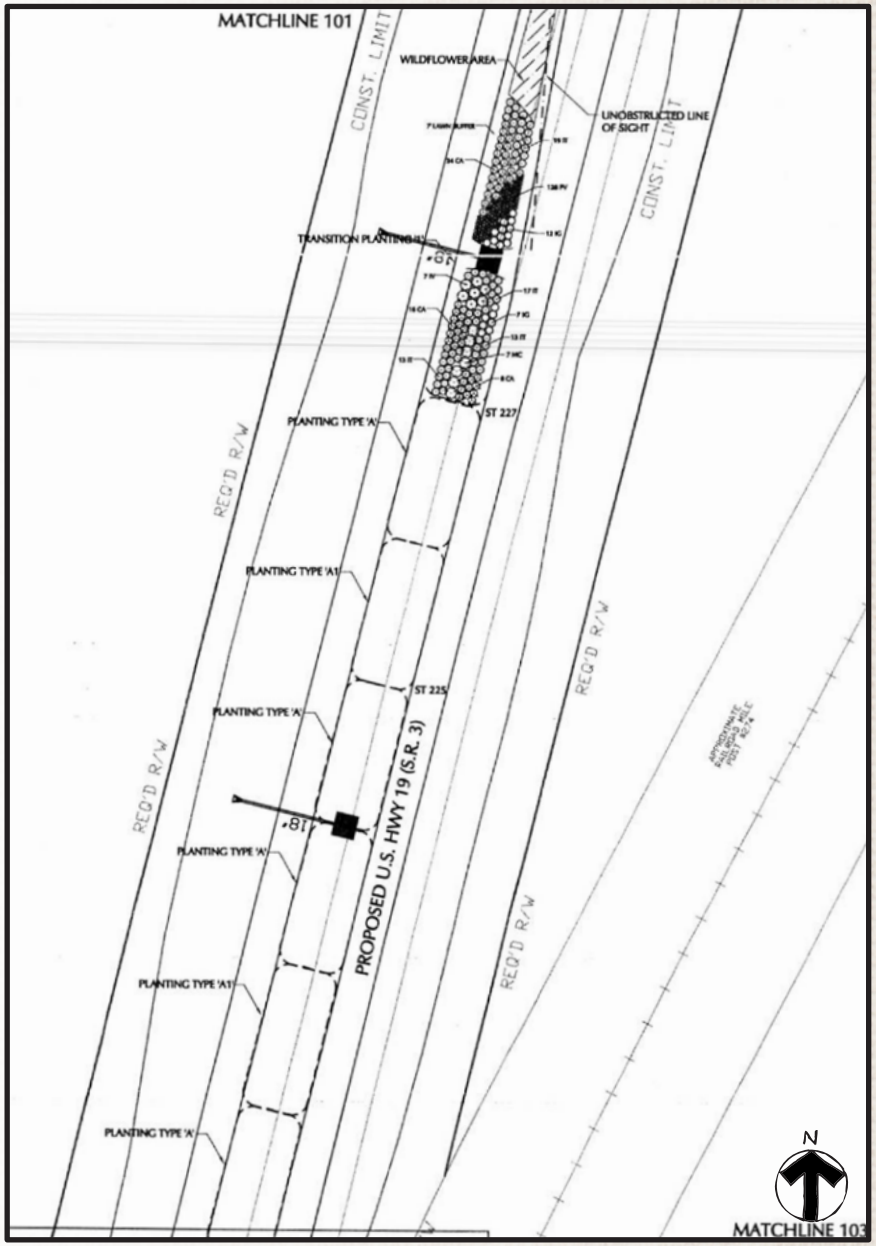
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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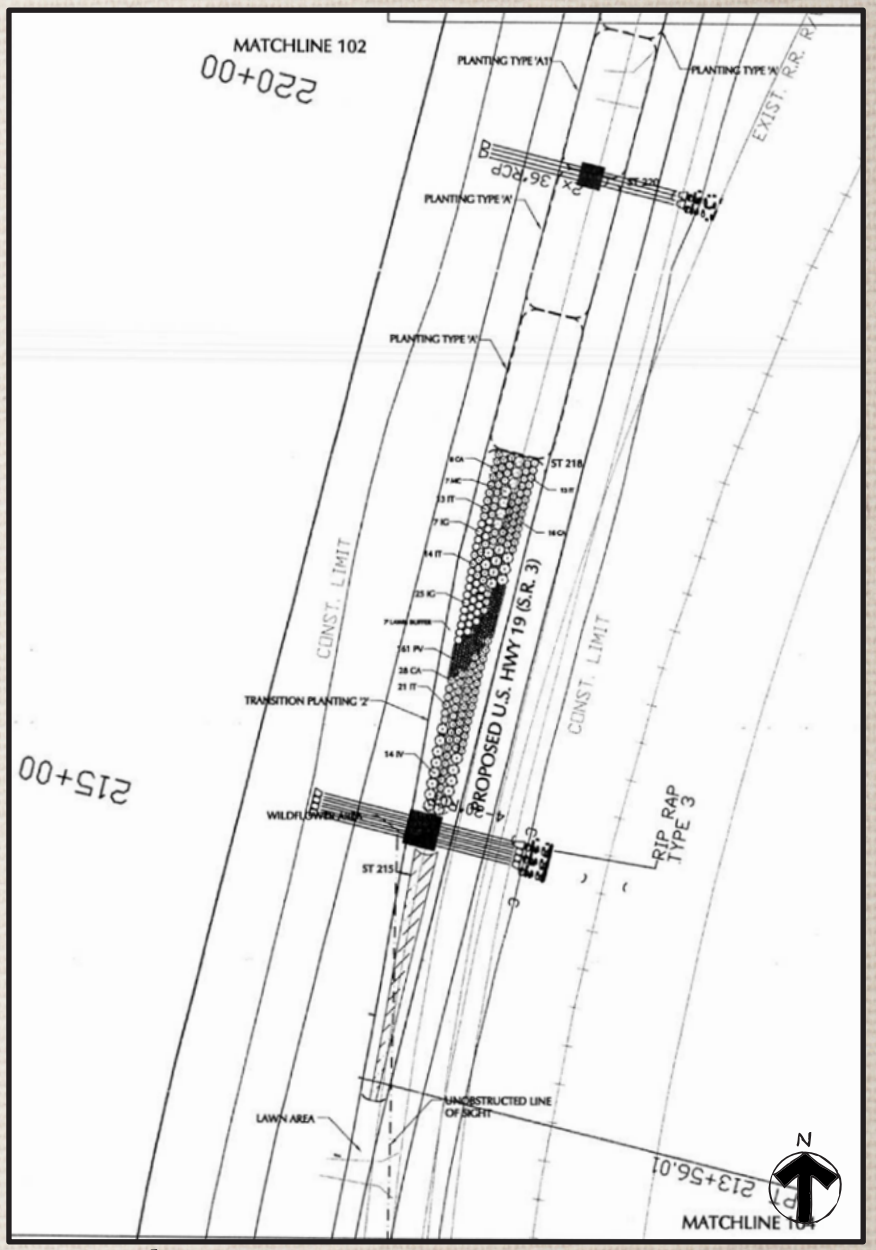

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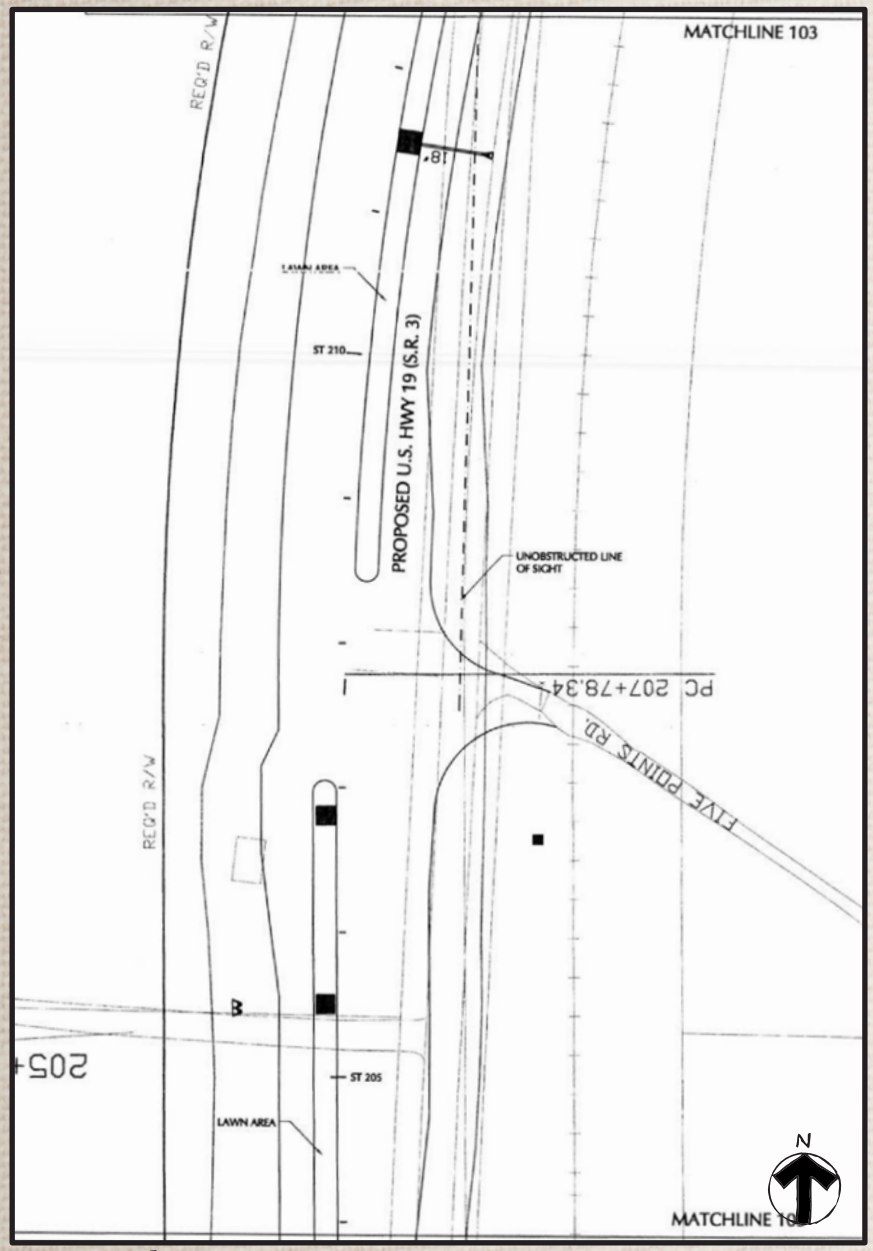
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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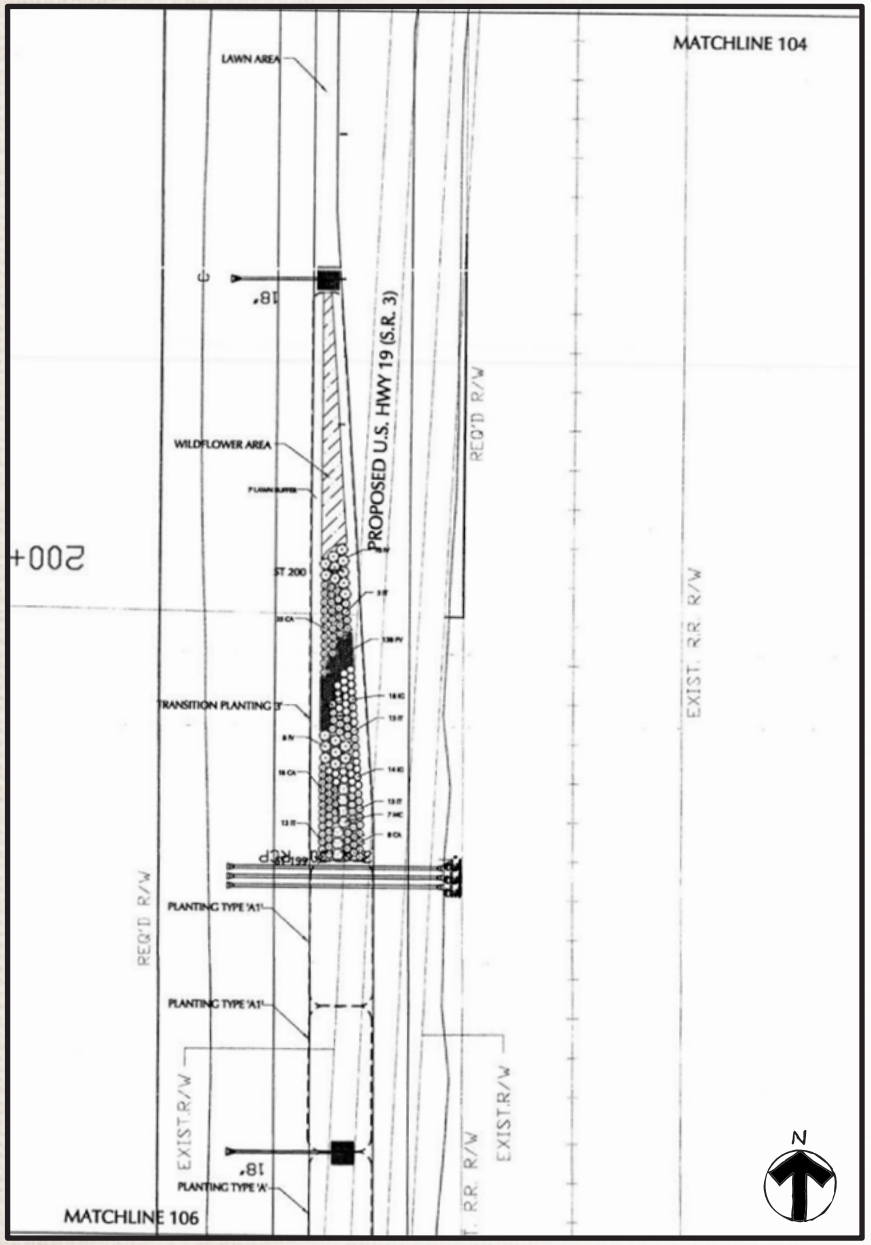

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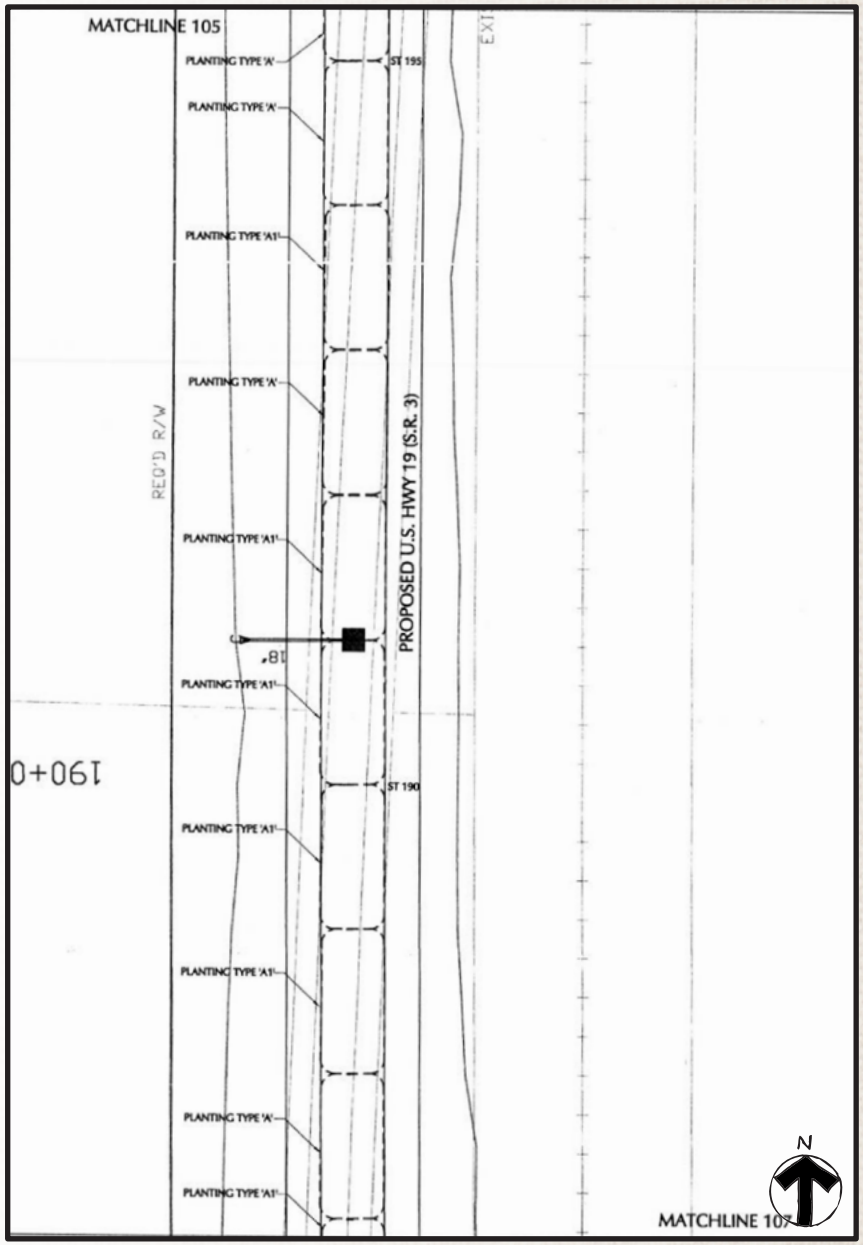
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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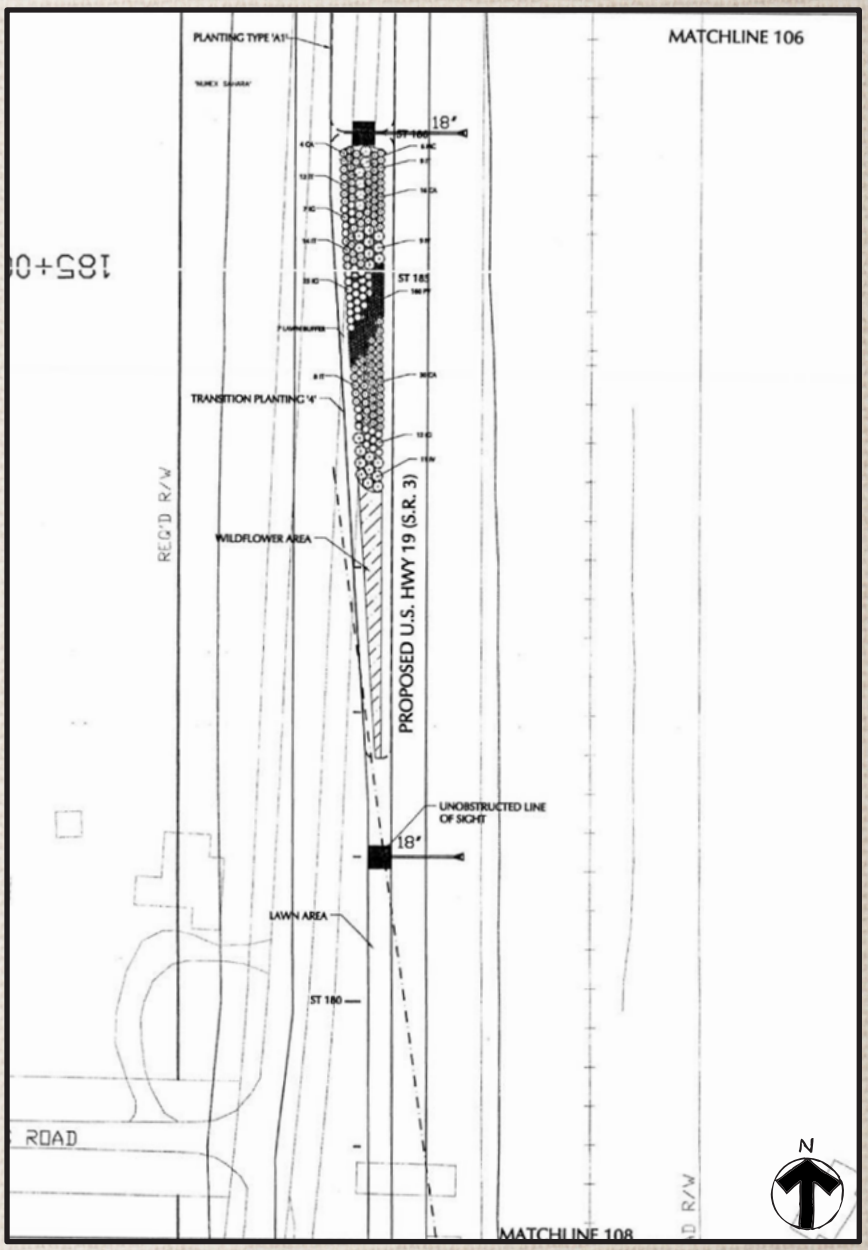

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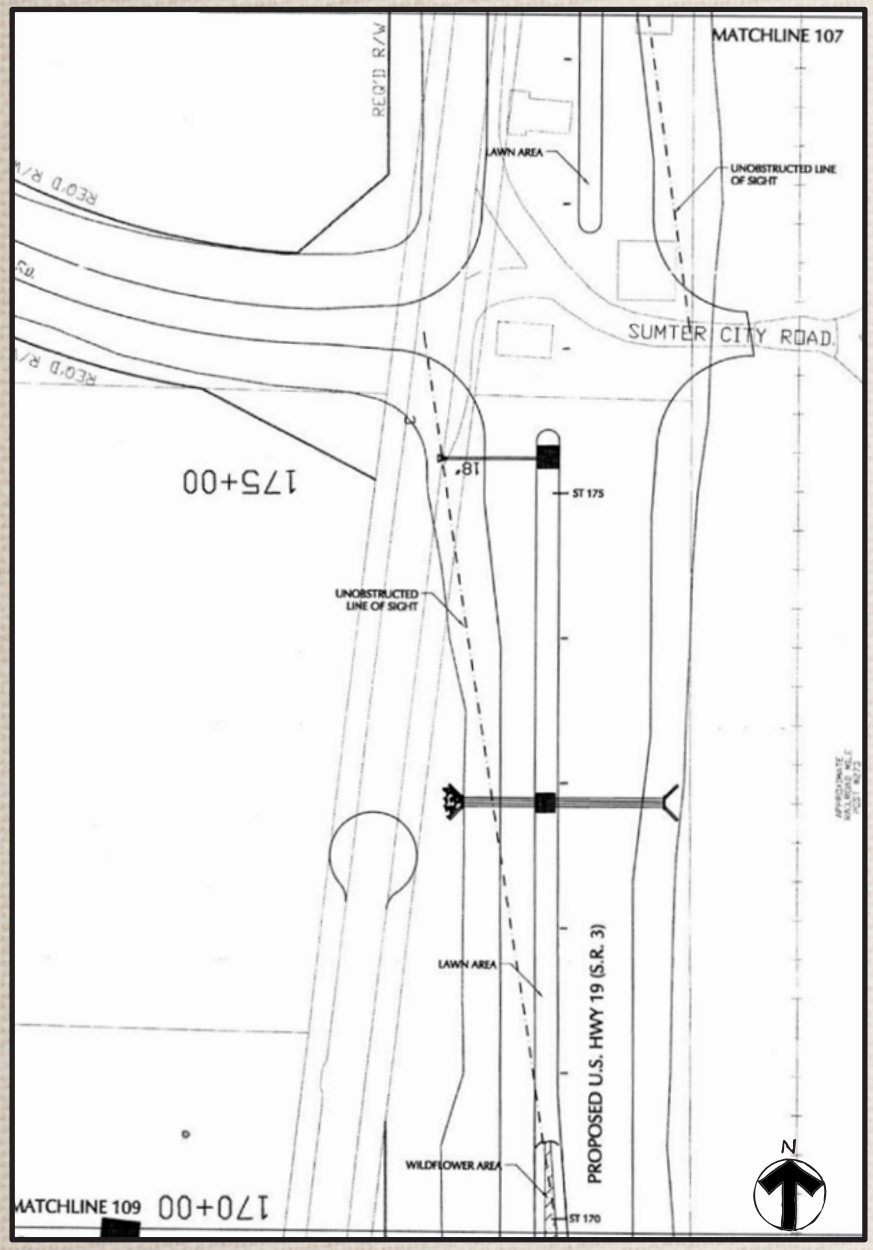
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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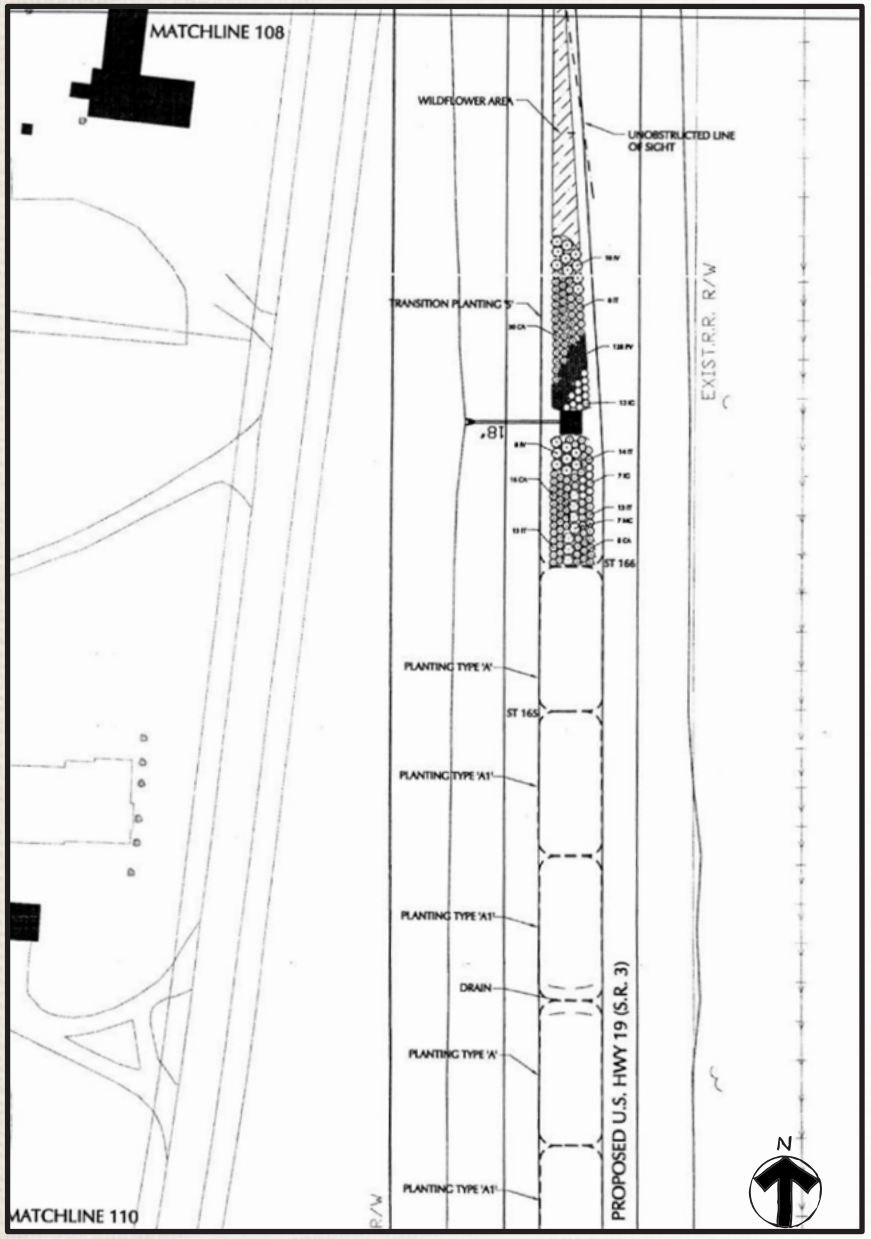

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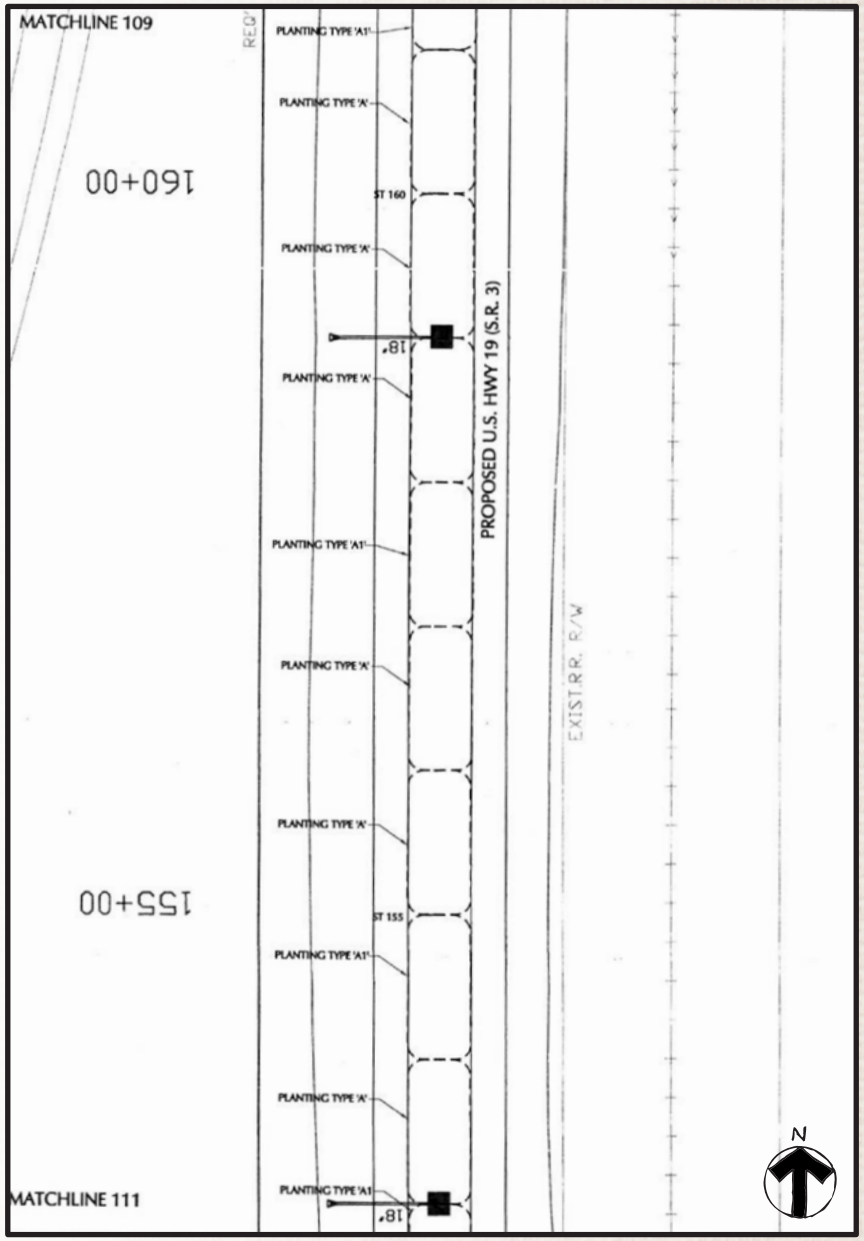
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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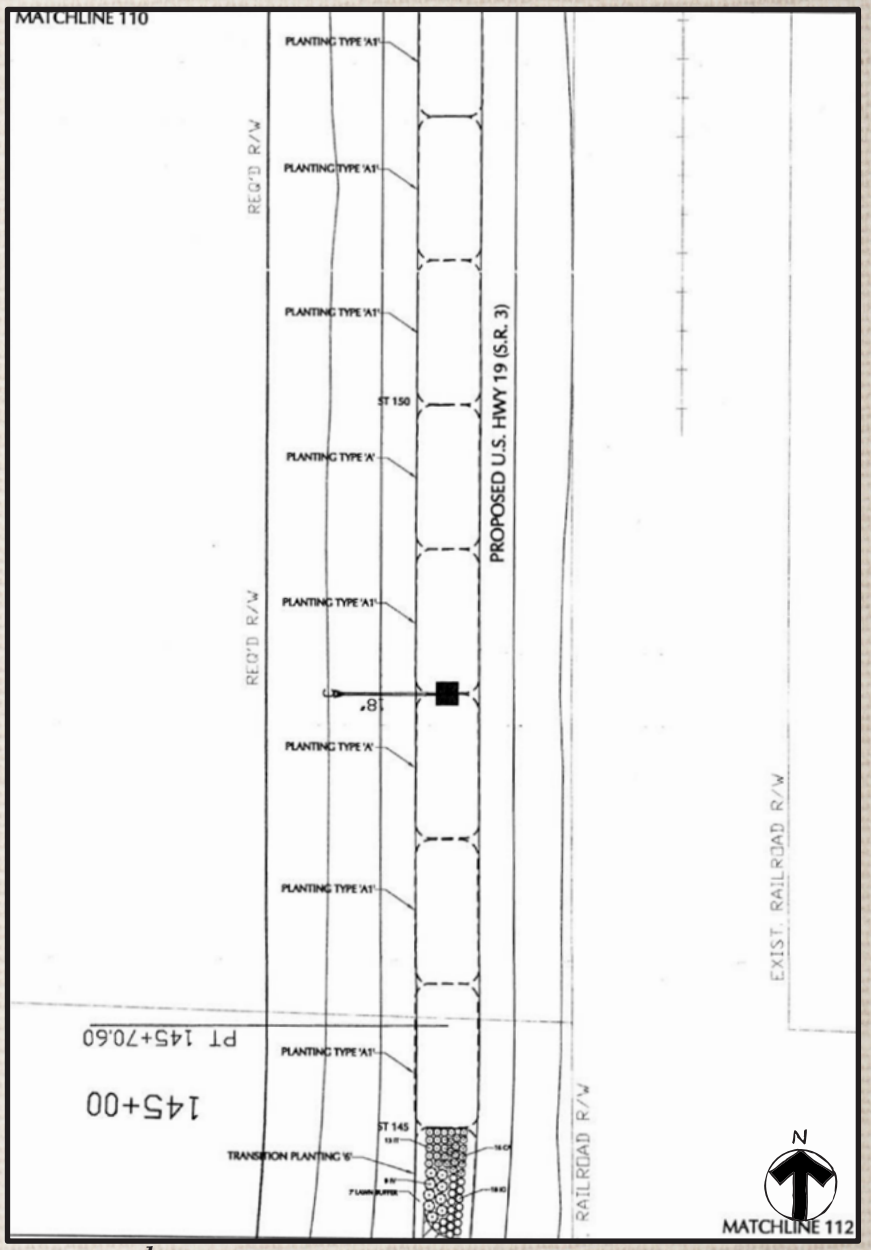

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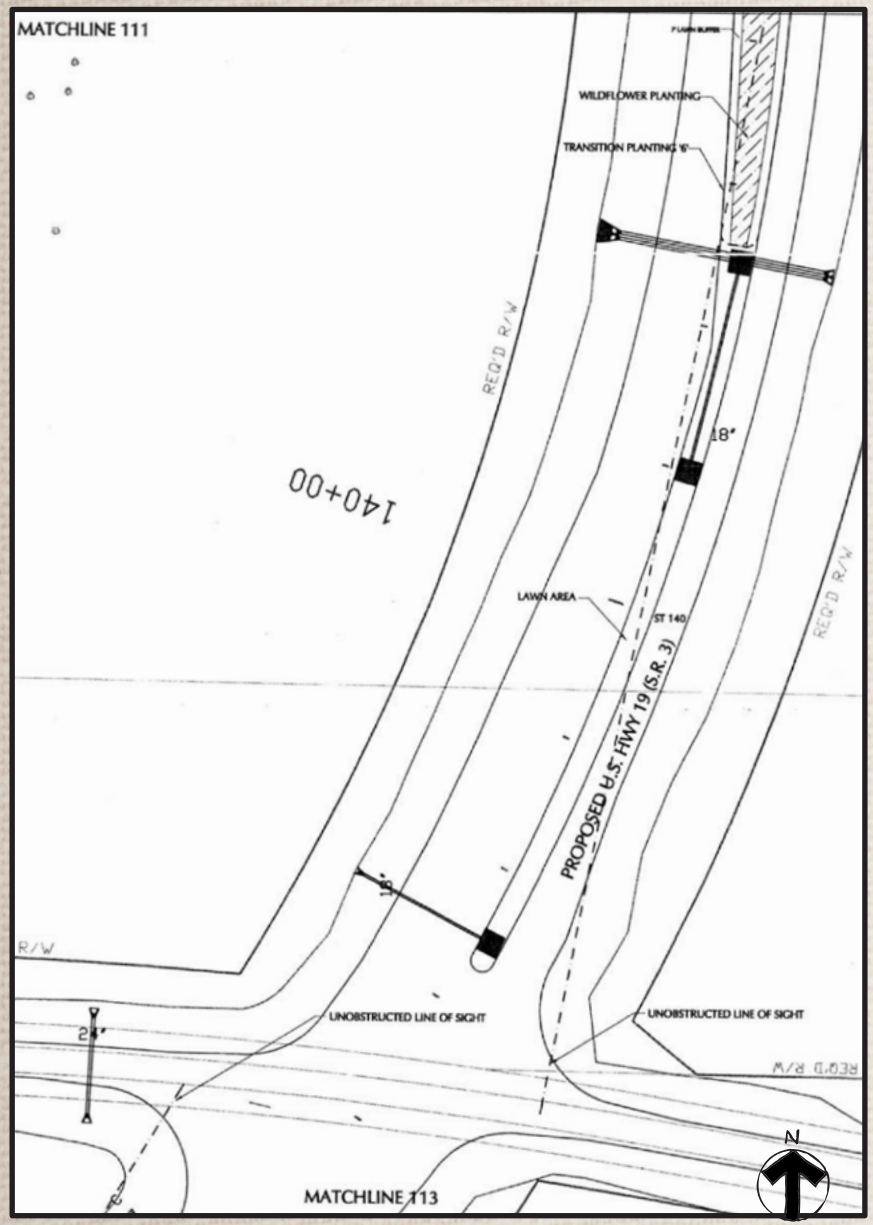
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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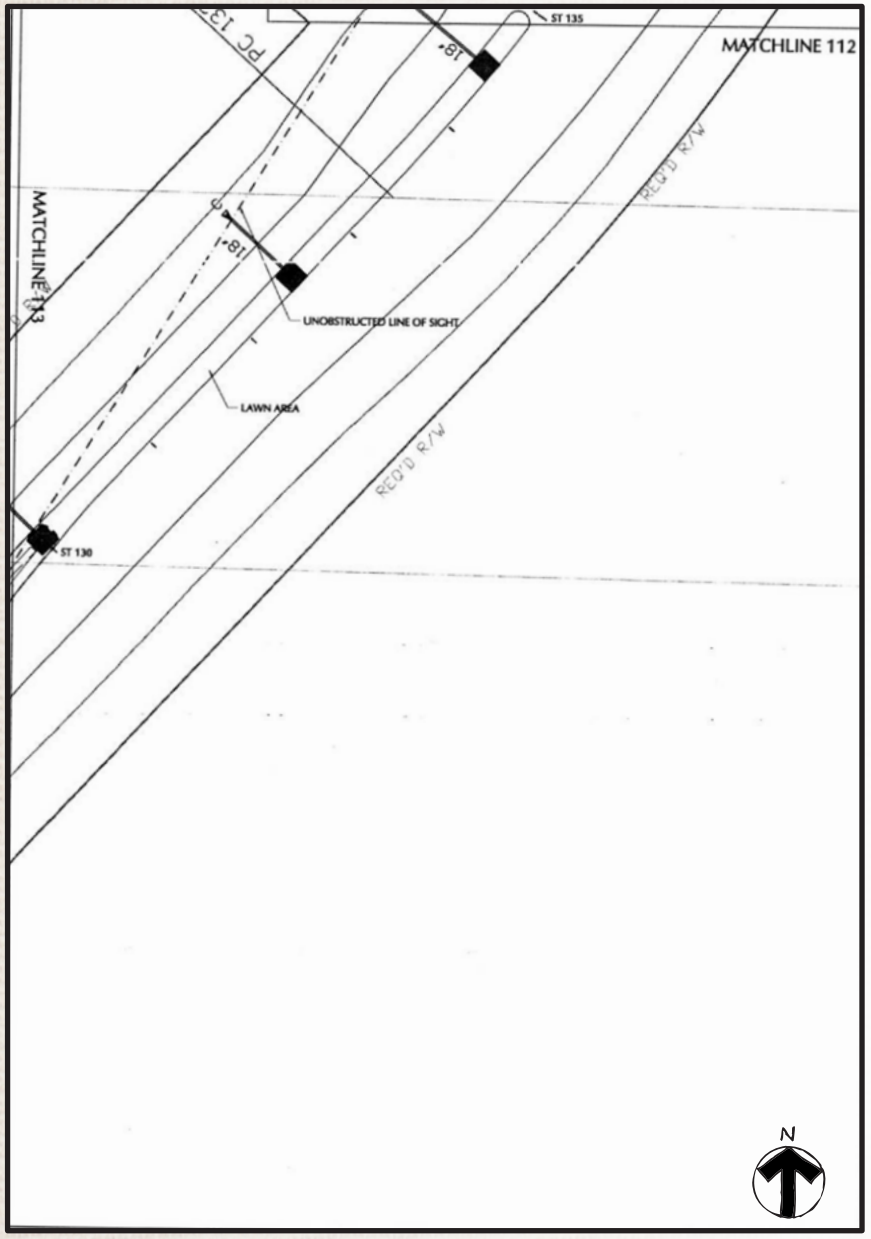

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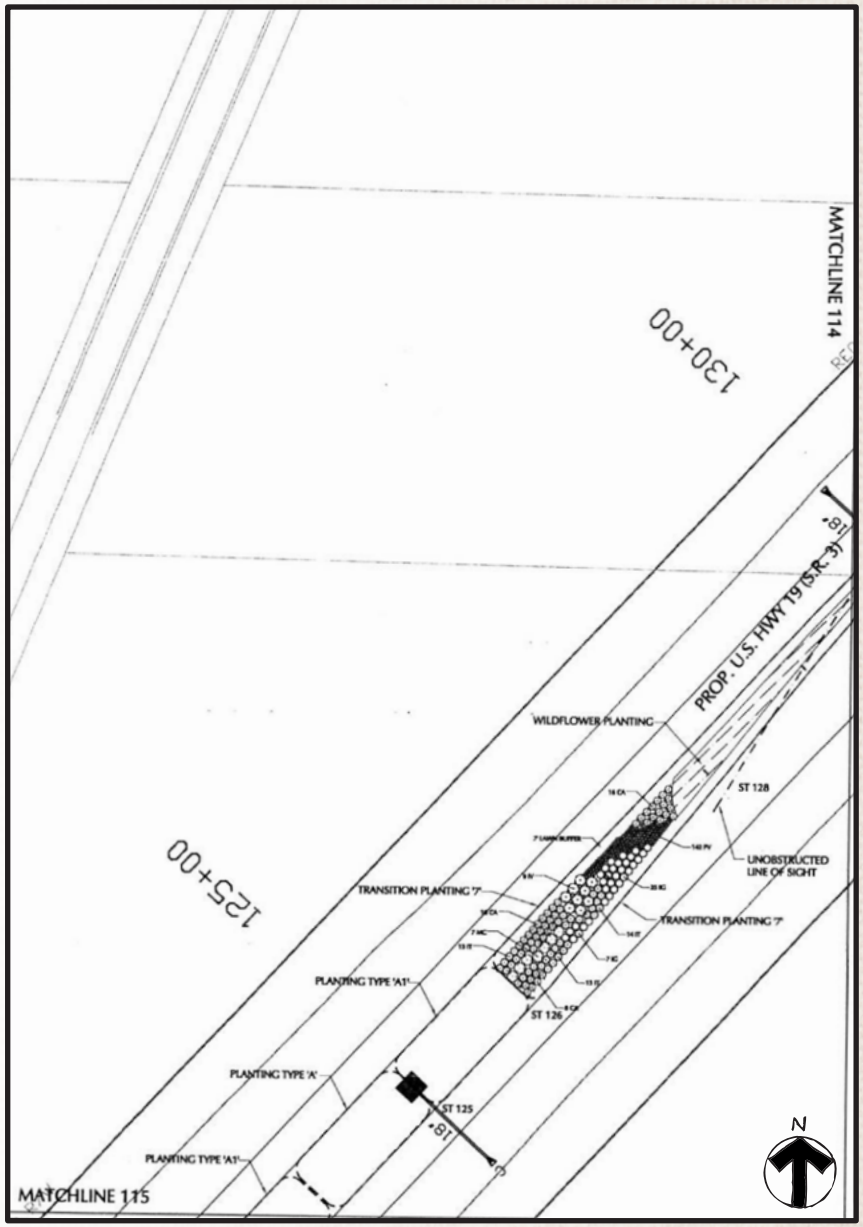
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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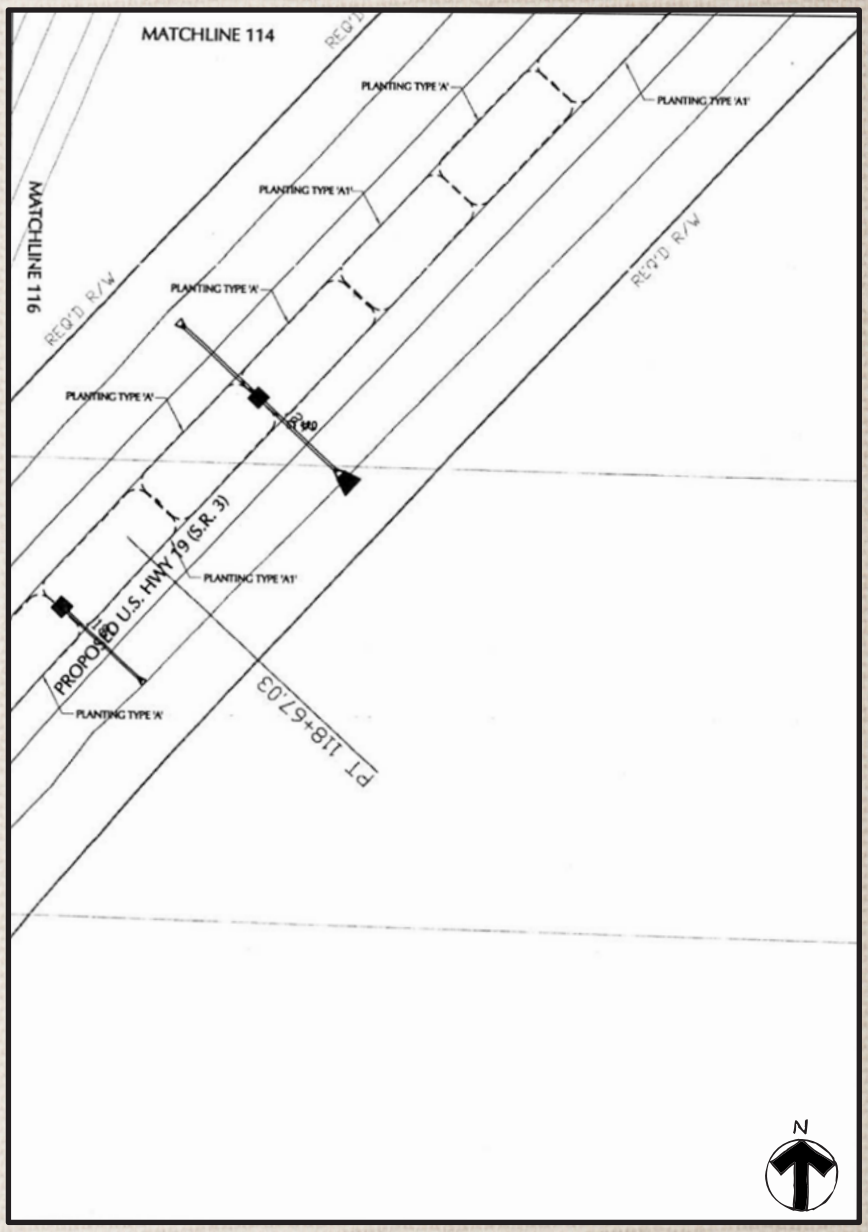

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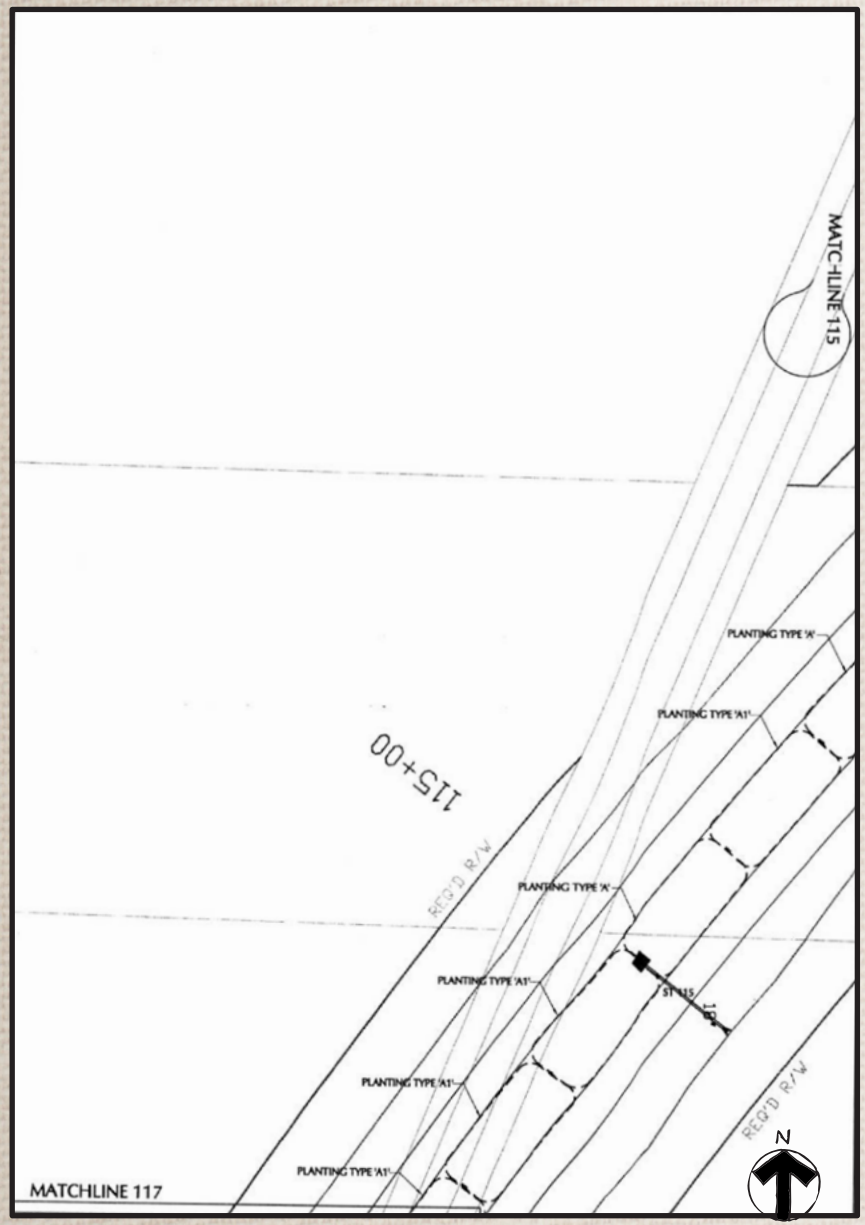

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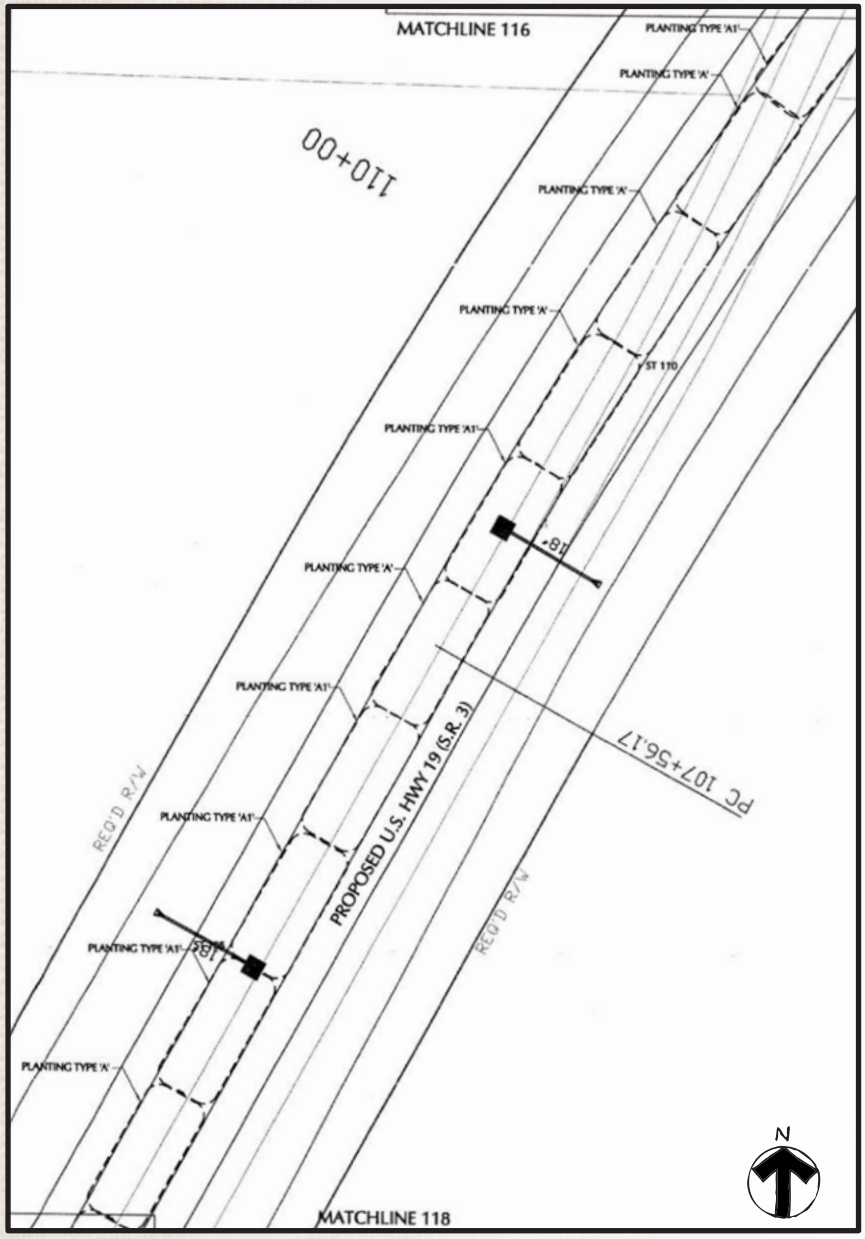

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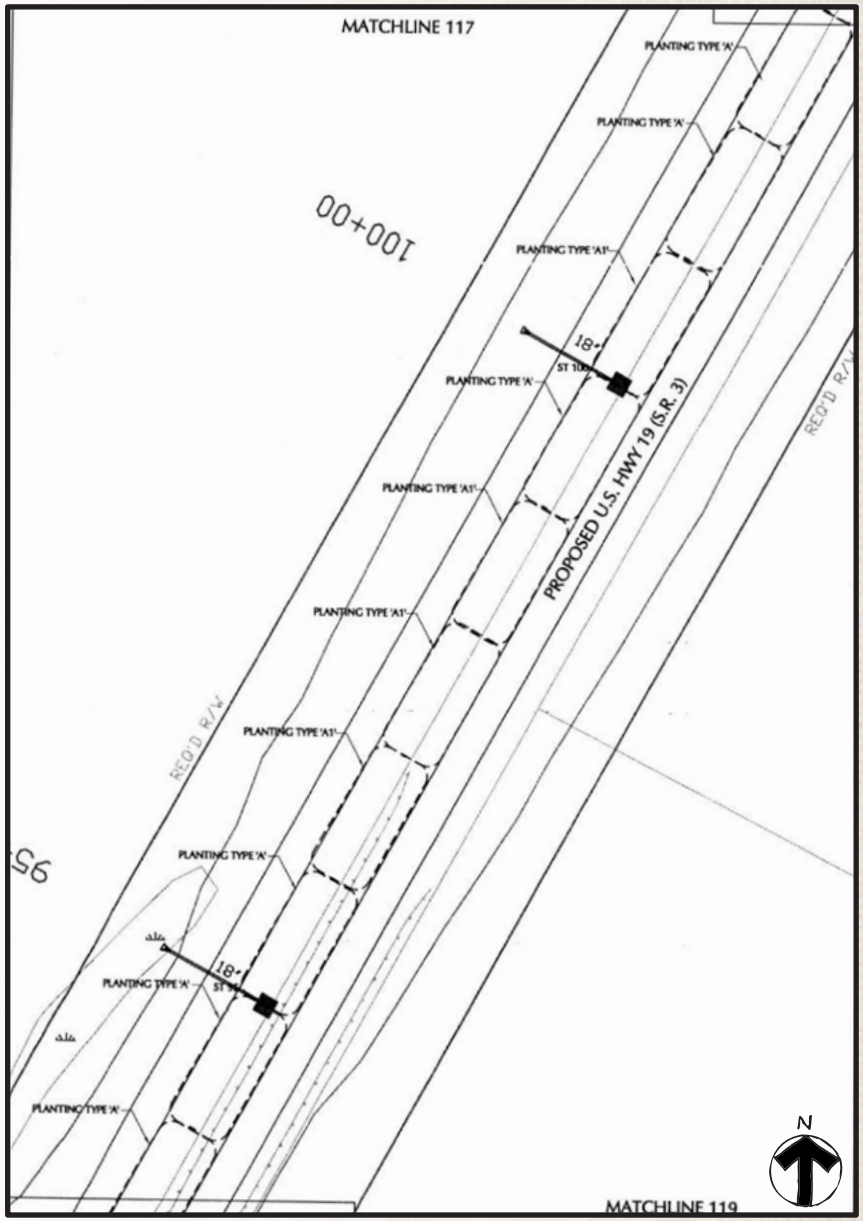
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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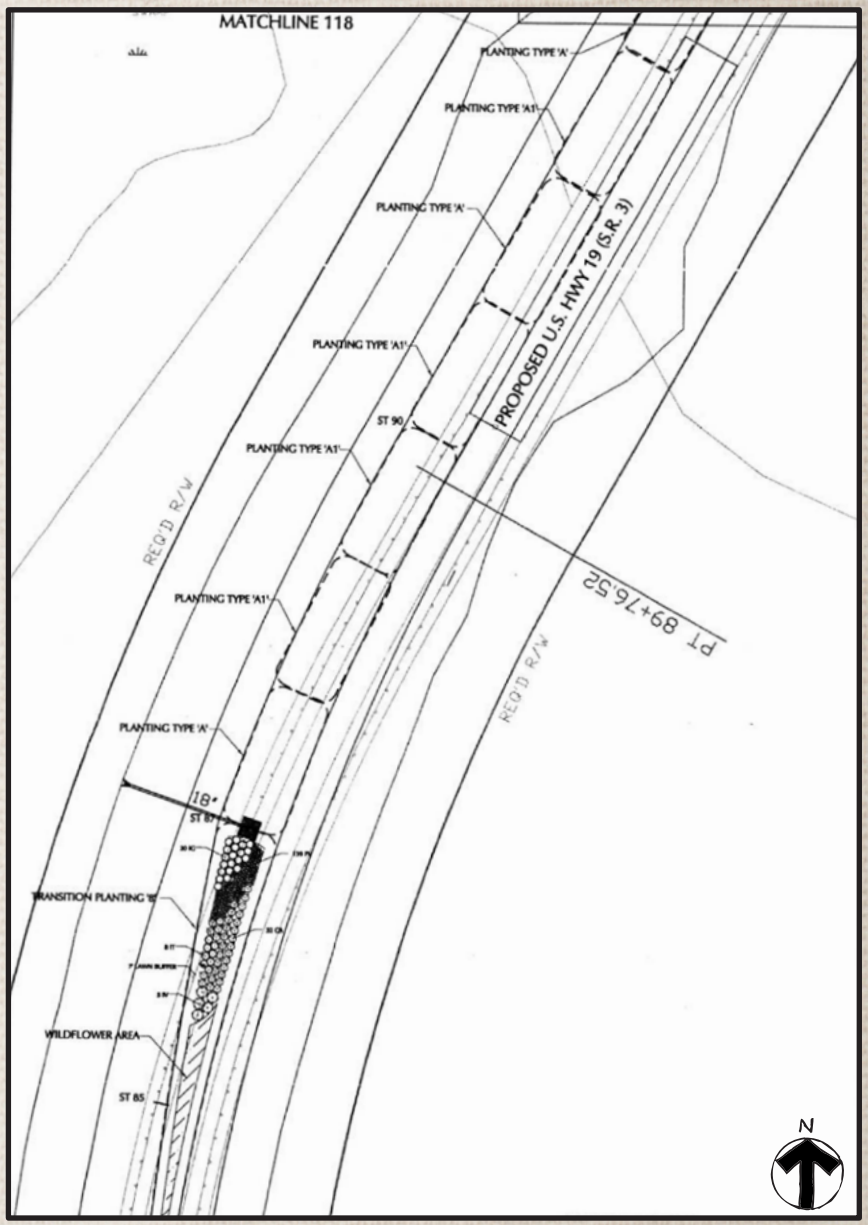

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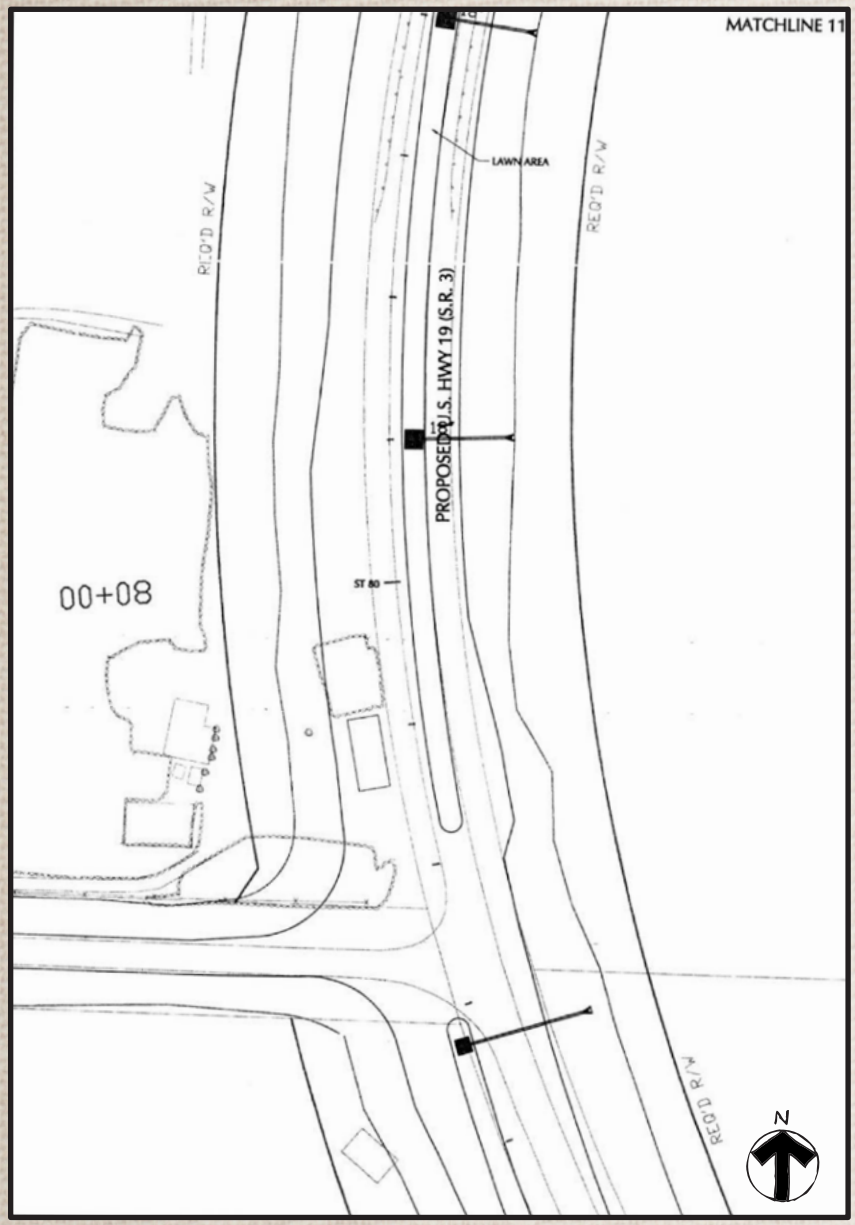
Sumter County P.I. #322190 - The Rodgers-Buchanan Farm, the Sumter Crossroads Historic District, The Webb Family Farms Landscape Plan



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Sumter County P.I. #322190 - Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
400	*Callicarpa americana*	American Beautyberry	6' O.C.
237	*Ilex glabra*	Inkberry	5' O.C.
111	*Ilex vomitoria*	Yaupon Holly	7' O.C.
365	*Itea virginica*	Virginia Sweetspire	5' O.C.
63	*Myrica carifera*	Wax Myrtle	8' O.C.
1173	*Panicum virgatum*	Switchgrass	2' O.C.

Sumter County P.I. #322190 - GDOT Interdepartmental Correspondence (July 27, 2009)

DEPARTMENT OF TRANSPORTATION

STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE P.I. #322195 **OFFICE** Environment/Location

DATE July 27, 2009

FROM Sharman Southall

TO Files

SUBJECT GDOT Project EDS-19(50), Sumter County; P.I. #322195; HP-910401-001
Meeting Minutes

A meeting was held with Andy Lindsey, GDOT Area Engineer, on July 22, 2009, to discuss recurring problems with erosion and maintenance of landscaping associated with the subject project. Attendees of this meeting were Mr. Lindsey, Sandy Lawrence, GDOT History Unit Supervisor, and Sharman Southall, GDOT Senior Historian. The purpose of this meeting was to review the project area post-construction and discuss alternative solutions to the problem. A project description and a brief history of the environmental aspects of the project follows.

The subject project consists of the widening of a segment of US Highway 19/SR 3 between CR 41, just north of Smithville, and ending near Bear Branch Creek at CR 42 from a two lane roadway to a four lane highway. US Highway 19 is a major travel corridor serving South Georgia and has been officially designated as part of the Governor's Road Improvement Program (GRIP). The GRIP system of roadways is intended to provide multi-lane access to areas of the state not served by the Interstate System.

With FHWA as the lead agency, an Assessment of Effects report for this project was submitted on May 17, 2001. The Department received concurrence on this report from the SHPO in a letter dated June 4, 2001. The adversely affected properties were Sumter Crossroads Historic District, Webb Family Farm, and Rodgers-Buchanan Farm, eligible and listed historic properties located within the proposed project's area of potential effects.

In July 2002, GDOT designers developed a new alignment for the relocation of US 19 in the vicinity of the Webb Family Farm. This new alignment would be located further east of the preferred alignment and existing US 19. As a result, while land would still be taken from within the National Register boundary for the Webb Family Farm and the effect would still be adverse, the residential dwelling and associated outbuildings would remain intact. An Assessment of Effects Addendum was prepared to reflect this change.

In September, 2002, SHPO requested that GDOT make changes to the Memorandum of Agreement (MOA). At this point, the Army Corps of Engineers (ACOE) had become the lead agency, therefore, these stipulations were added to those previously developed and a draft MOA was sent to ACOE for review. In May, 2005, a MOA was ratified that included stipulations for HABS documentation, the potential relocation of several buildings within Sumter Crossroads and landscape mitigation for the majority of the corridor from Cemetery Road to Muchaloochee Creek (see attached location map). Since that time all mitigation has been completed and the project has been constructed.

The landscaping was proposed to be located within the median of the improved US Highway 19 in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroads area, the Webb Family Farms Historic District, and the Rodgers-Buchanan Farm by obscuring the view of the additional pavement from these resources. Due to several factors, the landscape plan was implemented without sufficient review time by GDOT design and maintenance experts, and it became evident during construction that maintenance of the landscaping would be an issue. Plantings were originally proposed for the entire width of the median (with grassed buffer areas distributed along the length of the median), but since the median was depressed, drainage at the bottom of the swale put plants located there at risk of washing away, caused grassed and landscaped areas to erode, and prevented the desired drainage (see Figure 1 attached). To address these problems, it was agreed that plantings would be removed from the center of the median, allowing unencumbered drainage, and those plants were reused elsewhere (see Figure 2 attached). Although this plan of action addressed some of the erosion issues, several other problems have been identified:

- The median area cannot be mowed due to the arrangement and type of plants.
- The bark mulching around the plants has allowed weeds to grow amongst the planted scrubs, and these would need to be removed by hand.
- Spring rains had accelerated the erosion in areas of grade change.
- Weeds have created the potential for sight distance problems.

During the site visit, it was also noted that the resources were sufficiently screened from the improved roadway by distance, existing vegetation, and topography. Although the landscaping is somewhat effective in creating a visually pleasing environment, it appears that most of the landscaping was unnecessary from the perspective of screening the remaining historic resources from the improved facility. At the conclusion of the site visit, several alternatives were discussed:

- Leave the landscaping in place. *The landscaping has been in place for about one year. During the site visit, erosion was observed in planted and grassed areas. The erosion has continued to occur after plants located in the center were removed to allow for better drainage. It was also observed that weeds had begun to grow between the plantings, potentially creating site distance problems. Since District 3 has no landscape maintenance crew, hand weeding within the planted area would not be possible. If the weeds create a sight distance problem, mowing the area, including the plantings, would be the only option. From an environmental perspective, the current landscaping serves little purpose and does nothing to screen the historic resources.*
- Leave the landscaping in place and pave the ditch bottom to stop the washing. *The estimated cost for this construction would be an additional $294, 000. In addition to the cost, this paving would not address the aforementioned maintenance issues. From an environmental perspective, the current landscaping serves little purpose and does nothing to screen the historic resources. The paved ditch would not be visible from the historic resources.*
- Remove the landscaping from within the median areas and plant low maintenance landscaping within the right-of-way areas in front of the historic properties and parallel to

Sumter County P.I. #322190 - GDOT Interdepartmental Correspondence (July 27, 2009)

US Highway 19. *This alternative would be costly because the existing plantings could not be re-used. To date, the cost of this landscaping exceeds $386, 000. From an environmental perspective, landscaping along the right-of-way area would appear out of context with surrounding agricultural fields and would do nothing to screen the historic resources. There is also the risk of public criticism of additional expenditures.*

- Remove the landscaping from within the median areas and replace with grass. *This alternative would alleviate the erosion problem and most of the maintenance issues. Since hay mulch is used when grassing, the mulch would allow the area to remain stable while the growth is establishing. The grass would not inhibit drainage. Once budget constraints allow mowing operations to resume, maintenance of the area would only require mowing with no hand weeding. From an environmental perspective, grassing the median would only be visible from the center of the Sumter Crossroads Historic District, where buildings have already been relocated, and the visual change from the planted median to a grassed median would be insignificant. It is believed that grass would visually break the expanse of pavement, and its use would be consistent with a change in approach since the MOA for this project was drafted in 2001. Since that time, the SHPO has indicated that plantings other than grass are unnecessary within medians. However, the removal of the landscaping would need to be discussed with SHPO before proceeding. There is also the risk of public criticism of the cost of the removing the already costly landscaping with this option.*

It was agreed that Sharman would prepare minutes and request a meeting with SHPO to request that GDOT be allowed to remove all or most of the landscaping and replant the areas with grass. The meeting was adjourned.

SRS/

cc: Attendees
W. Ray Luce, Director and Deputy SHPO, HPD
Karen Matthews, GDOT Project Manager
David Millen, District 3

Sumter County P.I. #322190 - GDOT & SHPO Correspondence (October 15, 2009)

Vance C. Smith, Jr., Commissioner

GEORGIA DEPARTMENT OF TRANSPORTATION
One Georgia Center, 600 West Peachtree Street, NW
Atlanta, Georgia 30308
Telephone: (404) 631-1000

October 15, 2009

Dr. David Crass, Interim Director,
Deputy State Historic Preservation Officer,
and State Archaeologist
Historic Preservation Division/DNR
34 Peachtree Street, NW
Suite 1600
Atlanta, Georgia 30303-2316

RE: Project EDS-19(50), Sumter County, P.I.#322195 and HP-910401-001:
Resolution of Landscape Mitigation Removal

Dear Dr. Crass:

The subject project consists of the widening of a segment of US Highway 19/SR 3 between CR 41, just north of Smithville, and ending near Bear Branch Creek at CR 42 from a two lane roadway to a four lane highway. Although this project has been constructed, maintenance and erosion problems associated with the landscape mitigation have initiated a review of the effectiveness of the mitigation for adversely affected historic resources located within the project area and a request to remove the landscaping. A project description and a brief history of the environmental aspects of the project follows.

With FHWA as the lead agency, an Assessment of Effects report for this project was submitted on May 17, 2001. The Department received concurrence on this report from the SHPO in a letter dated June 4, 2001. The adversely affected properties were Sumter Crossroads Historic District, Webb Family Farm, and Rodgers-Buchanan Farm, eligible and listed historic properties located within the proposed project's area of potential effects.

In July 2002, GDOT designers developed a new alignment for the relocation of US 19 in the vicinity of the Webb Family Farm. This new alignment would be located further east of the preferred alignment and existing US 19. As a result, while land would still be taken from within the National Register boundary for the Webb Family Farm and the effect would still be adverse, the residential dwelling and associated outbuildings would remain intact. An Assessment of Effects Addendum was prepared to reflect this change.

In September, 2002, SHPO requested that GDOT make changes to the Memorandum of Agreement (MOA). At this point, the Army Corps of Engineers (ACOE) had become the lead agency, therefore, these stipulations were added to those previously developed, and a draft MOA was sent to ACOE for review. In May, 2005, a MOA was ratified that included stipulations for HABS documentation, the potential relocation of several buildings within Sumter Crossroads and landscape mitigation for the majority of the corridor from Cemetery Road to Muchaloochee Creek. Since that time, all mitigation has been completed, and the project has been constructed.

The landscaping was proposed to be located within the median of the improved US Highway 19 in order to minimize adverse visual effects to the remaining portion of the Sumter Crossroads area, the Webb Family Farms Historic District, and the Rodgers-Buchanan Farm by obscuring the view of the additional pavement from these resources. Due to several factors, the landscape plan was implemented without sufficient review time by GDOT design and maintenance experts, and it became evident during construction that maintenance of the landscaping would be an issue. Plantings were originally proposed for the entire width of the median (with grassed buffer areas distributed along the length of the median), but since the median was depressed, drainage at the bottom of the swale put plants located there at risk of washing away, caused grassed and landscaped areas to erode, and prevented the desired drainage. Shortly after construction, it was agreed that plantings would be removed from the center of the median, allowing unencumbered drainage, and those plants were reused elsewhere. Although this plan of action addressed some of the erosion issues, several other problems have since been identified.

As a result of numerous discussions since the landscaping was implemented, a site visit was held with Andy Lindsey, GDOT Area Engineer, on July 22, 2009, to discuss recurring problems with erosion and maintenance of landscaping associated with the subject project. Attendees of this meeting were Mr. Lindsey, Sandy Lawrence, GDOT History Unit Supervisor, and Sharman Southall, GDOT Senior Historian. The purpose of this meeting was to review the project area post-construction and discuss alternative solutions to the problem (see attached minutes). During the meeting, it was agreed the Department would meet with SHPO to present the options discussed and request that all or most of the landscaping be removed and the areas replanted with grass.

On August 13, 2009 a field visit of the project area was conducted by Amanda Schraner and Sharman Southall. During the field visit, each historic resource was viewed from various perspectives, and photographs of several areas were taken. At the conclusion of the site visit, it was agreed that both parties would meet at a later date in Atlanta to discuss removal or retention of the landscaping and the anticipated impact to historic resources.

Finally, a meeting was held with your office on September 3, 2009, to discuss recurring problems with erosion, alternative solutions and the results of the August 13 field visit. Attendees of this meeting were Richard Clouse, Georgia SHPO, Amanda Schraner, Georgia SHPO, Sandy Lawrence, GDOT History Unit Manager, and Sharman Southall, GDOT Senior Historian.

After reviewing the photographs of the project area, it was agreed that the resources were sufficiently screened from the improved roadway by distance, existing vegetation, and topography, and that grass within the median would sufficiently break the expanse of pavement visually. For these reasons, it was determined that the landscaping could be removed if necessary. It was also agreed that Sharman would coordinate a future meeting with FHWA, SHPO and representatives of various GDOT offices to discuss general issues surrounding landscape mitigation and methods for making it more effective on future projects.

Sumter County P.I. #322190 - GDOT & SHPO Correspondence (October 15, 2009)

If you concur with the above summary of circumstances and decisions made, please sign below and return to this office. If additional information is required, please contact Sharman Southall (404-631-1057 or ssouthall@dot.ga.gov) or Sandy Lawrence (404-631-1150 or slawrence@dot.ga.gov) of the Office of Environment and Location. We appreciate your assistance in this matter.

Sincerely,

Glenn Bowman, P.E.

Glenn Bowman, P.E.
State Environmental/Location Engineer

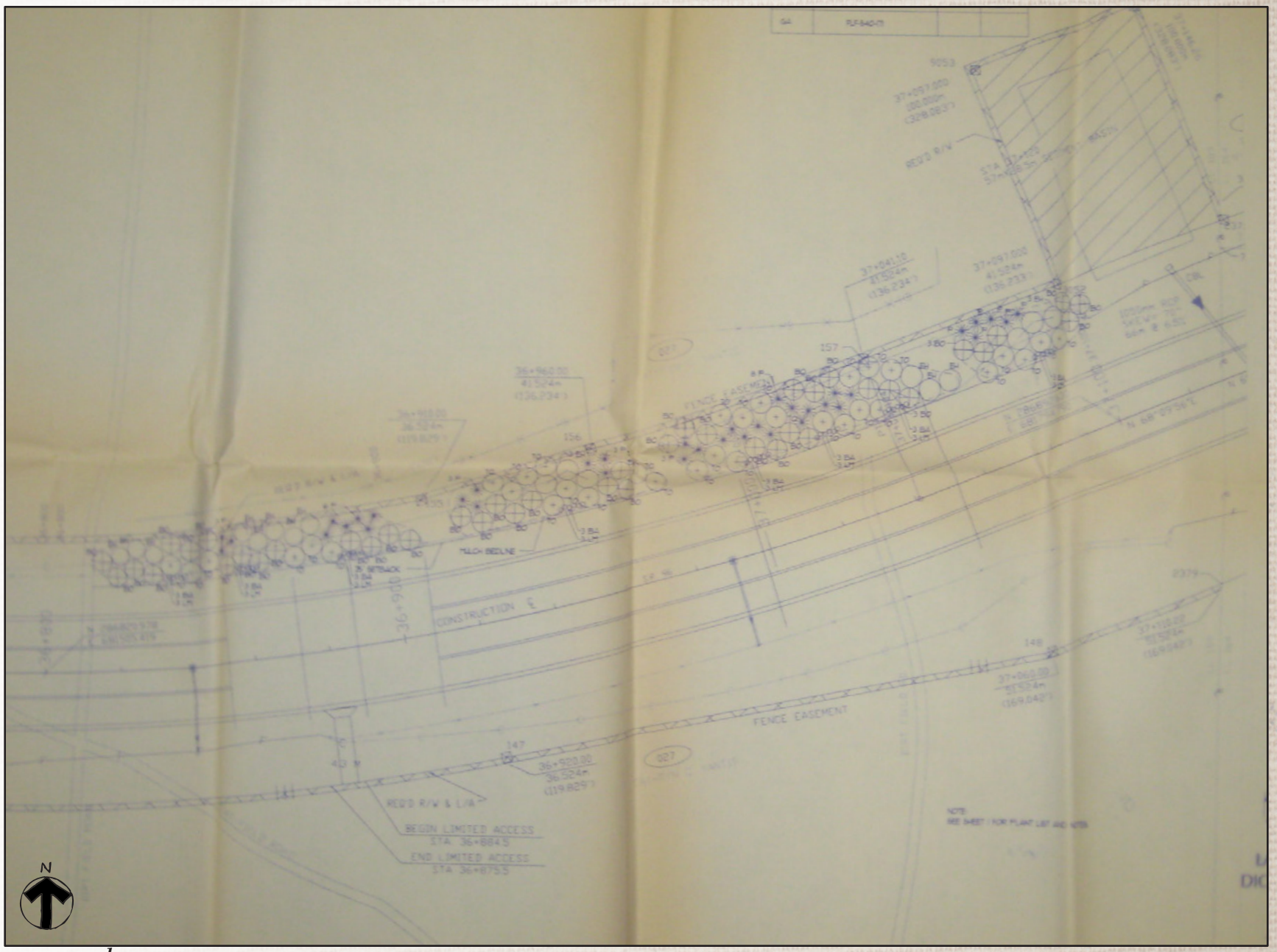
GB/SRS
Enclosure

cc: Attendees

CONCUR:_____ **DATE:** _____
David Crass, Deputy SHPO

Karen Matthews, GDOT Project Manager
David B. Crampton, U.S. Army Corps of Engineers
Stanley J. Knight, U.S. Army Corps of Engineers
Andy Lindsey, District 3
David Millen, District 3

Taylor County P.I. #321975 - The Dicks-Culverhouse House Landscape Plan



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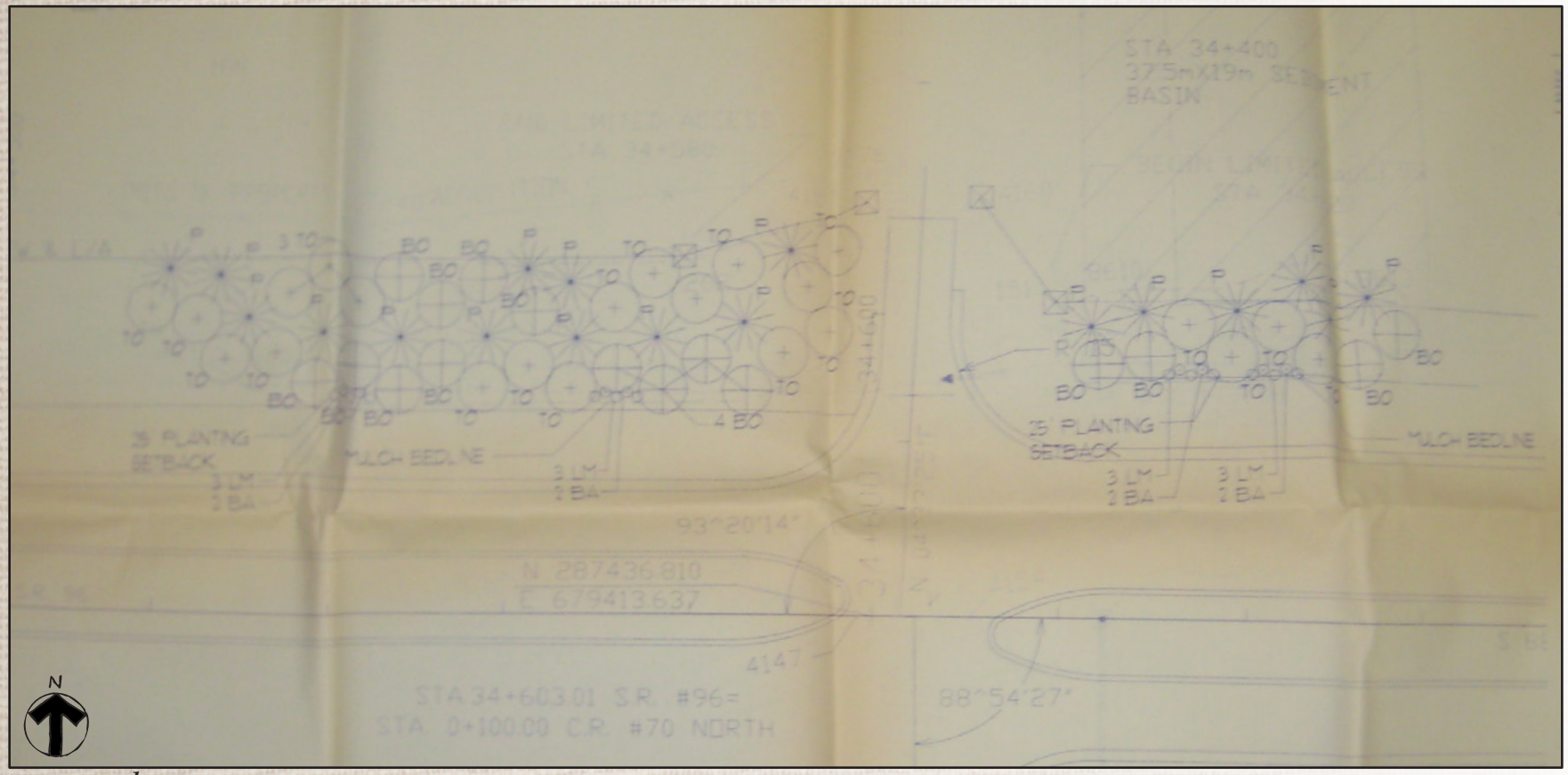
Taylor County P.I. #321975 - The Howard Historic District Landscape Plan



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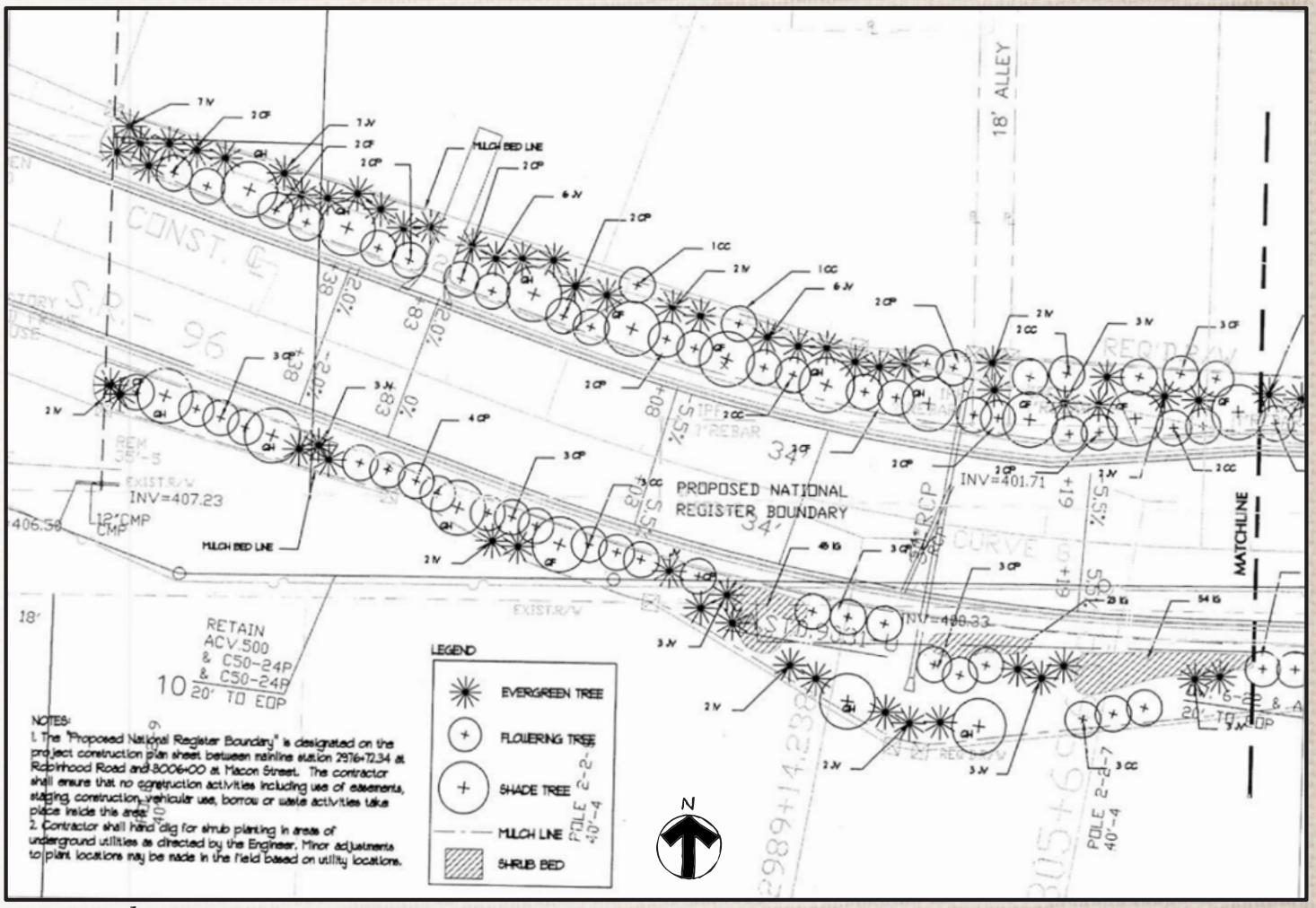
Taylor County P.I. #321975 - The Dicks-Culverhouse House and Howard Historic District Plant Schedule

QTY. Dicks-Culverhouse	QTY. Howard	Botanical Name	Common Name	Spacing
16	42	*Quercus incana*	Bluejack Oak	10' O.C.
0	17	*Crataegus laevigata*	English Hawthorn	10' O.C.
18	37	*Pinus palustris*	Longleaf Pine	10' O.C.
22	34	*Quercus laevis*	Turkey Oak	10' O.C.
8	24	*Baptisia australis*	Blue Wild Indigo	12"-18" O.C.
12	24	*Liatris microcephala*	Dwarf Liatris	12"-18" O.C.

Taylor County P.I. #363140 - The Reynolds Historic District Landscape Plan



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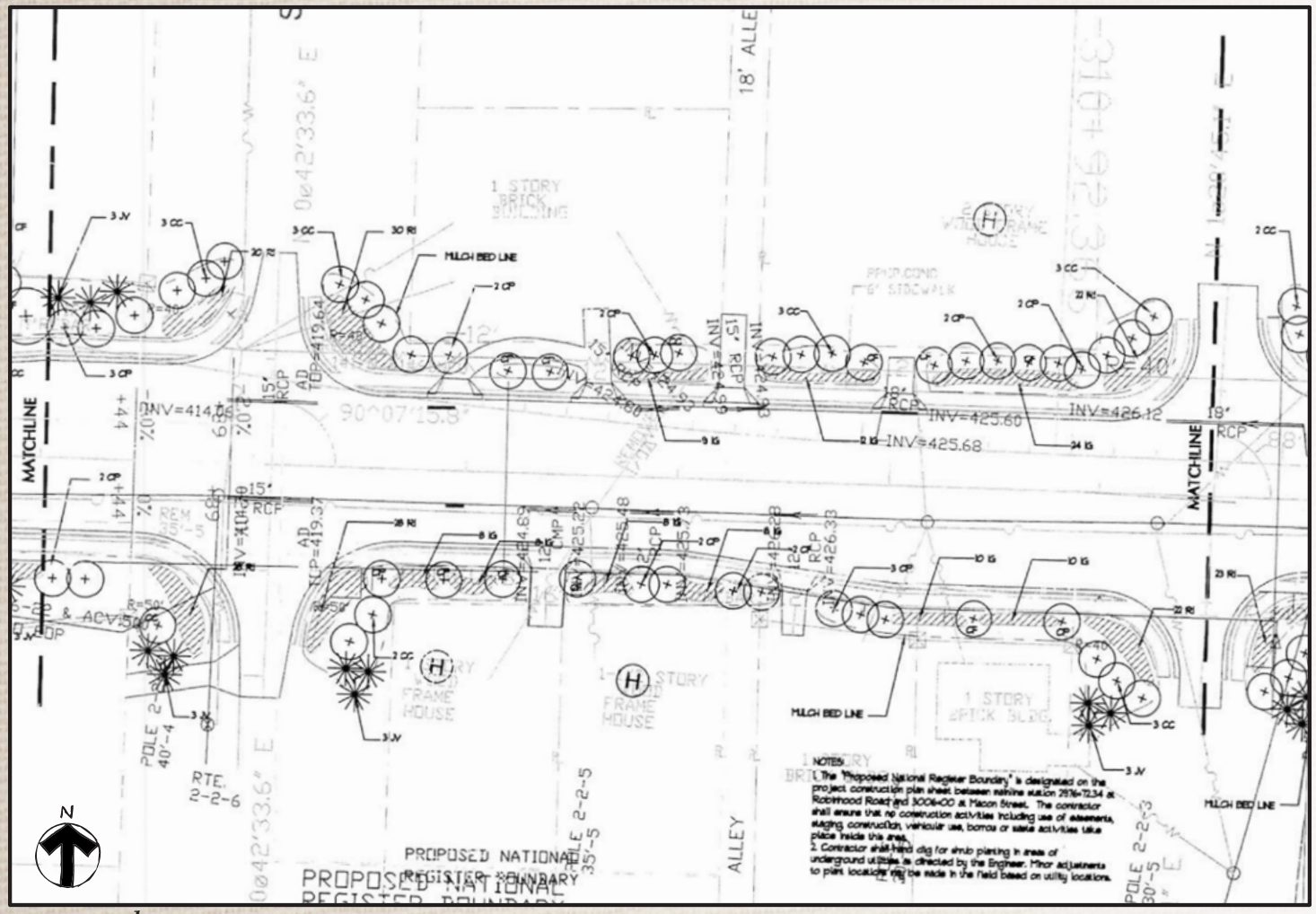
Taylor County P.I. #363140 - The Reynolds Historic District Landscape Plan



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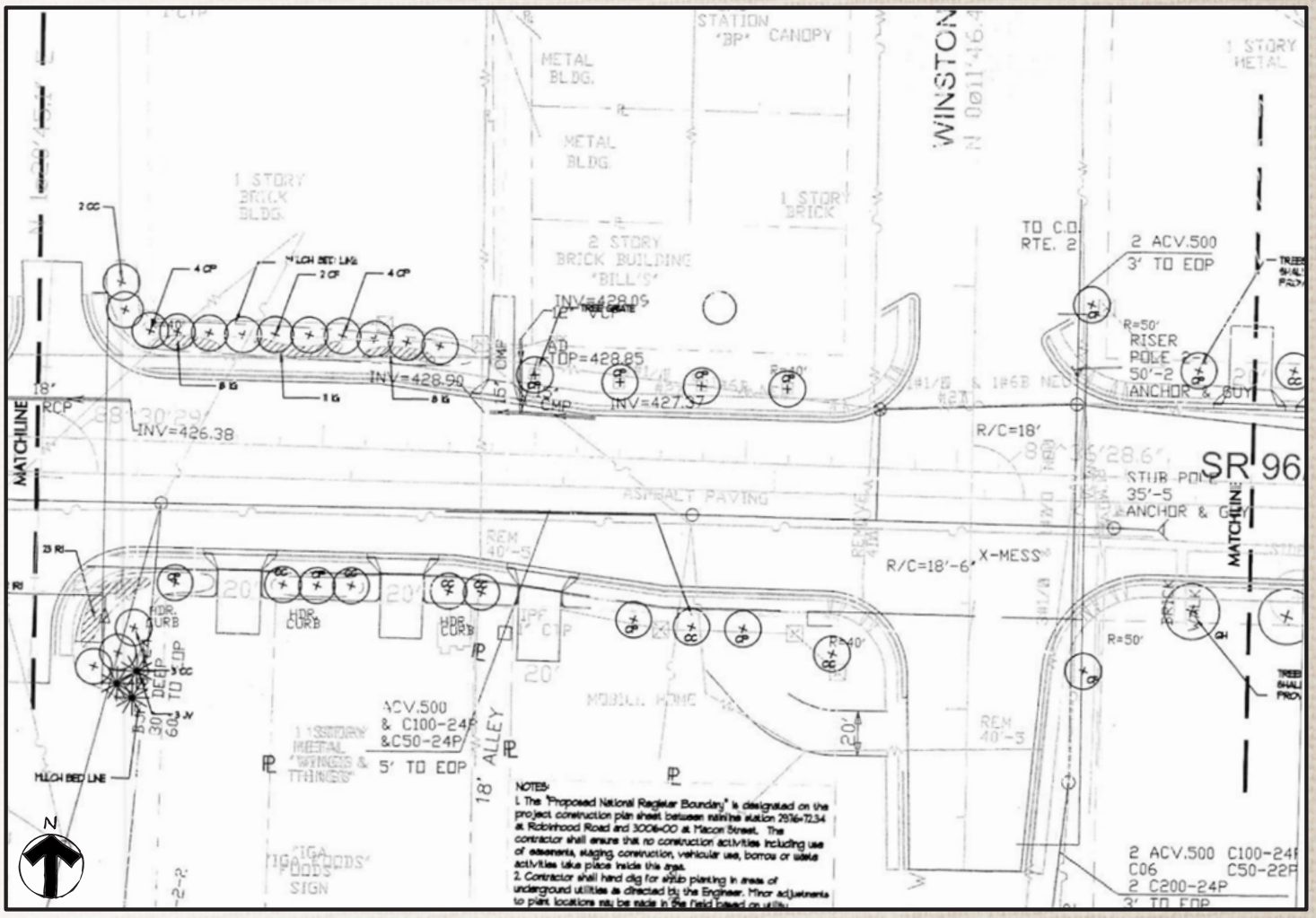
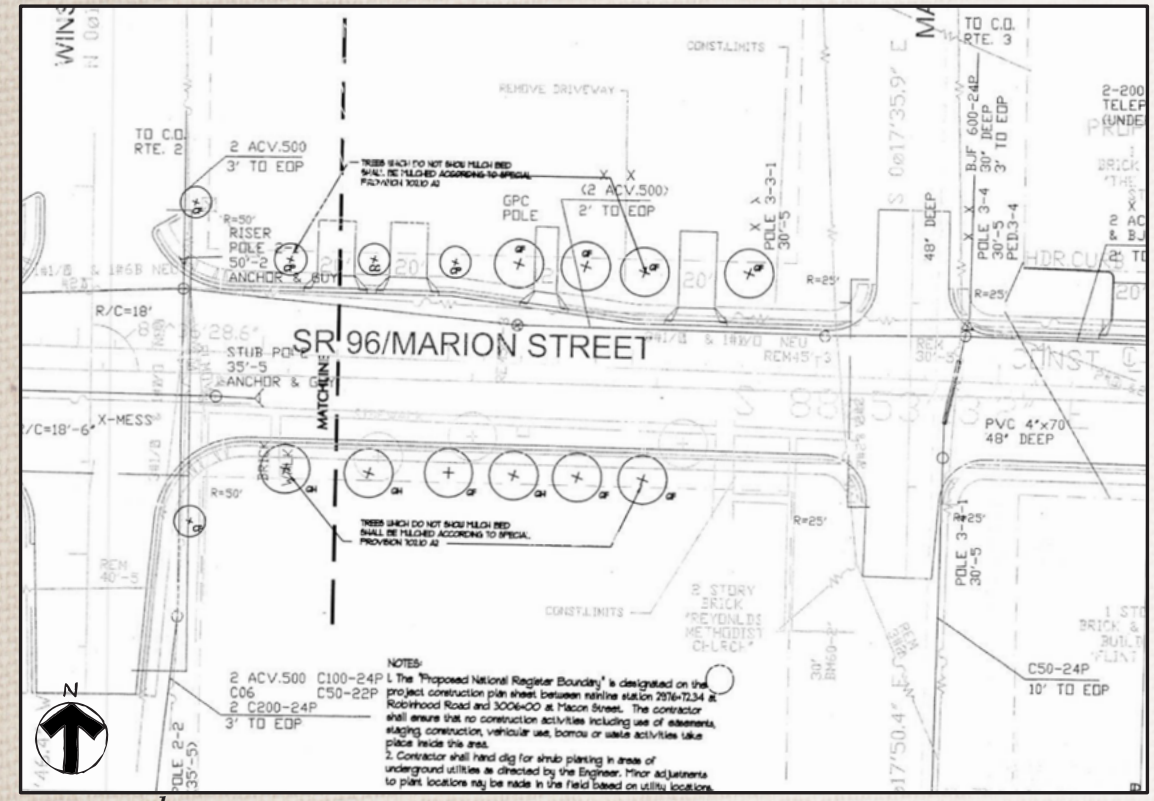
Taylor County P.I. #363140 - The Reynolds Historic District Landscape Plan



not to scale

Taylor County P.I. #363140 - The Reynolds Historic District Landscape Plan



not to scale

Taylor County P.I. #363140 - The Reynolds Historic District Plant Schedule

QTY.	Botanical Name	Common Name	Spacing
22	*Cornus florida*	Flowering Dogwood	Per Plans
70	*Crataegus phaenopyrum*	Washington Hawthorn	Per Plans
44	*Cercis Canadensis*	Redbud	Per Plans
51	*Juniperus virginiana*	Eastern Red Cedar	Per Plans
20	*Ilex vomitoria*	Yaupon Holly	Per Plans
13	*Quercus falcata*	Southern Red Oak	Per Plans
23	*Quercus hemisphaerica*	Laurel Oak	Per Plans
173	*Rhododendron indica*	Formosa Azalea	4' O.C.
246	*Ilex glabra*	Inkberry Holly	6' O.C.

Appendix B

Historically Available Plants in Georgia

As found in

"A Guide to Restoration of Georgia Gardens: 1733-1925"

by Sara Katherine Williams

Trees Available by 1800

Botanical Name		Common Name
Acer	barbatum floridanum	Florida Maple
	campestre	Hedge Maple
	negundo	Box Elder
	opalus	Italian Maple
	pensylanicum	Moosewood
	platanoides	Norway Maple
	rubram	Red Maple
	saccharinum	Silver Maple
	saccharum	Sugar Maple
	spicatum	Mountain Maple
Aesculus	hippocastanum	Horse Chestnut
	octandra	Yellow Buckeye
	sylvatica	Painted Buckeye
Ailianthus	altissima	Tree of Heaven
Albizzia	julibrissin	Mimosa
Alnus	glutinosa	European Alder
Amelanchier	canadensis	Shadblow Serviceberry
Aralia	spinosa	Devil's Walking Stick
Araucaria	araucana	Monkey-Puzzle
Arbutus	unedo	Strawberry Tree
Asimina	triloba	Paw-paw
Betula	lenta	Sweet Birch
	nigra	River Birch
	pendula	European Birch
Broussonetia	papyrifera	Common Paper-mulberry
Buxus	sempervirens	Tree Box
	sempervirens var. arborescans	Tree Box 'arborescans'
Carpinus	betulus	European Hornbeam
	caroliniana	American Hornbeam
	orientalis	Oriental Hornbeam
Carya	glabra	Pignut Hickory
	illinoinensis	Pecan

Trees Available by 1800 (continued)

Botanical Name		Common Name
	laciniosa	Shellbark Hickory
	ovata	Shagbark Hickory
	ovalis	Red Hickory
	pallida	Sand Hickory
	tomentosa	Mockernut Hickory
Castanea	dentata	American Chestnut
	pumila	Allegheny Chinkapin
Catalpa	bignonioides	Southern Catalpa
Cedrus	libani	Cedar of Lebanon
Celtis	australis	European Hackberry
	laevigata	Sugar Hackberry
Cercis	canadensis	Eastern Redbud
	siliquastrum	Judas Tree
Chamaecyparis	hyoides	White Cedar
Chionanthus	virginicus	Fringe Tree
Cinanmomum	camphora	Champhor Tree
Cladratis	lutea	American Yellowwood
Clethra	arkorea	Lily-of-the-Valley Clethra
Cornus	alternifolia	Alternate-leaf Dogwood
	florida	Flowering Dogwood
Cotinus	americanus	Amercian Smoketree
Corylus	americana	Hazel
Crataegus	phaenopyrum	Washington Hawthorn
	punctata	Dotted Hawthorn
Cupressus	sempervirens	Italian Cypress
Diospyros	virginiana	Persimmon
Eriobotrya	japonica	Loquat
Fagus	grandifolia	Amercian Beech
	sylvatica	European Beech
Fraxinus	americana	White Ash
	pennsylvanica	Green Ash
Ginkgo	biloba	Ginkgo

Trees Available by 1800 (continued)

Botanical Name		Common Name
Gleditsia	tricanthos	Honey locust
Halesia	carolina	Carolina Silverbell
	monticola	Mountain Silverbell
Ilex	opaca	American Holly
Juglans	cinerea	Butternut
	nigra	Black Walnut
	regia	English Walnut
Juniperus	virginiana	Eastern Red Cedar
Koeltreutaria	paniculata	Golden Rain Tree
Lagerstromia	indica	Crepe Myrtle
Laurus	nobilis	Laurel
Liquidambar	styraciflua	Sweet Gum
Liriodendron	tulipifera	Tulip Tree
Magnolia	acuminata	Cucumber Tree
	cordata	Yellow Cucumber Tree
	fraseri	Fraser Magnolia
	grandiflora	Southern Magnolia
	macrophylla	Bigleaf Magnolia
	virginiana	Sweet Bay Magnolia
Malus	species	Apple
Melia	azedarach	Chinaberry
Morus	alba	White Mulberry
	rubra	Red Mulberry
Nyssa	sylvatica	Black Gum
Oxydendron	arboreum	Sourwood
Picea	abies	Norway Spruce
Pinus	caribaea	Slash Pine
	echinata	Shortleaf Pine
	rigida	Pitch Pine
	strobus	Eastern White Pine
	Sylvestris	Scotch Pine
Platanus	occidentalis	Sycamore

Trees Available by 1800 (continued)

Botanical Name		Common Name
	orientalis	Oriental Plane Tree
Populus	deltoides	Cottonwood
	nigra var. Italica	Lombardy Poplar
Prunus	amygdalus	Almond
	avium	Mazzard Cherry
	caroliniana	Carolina Cherry Laurel
	persica species	Peach
	serotina	Black Cherry
Pyrus	species	Pear
Quercus	alba	White Oak
	borealis	Red Oak
	cerris	Turkey Oak
	coccinea	Scarlet Oak
	falcata	Southern Red Oak
	georgiana	Georgia Oak
	incana	Bluejack Oak
	laurifolia	Laurel Oak
	lyrata	Overcup Oak
	marilandica	Blackjack Oak
	michauxii	Swamp Chestnut Oak
	nigra	Water Oak
	phellos	Willow Oak
	prinus	Chestnut Oak
	robur	English Oak
	rubra	Northern Red Oak
	shumardii	Shummard Oak
	stellata	Post Oak
	velutina	Black Oak
	virginiana	Live Oak
Robina	pseudoacacia	Black Locust
Sabal	palmetto	Palmetto
Salix	babylonica	Weeping Willow

Trees Available by 1800 (continued)

Botanical Name		Common Name
	nigra	Black Willow
Sassafras	albidum	Sassafras
Sophora	japonica	Japanese Pagoda Tree
Taxodium	distichum	Bald Cypress
Taxus	baccata	English Yew
Thuja	occidentalis	Arbor-vitae
	orientalis	Chinese Arbor-vitae
Tilia	heterophylla	White Basswood
	tomentosa	Silver Linden
Tsuga	caroliniana	Carolina Hemlock
	canadensis	Eastern Hemlock
Ulmus	alatus	Winged Elm
	americana	American Elm
	glabra	Scotch Elm
	rubra	Slippery Elm

Shrubs and Vines Available by 1800

Botanical Name		Common Name
Aesculus	Parviflora	Bottlebrush Buckeye
Ampelopsis	arborea	Peppervine
Artemisia	abrotanum	Southernwood
	absinthium	Wormwood
Baccharis	halimifolia	Groundsel Bush
Bignonia	capreolata	Crossvine
Buddleia	globosa	Butterfly Bush
Buxus	sempervirens	Common Box
	sempervirens var. suffruticosa	Edging Box
Calluna	vulgaris	Heathee
Calycanthus	floridus	Sweetshrub
Camellia	japonica	Camellia
	japonica var. 'Alba Plena'	Alba Plena Camellia
	japonica var. 'Christmas Cheer'	Christmas Cheer Camellia
	japonica var. 'Reine des Fleurs'	Reine des Fleurs Camellia
Camellia	sinensis	Tea Plan
Campsis	radicans	Trumpet Vine
Chaenomeles	speciosa	Flowering Quince
Chimonanthus	praecox	Wintersweet
Cistus	cyprius	Spotted Rock-rose
Chematis	crispa	Curly Clematis
	virginiana	Virgin's Bower
Colutea	arborescens	Bladder-senna
Cotinus	coggygria	Smokebush
	okovatus	American Smokebush
Cyrilla	racemiflora	American Cyrilla
Cytisus	multiflorus	White Spanish Broom
	scoparius	Scotch Broom
Danae	racemosa	Alexandrian Laurel
Daphne	cneorum	Rose Daphne
	odora	Winter Daphne
Erica	carnea	Spring Heath

Shrubs and Vines Available by 1800 (continued)

Botanical Name		Common Name
	ciliaris	Fringed Heath
	cinerea	Twisted Heath
	mediterranea	Mediterranean Heath
Euonymus	americanus	Strawberry Bush
	latifolius	Broadleaf Euonymus
Fothergilla	gardenii	Dwarf Fothergilla
	major	Large Fothergilla
	monticola	Alabama Fothergilla
Gardenia	jasminoides	Gardenia
Genista	hispanica	Spanish Gorse
Hamamelis	vernalis	Vernal Witch-hazel
	virginiana	Common Witch-hazel
Hedera	helix	English Ivy
Hibiscus	syriacus	Shrub Althea
Hydrangea	macrophylla	House Hydrangea
	quercifolia	Oak-leaved Hydrangea
Hypericum	buckleyi	Blue Ridge St. Johnswort
	calycinum	Aaronsbeard St. Johnswort
	prolificum	Shrubby St. Johnswort
Iberis	amana	Candytuft
	gibraltarica	Gibraltar Candytuft
	sempervirens	Evergreen Candytuft
Ilex	aquifolium	English Holly
	cassine	Dahoon
	decidus	Possum Haw
	glabra	Inkberry
	verticillata	Winterberry
	vomitoria	Yaupon Holly
Illicium	floridanum	Florida Anise Tree
Juniperus	savin	Savin Juniper
Kalmia	latifolia	Mountain Laurel
Leucothoe	catesbaei	Drooping Leucothoe

Shrubs and Vines Available by 1800 (continued)

Botanical Name		Common Name
Ligustrum	lucidum	Glossy Privet
	vulgare	Common Privet
Lonicera	etrusca	Etruscan Honeysuckle
	tatarica	Tartarian Honeysuckle
	sempervirens	Trumpet Honeysuckle
Myrica	cerifera	Wax Myrtle
Nerium	oleander	Oleander
Osmanthus	americanus	Devilwood osmanthus
Paeonia	suffruticosa	Mountain Poeny
Paliurus	spina-christi	Christ Thorn
Parthenocissus	quinquefolia	Virginia Creeper
Persea	borbonia	Red Bay Persea
	palustris	Swamp Bay Persea
Philadelphus	coronarius	Sweet Mock-Orange
	grandiflorus	Big Scentless Mock-Orange
	inodorus	Scentless Mock-Orange
	Inodorus laxus	Drooping Scentless Mock-Orange
Phorandendron	flavescens	Mistletoe
Prunus	laurocersus	Cherry-laurel
	lusitanica	Portuga-laurel
Purica	granatum	Pomegranate
Pyracantha	coccinea	Scarlet Firethorn
Rhododendron	arbovescans	Sweet Azalea
	atlanticum	Coast Azalea
	calendulaceum	Flame Azalea
	catawbiense	Catawba Azalea
	indicum	Indian Azalea
	nudiflorum	Pinxterbloom Azalea
	pruniflorum	Plumlead Azalea
	roseum	Roseshell Azalea
	viscosum	Swamp Azalea
Rhus	aromatica	Fragrant Sumac

Shrubs and Vines Available by 1800 (continued)

Botanical Name		Common Name
	copallina	Shining Sumac
Robinia	hispida	Rose-acacia
Rosa	alba	White Cottage Rose
	centifolia	Cabbage Rose
	cinnamomea	Cinnamon Rose
	damascena	Damask Rose
	eglanteria or rubiginosa	Sweetbriar
	gallica	Moss Provence Rose
	laevigata	Cherokee Rose
	moschata	Musk Rose
	palustris	Swamp Rose
	pendulina	Alpine Rose
	spinosisima	Scotch Hedge Rose
	virginiana	Virginia Rose
	'Martha Washington'	
	'Nellie Custis'	
	'York and Lancaster'	
Rubus	odoratus	Flowering Raspberry
Ruscus	aculeatus	Butcher's Broom
Sabal	minor	Dwarf Palmetto
Salix	caprea	Goat Willow
Santolina	chamaecyparissus	Lavender-cotton
Serenoa	repens	Saw Palmetto
Smilax	lanceolata	Smilax
Sorbus	americana	American Mountain Ash
Sparticum	junceum	Spanish Broom
Stewartia	malacondendron	Virginia Stewartia
	ovata grandiflora	Showy Stewartia
Symphoricarpos	albus	Snowberry
	orbiculatus	Coralberry
Syringa	chinensis	Chinese Lilac
	laciniata	Cutleaf Lilac

Shrubs and Vines Available by 1800 (continued)

Botanical Name		Common Name
	persica	Persian Lilac
	vulgaris	Common Lilac
Trachelospermum	jasminoides	Star-Jasmine
Vaccinium	arboreum	Farkleberry
Viburnum	lentago	Nannyberry
	nudum	Smooth Witherod
	prunifolium	Black Haw
	rufidulum	Southern Black Haw
Vinca	major	Periwinkle
	minor	Common Periwinkle
Vitex	agnus-castus	Chaste-tree
Vitis	species	Grapes
Wisteria	frutescans	American Wisteria
Xanthorhiza	simplissima	Yellowroot
Yucca	aliofolia	Spanish Dagger
	filamentosa	Adam's Needle
	gloriosa	Yucca

Flowers Available by 1800

Botanical Name		Common Name
Aconitum	napellus	Wolfbane
Adiantum	pedatum	Maidenhair Fern
Ajuga	reptans	Creeping Charlie
Amaranthus	candatus	Love-lies-bleeding
	tricolor	Joseph's Coat
Amaryllis	atamasco	Atamasco Lily
Anaphalis	margaritacea	American Everlasting
Anemone	coronaria	Anemone
	hortensis	Anemone
Antirrhinum	majus	Snapdragon
Aquilegia	canadensis	Columbine
	vulgaris	American Columine
Arctostaphyllos	uva-ursi	Bearberry
Argemone	mexicana	Mexican Poppy
Armeria	maritima	Thrift
Artemesia	abrotanum	Southernwood
Arundinaria	tecta	Dwarf Bamboo
Asphodelus	albus	Asphodell
	lutea	King's Spear
Aster	tradescanti	Aster
	amellus	Aster
Bellis	perennis	English Daisy
Caladium	esculentum	Elephant's ear
Calendula	officinalis	Pot marigold
Callistephus	chinensis	China Aster
Campanula	americana	American Campanula
	persicifolia	Peach-leaved Bellflower
	medium	Canterberry Bells
	pyramidalis	Bellflower
	rapunculoides	Creeping Campanula
	trachelium	Great Bellflower
Celosia	argentea var. cristada	Cockscomb

Flowers Available by 1800 (continued)

Botanical Name		Common Name
Centaurea	centaurium	Centaury
	cyanus	Cornflower
Cheirianthus	cheiri	Wallflower
Chelidonium	majus	Celandine Poppy
Chelone	glabra	Turtlehead
	obliqua	Rose Turtlehead
Chrysanthemum	bellisperennis	Perennial Daisy
Chrysanthemum	coccineum	Painted Daisy
	leucanthemum	Ox-eye Daisy
	parthenium	Feverfew
Colchicum	autumnale	Autumn Crocus
Convallaria	majalis	Lily-of-the-Valley
Coreopsis	lanceolata	Tickseed Coreopsis
Crocus	vernus	Crocus
Datura	stamonium	Jimson Weed
Delphinium	ajacis	Golden Larkspur
	consolida	Field Larkspur
Dianthus	barbatus	Sweet William
	caryophyllus	Carnation
	plumarius	Grass Pinks
Dictamus	albus	Gas Plant
Digitalis	purpurea var. gloxiniaeflora	Foxglove
Drabna	verna	Whitlow Grass
Endymion	nonscriptus	Hyacinth
Epimedium	alpinum	Epimedium
Eranthus	hymalis	Winter Aconite
Eryngium	maritimum	Sea Holly
Erythronium	americanum	Dogtooth Violet
Fritillaria	imperialis	Crown Imperial
	meleagris	Chequered Lily
Galanthus	nivalis	Snowdrop
Galax	amphylla	Galax

Flowers Available by 1800 (continued)

Botanical Name		Common Name
Galium	verum	Yellow Bedstraw
Geranium	macrorrhizum	Long-rooted
	robertianum	Herb Robert
	sanquinium	Geranium
	tuberosum	Tuberous-rooted Cranesbill
Gladiolus	byzantinus	Corn Flag of Constantinople
	communis	Italian Corn Flag
Gomphrena	globosa	Globe Amaranth
Gypsophila	paniculata	Baby's Breath
	repens	Creeping Baby's Breath
Hedena	helix	English Ivy
Helianthus	annus	Sunflower
Helleborus	niger	Christmas Rose
Helichrysum	stoechas	Strawflowers
Hemerocallis	flava	Lemon Daylily
	fulva	Orange Daylily
Hepatica	nobilis	Liverwort
Hesperis	matrionalis	Dames Violet
Hyacinthus	orientalis	Garden Hyacinth
	orientalis var. albulus	Roman Hyacinth
Hydrangea	arborescans	Hydrangea
Hypericum	calycinum	Aaronsbeard St. Johnswort
Iberis	amana	Candytuft
	umbellata	Evergreen Candytuft
Impatians	balsamina	Garden Balsam
Inula	helenium	Elecampane
Ipomoea	purpurea	Morning Glory
Iris	germanica	Flag
	germanica var. florentina	Florentine Iris
	persica	Persian Iris
	pseudacorus	Yellow Flag
	pumila	Dwarf Crimean Iris

Flowers Available by 1800 (continued)

Botanical Name		Common Name
	siberica	Siberian Iris
	susiana	Chalcedonian Iris
	varigata	Yellow Flower de Luce
Ixia		Cornlily
Kentranthus	ruber	Red Valerian
Laminum	purpureum	Dead Nettle
Lathyrus	latifolius	Sweet Pea
	odoratus	Sweet Pea
Leucojum	aestivum	Summer Snowdrop
	autumnale	Snowdrop
Lilium	canadense	Meadow Lily
	candidum	Madonna Lily
	harrisi	Southern Easter Lily
	martagon	Martagon Lily
Linaria	vulagris	Butter-and-Eggs
Lobelia	cardinalis	Cardinal Flower
Lunaria	annua	Honesty
Lupinus	albus	White Lupine
	hirsutus	Great Blue Lupine
	perennis	Blue Lupine
Lychinis	chalcedonia	Maltese Cross
	dioica	Red Champion
	viscaria	Rose of Heaven
Lycopersicum	esculentum	Tomtato
Lysimachia	nummularia	Creeping Jenny
Matthiola	incana	Stock-gilliflower
Melandrum	rubrum	Morning Campion
Mertensia	virginica	Virginia Cowslips
Mimosa	pudica	Sensitive Plant
Mirabilis	jalapa	Four O'clock
Monarda	didyma	Beebalm
Muscari	botryoides	Great Grapeflower

Flowers Available by 1800 (continued)

Botanical Name		Common Name
	comosus	Grape Hyacinth
	racemosum	Blew Grapeflower
Mysotis	palustris	Forget-me-not
Narcissus	biflorus curtis	Pale Narcissus
	calathinus	Campernelle Jonquil
	jonquilla	Daffodil
	odorus	Sweet-scented Narcissus
	poeticus	Poet's Narcissus
	pseudonarcissus	Wild Daffodil
	tazetta	Polyanthus Narcissus
	tiandrus	Angel's Tears
Nelumbo	lutea	American Lotus
Hepeta	hederacea	Ground Ivy
Nigella	damascena	Love-in-a-mist
Oenthera	biennis	Evening Primrose
Orinthogalum	umbellatum	Star-of-Bethlehem
Paeonia	mascual	Peony
Papaver	orientale	Oriental Poppy
	rhoeas	Field Poppy
	somniferum	Opium Poppy
Parietaria	officinalis	Pelletory
Phlox	divaricata	Creeping Phlox
	masculata	Summer Perennial Phlox
	ovata	Carolina Phlox
	paniculata	Summer Phlox
Physalis	alkekengi	Winterberry
Primula	auricula	Bear's Ears
	veris	Clowslip
	vulgaris	English Primrose
Pulmonaria	officinalis	Cowslips of Jerusalem
Ranunculus	aconitifolium	Aconite-leaved Crowfoot
	acris	Yellow Bachelor's Buttons

Flowers Available by 1800 (continued)

Botanical Name		Common Name
	asiaticus	Ranunculus
	bulbosus	Bulbous Crowfoot
	gramineus	Grassy Crowfoot
Rudbeckia	hirta	Black-eyed Susan
Sanguinaria	canadensis	Blood root
Saponaria	officinalis	Bouncing Bet
Saururus	cernuus	Lizard's Tail
Saxifraga	umbrosa	London Pride
Scabiosa	atropurpurea	Scabiosa
Scilla	hispanica	Spanish Squill
	nonscripta	Bluebell
Sedum	acre	Golden Moss
	altissimum	Tall Sedum
	dasphyllum	Rose Sedum
Senecio	aureus	Golden Ragwort
Sternbergia	lutea	Fall Daffodil
Stokesia	taevis	Stokes Aster
Symphoricarpus	orbiculatus	Coral berry
Tagetes	erecta	African Marigold
	patula	French Marigold
Teucrium	chamaedrys	Germander
Thalictrum	aquilegifolium	Meadow Rue
	flavum	Meadow Rue
Tiarella	cordifolia	Foamflower
Tradescantia	virginiana	Spiderwort
Trollius	europeus	Globeflower
Tropaeolum	majus	Nasturtium
Tulipa	clusiana	Tulip
	guesneriana	Tulip
Typha	latifolia	Cat-tail
Valeriana	officinalis	Garden Heliotrope
Verbascum	blattaria	Moth Mullein

Flowers Available by 1800 (continued)

Botanical Name		Common Name
	thapsus	Mullein
Veronica	maritima	Clump Speedwell
Vinca	minor	Periwinkle
Viola	assurgen tricolor	Upright Pansy
	odorata	Sweet Violet
	sororia	Violet
	tricolor	Pansy
Viscaria	vulgaris	Catchfly

Trees Available by 1825

Botanical Name		Common Name
Albies	alba	Silver Fir
	balsamea	Balm-of-Gilead
Aesculus	pavia	Red Buckeye
Alnus	cordata	Italian Alder
Castanea	sativa	Spanish Chestnut
Cornus	mas	Cornelian Cherry
Cunninghamia	lanceolata	Common China Fir
Fagus	sylvatica var. purpurea	Copper Beech
Gymnocladus	dioeca	Kentucky Coffee Tree
Larix	decidua	Larch
Ligustrum	lucidum	Glossy Privet
Maclura	pomifera	Osage Orange
Photinia	serrulata	Chinese Photinia
Picea	smithiana	Himalayan Spruce
Populus	candicans	Balm of Gilead
	tacamahaca	Balsam Fir
	tremula	Aspen
Prunus	cerasus	Dwarf Cherry
	virginiana	Choke Cherry
Quercus	ilicifolia	Ground Oak
	palustris	Pin Oak
	suber	Cork Oak
Robinia	viscosa	Red Locust
Salix	vitellina	Yellow Willow
Ulmus	parviflora	Chinese Elm
Xanthoxylum	americana	Prickly Ash
Zizyphus	jujuba	Jujubes

Shrubs and Vines Available by 1825

Botanical Name		Common Name
Acacia	farnesia	Egyptian acacia
Amorpha	fruticosa	Bastard Indigo
Berberis	vulgaris	Common Barberry
Boehmeria	nivens	Silk Plant
Camellia	Japonica varieties:	
(by 1815)	alba	
	Fimbriata	
	Lady Humes Blush	
(by 1825)	Aitonia	
	albe simplex	
	atrorubens	
	Elegans	
	flavescens	
	Horkan	
	Imura	
	longiflora	
	maculata	
	myrtifolia	
	paeoniflora	
	rubra pleno	
	rubricaulis	
	semipleno	
	varigata	
Campsis	grandiflora	Chinese Trumpet Vine
Clematis	vitalba	Traveler's Joy
Clethra	alnifolia	Summersweet
Coronilla	amerus	Scorpion Senna
Daphne	mezereum	Mezereum
Euonymus	japonicus	Evergreen Euonymus
Fuchsia	magellanica	Magellan Fuchisia
Gelsemium	sempervirens	Yellow Jessamine
Iberis	tenoreana	Tenore Candytuft

Shrubs and Vines Available by 1825 (continued)

Botanical Name		Common Name
Jasminum	officinale	White Jasmine
Laburnum	anagyroides	Golden Chain
lavatera	thuringica	Tree Mallow
Mahonia	aquifolium	Oregon Holly-grape
Mimosa	nilotica	Egyptian Acacia
	pudica	Sensitive Plant
Nandina	domestica	Heavenly Bamboo
Pittosporum	tobira	Japanese Pittosporum
Podocarpus	macrophyllus	Yew Podocarpus
Prunus	triloba	Double-flowering Almond
Rosa	banksia	Lady Banks Rose
	banksia var. lutea	Double-flowering Lady Banks Rose
	braceata	McCartney Rose
	l'heritierancea	Boursalt
	multiflora var. platyphylla	Seven Sisters Rose
	odorata	Tea Rose
Rose	varieties:	
	Baron Provost	
	Blush Indica	
	Champney's Blush Cluster	
	Cloth of Gold	
	Dr. Marx	
	George IV	
	La Reine	
	La Touterelle	
	Rivers'	
	White Provence	
Vibernum	opulus	European Cranberry Bush
	opulus var. roseum	Guelder Rose
	plicatum	Japanese Snowball
	tinus	Laurestinus
Wisteria	sinensis	Chinese Wisteria

Flowers Available by 1825

Botanical Name		Common Name
Amaranthus	hybridus var. hypochondriancus	Prince's Feather
Amaryllis	bellodona	Belladona Lily
Anemone	pulsatilla	Pasque Flower
Antholyza	aethiopica	Antholyza
Argemone	grandiflora	Prinkle Poppy
Artemisia	absinthium	Wormwood
	dracunculus	Tarragon
Campanula	perfoliata	Campanula
Centaured	macrocephala	Globe Centaurea
Crocus	sativus	Saffron Crocus
	susianus	Cloth of Gold Crocus
Cypripedium	calceolus	Lady's Slipper
Delphinium	exaltatum	American Larkspur
Dianthus	chinensis	China Pink
Dionaca	muscipula	Venus Fly-trap
Frasera	carolinensis	American Columbo
Geranium	maculatum	Wild Geranium
Glancium	flavum	Yellow-horned Poppy
Hibiscus	coccineus	Scarlet Mallow
Hyacinthus	monstrosus	Feathered Hyacinth
Iris	xiphium	Spanish Iris
Lavertera	trimestris	Treet Mallow
Lilium	columbiana	Columbian Lily
	tigrinum	Tiger Lily
Linum	perenne	Perennial Flax
Malva	officinalis	Marshmallow
Mesembryanthemum		Crystallinum Ice Plant
Mirabilis	longiflora	Sweet-scented Marvel-of-Peru
Momordica	balsamina	Balsam Apple
modarda	fistulosa	Wild Bergamont
Moraea	flexuosa	Moraea
Narcissus	bulbocodium	Hoop-petticoat Narcissus

Flowers Available by 1825 (continued)

Botanical Name		Common Name
	incomparabilis	Narcissus
Narcissus	varieties:	
	Emperor	
	Golden Spur	
	King Alfred	
Nigella	sativa	Fennel Flower
Paeonia	albiflora	White Peony
	mountan basksii	Tree Peony
Papaver	nudicaule	Iceland Poppy
Pelargonium	graveolens	Rose Geranium
Ranunculus	repens	Double Buttercup
Reseda	odorata	Mignonette
Sanguisorba	minor	Burnet
Scabiosa	japonica	Japanese Scabiosa
Silene	schafta	Autumn Catchfly
Tanacetum	vulgare	Tansy
Trittonia	fenestrata	Montbretia
Tulipa	fulgens	Tulip
	gesneriana var. draconta	Parrot Tulip
	gesneria lutea	Tulip
	glorentina	Florentine Tulip
Watsonia	meriana	Watsonia
Zinnia	Hybrid (red & yellow)	Zinnia

Trees Available by 1865

Botanical Name		Common Name
Abies	pinsapo	Spanish Fir
Acer	palmatum	Japanese Maple
	ginnala	Amur Maple
	lobelii	Lobel Maple
Aesculus	carnea	Red Horse-chestnut
	hippocastanum var. Baumanni	Baumann Horse-chestnut
Cedrus	atlantica	Atlas Cedar
	deodara	Deodar Cedar
Celtis	sinensis	Chinese Hackberry
Cercis	chinensis	Chinese Redbud
Chamaecyparis	obtusa	Hinoki False Cypress
Cornus	macrophylla	Largeleaf
Cryptomeria	japonica	Cryptomeria
Malus	floribunda	Japanese Flowering Crabapple
	halliana parkmanii	Parkman Crabapple
Paulownia	tomentosa	Empress Tree
Poncirus	trifoliata	Hardy-Orange
Populus	alba var. pyramidalis	Bolleana Poplar
Prunus	mume	Jap Apricot
	subhirtella var. Pendula	Weeping Higan Cherry
Zelkova	serrata	Japanese Zelkova

Shrubs and Vines Available by 1865

Botanical Name		Common Name
Abelia	floribunda	Mexican Abelia
Akebia	quinata	Five-leaf Akehia
Aralia	elata	Japanese Angelica Tree
Berberis	buxifolia nana	Dwarf Magellan Barberry
	concinna	Dainty Barberry
	darwinii	Darwin Barberry
Callicarpa	japonica	Japanese Beautyberry
Camellia japonica species:		
(by 1830)	Axillaris	
	carnea	
	coccinea	
	Conchiflora	
	Fulgens	
	Grevillii	
	Hexangularis	
	Mutabilis	
	Rubricaulis	
	Warratah-rosea	
	Welbankiana	
	Woodsii	
(by 1840)	alba simplex elegans	
	alba simplex grandiflora	
	alba simplex punctata	
	alba simplex striata	
	alba superba	
	anemoneflora alba	
	althaeflora	
	Aurora	
	Black Hawk	
	Bostonia	
	carnea	
	Chippeua	

Shrubs and Vines Available by 1865 (continued)

Botanical Name	Common Name
Clintonia	
corallina	
coruscans	
crassiflora	
Darsi	
Donckelari	
eclipsis	
excelsa	
eximia	
Fairy Queen	
Floyi	
Franklinii	
fulgida	
fusea	
gloriosa	
Hoffmanii	
Hopsoni	
Hosackii	
Imbricata	
Imbricata Dunlapi	
insignis	
intermedia	
Irenea	
Jacksoni	
Jeffersoni	
Landrethii	
leucantha	
Margaretha	
nova boracensis	
Ohio	
Osceola	
Philadelphia	

Shrubs and Vines Available by 1865 (continued)

Botanical Name	Common Name
Pocahontas	
Powhattonii	
Pressii	
provincialis	
Punctata	
Rhodia	
rosa sinensis	
speciosa	
spectabile	
Stevenii	
Sweetie-Vera	
Tappanii	
triangularis	
tricolor Warratah	
triphosa	
variegata pleno	
virginica	
Wardii	
Warratch Mignonne	
Washington	
(by 1850) Binneyii	
Brooklynia	
C.M. Hovey	
Candidissima	
Chalmerii Perfecta	
Daniel Webster	
Dunlaps Americana	
Enrico Beltoni	
Feasti	
General George Washington	
General Lafayette	
Gigantea	

Shrubs and Vines Available by 1865 (continued)

Botanical Name		Common Name
	Lady Mary Cromatie	
	Mrs. Abby Wilder	
	Noblissima	
	Stiles Perfection	
	Wilderi	
(by 1860)	A.J. Downing	
	Caleb Cope	
	Il Cigno	
	Honor of America	
	Jenny Lind	
	Mrs. Lurman	
	William Penn	
Cotoneaster	frigida	Himalyan Cotoneaster
	lucida	Hedge Cotoneaster
	microphylla	Small-leaved Cotoneaster
	rotundifolia	Red-box Cotoneaster
Daphne	genkwa	Lilac Daphne
Deutzia	gracilis	Slender Deutzia
Eleagnus	pungens	Thorny Eleagnus
	pungens Fruitbandi	Fruitlands Eleagnus
Gatsia	japonica	Japanese Gatsia
Forsythia	suspensa	Forsythia
	suspensa sieboldi	Siebold Forsythia
Genista	cinerea	Ashy Woadwaven
Hedena	canariensis	Algerian Ivy
Hibiscus	rosa-sinensis	Chinese hibiscus
Ilex	cornuta	Chinese Holly
	crenata	Japanese Holly
	latifolia	Lusterleaf Holly
Juniperus	procumbens	Japanese Garden Juniper
Kadsura	japonica	Scarlet Kadsura
Kerrria	japonica	Kerria

Shrubs and Vines Available by 1865 (continued)

Botanical Name		Common Name
Leycesteria	formosa	Formosa Honeysuckle
Ligustrum	amurense	Amur Privet
	japonicum	Japanese Privet
Lonicera	fragrantissima	Winter Honeysuckle
	japonica x Halliana	Halle's Japanese Honeysuckle
Mahonia	bealei	Leatherleaf Mahonia
Michelia	figo	Banana Shrub
Osmanthus	fortunei	Fortune's Osmanthus
	fragrans	Fragrant Tea-olive
	illici folius	Holly Osmanthus
Pernettya	mucronata	Chinean Pernettya
Philesia	magellanica	Magellan Box-lily
Poncirus	trifoliata	Hardy-orange
Rhapiolepsis	umbellata	Yeddo-hawthorne
Rhododendron	mucronatum	Snow Azalea
	obtusum	Hiryu Azalea
Rosa	roxburghii	Roxburgh Rose
Rose varieties:		
(by 1840)	African	
	Agreeable Violet	
	Austria	
	Belle Alliance	
	Belle Amiable	
	Belle Auguste	
	Belle Aurora	
	Blush Belgic	
	Brown's	
	Brussells'	
	Brunette Superb	
	Cabbage Provence	
	Carmine Brilliant	
	Chancellor	

Shrubs and Vines Available by 1865 (continued)

Botanical Name	Common Name
Crimson Velvet	
Damask	
DeMeaux	
Domini	
Double Red Sweetbriar	
Double White Sweetbriar	
Double Yellow Sweetbriar	
Dutch Cabbage	
Dutch Cluster	
Dwarf Dutch Cabbage	
Early Rannunculus	
Everlasting China	
Flora's Wreath	
Grand Monarque	
Grand Pompadore	
Grand Royal	
Grand Triumphant	
Harrison	
Hibernia	
Imperial Blush	
Imperial Red	
Infernal	
Negro	
Ombre superb	
Pierson's gigantic	
Pluto	
Prolific	
Purple Velvet	
Red Moss	
Royal Agathe	
Royal Bouquet	
Sceptre	

Shrubs and Vines Available by 1865 (continued)

Botanical Name	Common Name
Snowball	
Spineless virgin	
St. Francis	
Superb Crimson	
Tuscany	
Versailles	
White globe	
White moss	
(by 1860) Devoniensis	
General Jaquimenots	
Jame Hachettes	
Madame Pactole	
Malmaison	
Margaret	
Musk Cluster	
Paul Neyron	
Yellow Sweetbriar	
Skimmia japonica	Japanese skimmia
reevesiana	Reeves skimmia
Spirea canescens	Hoary Spriea
cantoniensis	Reeve's Spirea
prunifolia	Bridal Wreath Spirea
Taxus cuspidata	Japanese Yew
Viburnum dilatatum	Linden Viburnum
macrocephalum	Chinese Snowball
Weigela roses	Rose Weigela

Flowers Available by 1865

Botanical Name		Common Name
Aconitum	album	White Monkshood
Amsonia	latifolia	Broad-leaf Amsonia
Asclepia	tuberosa	Butterfly Weed
Cooperia	drummondi	Rain Lily
	pendunculata	Rain Lily
Coreopsis	auriculata	Coreopsis
Euphorbia	heterophylla	Poinsetta
	marginata	Snow-on-the-mountain
Gentiana	verna	Spring Gentian
Helianthus	divaricatus pleno	Double Sunflower
	giganthus	Giant Sunflower
Liatris	spicata	Gay feather
Lobelia	siphilitica	Blue Cardinal Flower
Lychinis	chalcedonia alka	Double White Lychinis
	chalcedonia pleno	Double Scarlet Lychinis
Lythrum	salicaria	Willowherb
Papaver	bractectum	Bracted Poppy
Phlox	acuminata	Lyons Phlox
	pyramidata	Pyramidal Poppy
	stolonifera	Creeping Phlox
Plumbago	larpentae	Leadwort
Polyanthes	tuberosa	Tuberose
Tradescantia	roses	Rose-flowering Spiderwort
	virginia alba	White Spiderwort
Vinca	minor var. alba	White-flowering Periwinkle

Trees Available by 1890

Botanical Name		Common Name
Abies	alba glauca	White-needled Spruce
	excelsa pendula	Weeping Norway Spruce
	excelsa varigata	Varigated Norway Spruce
Acer	nikoense	Nikko Maple
	saccharum var. columnare	Newton Sentry Sugar Maple
Amelanchier	grandiflora	Apple Serviceberry
Betula	gracilis	Cut-leaved Weeping Birch
Castanea	crenata	Japanese Chestnut
	foliis-aureis	Golden-leaved Chestnut
Cercidiphyllum	japonicum	Katsura Tree
Cercis	foliies-aureis	Varigated Judas
Constanea	Foliis-argenteis	Silver-leaved Chestnut
Cornus	kousa	Japanese Dogwood
Cupressus	pendula	Weeping Cyprus
Fagus	cristata	Curled-leaf Beech
	foliis varigatis	Varigated Beech
	pendula	Weeping Beech
	sylvatica atropunicea	Purple Beech
	sylvatica cuprea	Cooper Beech
Faxinus	aurea pendula	Weeping Golden Ash
	orgentea alba	White-leaved Ash
Firmiana	simplex	Chinese Parasol Tree
Pinus	canariensis	Canary Pine
	parviflora	Japanese White Pine
Prunus	armenica	Apricot
	avium plena	Double-flowering Mazzard Cherry
Quercus	acutissima	Sawtooth Oak
	alba atro-purpurea japonica	Japan Purple Oak
	folis varigata	Varigated Oak
	humilis	Dwarf Oak
Salix	russelliana	Russell Willow
	variety	Ringlet Willow

Trees Available by 1890 (continued)

Botanical Name		Common Name
Sophora	japonica pendula	Weeping Pagoda
Stewartia	pseudo-camellia	Japanese Stewartia
Tsuja	pendula	Weeping Arbor-vitae
Ulmus	adianthafolia	Crimped-leaf Elm
	fastigata	Ford's Elm
	glabia	Scamtston Weeping Elm
	pendula	Weeping Scotch Elm

Shrubs and Vines Available by 1890

Botanical Name		Common Name
Abelia	grandiflora	Glossy Abelia
Ampelopsis	brevipedunculata	Porcelin Ampelopsis
Aucuba	japonica	Japanese Aucuba
berberis	thunbergii	Japanese Barberry
Buxus	microphylla	Littleleaf Box
Camellia	japonica varieties:	
	Adolphe Audusson	
	Contessa Lavina Maggi	
	Mrs. Anne Marie Hovey	
	Te Deum	
Camellia	sasanqua	Fall-blooming Camellia
Clematis	jackmanii	Jackman Clematis
	paniculata	Sweet Autumn Clematis
Chaemomeles	japonica	Japanese Quince
Corylopsis	griffithii	Griffith Winter-hazed
Cotoneaster	congesta	Pyrenees Cotoneaster
	horizontalis	Rock Spray Cotoneaster
	lucida	Hedge Cotoneaster
Cudrania	tricuspidata	Silkworm Tree
Cytisus	praecox	Warminster Broom
Deutzia	scabra var. Candidissima	Snowflake Deutzia
Enkianthus	perulatus	White Enkianthus
Escallonia	virgata	Twiggy Encallonia
Euonymus	alatus	Winged Euonymus
	fortunei vegetus	Bigleaf Wintercreeper
	kiantschovicus	Spreading Euonymus
Hamamelis	mollis	Chinese Witch-hazel
Hydrangea	anomala var. petiolaris	Climbing Hydrangea
	paniculata var. grandiflora	Peegee Hydrangea
Loropetalum	chinese	Chinese Loropetalum
Magnolia	stellata	Star Magnolia
mahonia	japonica	Japanese Mahonia

Shrubs and Vines Available by 1890 (continued)

Botanical Name	Common Name
Pachysantcha terminalis	Japanese Spurge
Parthenocissus tricuspidata	Boston Ivy
Phillyrea decora	Lanceleaf Phillyrea
Pieris japonica	Japanese Andromeda
Rhododendron fortunei	Fortune Rhododendron
grandavense	Ghent Azalea
kosterianum	Mollis Hybrid Azalea
Rose varieties:	
Aimee Vibert	
Agrippina	
Alfred deDalmas	
Archduke Charles	
Baron de Wassenaer	
Bizarred de la China	
Blanche Fleur	
Bougere	
Celine Forester	
Charles Duval	
Chendolle	
Countess of Murincis	
Crested Province	
Double-margined Hep	
Duchess de Thuringen	
Eugenie Quinoiseau	
Fleur de Cypress	
George Peabody	
George Vibert	
Glory of Dijon	
Mermosa	
Isabella Gray	
Jane Hardy	
Lamarque	

Shrubs and Vines Available by 1890 (continued)

Botanical Name	Common Name
Lanei	
Louis Phillipe	
Marquise Balbiano	
Madame Edward Ory	
Madame Hardy	
Madame Plantier	
Madame de Vatry	
Pauline Plantier	
Perpetual White	
Pierre de St. Cyr	
Pompone	
Princess Adelaide	
Rivers Superb Tuscany	
Safrano	
Sir Jospeh Paxton	
Solfaterre	
Souvenir de l'Exposition	
Triumph 'de Rens	
Spirea albiflora	Japanese White Spirea
thunbergii	Thunberg Spirea
vanhouttei	Vanhoutte Spirea
Styvax japonicum	Japanese Snowbell
Viburnum japonicum	Japanese Viburnum
sieboldii	Siebold Viburnum

Flowers Available by 1890	
Botanical Name	**Common Name**
Abronia umbellata	Sand-verbena
Adonis aestivalis	Summer Adonis
Ageratum houstonianum	Mexican Ageratum
Anagallis indica	Blue Pimpernel
Asperula azurea setosa	Blue Woodruff
odorata	Woodruff
Browallia demissa	Browallia
Calandrina grandiflora	Calandrina
Canna hybrids	Canna
Charkia elegans	Clarkia
Coleus hybrids	Coleus
Collinsia bicolor	Chinese-houses
Cosmos bipinnatus	Cosmos
Cuphea ignea	Fiery Cuphea
Gaillardia amblyodon	Maroon Gaillardia
pulchella	Rose-ring
Gilia capitata	Globe Filia
Godetia amoena	Farwell-to-Spring
grandiflora	Whitney Godetia
Impatiens sultani	Impatiens
Leptosiphon hybrida	Leptosiphon
Lilium elegans	Elegan Lily
speciosum	
speciosum album	
speciosum praecox	
tigrinum flore pleno	Double Tiger Lily
Limonium su worowi	Statice
Malope trifida grandiflora	Mallow-wort
Mimulus tigrinus	Monkey flower
Nemophila insignis	Baby Blue Eyes
maculata	Spotted Nemophilia
Nicotiana alata	Winged Tobacco

Flowers Available by 1890 (continued)	
Botanical Name	**Common Name**
Gourd species	Ornamental Gourds
Penstemon barbatus	Pink Beauty
Phacelia campanularia	Harebell
Portulaca grandiflora	Portulaca
Pyrethrum roseum	Pyrethrum
Salpiglossis sinuata	Salpiglossis
Salvia splendens	Scarlet Sage
patens	Gentian Sage
Sanvitalia procumbens	Sanvitalia
Schizanthus pinnatus	Butterfly-flower
Senecio elegans	Purple Grounsel
Torenia fournieri	Blue wings
Tritoma uvaria	Red-hot Poker
Verbena erinoides	Verbena
Vinca rosea	Madagascar Periwinkle
Zantedeschia aethiopica	Calla Lily

Trees Available by 1925

Botanical Name		Common Name
Acer	buergerianum	Trident Maple
	davidii	David Maple
	griseum	Paperbark Maple
	palmatum var. atropurpureum	Bloodleaf Japanese Maple
	palmatum var. sanquineum	Scarlet Japanese Maple
	saccharum var. monumentale	Temple's Upright Sugar Maple
Castanea	crenata	Japanese Chestnut
Cornus	kousa chinensis	Chinese Dogwood
Davidia	involucrata	Dove Tree
Liquidambar	formosana	Formosa Sweet Gum
Malus	sargentii	Sargent Crabapple
Nyssa	sinensis	Chinese Sour Gum
Persica	vulgaris	Flowering Peach
Pyrus	ioensis	Bechtel's Crab
Stewartia	koreana	Korean Stewartia

Shrubs and Vines Available by 1925

Botanical Name		Common Name
Actinida	chinensis	Chinese Actinidia
Berberis	candidula	Paleleaf Barberry
Buddleia	alternifolia	Fountain Buddleia
	dividii	Orange-eye Bufferflly Bush
Buxus	microphylla koreana	Korean Boxwood
Camellia	japonica varieties:	
(by 1900)	Gloire de Nantes	
	Magnoliaflora	
	Marchioness of Exeter	
	Nagasaki	
	Pink Perfection	
(by 1925)	Akebono Pink	
	Edwin H. Folk	
	Eleanor of Fairoaks	
	Javis Red	
	Lady Vansittart	
Ceratostigma	willmottianum	Willmott Blue Leadwort
Clematis	armandii	Arnold Clematis
Clerodendrum	trichotomum	Harlequin Glory-bower
Cotoneaster	adpressa	Creeping Cotoneaster
	apiculata	Cranberry Cotoneaster
	bullata floribunda	Vilmorin Cotoneaster
	dammeri	Bearberry Cotoneaster
	dielsiana	Diel's Cotoneaster
	divaricata	Spreading Cotoneaster
	franchetti	Franchet Cotoneaster
	glaucophylla	Brightbead Cotoneaster
	henryana	Henry Cotoneaster
	multiflora calocarpa	Large-Flowering Cotoneaster
	pannosa	Silverleaf Cotonteaster
	saliciflolia	Willowleaf Cotoneaster
Cytisus	dallimorei	Dallimore Broom

Shrubs and Vines Available by 1925 (continued)

Botanical Name		Common Name
	kewensis	Kew Broom
Deutzia	grandiflora	Early Deutzia
	kalmiaeflora	Kalmia Deutzia
	magnifica	Showy Deutzia
Enkianthus	deflexus	Bent Enkianthus
Euonymux	fortunei	Wintercreeper
Forsythia	ovata	Early Forsythia
Hypericum	patulum henryi	Henry St. Johnswort
Ilex	pernyi	Pernyi Holly
Indigofera	amblyantha	Pink Indago
Jasminum	mesnyi	Primrose Jasmine
Juniperus	chinensis var. proaumbens	Chinese Juniper
	chinensis var. pfitzeriana	Pfitzers Juniper
	depressa	Prostrate Juniper
	conferta	Shore Juniper
	horizontalis	Creeping Juniper
	horizontalis var. Blue Rug	Blue Rug Juniper
Lonicera	heckrottii	Everblooming Honeysuckle
	nitida	Box Honeysuckle
Malus	Sargentii	Sargent Crabapple
Pueraria	thunbergiana	Kudzu Vine
Pyracantha	fortuneana	Chinese Firethorn
Rhododendron	decorum	Sweetshell Rhododendron
	discolor	Mandarin Rhododendron
	keiskei	Keisk Rhododendron
	kurume hybrids	Kurume Azaleas
	schlippenbachii	Royal Azalea
Rosa	hugonis	Father Hugo Rose
	moschata nastarana	Persian Musk Rose
	moyesii	Moyes Rose
	multiflora	Japanese Rose
	primula	Primrose Rose

Shrubs and Vines Available by 1925 (continued)

Botanical Name		Common Name
	wichuriana	Memorial Rose
Rose	varieties:	
	Anna Maria	
	Charles Darwin	
	George Bruant	
	Gloire Lyonnaise	
	Lady Penzance	
	Lord Penzance	
	Marechal Niel	
	Noval Angliae	
	Sunset	
	Sweetheart	
Salix	gracililstyla	Rose-gold Pussy Willow
Sarcococca	ruscifolia	Fragrant Sarcococca
Siphonosmanthus	delavayi	Siphonosmanthus
Styvax	wilsonii	Wilson Snowball
Viburnum	carlesii	Korean Spice Viburnum
	davidii	David Viburnum
	farreri	Fragrant Viburnum
	grandiflorum	Viburnum
	henryi	Henry Viburnum
	lobophyllum	Viburnum
	rhytidophyllum	Leatherleaf Viburnum
	setigerum 'Aurantiaum'	Orange Fruited Tea Viburnum
	wrightii	Wright Viburnum

Flowers Available by 1925

Botanical Name		Common Name
Adonis	vernalis	Spring Adonis
Allyssum	saxatile	Goldentuft
	saxatile compactum	Dwarf Goldentuft
Anaphalis	margaritacea	Pearl Everlasting
Anchusa	barrelieri	Early Bugloss
	italica	Dropmore Bugloss
Anemone	blanda	Anemone
	hupehensis	Windflower
Aquilegia	caerulea	Colorado Columbine
	skinneri	Mexican Columbine
Aster	amellus	Aster
	cordifolius	Aster
	laevis	Aster
	novae-angiliae	New England Aster
	novii-belgii	Belgium Aster
Bocconia	cordata	Plume Poppy
Boltonia	latisquama	Violet Boltonia
Chrysanthemum	hybrids	Chrysanthemum
Dahlia	hybrids (no blue or scarlet)	Dahlia
Delphinium	hybrids	Delphiniums
Digitalis	hybrids	Foxglove
Doronicum	plantagineum	Leopard-bane
Echinacea	purpurea	Purple Coneflower
Echinops	ritro	Steel Globethistle
Euphorbia	cyparissias	Cyprus Spurge
Erygnium	amethystium	Amethyst Erxngo
Filipendula	hexapetala	Dropwort
	palmata	Meadowsweet
Geum	chiloense	Avens
Hosta	caerula	Plaintain Lily
	plantaginea	Hosta
	sieboldiana	Siebold Hosta

Flowers Available by 1925 (continued)

Botanical Name		Common Name
Iris	kaempferi	Japanese Iris
Kniphofia	uvaria	Torch Lily
Lilium	auratum	Gold-banded Japanese Lily
	batemanniae	
	henryi	
	regale	Regal Lily
	speciosum rubrum	
Lychinis	flos-jovis	Flower of Love
Oenthera	fruticosa	Sundrops
Pentstemon	digitalis	Foxglove Pentstemon
	grandiflorus	Shell-leaf Pentstemon
	torreyi	Torrey- Pentstemon
Platycodon	grandiflorum	Ballonflower
Polemonium	caeruleum	Greek Valerian
Primula	pulverulenta	Silverdust Primula
Thalictrum	dipterocarpum	Meadowrue
Trollius	asiaticus	Globeflower

Appendix C

GDOT Landscaping Protocol Between the Office of Environmental Services and Maintenance, proposed in 2011.

A meeting was held in late July 2011 between the Offices of Environmental Services (OES) and Maintenance (Landscape Architects) to discuss reoccurring problems associated with the Department's environmental landscaping processes. The majority of the problems centered on communication and when during the development of landscape plans the Landscape Architects were offered an opportunity to consult/review landscape plans (which was not early). In attendance at the meeting were the following personnel:

Eric Duff, GDOT Cultural Resources Section Chief
Doug Chamblin, GDOT Ecology Section Chief
Chad Carlson, GDOT Historian
Davie Biagi, GDOT Landscape Architect 2
Bill Wright, GDOT Landscape Architect Manager

After a brief discussion of the methods used by the various environmental specialties (namely Ecology and Cultural Resources), as well as the topics that would be helpful to address which our Landscape Architects have encountered with environmental landscape plans in the recent past, the following protocol was agreed upon to eliminate reoccurring problems, project delays due to insufficient or over elaborate landscape plans, reduce review cycles, and to save money (items associated with scope, schedule, and budget).

1. EARLY CONSULTATION-Before making a landscape plan commitment or during the earliest consideration in the development of a landscape plan, but prior to consultant selection, OES personnel or OES Consultant representative (Ecology or Cultural Resources with OES oversight) will consult with GDOT Landscape Architects. OES will submit an existing documentation package to the Landscape Architects that will include the following: existing project documentation associated with the landscape site (such as project description or proposed speed limit, etc.); pictures of the existing conditions (vegetation, etc.) where the landscaping will occur; habitat description and list of species present from Ecology resources report, if available; Green Sheet, if completed, detailing why the landscaping is needed and for what purpose/environmental commitment (to screen a historic property from a proposed project); a generalized description of the proposed landscaping in concept (will trees be needed or ornamental vegetation); any relevant guidance from the regulating agency whom the landscaping plan intends to satisfy (e.g., Georgia Environmental Protection Division requires multi-trophic buffer restoration plan, if at all possible; U.S. Army Corps of Engineers requires native species be planted at mitigation sites, etc.); will riparian seed mix be required, etc.; proposed long term maintenance responsibility (GDOT, local government, private citizen); and, a plan sheet(s) where the landscaping will occur (for slope consideration, setback, etc. considerations).

2. INITIAL ASSESSMENT-GDOT Landscape Architects will review the documentation and provide an initial assessment of the appropriateness of the site under consideration in relation to the goals of the landscape plan. The assessment will provide recommendations that should be considered in the development of the landscape plan, whether it is to be completed in-house or by consultant services. The assessment will address such issues as the following: is a plan even needed; can existing landscape features be retained to serve the purpose of the environmental commitment; types of planting materials/species best suited for the landscaping initiative; utilizing aesthetic vegetation for screening purposes as opposed to volunteer growth; design considerations associated with the proposed landscaping (future maintenance, growing season restrictions during construction, clear zone, etc.); and a generalized estimate of cost potentially related to the implementation of the landscaping. Given current project loads, the initial assessment should take no more than 30 days to complete; if assessments become overly burdensome to the Landscape Architect staff and schedules become difficult to maintain because of personnel obligations/duties on other projects, one alternative solution would be to increase Landscape Architect staff in Maintenance.

3. DEVELOPMENT OF DRAFT LANDSCAPE PLAN-Although the recommendations provided in the initial assessment are not binding, they should be considered as the foundation for the preparation of a successful landscape plan. When applicable, the assessment and associated documentation (dgn files, planting detail template) should assist OES in the completion of mitigation stipulations and the develop-

ment of a consultant scope-of-work (primarily all Cultural Resource landscape plans utilize consultant services, while Ecology may or may not utilize consultants). If consultant services are used, a site visit by the consultant prior to developing the plan will be required. As always, the draft plan should include planting materials/species, planting details (using the template), height and caliper of proposed tree planting, and requirement of riparian seed mix or not. Preferably these items should be placed on one single plan sheet when feasible. The draft plan should include plan notes as to which Special Provisions are being utilized as a result of the proposed landscape implementation (primarily Special Provisions 700 and 702 or variations thereof will be used). The consultant will no longer be required to draft formal Special Provisions as a deliverable, given that recent revisions to Special Provisions 700 and 702 now accommodate almost all planting situations. If the development of the landscape plan occurs in-house, the same general steps should be followed.

4. REVIEW OF DRAFT LANDSCAPE PLAN-OES will submit a copy of the draft landscape plan to GDOT Landscape Architects, Utilities, Design, Engineering Services, and the assigned Project Manager for review and comment. The review will focus on constructability, safety, long term maintenance issues, monitoring during construction requirements, and general comments, if needed, on plant species and planting details. All comments requiring changes to the landscape plan will be revised accordingly (whether in-house or by consultant) and will be routed to GDOT Landscape Architects for a final check. A final draft of the landscape plan will be forwarded to respective regulatory agencies for review, comment and ultimate concurrence. Revisions to the plan will be made accordingly based on regulatory agency coordination. The draft landscape plan will be rerouted to the Offices/ Project Manager as needed based on the level of comments that were received and how the revised plan may affect constructability.

5. FINAL LANDSCAPE PLAN-OES will submit the final landscape plan to the Project Manager and Design for inclusion in the preliminary plans and/or final plans and on the Environmental Resources Impact Table. The landscape plan will also be given to the NEPA specialist so that it can be placed on the Green Sheet (if not already completed). To ensure that the landscape plan is successful and achieves its desired goal during construction, the Contractor will be required to provide correspondence (letter report) and photographs detailing the success rate (or failure thereof) of the landscape plan. The requirement to provide this report can be specified as plan notes on the final landscape construction plans or as a list attached to the contract documents to be filled out according to the requirements in Special Provision 702.3.06 for the First Establishment Period, Second Establishment Period, and Final Inspection Period. The Project Manager shall be responsible for ensuring that the Contractor submits the required report and photographs as required so that OES can review the documentation.

6. IMPLEMENTATION, SCHEDULING, AND MONITORING DURING CONSTRUCTION-OES or their Consultant representative shall discuss the landscape plan and any special monitoring requirements with the GDOT on-site engineer prior to construction. The landscape plan will be implemented through project construction as needed. The Project Manager will ensure that required inspections and vegetation replacements are completed pursuant to the schedule outlined in 702.3.06 and that the Contractor provides correspondence and photographs of the landscape plan area to OES. GDOT Landscape Architects are available to assist in the review of Contractor provided documentation if needed. With Final Inspection approval, OES can consider that the success of the landscape plan, when applicable, has been achieved in the spirit of the environmental commitment and no further monitoring will be required. OES will provide final instructions, as needed, to parties responsible for the long term maintenance of the landscaping initiative (GDOT, local government, private citizen) and further consultation to regulatory agencies as required.

Glossary

Adverse Effect: A harmful and undesired effect upon the historic resource that would be the anticipated result of implementation of the proposed GDOT roadway project. If there is a finding of an adverse effect from the AOE, then a Memorandum of Agreement can be developed to help mitigate the adverse effect.

Alluvial Soils: Fine-grained soils deposited by water flow in flood plains.

Amateur Gardener: One who gardens recreationally without training.

Approach Slab: The constructed transition along a roadway from roadway pavement to pavement of a bridge.

Architect: One who is professionally trained, licensed, and registered in the field of architecture.

Ashlar Stone: Masonry stone cut to allow thin mortared joints.

ASLA: American Society of Landscape Architects.

Assessment of Effects (AOE): An assessment or evaluation of the potential positive or negative effects that a proposed project may have on the historic resource, consisting of the environmental, social, and economic aspects. These effects can include, but are not limited to physical, audible, and visual effects.

Canopy: The cover provided by the upper leafed area of a mass of mature trees.

Carrying Capacity: Of land, the ability of land to hold weight without slippage or subsidence.

Center of Tree: An approximate point based on the center of the tree trunk's diameter.

Change Order: A change in a construction contract after award of contract that changes the construction schedule and/or contract amount.

Clearing: The act of removing all development and vegetation from a construction site to allow for an alternate future use.

Clear Zone: An unobstructed, open roadside intended to allow for vehicles to slow down or correct direction safely after accidentally leaving a road.

Commitments Table: A matrix that captures and tracks every commitment made during the environmental process. Environmental commitments must be coordinated with the project team, especially the office responsible for carrying it out.

Contractor: One who acts as builder on a design project.

Contributing Resource: A historic building or structure which contributes to the historic and cultural value of a historic district or property.

Construction Administration: The duty of the Landscape Architect during construction, including general supervision and field observations.

Construction Manager: See "GDOT Inspector".

Cornice: An ornamental molding around the wall of a room just below the ceiling.

Cotton Gin: A machine used to separate seeds from cotton fiber.

Cross Section: A drawing which shows a representation of a roadway cut by an imagined vertical plane.

Cultivar: A plant variety that has been produced in cultivation by selective breeding.

Culvert: A below grade water conveyance system.

Cut and Fill: Method of grading land on construction site by removing or adding dirt.

Deciduous: Annual Shedder of leaves.

Design Alternative: In project design, an option which considered as an alternative to the preferred alternative. There can be more than one Design Alternative in a project.

Ecological Succession: See "Natural Succession."

Edge of Pavement: The limits of the roadway pavement.

End Rolls: Embankments at either end of a bridge, on either side of the approach slab and underneath the bridge itself.

Engineer: One who is professionally trained, licensed, and registered in the field of engineering.

Evergreen: Keeping leaves throughout the year.

Façade: The ornamented or unornamented face of a building.

Face of Curb: Refers to the vertical face of a curb that faces towards the road.

Farmstead: A farm and its associated buildings.

Field Observations: General examination and notes taken by a construction administrator during construction.

Final Field Plan Review: A review of final plans and specifications, special provisions, permits, right-of-way agreements, and utility conflict resolutions.

Final Inspection: Last examination given by construction administrator before a project is finished.

Flowering Tree: Small to medium-sized ornamental tree with showy flowers.

Grading: The act of re-shaping the land to suit an alternate future use.

Habitable Zone: A range of hardiness zones in which a particular plant species can survive and live a healthy life.

Hardiness Zone: Based on the average annual minimum temperature for a given location, the USDA map provides an easy guideline for categorizing locations suitable for winter survival of a rated plant in an "average" winter.

Hardwood: A tree yielding hard, compact wood.

Hardy: The quality of a plant to have the ability to withstand the average annual extreme low temperature of its hardiness zone.

Hedgerow: A row of shrubs or small trees planted closely together in order to provide a boundary.

Historian: One who is professionally trained and educated in the fields of history, architectural history, or historic preservation.

Historic American Buildings Survey (HABS): Recording method that combines drawings, history, and photography to produce a comprehensive, interdisciplinary record.

Historic Resource: Refers to a piece of property, structure, or object which has been designated and defined by the Section 106 Process as a resource of historical and cultural value. The resource and the effects placed upon it by GDOT roadway projects are the reasoning behind the mitigation plan.

Horticulturalist: One who is professionally trained and educated in the field of horticulture.

Horizontal Clearance: is the horizontal distance from the edge of the traveled way, shoulder or other designated point to a vertical roadside element. These lateral offsets provide clearance for mirrors on trucks and buses that are in the extreme right lane of a facility and for opening curbside doors of parked vehicles, as two examples.

Indigenous Species: See "Native Species."

Invasive Species: See "Non-Native Species."

Gable: The part of a wall that encloses the end of a pitched roof.

Gable Return: The bottom corner of a raking cornice molding that turns inward towards the center of the wall in a horizontal direction.

GDOT: Georgia Department of Transportation.

GDOT Inspector (Construction Manager): One who is employed by GDOT to act as final word on effectiveness of implementation of design.

Governor's Road Improvement Program (GRIP): A system of proposed economic developmental highways in Georgia. The current length of the GRIP system has grown to 3,273 miles. The total length will continue to vary as alignments, including bypasses and shifts, are determined through the engineering process.

Green Sheet: See Commitments Table.

Green Space: Open, grassed area.

Grist Mill: A mill used to grind grain.

Groundcover: Low-growing plants and shrubs, often used to prevent soil erosion or stabilize steep slopes.

Guardrail: A protective railing along a pedestrian or vehicular pathway.

Guying Wires: Wire, rope, or string used to stabilize a tree as in grows.

Landscape Architect: One who is professionally trained, licensed, and registered in the field of landscape architecture.

Landscape Mitigation Treatment: A landscape design with a purpose of rectifying impacts of a landscape having been previously altered.

Landscape Plan: A drawing or set of drawings which convey plant species and plant locations within the boundaries of a site.

Landscape Treatment: A landscape design.

Lowland Species: Plant species that grow best in or near wetlands.

Master Gardener: One who has participated in a master gardening program in horticultural training and often serves as a volunteer horticultural knowledge source for his or her community.

Mature Community: A plant community which has been allowed to grow without significant disturbance. A wide variety of vegetation exists, ranging from old growth to new, with multi-layered canopies.

Median: As in a roadway, the separation between opposite directions of traffic, often concrete or planted.

Memorandum of Agreement (MOA): a formal document written between parties to cooperate on an agreed upon project or to meet an agreed goal. In the context of historic preservation, the agreement is comprised of one or more stipulations that set the framework for mitigating adverse effects.

Mixed-Pine Forest: A mixed conifer woodland where at least one species of pine tree is present.

Modillion: An architectural feature. A ornamental bracket under the a cornice.

Monoculture: the use of land for growth of only one type of crop.

Native Species: Plant species that can be found growing naturally in a given region or area.

Natural Succession: The process of change in an ecological community not initiated by humans.

NRHP: National Register of Historic Places.

No build alternative: In project design, an option which provides the considerations of not building the roadway project.

Non-Native Species: Plant species that did not historically grow in an area or region in which they currently may be found, often introduced artificially by way of human action.

On-Center: Method of plant spacing from the center of one plant to the next.

One-way Pair: One-way streets that carry opposite directions of a signed route of major traffic flow. The usual purpose is to provide higher capacity by increasing the number of lanes in each direction.

Orchard: Land used for the growth of fruit or nut trees.

Parterre Garden: A type of garden design popularized in 15th-Century France depicted by symmetrical patterns on flat land, often ornately designed with boxwoods (Buxus spp.).

Pioneer Species: Plant species that are the first to colonize a previously disturbed area of land.

Plant Community: A collection of plant species that are co-located in a region or area, generally given by similar conditions of weather, soil, topography, and human interaction.

Plant List: A list of plants to be used in a specific landscape design project.

Plant Schedule: A list of plants to be used in a specific landscape design project, generally along with additional information pertaining to the plants' usage in the project such as quantity and sizes.

Preferred Alternative: In project design, the design option which is believed to be the best layout for the roadway improvement.

Preservation Plan: A document used to outline redevelopment for a historic resource.

Project Close-Out: The final phase of an active construction project.

Project Historian: As in GDOT roadway design projects, the Historian who holds the primary role of Historian dedicated to a particular project, whether a GDOT employee or hired consultant.

Project Landscape Architect: As in GDOT roadway design projects, the Landscape Architect who holds the primary role of Landscape Architect dedicated to a particular project, whether a GDOT employee or hired consultant.

Propagate: To breed specimens of a plant by natural processes of the plant's parent.

Raking Cornice: Either of two straight, sloping cornices on a pediment following or suggesting the slopes of a roof.

Razed: to completely destroy a building, town, or other site.

Realignment: As in roadway design, the shift of a centerline of an existing road, and the subsequent physical shift of the road layout.

Right-of-Way: As in roadway design, a strip of land held by a public jurisdiction to accommodate a transportation facility.

Rip Rap: Rock used to armor or strengthen sloped land or to slow stormwater.

Riparian: Of, or relating to, or situated on the banks of a river.

Sandhill: A landform found on the fall line in Georgia. Sandhills often appear to be pockets of sand or scarce vegetation in the midst of heavy forests.

Setback: The area of land adjacent to a right-of-way in which construction is prohibited.

SHPO: State Historic Preservation Office.

Site Inspection: As in construction practices, the site visit and related evaluation of a construction project.

Site Inventory: The gathering of data about a site.

Site Analysis: The examination of site data and determination of related opportunities and constraints.

Soil Slip: Also called land slip, the downward falling or sliding of a mass of soil or rock on or from a steep slope.

Specimen Tree: A tree, often unique in character, which is grown by itself rather than in a mass of similar trees for an intentional aesthetic effect.

Stacked Stone: As in wall construction, a type of construction technique in which stones are placed on one another to be mortared in place or "dry-stacked" with no mortar.

Substantial Completion: The point in a construction project at which the Contractor claims to have adequately finished his or her duties, to be inspected for deficiencies, and once addressed, to undergo final inspection.

Survivability Rate: Percentage of plant material that survives in a given environment.

Topographical Survey: A map of land showing both man-made and natural objects giving contour lines to represent the elevation and relief of the land.

Tripartite: Consisting of three parts.

Turntable: a device for turning railroad rolling stock, usually locomotives, so that they can be moved back in the direction from which they came.

Understory: The plants that grow beneath the canopy of higher trees.

Upland Species: Plant species that are generally apt to grow best on relatively high ground, away from wetlands.

Utility Plans: Map documents that show the physical layout of various utilities on a site.

Vegetative Screen: A visual buffer formed by vegetation.

Viewshed: The physical environment visible from any one vantage point.

Visual Boundary: A historic boundary that does not follow or adhere to the legal boundary of the actual property, but does include all character defining features within the property.

Visual Buffer: See "Visual Screening."

Visual Screening: An impediment of a line of sight, often intentionally designed.

Warranty: As in construction practices, the time period in which a contractor is held responsible to repair or replace items constructed that may be rendered broken or otherwise unusable.

Wing Walls: As in bridge construction, the retaining wall extensions to a wall underneath a bridge, adjacent to the abutments of bridge to land.

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