

Section 404 / NEPA Interagency Merger Process Concurrence Meeting

Concurrence Points 3 and 4A

**Least Environmentally Damaging Practicable
Alternative (LEDPA) / Preferred Alternative
Selection**

&

Avoidance and Minimization

US 70, West of T.W. Alexander Drive to East of I-540

NCDOT Division 5 – Wake & Durham County

NCDOT STIP Project No. U-5518

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION



TABLE OF CONTENTS

1. Introduction	2
2. Project Description	2
3. Purpose and Need	2
4. Previous Merger Meetings	3
4.1. CP1 PURPOSE AND NEED AND STUDY AREA DEFINED AND CP 2 DETAILED STUDY ALTERNATIVES	3
4.2. CP 2 (REVISITED) DETAILED STUDY ALTERNATIVES AND CP 2A BRIDGING DECISIONS AND ALIGNMENT REVIEW 3	
5. Project Schedule.....	5
6. Project Cost.....	5
7. CP 3 Least Environmentally Damaging Practicable Alternative (LEDPA) / Preferred Alternative	5
7.1. ALTERNATIVE 1.....	5
7.2. ALTERNATIVE 2.....	6
7.3. ALTERNATIVE 2 REVISED – NCDOT RECOMMENDED ALTERNATIVE.....	6
8. Summary of Recent Public and Agency Involvement.....	7
9. CP 4A Avoidance and Minimization	8
9.1. ALTERNATIVE 1.....	8
9.2. ALTERNATIVE 2.....	8
9.3. ALTERNATIVE 2 REVISED – NCDOT RECOMMENDED ALTERNATIVE.....	8

1. Introduction

This packet includes information for the *National Environmental Policy Act of 1969 (NEPA)/Section 404 Merger Team* to reach concurrence on Concurrence Point (CP) 3 and CP 4A for the proposed improvements to US 70.

2. Project Description

A planning, environmental, and engineering study is being conducted for improvements to US 70 (Glenwood Avenue) from west of T.W. Alexander Drive (State Route [SR] 3067) to east of I-540 (State Transportation Improvement Program (STIP) Project U-5518) in accordance with NEPA, as amended. The proposed project is anticipated to include interchanges and/or grade-separations at T.W. Alexander Drive and at Brier Creek Parkway (SR 3100/SR 3109) and to include a corridor upgrade of US 70 from west of T.W. Alexander Drive to I-540. US 70 provides access to the residential communities, businesses, and shopping centers located in the Brier Creek area. In addition, US 70 is classified as a principal arterial and serves as a regional east-west route between Raleigh and Durham, and provides access from Raleigh and Durham to Raleigh-Durham International Airport (RDU) and Research Triangle Park (RTP) via I-540. **Figure 1** illustrates the project location and study area.

The proposed project is included in the 2018-2027 North Carolina Department of Transportation (NCDOT) STIP as Project No. U-5518. The project is divided into the following three sections:

- Section A: Corridor upgrade of US 70 from west of T.W. Alexander Drive to I-540
- Section B: Upgrade US 70/T.W. Alexander Drive to an interchange
- Section C: Upgrade US 70/ Brier Creek Parkway to an interchange

The programmed project schedule is shown in **Table 1**.

Table 1: Project schedule

Section	Right-of-way	Construction
U-5518A	FY 2019	FY 2019
U-5518B	FY 2019	FY 2019
U-5518C	FY 2019	FY 2019

3. Purpose and Need

The need to improve US 70 from west of T.W. Alexander Drive to east of I-540 is demonstrated by existing traffic congestion, anticipated future traffic congestion, poor operating conditions, and a higher than average number of vehicle crashes. These conditions are substandard currently and are anticipated to worsen if no action is taken.

The purpose of the proposed project is to improve traffic flow and operations on US 70, and associated intersections and/or interchanges, from west of T.W. Alexander Drive to just east of I-540, by reducing anticipated travel delays and queue lengths as compared to those anticipated in the future (2040) no-build condition.

4. Previous Merger Meetings

4.1. CP1 Purpose and Need and Study Area Defined and CP 2 Detailed Study Alternatives

On March 10, 2016, the NEPA/Section 404 Merger Team reached concurrence on CP 1, Purpose and Need and Study Area Defined. The needs to be addressed by the proposed action include the following:

- Increasing traffic volumes
- Poor levels of service
- Excessive queue lengths and travel delays
- Higher than average crash numbers

The purpose of the proposed project was outlined as:

The purpose of the proposed project is to improve traffic flow and operations on US 70 (Glenwood Avenue), and associated intersections and/or interchanges, from west of T.W. Alexander Drive (SR 3067) to east of I-540, by reducing anticipated travel delays and queue lengths as compared to those anticipated in the future no-build condition.

Concurrence was also reached on the Project Study Area as revised by the Merger Team during the meeting.

At the same merger team meeting, the agencies agreed to carry the following design options forward for detailed study (CP 2):

- Section A (US 70 Corridor Upgrade):
 - Freeway design: Full control of access
 - Expressway design: Limited or partial control of access
- Section B (US 70/ T.W. Alexander Drive (SR 3067) interchange):
 - Upgrade-existing alternative: Interchange at existing location
 - New location alternative: Interchange at future Aviation Parkway Extension and grade separation at existing location
- Section C (US 70 / Brier Creek Parkway (SR 3100/ SR 3109 interchange):
 - Upgrade-existing alternative: Interchange at existing location

4.2. CP 2 (Revisited) Detailed Study Alternatives and CP 2A Bridging Decisions and Alignment Review

On May 25, 2018, the NEPA/Section 404 Merger Team reached concurrence on CP 2 Revisited, Detailed Study Alternatives Carried Forward and CP 2A, Bridging Decisions and Alignment Review. The concurrence reached at the May 25, 2018 meeting supersedes the Concurrence Point 2 form signed on March 10, 2016. The alternatives to be studied in detail are:

- No-Build Alternative
- Alternative 1

- Alternative 2
- Alternative 2 Revised

CP 2A concurrence was reached, provided the project meets the following standards:

Hydraulic structures of at least the length or size indicated below will be provided for the project. The site numbers refer to the locations shown in Appendix B of the Merger Packet. Revisiting CP 2A decisions may occur if needed during the normal CP 4A Avoidance and Minimization Merger Team Meeting.

Table 2: Summary Table of Hydraulic Recommendations

Site Number	Alt.	Stream ID	Stream Name	Existing Structure	Proposed Structure	Stream Impact (feet)
1	1, 2, 2- Revised	SJ	Little Brier Creek (Basin 18, Stream 15)	2 @ 7'x10' RCBC Existing = 126'	Retain & Extend: 2 @ 7'x10' RCBC Extend 64' upstream & 57' downstream	Alt 1: 810' Alt 2: 711' Alt 2 Revised: 1,063'
2	1	SJ	Little Brier Creek (Basin 18, Stream 15)	N/A	2 @ 9'x8' RCBC	810'
3	1, 2, 2- Revised	SJ	Little Brier Creek (Basin 18, Stream 15)	2 @ 9'x8' RCBC Existing = 209'	Retain & Extend: 2 @ 9'x8' RCBC Extend 13' downstream	Alt 1: 810' Alt 2: 711' Alt 2 Revised: 1,063'
4	1, 2- Revised	SJ	Little Brier Creek (Basin 18, Stream 15)	2 @ 14'x9.3' RCB Arch Existing = 125'	Retain & Extend: 2 @ 14'x9.3' RCB Arch Extend 32' upstream & 24' downstream	Alt 1: 810' Alt 2-Revised: 1,063'
5	1	SC	UT to Little Brier Creek	N/A	9' x 8' RCBC Buried 1-foot	447'
6	1, 2, 2- Revised	SC	UT to Little Brier Creek	7' x 6' RCBC	Alt 1 - 9' x 8' RCBC Buried 1-foot Alt 2 - 8' x 8' RCBC Buried 1-foot	Alt 1: 447' Alt 2: 308' Alt 2 Revised: 266'
7	1	ST	UT to Little Brier Creek	N/A	9' x 8' RCBC Buried 1-foot	285'
8	1, 2, 2- Revised	SC	UT to Little Brier Creek	6'x6' RCBC Existing = 75'	Retain Existing: 6'x6' RCBC	Alt 1: 447' Alt 2: 308' Alt 2 Revised: 266'
9	1, 2, 2- Revised	SW	Little Brier Creek East (Basin 18, Stream 16)	2 @ 8'x7' RCBC Existing = 275'	Retain & Extend: 2 @ 8'x7' RCBC Extend 62' upstream & 72' downstream	Alt 1: 173' Alt 2: 243' Alt 2 Revised: 173'
10	1, 2- Revised	SZZJ/S N	UT to Little Brier Creek	78" CMP (U/S); 84" CMP (D/S)	7' x 7' RCBC Buried 1-foot	Alt 1: 1,190'
11	2, 2- Revised	SQQ	UT to Little Brier Creek	N/A	7' x 7' RCBC Buried 1-foot	Alt 2: 3,007' Alt 2 Revised: 2,918'

Site Number	Alt.	Stream ID	Stream Name	Existing Structure	Proposed Structure	Stream Impact (feet)
12	2, 2- Revised	SQQ	UT to Little Brier Creek	N/A	7' x 8' RCBC Buried 1-foot	Alt 2: 2,918' Alt 2 Revised: 3,007'
13	2, 2- Revised	SQQ	UT to Little Brier Creek	N/A	8' x 8' RCBC Buried 1-foot	Alt 2: 2,918'' Alt 2 Revised: 3,007'
14	2, 2- Revised	SZZG	UT to Little Brier Creek	2 @ 54" RCP Existing = 217'	Retain & Extend: 2 @ 54" RCP Extend 114' upstream	Alt 2: 314' Alt 2 Revised: 231''
15	2- Revised	SJ	Little Brier Creek (Basin 18, Stream 15)	N/A	2 @ 9'x9' RCBC	1063'

5. Project Schedule

- February 2014 – Start of Study
- November 2016 – Concept Designs Completed
- April 2017 – First Public and Local Officials/Agency Meeting at Brier Creek Elementary School
- Fall 2018 – Second Public and Local Officials/Agency Meeting in Raleigh and Durham
- Winter 2018/2019 – Federal Environmental Document (CE)
- Summer 2019 – Right of Way Acquisition and Construction Begin

6. Project Cost

The proposed project is federally-funded. As shown in the current STIP, right of way acquisition and construction are scheduled for federal fiscal year 2019. The estimated costs of the proposed project are as follows:

Right of Way Cost	\$14,500,000
Utilities Cost	\$2,700,000
Construction Cost	\$73,000,000
Total Project Cost	\$90,200,000

7. CP 3 Least Environmentally Damaging Practicable Alternative (LEDPA) / Preferred Alternative

Three alternatives were recommended for detailed study. All three remain under consideration: Alternative 1 and Alternative 2, which were both presented to the public in April 2017, and Alternative 2 Revised. Alternative 2 Revised was developed after the April 2017 public meeting based upon feedback from the public and updated traffic analyses. Alternative 2 Revised is NCDOT's recommended alternative for the project. A description of each alternative is below and shown on **Figure 2**.

7.1. Alternative 1

This alternative would replace US 70's existing at-grade intersections at T.W. Alexander Drive and at Brier Creek Parkway, with new interchanges in the existing locations. This alternative would construct a

Single-Point Urban Interchange (SPUI) at Brier Creek Parkway and a limited access directional interchange at T.W. Alexander Drive.

In addition, this alternative would require the use of braided ramps between the two new interchanges due to the short distance between them. Braided ramps occur when one highway on or off ramp crosses over another on or off ramp to that highway.

7.2. Alternative 2

This alternative was developed to eliminate the need for braided ramps between the two new interchanges. Like Alternative 1, this alternative would also construct a SPUI at Brier Creek Parkway. However, to create additional space between the interchanges, Alternative 2 would construct a new interchange west of the existing US 70 and T.W. Alexander Drive intersection and provide a new connection from T.W. Alexander Drive to US 70. The existing T.W. Alexander Drive intersection with US 70 would then be grade separated (T.W Alexander bridging over US 70) with no access to or from US 70.

7.3. Alternative 2 Revised – NCDOT Recommended Alternative

Alternative 2 Revised was developed to provide additional access to T.W. Alexander Drive. As in Alternative 2, a SPUI would be constructed at Brier Creek Parkway and a new interchange would be constructed west of the existing US 70 and T.W. Alexander Drive intersection. In Alternative 2 Revised a ramp would be added from eastbound US 70 to the existing T.W. Alexander Drive and a loop would be added from southbound T.W. Alexander to eastbound US 70. Corners Parkway would be utilized as a quadrant roadway and right-in/right-out access would be provided with necessary deceleration and acceleration lanes on US 70. Through coordination with the Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC), the Capital Area Metropolitan Planning Organization (CAMPO), the City of Raleigh, and the City of Durham, the interchange at the relocated T.W. Alexander interchange was revised to a Diverging Diamond Interchange (DDI) to accommodate the proposed future connection to the Northern Durham Parkway.

It was determined this alternative would reduce some of the complexity shown in the other two alternatives, especially with regard to the amount of signing and access changes from US 70 to T.W. Alexander Drive. The ramp and loop connecting US 70 and T.W. Alexander Drive would provide increased connectivity and mobility to the developments around T.W Alexander, as well as reduce traffic and congestion at the US 70 interchange with Brier Creek Parkway. Alternative 2 Revised reduces the severity of weaving traffic along US 70 between Aviation Parkway Extension and Brier Creek Parkway.

Table 3: Comparison of build alternatives

Resource	Category	Alternative 1	Alternative 2	Alternative 2 Rev
Length along US 70 (miles)		2.5	2.5	2.5
Archaeological Sites		Waiting on a preferred alternative		
Historic Properties		0	0	0
Jurisdictional Impacts				
Floodplains	Floodway (acres)	2.5	2.9	2.8
Floodplains	100-year Floodplain (excluding floodway) (acres)	2.7	4.0	3.5
Streams	Number of Crossings	16	18	17
Stream	Linear Feet	6,267.9	8,754.1	8,191.7
Wetland	Number of Crossings	6	9	11
Wetland	Acres	2.76	2.69	2.91
Pond	Number of Crossings	1	3	2
Pond	Acres	0.01	0.05	0.01
Land Use Impacts				
Durham Zoning	Commercial (acres)	7.0	9.1	10.9
Durham Zoning	Industrial (acres)	14.3	15.3	17.2
Durham Zoning	Single Family Residential	2.1	13.5	7.1
Durham Zoning	Office (acres)	6.0	10.6	8.0
Raleigh Zoning	Commercial Mixed Use	74.0	65.5	65.1
Raleigh Zoning	Neighborhood Mixed Use	0.4	0.0	0.0
Raleigh Zoning	Office Mixed Use	3.5	22.4	19.8
Raleigh Zoning	Planned Development	5.0	4.3	3.0
Raleigh Zoning	Single Family Residential	21.2	33.9	27.5
Raleigh Zoning	Residential Mixed Use	14.4	17.3	12.7
Community Facilities				
Hazmat Sites		1	1	1
Schools		2	0	1
Churches		0	2	2
Cemeteries		0	0	0
Parks		0	0	0

8. Summary of Recent Public and Agency Involvement

A public meeting was held on April 6, 2017 at the Brier Creek Elementary School to solicit comments from the public, local officials, and agencies on the proposed alternatives for the proposed project. The two alternatives shown were Alternative 1 and Alternative 2, with the majority of comments received demonstrating opposition to Alternative 1. Approximately 100 residents and business owners attended the meeting and provided input on the project alternatives.

Additional public meetings were held to solicit comments from the public, local officials, and agencies on the proposed alternatives on Tuesday, October 30, 2018 in Raleigh and on Thursday, November 1, 2018 in Durham. The public meetings included STIP Project U-5518, as well as the adjacent STIP Project U-

5720. The three alternatives shown for U-5518 were Alternative 1, Alternative 2, and Alternative 2 Revised. Approximately 185 residents and business owners attended the meeting and provided input on the project alternatives, with the majority of the comments received supporting Alternative 2 Revised.

A website for the project is located at <https://www.ncdot.gov/projects/us-70-brier-creek>.

Public Comment summaries are located in Appendix D.

9. CP 4A Avoidance and Minimization

9.1. Alternative 1

Avoidance and minimization measures incorporated into the design for Alternative 1 included the following:

- Retaining walls in the northeast and northwest quadrants of the Brier Creek Parkway / US 70 interchange to minimize impacts to adjacent businesses.
- Retaining walls on the north side of US 70 to reduce impacts to wetlands.
- Retaining walls between T.W. Alexander Drive and Brier Creek Parkway to minimize impacts to adjacent businesses and residences.

9.2. Alternative 2

Avoidance and minimization measures incorporated into the design for Alternative 2 included the following:

- Retaining walls in the northeast and northwest quadrants of the Brier Creek Parkway / US 70 interchange to minimize impacts to adjacent businesses.
- The interchange at Aviation Extension and US 70 was shifted west to minimize impacts to jurisdictional resources immediately adjacent to US 70.
- The service road proposed to access residential properties on the north side of US 70 near the Aviation Extension interchange was relocated to connect to proposed development and reduce the number of jurisdictional stream crossings.

9.3. Alternative 2 Revised – NCDOT Recommended Alternative

Avoidance and minimization measures incorporated into the design for Alternative 2 Revised included the following:

- Retaining walls in the northeast and northwest quadrants of the Brier Creek Parkway / US 70 interchange to minimize impacts to adjacent businesses.
- The bridge carrying T.W. Alexander Drive over US 70 was shifted east to avoid impacts to proposed development within the Harris Teeter shopping center.
- The interchange at Aviation Extension and US 70 was shifted west to minimize impacts to jurisdictional resources immediately adjacent to US 70.
- The Diverging Diamond Interchange (DDI) ramps are much tighter than the trumpet interchange proposed in Alternative 2, further reducing jurisdictional stream impacts.
- The service road proposed to access residential properties on the north side of US 70 near the Aviation Extension interchange was relocated to connect to proposed development and reduce the number of jurisdictional stream crossings.

- Retaining walls on the south side of US 70 to eliminate the need for relocations between Aviation Extension and T.W. Alexander Drive.

Appendix A: Figures

Brier Creek Improvements

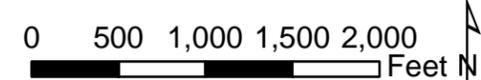
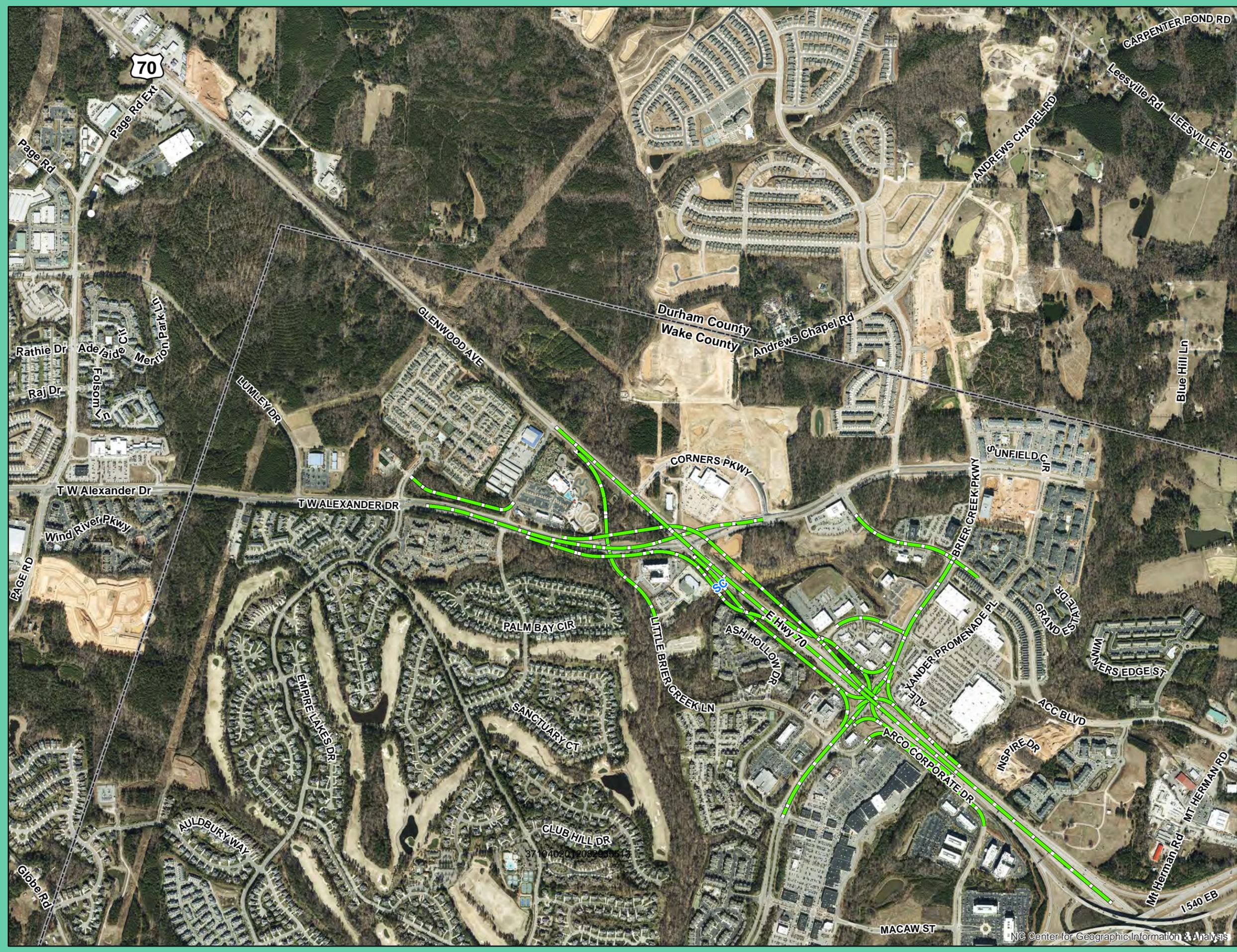
State Transportation Improvement Program
 Project No. U-5518
 Concurrence Point 2A



Figure 2a:
 Alternative 1

Legend

-  Alternative 1 Centerline
-  County Boundary



Date: December 2018
 This map is for reference only.
 Sources: ESRI, CGIA, NCDOT, and AECOM

Brier Creek Improvements

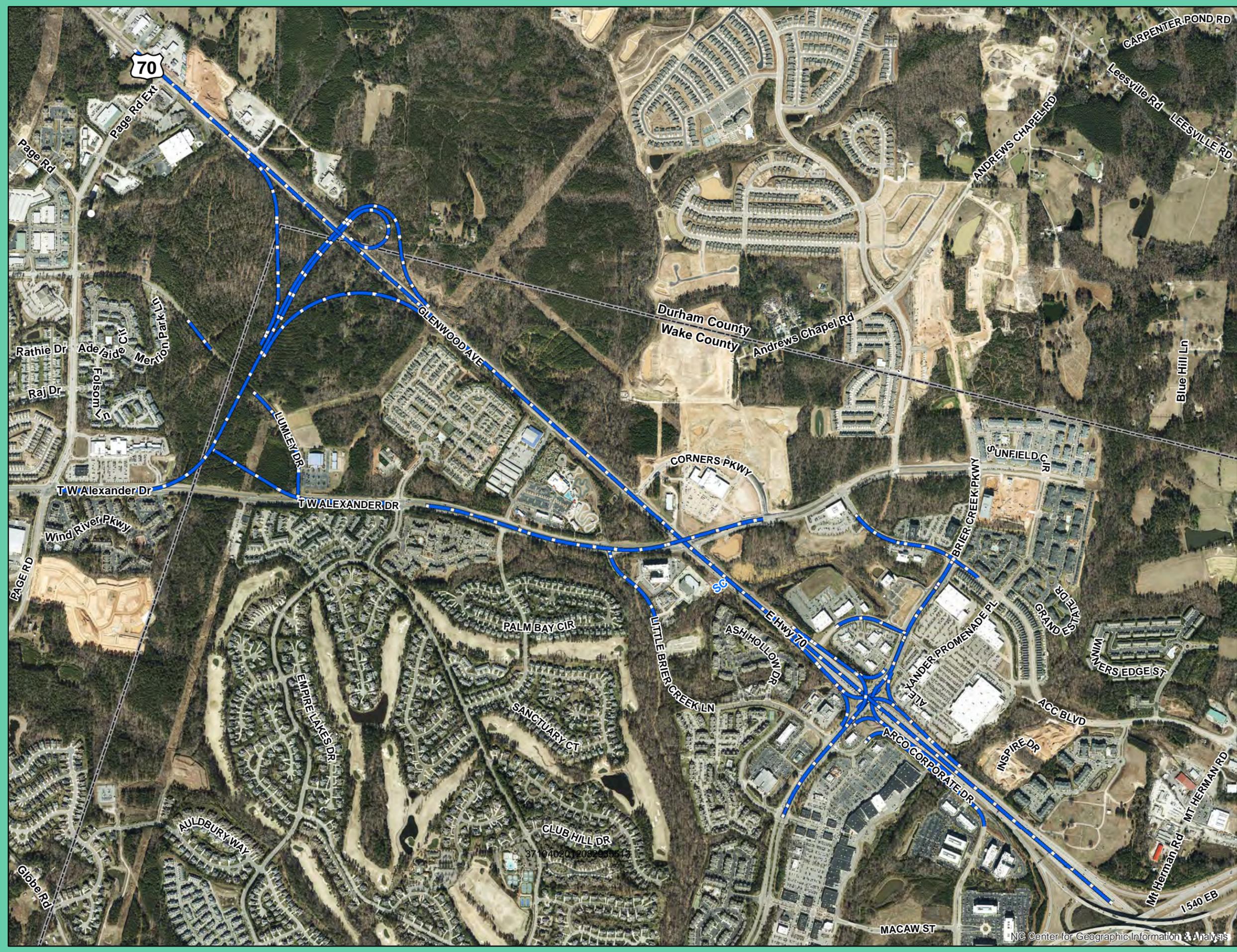
State Transportation Improvement Program
 Project No. U-5518
 Concurrence Point 2A



Figure 2a:
 Alternative 2

Legend

-  Alternative 2 Centerline
-  County Boundary



Date: December 2018
 This map is for reference only.
 Sources: ESRI, CGIA, NCDOT, and AECOM

Brier Creek Improvements

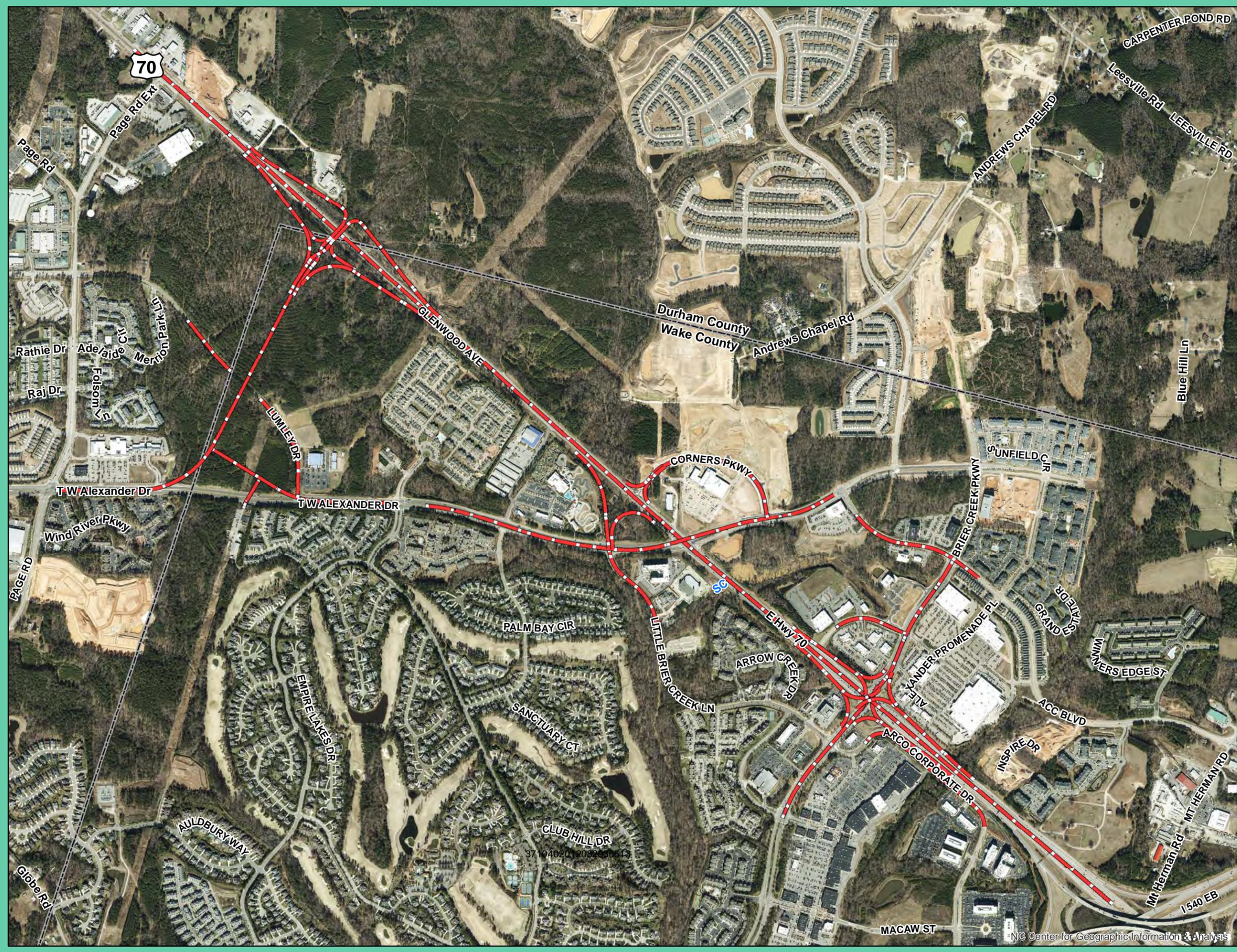
State Transportation Improvement Program
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 Concurrence Point 2A



Figure 2c:
 Alternative 2- Revised

Legend

-  Alternative 2- Revised Centerline
-  County Boundary



Date: December 2018
 This map is for reference only.
 Sources: ESRI, CGIA, NCDOT, and AECOM

Brier Creek Improvements

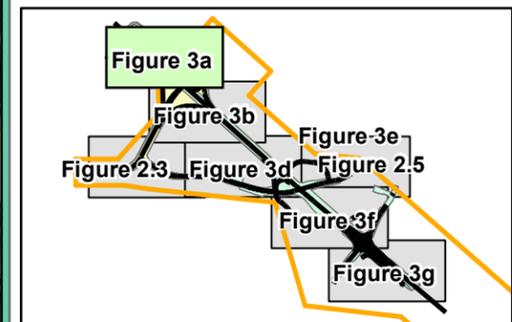
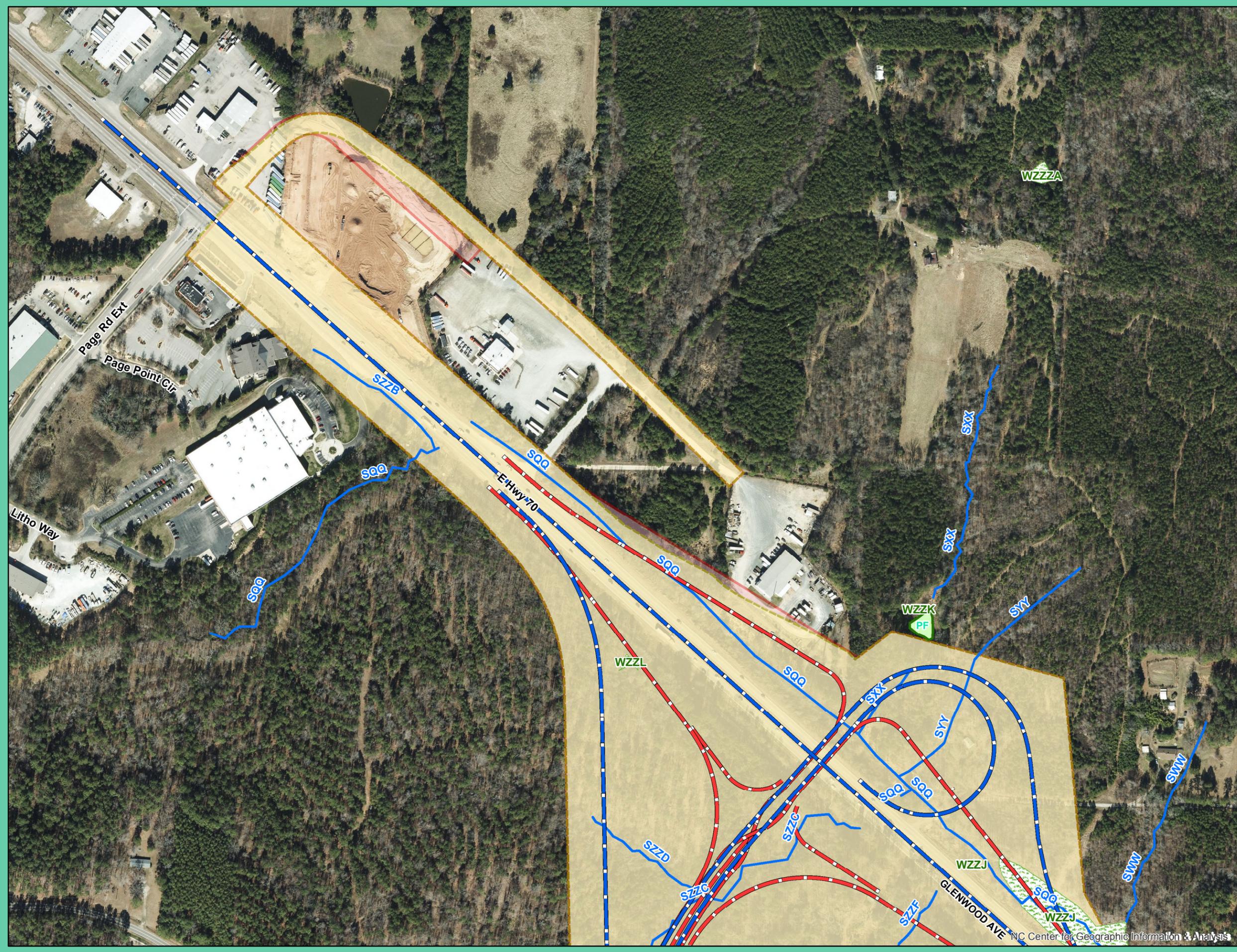
State Transportation Improvement Program
 Project No. U-5518
 Concurrence Point 2A



Figure 3a Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Delineated Streams
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



Date: December 2018
 This map is for reference only.
 Sources: ESRI, CGIA, NCDOT, and AECOM

Brier Creek Improvements

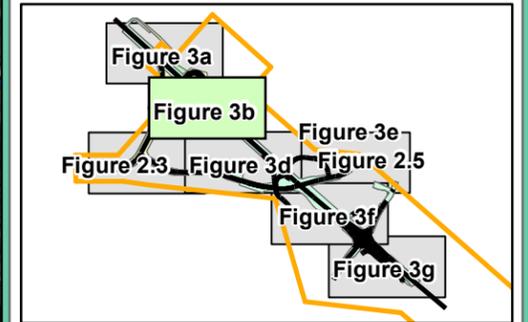
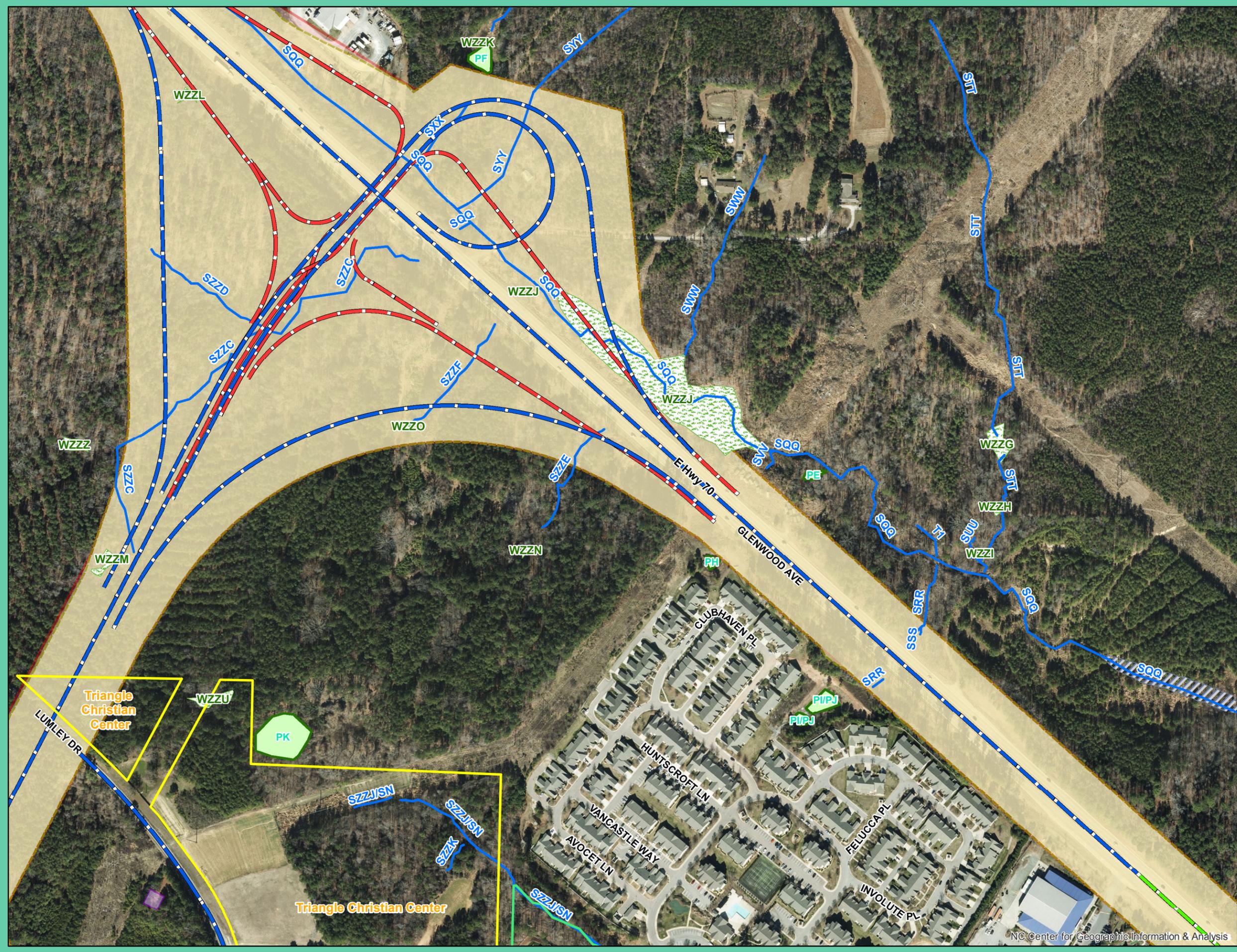
State Transportation Improvement Program
 Project No. U-5518
 Concurrence Point 2A



Figure 3b Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Church
- Day Care
- Cemetery
- Delineated Streams
- 100-year floodplain
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



Date: December 2018
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 Sources: ESRI, CGIA, NCDOT, and AECOM

Brier Creek Improvements

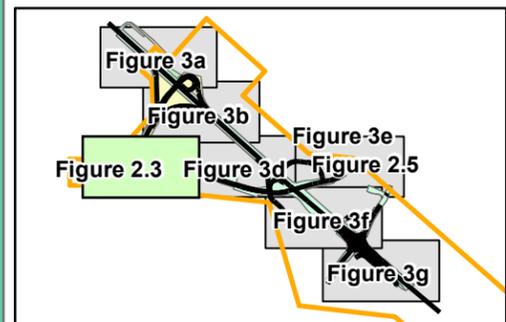
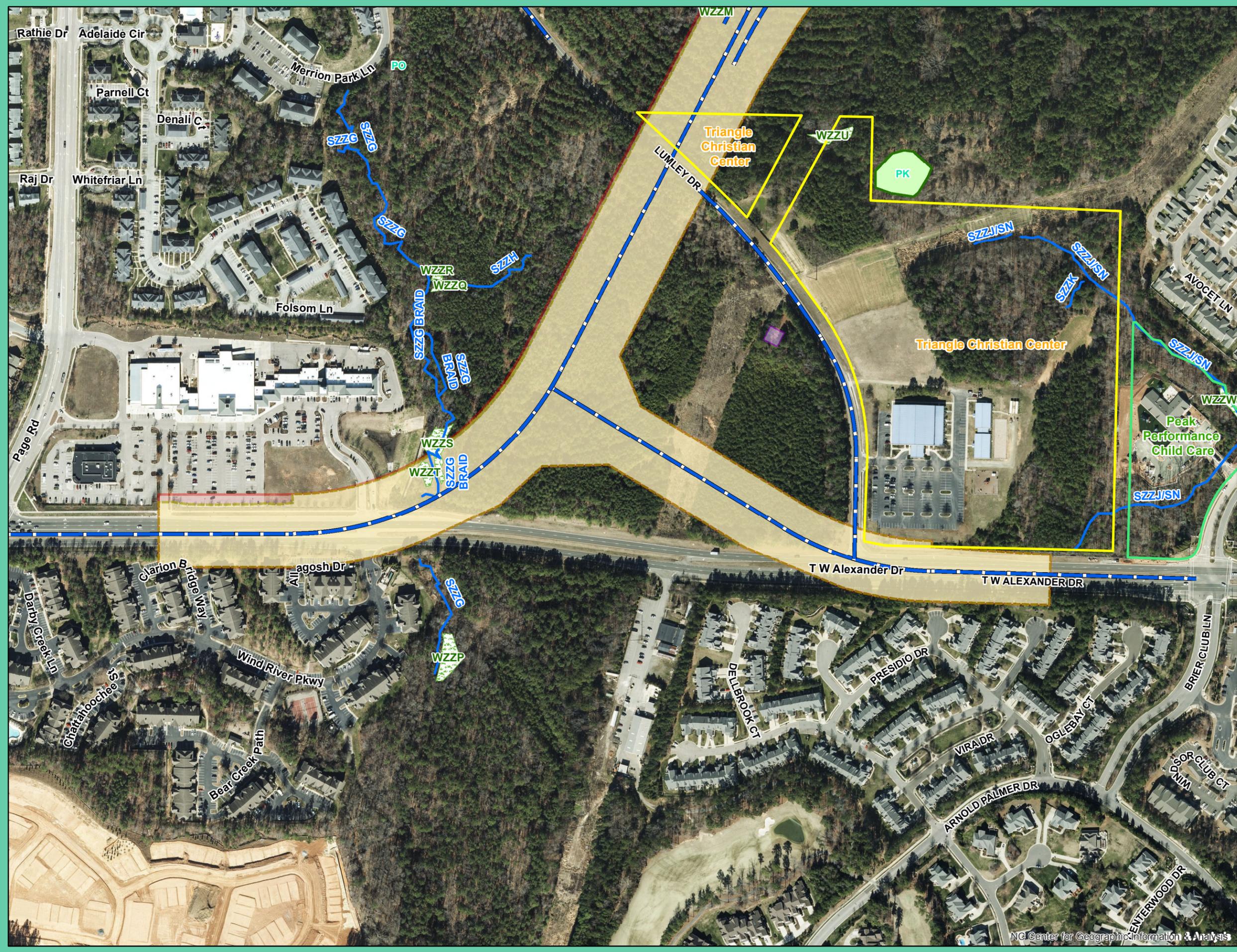
State Transportation Improvement Program
 Project No. U-5518
 Concurrence Point 2A



Figure 3c Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Church
- Day Care
- Cemetery
- Delineated Streams
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



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Brier Creek Improvements

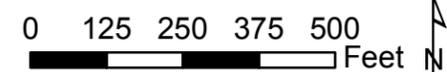
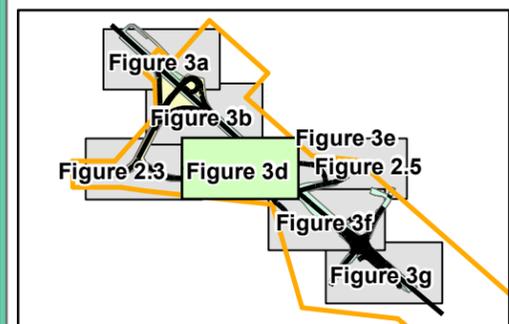
State Transportation Improvement Program
Project No. U-5518
Concurrence Point 2A



Figure 3d Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Church
- Day Care
- Delineated Streams
- 100-year floodplain
- Floodway
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



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Brier Creek Improvements

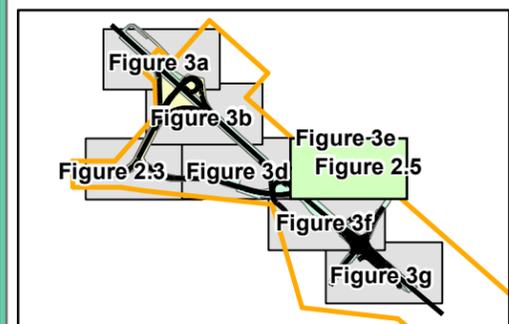
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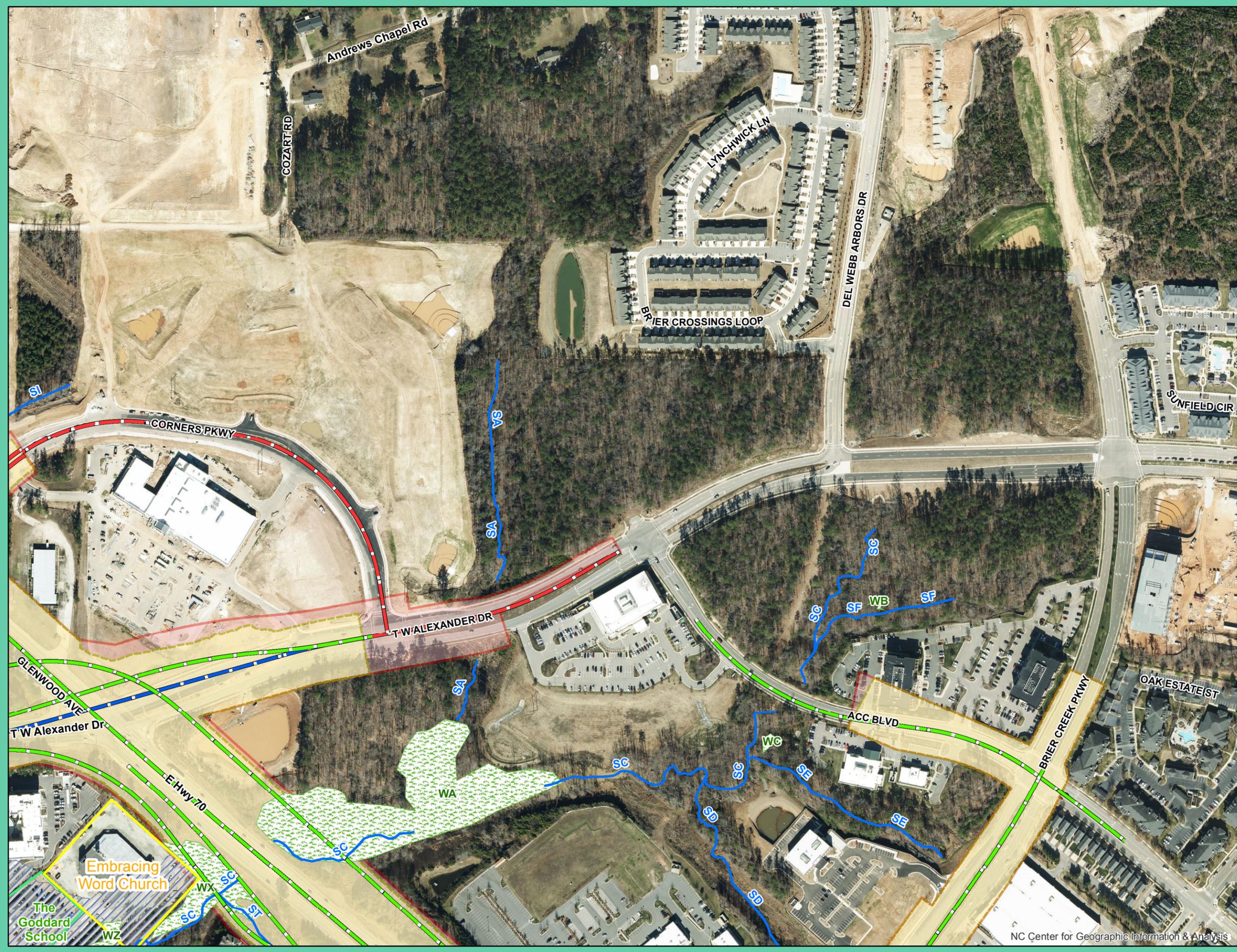
Figure 3e Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Church
- Day Care
- Delineated Streams
- 100-year floodplain
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



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Brier Creek Improvements

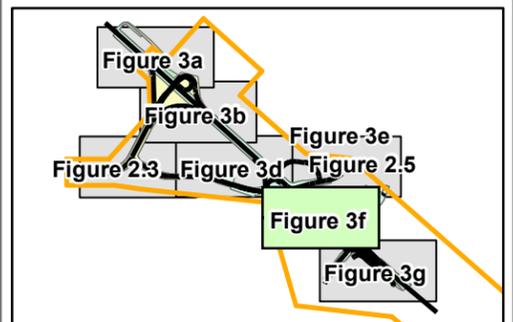
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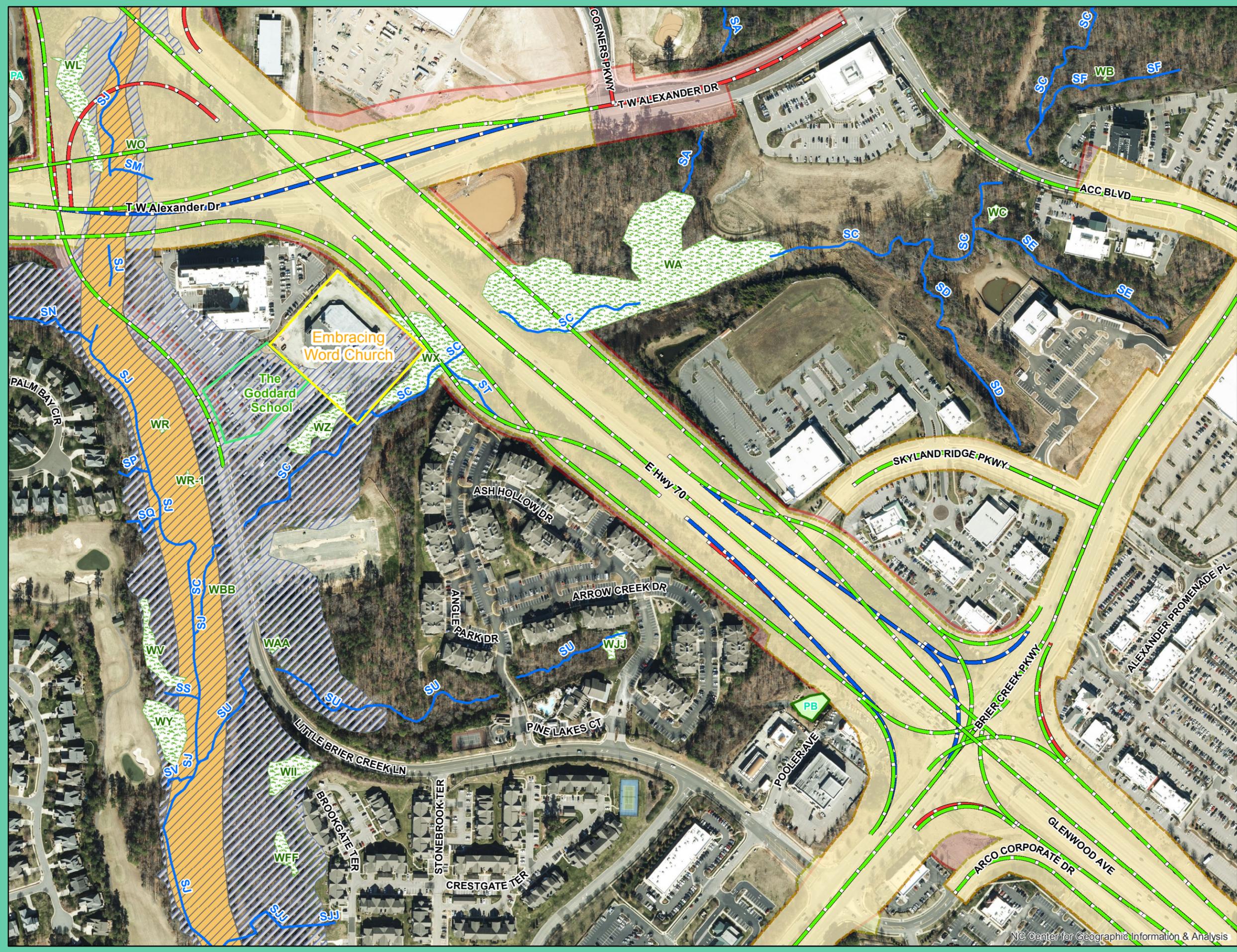
Figure 3f Environmental Features

Legend

- Alternative 1 Centerline
- Alternative 2 Centerline
- Alternative 2- Revised Centerline
- Church
- Day Care
- Delineated Streams
- 100-year floodplain
- Floodway
- Delineated Wetland
- Delineated Ponds
- Slope Stake Limits
- County Boundary



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Brier Creek Improvements

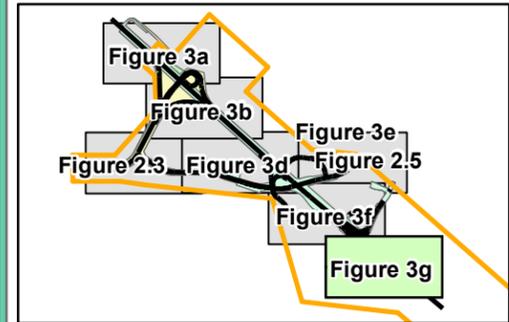
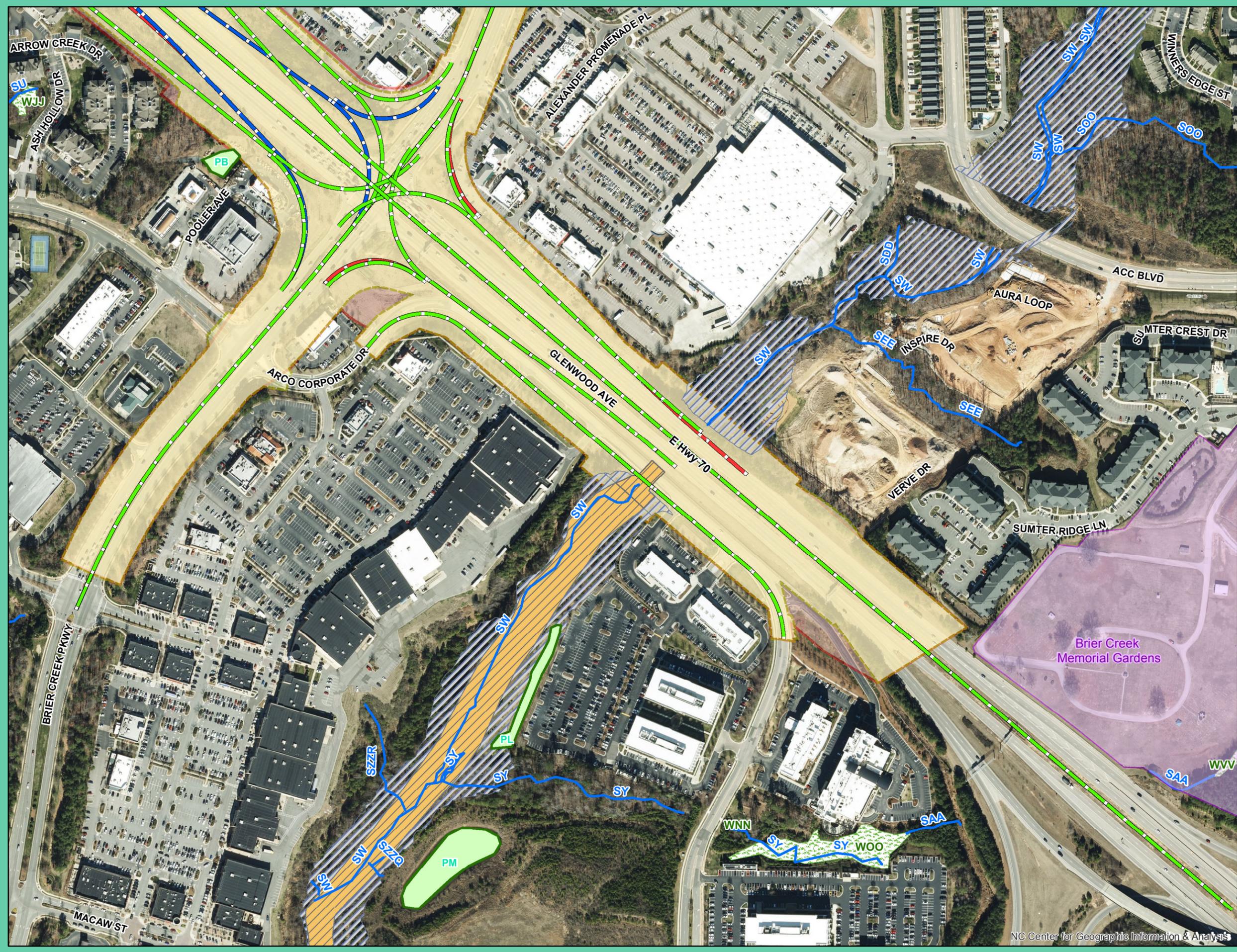
State Transportation Improvement Program
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Figure 3g Environmental Features

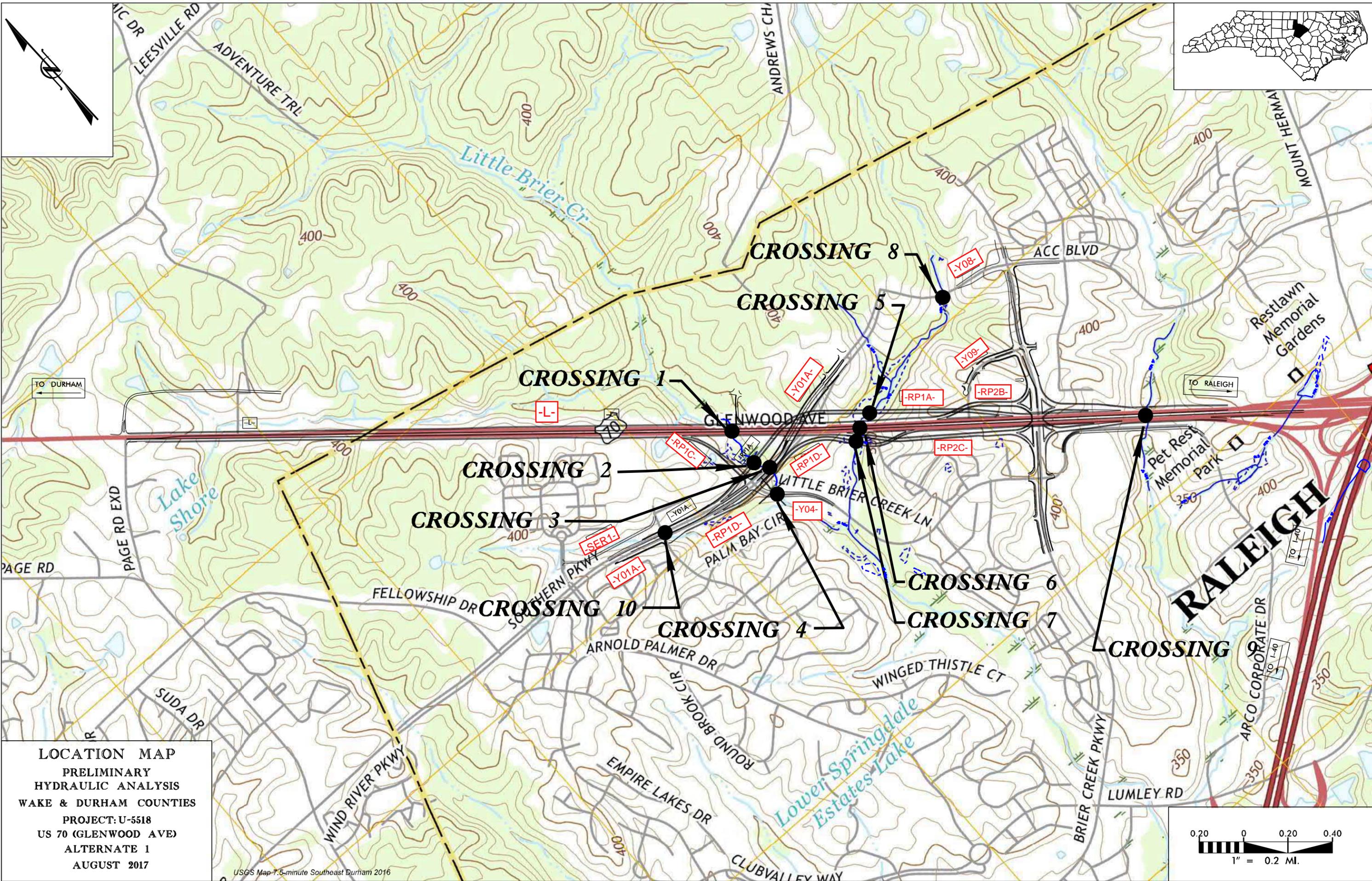
Legend

- Alternative 1 Centerline
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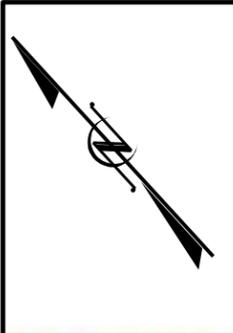
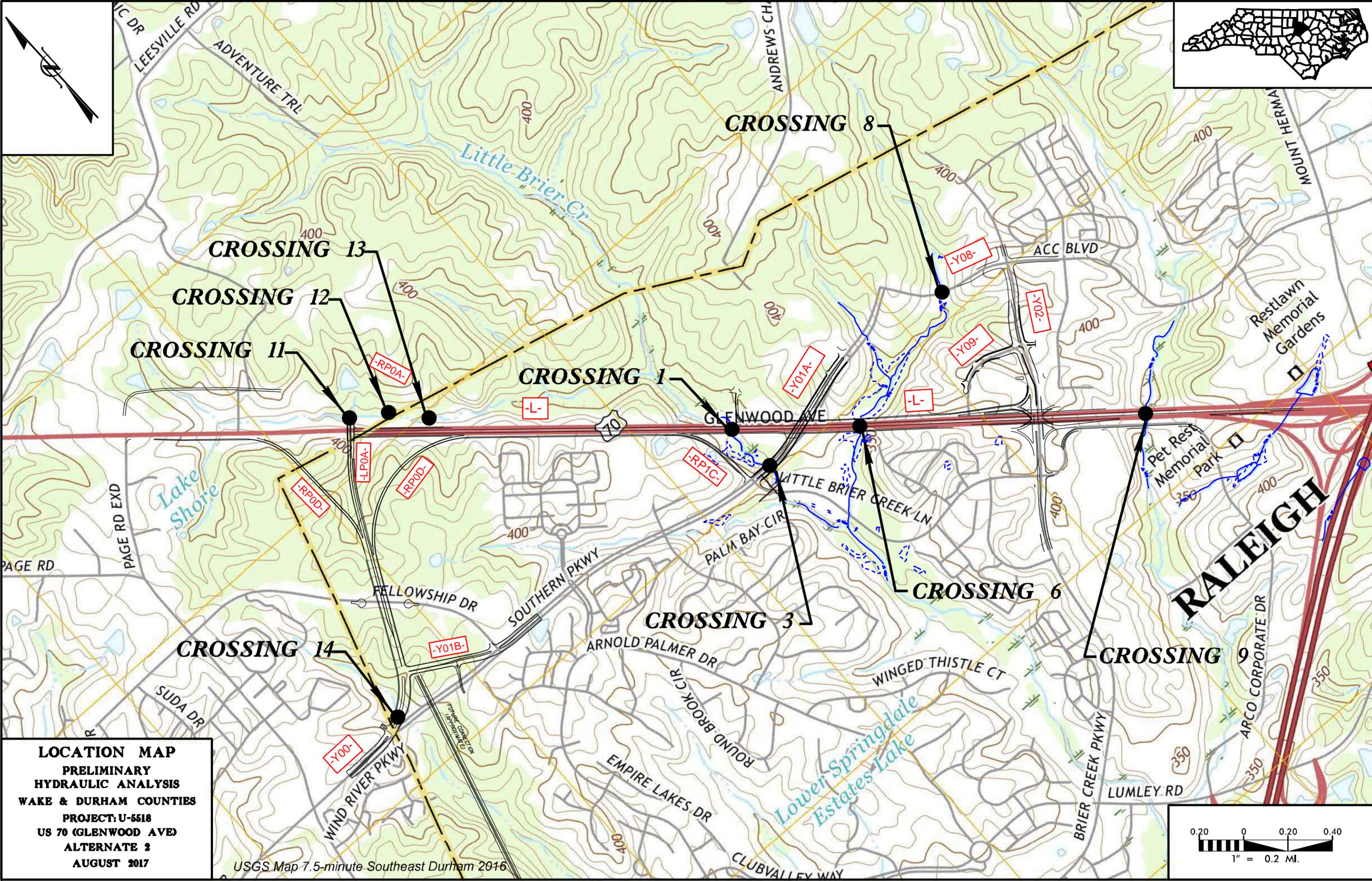
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 Sources: ESRI, CGIA, NCDOT, and AECOM

Appendix B: Hydraulic Crossing Locations



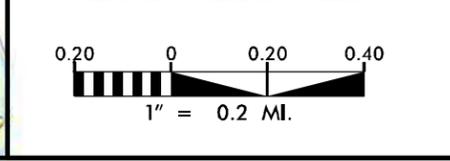
LOCATION MAP
 PRELIMINARY
 HYDRAULIC ANALYSIS
 WAKE & DURHAM COUNTIES
 PROJECT: U-5518
 US 70 (GLENWOOD AVE)
 ALTERNATE 1
 AUGUST 2017

USGS Map 7.5-minute Southeast Durham 2016



LOCATION MAP
PRELIMINARY
HYDRAULIC ANALYSIS
WAKE & DURHAM COUNTIES
PROJECT: U-5518
US 70 (GLENWOOD AVE)
ALTERNATE 2
AUGUST 2017

USGS Map 7.5-minute Southeast Durham 2016



Appendix C: Jurisdictional Characteristics Tables

Table C-1: Characteristics of Jurisdictional Streams

Map ID	Stream Name	NCDWR Index Number	Best Usage Classification	Bank Height (ft.)	Channel Width (ft.)	Water Depth (in.)	Channel Substrate	Flow	Clarity	Map ID	Total Length in Entire Study Area (ft.)	Classification	USACE Compensatory Mitigation Required	River Basin Buffer
SA	Unnamed Tributary (UT) to Little Brier Creek	27-33-4-1	C NSW	1 - 3	2 - 4	6 - 12	Silt, Sand, Gravel	Slow	Slightly turbid	SA	955	Perennial	Yes	Subject
SC	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 4	1 - 4	4 - 18	Silt, Sand, Gravel	Moderate	Clear	SC	3,638	Perennial	Yes	Subject
SD	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 4	1 - 2	1 - 4	Silt, Sand, Gravel, Cobble	Moderate	Clear	SD	804	Intermittent	No	Subject
SE	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 4	2 - 5	6 - 24	Silt, Sand, Gravel, Cobble	Moderate	Clear	SE	748	Perennial	Yes	Subject
SF	UT to Little Brier Creek	27-33-4-1	C NSW	1.5 - 6	4	6 - 12	Sand, Gravel	Slow	Clear	SF	515	Perennial	Yes	Subject
SI	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 6	2 - 3	1 - 8	Silt, Sand, Gravel	Moderate	Clear	SI ¹	669	Intermittent	No	Subject
SJ	Little Brier Creek	27-33-4-1	C NSW	3 - 10	6 - 10	12 - 24	Silt, Sand, Gravel	Moderate	Slightly turbid	SJ	5,363	Perennial	Yes	Subject
SK	UT to Little Brier Creek	27-33-4-1	C NSW	6 - 8	2 - 4	2 - 12	Silt, Sand, Gravel, Cobble	Moderate	Clear	SK	163	Intermittent	No	Subject
SL	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 3	2 - 8	1 - 12	Silt, Sand	Slow	Clear	SL	751	Intermittent	No	Not Subject
SM	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 7	2 - 3	1 - 12	Silt, Sand, Gravel	Moderate	Slightly turbid	SM	146	Intermittent	No	Not Subject
SN/SZZJ	UT to Little Brier Creek	27-33-4-1	C NSW	8	10	6 - 24	Sand, Gravel	Slow	Slightly turbid	SN/SZZJ	753	Intermittent	Undetermined	Subject
SN/SZZJ	UT to Little Brier Creek	27-33-4-1	C NSW	0.5	2	0.5 - 2	Silt, Sand	Moderate	Clear	SN/SZZJ	3,219	Perennial	Yes ²	
SO	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	1 - 2	4 - 6	Sand, Gravel	Moderate	Clear	SO	179	Intermittent	No	Not Subject
SP	UT to Little Brier Creek	27-33-4-1	C NSW	6 - 8	3 - 6	1 - 8	Silt, Sand, Gravel	Moderate	Slightly turbid	SP	117	Intermittent	No	Not Subject
SQ	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 6	1 - 3	1 - 6	Silt, Sand, Gravel	Moderate	Clear	SQ	149	Intermittent	No	Subject
SS	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 4	1 - 2	2 - 4	Silt, Sand	Slow	Slightly turbid	SS	115	Intermittent	No	Subject
ST	UT to Little Brier Creek	27-33-4-1	C NSW	.05 - 1	2 - 3	1 - 3	Sand	Slow	Clear	ST	285	Intermittent	No	Not Subject
SU	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	1 - 3	2 - 6	Silt, Sand, Gravel	Moderate	Clear	SU	1,686	Perennial	Yes	Subject
SV	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 3	1 - 2	1 - 6	Silt, Sand, Gravel	Slow	Slightly turbid	SV	107	Intermittent	No	Not Subject
SW	UT to Little Brier Creek	27-33-4-1	C NSW	4 - 6	10 - 12	3 - 36	Sand, Gravel, Cobble	Moderate	Slightly turbid	SW	3,949	Perennial	Yes	Subject
SY	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	2 - 3	6 - 12	Silt, Sand, Gravel	Moderate	Clear	SY ³	1,493	Perennial	Yes ³	Subject
SAA	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 1	1 - 2	4 - 8	Silt, Sand, Gravel, Cobble	Slow	Clear	SAA	437	Intermittent	No	Subject
SDD	UT to Sycamore Creek	27-33-9	B NSW	1	2	1 - 6	Sand, Gravel	Slow	Clear	SDD	179	Intermittent	No	Subject
SEE	UT to Sycamore Creek	27-33-9	B NSW	2	2	1 - 4	Sand, Gravel	Slow	Clear	SEE	849	Intermittent	No	Subject
SFF	UT to Sycamore Creek	27-33-9	B NSW	5 - 8	5	6 - 24	Silt, Sand	Slow	Slightly turbid	SFF	968	Intermittent	No	Subject
SGG	Sycamore Creek	27-33-9	B NSW	5 - 10	12 - 20	1 - 4	Silt, Sand, Gravel, Cobble	Moderate	Clear	SGG	2,947	Perennial	Yes	Subject
SII	UT to Sycamore Creek	27-33-9	B NSW	0.5 - 1	1 - 2	2 - 6	Silt, Sand	Slow	Slightly turbid	SII	282	Intermittent	No	Subject
SJJ	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	2 - 4	6 - 12	Silt, Sand	Slow	Slightly turbid	SJJ	27	Intermittent	No	Subject
SKK	UT to Sycamore Creek	27-33-9	B NSW	2 - 5	6 - 10	1 - 12	Silt, Sand, Cobble	Moderate	Clear	SKK	1,371	Perennial	Yes	Subject
SLL	UT to Sycamore Creek	27-33-9	B NSW	1 - 2	1 - 3	1 - 6	Sand, Cobble	Slow	Clear	SLL	380	Perennial	Yes	Subject
SMM	UT to Sycamore Creek	27-33-9	B NSW	0.5 - 1	2 - 3	0.5 - 6	Silt, Sand, Gravel	Moderate	Slightly turbid	SMM	318	Intermittent	Undetermined	Subject

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SNN	UT to Sycamore Creek	27-33-9	B NSW	1 - 3	2 - 5	2 - 16	Silt, Sand, Gravel, Rip Rap	Slow	Turbid	SNN	96	Perennial	Yes	Subject
SOO	UT to Little Brier Creek	27-33-4-1	C NSW	0.25 - 0.83	1 - 2	0.5 - 3	Sand, Gravel	Moderate	Clear	SOO	324	Intermittent	Undetermined	Subject
SOO	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 5	6	1 - 8	Sand, Gravel, Cobble	Slow	Slightly turbid	SOO	797	Perennial	Yes	
SPP	UT to Little Brier Creek	27-33-4-1	C NSW	0.25 - 1	1 - 2	0.5 - 3	Sand, Gravel	Moderate	Clear to Slightly Turbid	SPP	199	Intermittent	Undetermined	Subject
SQQ	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 7	1 - 15	1 - 24	Silt, Sand, Gravel, Bedrock	Slow	Clear	SQQ	6,741	Perennial	Yes	Subject
SRR	UT to Little Brier Creek	27-33-4-1	C NSW	4 - 5	4 - 6	1 - 5	Silt, Sand, Gravel, Rip Rap	Slow	Turbid	SRR	310	Perennial	Yes	Subject
SSS	UT to Little Brier Creek	27-33-4-1	C NSW	0.1 - 2	3	0.5 - 2	Silt, Sand	Slow	Clear	SSS	25	Intermittent	Undetermined	Not Subject
STT	UT to Little Brier Creek	27-33-4-1	C NSW	0.25 - 0.33	1 - 3	0.5 - 1	Silt, Sand	Moderate	Clear	STT	522	Intermittent	Undetermined	Subject
STT	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 4	3 - 4	1 - 3	Silt, Sand	Slow	Clear	STT	1,568	Perennial	Yes	
SUU	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 3	3 - 6	0.5 - 2	Sand, Gravel	Moderate	Clear	SUU	125	Intermittent	Undetermined	Not Subject
SVV	UT to Little Brier Creek	27-33-4-1	C NSW	0.17 - 0.33	1 - 3	0.25 - 2	Silt, Sand, Gravel, Rip Rap	Moderate	Clear	SVV	79	Intermittent	Undetermined	Not Subject
SWW	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 3	1 - 2	0.5 - 2	Silt, Sand, Gravel, Bedrock	Moderate	Clear	SWW	730	Intermittent	Undetermined	Subject
SXX	UT to Little Brier Creek	27-33-4-1	C NSW	0.25 - 1	0.67 - 4	0.5 - 6	Silt, Sand, Gravel, Bedrock	Slow	Clear	SXX	1,150	Intermittent	Undetermined	Subject
SYU	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	2 - 4	1 -	Loamy Sand	Moderate	Clear	SYU	944	Intermittent	Undetermined	Subject
SZZ	UT to Lick Creek	27-11-(0.5)	WS-IV NSW	1 - 4	2 - 6	1 - 10	Silt, Sand, Gravel, Cobble, Bedrock	Slow	Clear	SZZ	508	Perennial	Yes	Subject
SZZA	UT to Lick Creek	27-11-(0.5)	WS-IV NSW	0.5 - 6	1 - 2	0.5 - 6	Silt, Sand, Gravel, Cobble, Rip Rap, Bedrock	Moderate	Clear	SZZA	146	Intermittent	Undetermined	Subject
SZZB	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 3	1 - 2	0.5 - 4	Silt, Sand, Gravel	Slow	Clear	SZZB	532	Intermittent	Undetermined	Not Subject
SZZC	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 5	3 - 6	0.25 - 2	Sand, Gravel	Slow to Moderate	Clear	SZZC	35	Intermittent	Undetermined	Subject
SZZC	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 6	1 - 10	1 - 10	Silt, Sand, Gravel, Bedrock	Slow	Clear	SZZC	1,574	Perennial	Yes	
SZZD	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 3	1 - 3	0.5 - 6	Silt, Sand, Gravel, Bedrock	Moderate	Clear	SZZD	492	Intermittent	Undetermined	Subject
SZZE	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 3	3 - 4	1 - 5	Silt, Sand, Gravel	Moderate	Clear	SZZE	435	Intermittent	Undetermined	Subject
SZZF	UT to Little Brier Creek	27-33-4-1	C NSW	0.25 - 3	2 - 3	0.25 - 4	Silt, Sand, Gravel	Moderate	Clear	SZZF	453	Intermittent	Undetermined	Not Subject
SZZG	UT to Little Brier Creek	27-33-4-1	C NSW	0.17 - 2	1 - 4	0.25 - 5	Silt, Sand, Gravel, Rip Rap	Moderate	Clear	SZZG	2,152	Perennial	Yes	Subject
SZZG	UT to Little Brier Creek	27-33-4-1	C NSW	0.5	1 - 3	1 - 12	Clay, Sand, Rip Rap	Slow	Clear to Slightly Turbid					
SZZH	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 3	3 - 10	1 - 12	Silt, Sand, Gravel, Boulder	Slow to Moderate	Clear	SZZH	277	Intermittent	Undetermined	Subject
SZZI	UT to Little Brier Creek	27-33-4-1	C NSW	0.1 - 4	1 - 5	0.5 - 4	Silt, Sand, Gravel, Rip Rap	Slow	Clear	SZZI	559	Intermittent	Undetermined	Subject
										SZZI	65	Perennial	Yes	
SZZK	UT to Little Brier Creek	27-33-4-1	C NSW	1	1 - 1.5	0.5 - 1	Silt, Sand	Moderate	Slightly turbid	SZZK	113	Intermittent	Undetermined	Not Subject

Map ID	Stream Name	NCDWR Index Number	Best Usage Classification	Bank Height (ft.)	Channel Width (ft.)	Water Depth (in.)	Channel Substrate	Flow	Clarity	Map ID	Total Length in Entire Study Area (ft.)	Classification	USACE Compensatory Mitigation Required	River Basin Buffer
SZZL	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 4	3 - 5	2 - 10	Silt, Sand, Gravel, Rip Rap	Slow	Slightly turbid	SZZL	100	Intermittent	Undetermined	Not Subject
SZZM	UT to Little Brier Creek	27-33-4-1	C NSW	0.33 - 2	1 - 2	1 - 4	Silt, Sand	Moderate	Clear	SZZM	478	Intermittent	Undetermined	Not Subject
SZZN	UT to Little Brier Creek	27-33-4-1	C NSW	3 - 6	3 - 5	2 - 6	Silt, Sand, Gravel, Cobble	Moderate	Slightly turbid	SZZN	291	Perennial	Yes	Subject
SJJ				1 - 5	3 - 6	3 - 12	Silt, Sand, Gravel, Rip Rap	Slow	Clear					
SZZO	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 3	1 - 4	0.5 - 8	Silt, Sand, Gravel	Moderate	Clear	SZZO	170	Intermittent	Undetermined	Not Subject
SZZP	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 2	1 - 4	1 - 6	Silt, Sand, Gravel, Cobble, Bedrock	Moderate	Clear	SZZP	655	Intermittent	Undetermined	Subject
SZZQ	UT to Little Brier Creek	27-33-4-1	C NSW	1 - 4	2	1	Silt, Sand, Gravel	Moderate	Clear	SZZQ	117	Intermittent	Undetermined	Not Subject
SZZR	UT to Little Brier Creek	27-33-4-1	C NSW	0.5 - 6	3 - 6	1 - 18	Silt, Sand, Gravel, Cobble, Rip Rap, Bedrock	Moderate	Clear	SZZR	401	Perennial	Yes	Subject
SZZS	UT to Little Brier Creek	27-33-4-1	C NSW	2 - 3	2 - 6	0.5 - 1.5	Silt, Sand, Gravel	Slow	Slightly turbid	SZZS	111	Intermittent	Undetermined	Not Subject
SZZT	UT to Little Brier Creek	27-33-4-1	C NSW	2	2	0.5 - 2	Silt, Sand, Gravel	Moderate	Clear	SZZT	10	Perennial	Yes	Subject

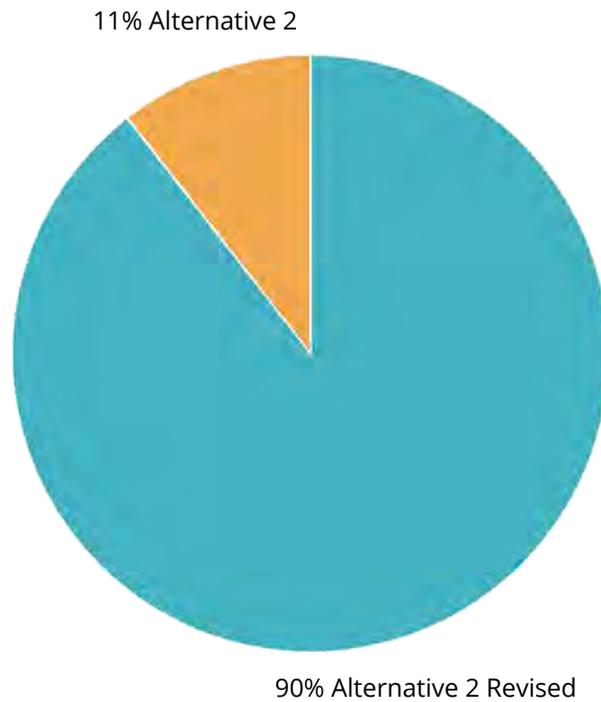
Table C-2: Characteristics of jurisdictional wetlands

Map ID	NCWAM Classification	Hydrologic Classification	Area (acres)
WA	NTFM	Riparian	4.43
WB	FP	Riparian	0.01
WC	HF	Riparian	0.04
WL	BFH	Riparian	0.49
WO	FP	Riparian	0.02
WP	HF	Riparian	0.31
WR	NTFM	Riparian	0.03
WR-1	NTFM	Riparian	0.02
WR-2	NTFM	Riparian	0.01
WV	HF	Riparian	0.25
WX	NTFM/BHF	Riparian	0.96
WY	HF	Riparian	0.42
WZ	FP/BHF	Riparian	0.32
WAA	HF	Riparian	0.04
WBB	HF	Riparian	0.01
WCC	HF	Riparian	0.83
WFF	HF	Riparian	0.12
WII	HF	Riparian	0.27
WJJ	BHF	Riparian	0.08
WNN	NTFM	Riparian	0.01
WOO	NTFM	Riparian	0.91
WUU	HF	Riparian	0.14
WVV	HF	Riparian	0.28
WWW	NTFM	Non-riparian	0.07
WYY	HF	Riparian	0.02
WZZ	BHF	Riparian	1.71
WA-1	HF/BHF	Riparian	0.23
WE-1	BHF	Riparian	1.25
WZZA	NTFM/BHF	Riparian	0.19
WZZB	NTFM/BHF	Riparian	0.13
WZZC	BHF	Riparian	0.11
WZZD	NTFM	Riparian	0.01
WZZE	NTFM	Riparian	0.02
WZZF	HF	Riparian	0.07
WZZG	HF	Riparian	0.13
WZZH	HF	Riparian	0.01
WZZI	HF	Riparian	0.01
WZZJ	NTFM/BHF	Riparian	2.36
WZZK	NTFM	Riparian	0.09
WZZL	HF	Riparian	0.02

Map ID	NCWAM Classification	Hydrologic Classification	Area (acres)
WZZM	HF	Riparian	0.08
WZZN	HF	Riparian	0.02
WZZO	HF	Riparian	0.01
WZZP	HF	Riparian	0.17
WZZQ	FP/HF	Riparian	0.03
WZZR	FP	Riparian	0.02
WZZS	HF	Riparian	0.16
WZZT	HF	Riparian	0.06
WZZU	BW	Non-riparian	0.08
WZZV	NTFM/HF	Riparian	0.67
WZZW	HF	Riparian	0.17
WZZX	NTFM/HF	Riparian	0.27
WZZY	HF	Riparian	0.01
WZZZ	HF	Riparian	0.05
WZZZA	NTFM	Riparian	0.08

Appendix D: Public and Agency Involvement Comment Summary

Do you prefer an Alternative presented tonight?



89%	Alternative 2 Revised	17 ✓
11%	Alternative 2	2 ✓
0%	Alternative 1	0 ✓

19 respondents

19 Comments

Comments Hidden by Filters or Admin:

Alt 1 makes little to no sense. There's lots of bridges (expensive) and same turning movements aren't there. So between Alt 2 and Alt 2 revised, I prefer the DDI - they're fun and efficient and safe.

16 days ago

With a small additional revision.

18 days ago

We prefer Alternative 2 Revised. The reasons why are:
The least complex and disruptive of the alternatives.

19 days ago

Provides best traffic flow and access in the area.

23 days ago

The use of ACC Blvd and corners Parkway to smooth flow/access to Hwy 70 makes good sense. Overall this alternative will be a great help to the quickly growing traffic in Brier Creek in General.

one month ago

It is important to maintain access from US 70 going east to TW Alexander Drive. Otherwise the local residents east on and off of TW Alexander would have to travel several more minutes on a daily or even more often basis, all making left-hand turns.

one month ago

it expands more, it will be a well appreciated, better travel, safer, better Durham access to different counties. Thanks so much God Bless, Happy Thanksgiving, Merry Christmas

one month ago

More Loops, and access better

one month ago

None - all impact the business detrimentally - Page Point Animal Hospital and Pet Resort - Cat Tree Castles, LLC

one month ago

No Preference

one month ago

But you need to add left turn cycle so eastbound traffic on Alexander can easily turn onto 79 south; rather than making a u-turn down the road.

one month ago

I back up to Little Brier Creek. Cannot live with Alternative 1. it will destroy my property value! Alt 2 revised gives best access to roads and will keep property values intact.

one month ago

Good traffic flow and appears to lessen traffic on the TW Alexander route to/from Durham. Should greatly reduce the noise levels on TW Alexander.

one month ago

This seems to be the most comprehensive well thought out plan.. It does flow with existing streets but adds upgraded entrances and exits.

one month ago

Access to TW Alexander from 70 in both directions is desirable.

one month ago

I live on Del Web Arbor Drive. I currently access Hwy 70 via TW Alexander. All other revisions prevent my access to 709 west without adding many more complications. Nothing (illegible) i.e. Leesville is blocked at Hwy 70.

one month ago

Alternative 2 least intrusive, least noise to surrounding homes.

Alt 2 revised is ok but more traffic along TW Alexander

Alt 1 NOT acceptable, too complex, keeps TW Alexander as main artery from RTP
one month ago

Better traffic Flow

one month ago

For the short term, i like alternative 2 but given that alt 2 revised will make later integration with he northern Durham expressway easier, i will support the revised version.

one month ago

Do you have any questions or comments you would like to give the project team?

24 Comments

Good Morning Mr. Vance,

I hope that your having a great Friday morning thus far! I wanted to reach out today regarding a flyer I received in the mail yesterday regarding the two projects listed in the subject line. I couldn't attend either meeting as I didn't get the flyer in until yesterday when I was off of work. I tried going to the website listed and the internet says that the page cannot be found.

I wanted to see if you could send me both of the project plans to see how the roadways will be effected along with when the construction is supposed to start.

I looked online some and read some articles but nothing is showing me where the new interchanges or suggested roadways would be located exactly. I wanted to obtian both of these items so that I could determine which one I would prefer.

Do you know if one has been picked over the other for our area?Will we have a vote in the matter?

Look forwad to hearing from you

Comments Hidden by Filters or Admin:

How the heck are you going to maintain traffic during construction? Detour? Lots of phases with shoring?

16 days ago

Please allow residents of Brier Creek to make a left turn from

TW Alexander to HWY 70 on ramp to head east on Hwy 70 (at Little Brier Creek). This avoids an awkward U-turn on TW Alexander to get on Hwy 70 (or provide a right turn ramp from TW Alexander to 70). Since that provides a ramp from TW Alexander to Hwy 70 East.

18 days ago

We have the following concerns

- Possibility to increase traffic on Lumley Rd and Arnold Palmer Dr. within Brier Creek Country Club community: Because this project will divert traffic on various roads (examples, no Page Road access via 70/Glenwood, more complicated/time consuming access to Glenwood Ave from both Brier Creek Parkway and TW Alexander, TW Alexander rerouted), the project has the possibility to increase traffic on Lumley Rd. and Arnold Palmer Dr. within the Brier Creek Country Club community. These roads cannot accommodate any additional traffic. They have golf cart crossings and Arnold Palmer now has bike lanes.
- Difficult for Brier Creek Country Club residents to exit community: Although Alternative 2 Revised seems to be the best, all alternatives, Alternative 2 Revised included, make it difficult for Brier Creek Country Club residents to easily exit the community to travel to local shopping and services, especially heading east. So to go west we have to go up and around the Corners Shopping Center. There is not easy way to go east. Alternatives are: west to Aviation Rd Extension, Lumley Rd community exit to Brier Creek Parkway, which adds traffic to Brier Creek Parkway. All of these options are much more time consuming for residents to exist the Brier Creek Country Club community. Note there is a possibility that Lumley Road will not be a throughway from Brier Creek Parkway to Glenwood/70 due to a future project at the RDU Airport.
- Comments for improvements
 - o Reconfigure Little Brier Creek Rd handle more traffic.
 - o Reconfigure Brier Creek Parkway and roads around it to provide easier access to the shopping center and lengthen turn lanes into the Brier Creek Shopping Center to delineate shopping center traffic versus through traffic.

18 days ago 

I would like to speak with someone in ref to Raleigh Thrift Store. We have lost our access off of 70 and no visibility from TW Alexander.

19 days ago

We have the following concerns

- Possibility to increase traffic on Lumley Rd and Arnold Palmer Dr. within Brier Creek Country Club community: Because this project will divert traffic on various roads (examples, no Page Road access via 70/Glenwood, more complicated/time consuming access to Glenwood Ave from both Brier Creek Parkway and TW Alexander, TW Alexander rerouted), the project has the possibility to increase traffic on Lumley Rd. and Arnold Palmer Dr. within the Brier Creek Country Club community. These roads cannot accommodate any additional traffic. They have golf cart crossings and Arnold Palmer now has bike lanes.
- Difficult for Brier Creek Country Club residents to exit community: Although Alternative 2 Revised seems to be the best, all alternatives, Alternative 2 Revised included, make it difficult for Brier Creek Country Club residents to easily exit the community to travel to local shopping and services, especially heading east. So to go west we have to go up and around the Corners Shopping Center. There is not easy way to go east. Alternatives are: west to Aviation Rd Extension, Lumley Rd community exit to Brier Creek Parkway, which adds traffic to Brier Creek Parkway. All of these options are much more time consuming for residents to exist the Brier Creek Country Club community. Note there is a possibility that Lumley Road will not be a throughway from Brier Creek Parkway to Glenwood/70 due to a future project at the RDU Airport.
- Comments for improvements
 - o Reconfigure Little Brier Creek Rd handle more traffic.
 - o Reconfigure Brier Creek Parkway and roads around it to provide easier access to the shopping center and lengthen turn lanes into the Brier Creek Shopping Center to delineate shopping center traffic versus through traffic.

19 days ago

Good job with A2R. Look forward to the improvements.

23 days ago

Thank you for scheduling the public meeting on

10/30/2018, and the opportunity to provide comments and input regarding this project.

Attached are marked up maps offering 2 alternative recommendations that are intended to improve access from properties west of T W Alexander and South of US 70 to Briar Creek shopping and US 70 and 1-540. We believe that one or both of these recommendations should receive serious considerations for the following reasons:

1. Lumley Road offers an alternate link to RTP from the Briar Creek area, and has the potential to relieve traffic load on other corridors, if it is easily accessible.
2. The area west of Lumley Road is experiencing significant development, with a 100 plus unit town home project under construction and an additional 50 plus acres listed for sale across Lumley Road. Plus, the recent conversion of a golf course along Lumley Road to residential development further adds to the future traffic burden, as well as the planned development of industrial properties. These future residents and businesses will require easy access to Briar Creek and Raleigh via US 70 and 1-540. This project, as we understand it, severely restricts such access, and adds traffic burden to the Page Road Ext. intersection with US 70, if there is one.
3. Current residents along Lumley Road between T.W.Alexander and Miami Blvd. will have their access to US 70 east restricted by NCDOT PROJECT U-5720, which will increase traffic load on planned intersections. This is a suggestion within plan U-5518 that offers an alternate route.
4. Providing a merge lane from T W Alexander onto US 70 east will relieve traffic load on both the Aviation Extension interchange and the Briar Creek Parkway interchange with US 70 east.

Thank you for taking time to review and consider these recommendations.

one month ago

I do have 3 point of concern about this Alternative. See project alternative map.

1. The extension of the exit ramp southbound at TW Alexander to reach Little Brier Creek Lane has the potential to overwhelm the intersection at Brier Creek Parkway and Little Brier Creek Lane. Extra traffic load at this point may be too close to the new 'fly over' interchange at Hwy 70 and BC Pkwy.

2. A road stub is shown on the north side of the Hwy 70 interchange leading to TW Alexander Drive. Such stubs are traditionally indicators of future road addition. What is its purpose? Where would this future road go?

3. The connector road between the new intersection on Hwy 70 that leads to TW Alexander Dr would give 3 access points to TW Alexander in close proximity; Hwy 70/TW Alexander Dr interchange, the new interchange and connector Road, and Hwy 70/Page Road ext intersection. Are 3 access points to TW Alexander Dr. (4 if ACC Blvd is included) necessary?

A point related to this new road, and its use as opposed to Page Road/Page Road extension is that it might be considered in the future as a connector to Aviation Parkway. It has previously been suggested that this Hwy 70 interchange would be connected to the Aviation Parkway Terminus at Glove Road. This would require building a connector directly through Brier Creek CC. Along what is now High Tension Power Lines. Do NOT try to build through BCCC. I will sue to stop it!!

one month ago

It is unclear to me whether there will be the ability upon exiting US 70 east at TW Alexander to then make a left-hand turn onto TW Alexander. This is very important to the thousands of residents now living east of US 70 and just north of TW Alexander (Carolina Arbors, M-I homes Construction, Etc) If you cannot turn left there but instead have to go down Little Brier Creek lane, that road is one lane in each direction and winding and then we would need to turn left onto Brier Creek Pkwy and at least on or two more lefts to return us to TW Alexander in order to get to our residences. This would add several minutes more to the drive from the way it is now and create new congestion on little Brier Creek Lane and added congestion to Brier Creek Pkwy.

one month ago

The intersection between Leesville Rd is very dangerous - so many accidents - stop light/leesville rd - trucking company then intersection.

one month ago

For all project going forward:

Traffic Circles

Bypass Lanes

Keep Traffic Flowing

one month ago

Right of way is currently proposed to go directly through one building/yard and area being told that this impact will require our business to be shut down.

We purchased the property 4/1/2018 - even through we contacted the DOT, City of Durham, and planning dept, none of this ever came up. We completed our permitting process in summer of 2018 and were never made aware of this plan.

Our property, business and our personal livelihood will be negatively impacted by the proposed right of way through our property.

We need to discuss alternative solutions to minimize the impact ASAP.

one month ago

How will DOT handle multiple lanes of traffic from 'freeway' to 700 east AND I-540 exit onto Hwy 70E all going to 2 lanes? Is that 6 lanes going to 2? Already the traffic on US 70 between Millbrook Rd and I-540 is DANGEROUS and CONGESTED because it goes from 6 total lanes at Millbrook to 4. Then it expands at Brier Creek and reduces AGAIN. to US 70 that cannot handle the current load? In the mornings traffic can back up from Ebenezer Church to Millbrook. In the afternoons it backs up from I540 to Millbrook. Will this be expanded to 6 lanes or made into right turn only highway? Thank you

one month ago

Also, flooding of Little Brier Creek has gotten much worse as development increases in the watershed, along with rather severe erosion in places.

one month ago

Please provide left turn from TW Alexander to Rte 709 at Little Brier Creek and Little Brier Creek Lane flooding should be considered.

one month ago

How does one get to CVS Pharmacy on Page Road and TW Alexander from Brier Creek Country Club Development? Now 1 mile away seems like new Aviation Pkwy in way.

one month ago

10701 Glenwood Ave. Durham Rescue Mission Thrift Store will lose significant customers with all three of these proposals.

I would like to speak to someone about what is being done to help us keep our business.

919-491-2042

one month ago

For Alternative 2 Revised, the diverging diamond interchange for Aviation parkway and Route 70 seems unnecessary. Especially for what is basically a T Intersection.

one month ago

I highly recommend the City of Raleigh, the Police Dept and NCDOT get together and form an education group. and an add campaign to address

1. Driver education - this area has the worst drivers I have ever seen
2. Bike lane protocol, we've had these added in Brier Creek and no one knows how to drive around these lanes, etc I see auto accidents increasing got decreasing.

one month ago

Also, at brier Creek Parkway and ACC Blvd, many cars currently make u-turns to go back down Brier Creek Parkway, going back towards Hwy 70. The can't seem to make a good route from Walmart back to Hwy 70.

one month ago

Please consider a noise abatement wall along TW Alexander from Sporting Club Drive to Little Brier Creek Lane and around the corner on Little Brier Creek. The project overall will increase noise levels to homes backing up to TW Alexander, already noisy. This is right across TW Alexander from Frankies Fun Park.

one month ago

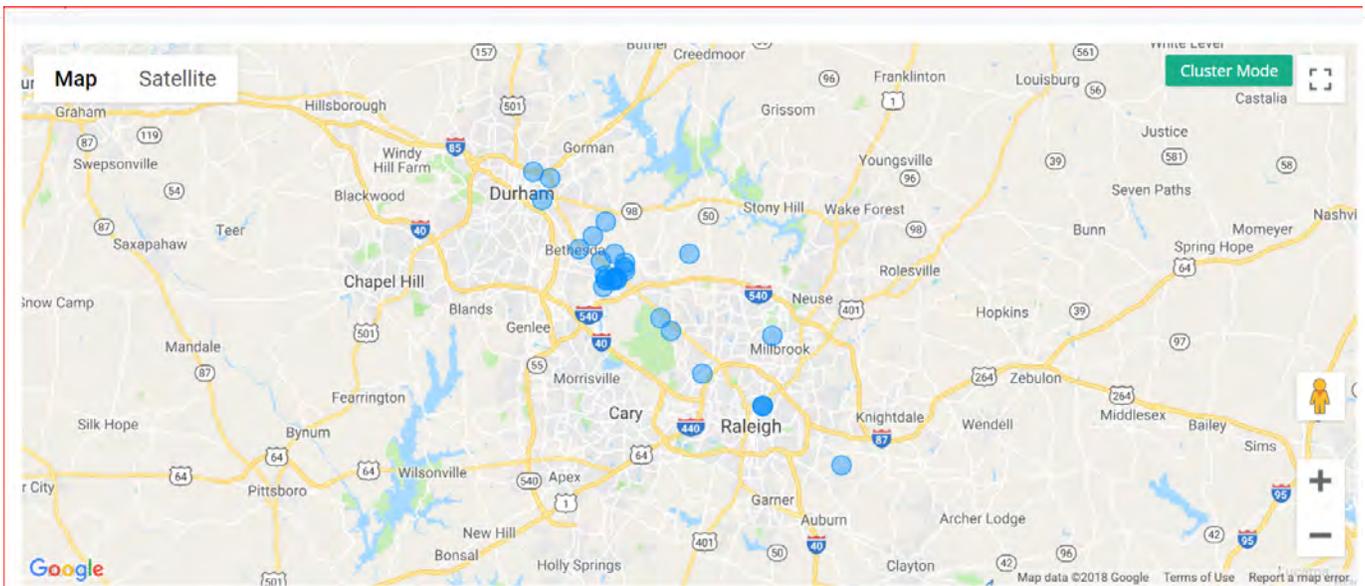
1. Not pleased with loss of direct access on Glenwood Ave to 70
2. How much frontage will we be losing on frontage
3. Brier Creek Water flow through the pipe under restricted. That pipe should be redesigned for proper level.

IMPORTANT

one month ago

Yes!!! From Westbound US-70 there needs to be access to the Harris Teeter Shopping Center and Corners Parkway.

one month ago



U-5518: U.S. 70 - Brier Creek

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Do you prefer an Alternative presented tonight? (19) 

Do you have any questions or comments you would like to give the project team? (24) 

All Comments for 

U-5518: U.S. 70 - Brier Creek

Comments for **Do you prefer an Alternative presented tonight?**

[↩ Reply to Multiple](#)[👉 Tag Multiple Comments](#)[☰ Tagging Rules](#)[Sort Comments ▾](#)

For the short term, i like alternative 2 but given that alt 2 revised will make later integration with he northern Durham expressway easier, i will support the revised version.

10/30/2018 12:00 PM Cynthia Jonas merchantcynthia543@gmail.com



Better traffic Flow

10/30/2018 12:00 PM Seetha & Ram Bashyam rbashyam@mac.com



Alternative 2 least intrusive, least noise to surrounding homes. Alt 2 revised is ok but more traffic along TW Alexander Alt 1 NOT acceptable, too complex, keeps TW Alexander as main artery from RTP

10/30/2018 12:00 PM Kenneth Laskowski ken.laskowski@live.com



I live on Del Web Arbor Drive. I currently access Hwy 70 via TW Alexander. All other revisions prevent my access to 709 west without adding many more complications. Nothing (illegible) i.e. Leesville is blocked at Hwy 70.

10/30/2018 12:00 PM B Feller



Access to TW Alexander from 70 in both directions is desirable.

11/1/2018 12:00 PM Steve Yunt sayount1@gmail.com



This seems to be the most comprehensive well thought out plan.. It does flow with existing streets but adds upgraded entrances and exits.

11/1/2018 12:00 PM Paulette Bischof mspmbp@aol.com



Good traffic flow and appears to lessen traffic on the TW Alexander route to/from Durham. Should greatly reduce the noise levels on TW Alexander.

11/1/2018 12:00 PM Augustin Davila davilag@icloud.com



I back up to Little Brier Creek. Cannot live with Alternative 1. it will destroy my property value! Alt 2 revised gives best access to roads and will keep property values intact.

11/1/2018 12:00 PM Patricia Holdaway patricia.holdaway@sas.com



But you need to add left turn cycle so eastbound traffic on Alexander can easily turn onto 79 south; rather than making a u-turn doewn the road.

11/1/2018 12:00 PM Peggy Pfeuffer ppfeuffer98@gmail.com



No Preference

11/1/2018 12:00 PM Marguerite Sirrinc ceummsirrinc@gmail.com



None - all impact the business detrimentally - Page Point Animal Hospital and Pet Resort - Cat Tree Castles, LLC
11/1/2018 12:00 PM Andrew Simpson Andrew.simpson@sun.com 0

More Loops, and access better
11/1/2018 12:00 PM Roberty Jensen Perlxke@gmail.com 0

it expands more, it will be a well appreciated, better travel, safer, better Durham access to different counties. Thanks so much God Bless, Happy Thanksgiving, Merry Christmas
11/1/2018 12:00 PM Kristina Thompson-Hardy kristinathompson771@gmail.com 0

It is important to maintain access from US 70 going east to TW Alexander Drive. Otherwise the local residents east on and off of TW Alexander would have to travel several more minutes on a daily or even more often basis, all making left-hand turns.
11/1/2018 12:00 PM Jane Heitman-Green janehgreen@gmail.com 0

The use of ACC Blvd and corners Parkway to smooth flow/access to Hwy 70 makes good sense. Overall this alternative will be a great help to the quickly growing traffic in Brier Creek in General.
11/1/2018 12:00 PM Peter Umbdenstock peteumbdenstock@gmail.com 0

Provides best traffic flow and access in the area.
11/8/2018 12:00 PM Michael Fox thecalmjfox@gmail.com 0

We prefer Alternative 2 Revised. The reasons why are: The least complex and disruptive of the alternatives.
11/12/2018 12:00 PM Lucy Cornelius / Glen Klamer Elsee_01@gmail.com 0

With a small additional revision.
11/13/2018 12:00 PM Andre Mann andre.mann@me.com 0

Alt 1 makes little to no sense. There's lots of bridges (expensive) and same turning movements aren't there. So between Alt 2 and Alt 2 revised, I prefer the DDI - they're fun and efficient and safe.
11/15/2018 12:00 PM David Sears davidTsears@yahoo.com 0

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Appendix E: Draft CP 3 and CP 4A Agreements

Section 404 / NEPA Interagency Merger Process Concurrence Agreement
**Concurrence Point No. 3 – Least Environmentally Damaging Practicable Alternative
(LEDPA) / Preferred Alternative Selection**

US 70, West of T.W. Alexander Drive to East of I-540
NCDOT Division 5 – Wake & Durham County
NCDOT STIP Project No. U-5518

LEDPA / Preferred Alternative:

Alternative 2 Revised

The project team has concurred on this date of _____ with the LEDPA / Preferred Alternative for the proposed project as indicated above and shown on the attached figures.

USACE	_____	NCDOT	_____
	Eric Alsmeyer		Elmo Vance
USEPA	_____	USFWS	_____
	Amanetta Somerville		Gary Jordan
FHWA	_____	NCWRC	_____
	Felix Davila		Travis Wilson
NCHPO	_____	NCDWR	_____
	Renee Gledhill-Earley		Rob Ridings
NCDCM	_____	CAMPO	_____
	Gregg Bodnar		Chris Lukasina
DCHC MPO	_____		
	Felix Nwoko		

Section 404 / NEPA Interagency Merger Process Concurrence Agreement
Concurrence Point No. 4A – Avoidance and Minimization

US 70, West of T.W. Alexander Drive to East of I-540
NCDOT Division 5 – Wake & Durham County
NCDOT STIP Project No. U-5518

Avoidance and Minimization – Alternative 2 Revised

- Retaining walls in the northeast and northwest quadrants of the Brier Creek Parkway / US 70 interchange to minimize impacts to adjacent businesses.
- The bridge carrying T.W. Alexander Drive over US 70 was shifted east to avoid impacts to proposed development within the Harris Teeter shopping center.
- The interchange at Aviation Extension and US 70 was shifted west to minimize impacts to jurisdictional resources immediately adjacent to US 70.
- The Diverging Diamond Interchange (DDI) ramps are much tighter than the trumpet interchange proposed in Alternative 2, further reducing jurisdictional stream impacts.
- The service road proposed to access residential properties on the north side of US 70 near the Aviation Extension interchange was relocated to connect to proposed development and reduce the number of jurisdictional stream crossings.
- Retaining walls on the south side of US 70 to eliminate the need for relocations between Aviation Extension and T.W. Alexander Drive.

The project team has concurred on this date of _____ with the Avoidance and Minimization measures for the proposed project as stated above.

USACE	_____	NCDOT	_____
	Eric Alsmeyer		Elmo Vance
USEPA	_____	USFWS	_____
	Amanetta Somerville		Gary Jordan
FHWA	_____	NCWRC	_____
	Felix Davila		Travis Wilson
NCHPO	_____	NCDWR	_____
	Renee Gledhill-Earley		Rob Ridings
NCDCM	_____	CAMPO	_____
	Gregg Bodnar		Chris Lukasina
DCHC MPO	_____		
	Felix Nwoko		