

PROGRAMMATIC CATEGORICAL EXCLUSION

T.I.P. No. B-5369
Replacement of Bridge No. 53 over Cold Water Creek
On SR 2114 (Centergrove Road)
Cabarrus County
WBS Element No. 46084.1.1



CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5369</u>
W.B.S. No.	<u>46084.1.1</u>
Federal Project No.	<u>n/a</u>

A. Project Description:

The purpose of this project is to replace Cabarrus County Bridge No. 53 on SR 2114 (Centergrove Road) over Cold Water Creek in Cabarrus County (see Figure 1). Bridge No. 53 is a three span 121-foot long bridge. The replacement structure will be a 135-foot long bridge on a 75 degree skew. The bridge will consist of two 12-foot lanes and 9.5 feet of shoulder on each side of the bridge to match the typical section of the nearby Centergrove Road bridge over I-85 (see Figure 2). The proposed bridge width provides room for a future multi-use path on both sides of the roadway. State Bicycle Route 2 (Northern Route) runs along Centergrove Road through the proposed project. The Kannapolis Walkable Community Plan calls for pedestrian facilities along Centergrove Road. The road is classified as a major collector.

The bridge length is based on preliminary design information and is set by hydraulic requirements. The roadway grade of the new structure will be approximately the same as the existing structure.

The approach roadway will extend approximately 375 feet from the northwest end of the new bridge and 410 feet from the southeast end of the new bridge. The approaches will be widened from 10-foot lanes to 12-foot lanes. Four feet of paved shoulders will be provided on each side of the roadway. The roadway will be designed with NCDOT and AASHTO Guidelines and a 45-mile per hour design speed.

Traffic will be detoured off-site during construction using SR 2198 (Midlake Road), SR 2000 (Brantley Road), SR 1002 (Old Salisbury-Concord Road), and SR 2119 (Camp Julia Road). NCDOT Division 10 has indicated the condition of all roads, bridges and intersections on the off-site detour are acceptable or will be acceptable by the time construction begins for B-5369.

B. Purpose and Need:

NCDOT Bridge Management Unit records (September 2013) indicate Bridge No. 53 has a sufficiency rating of 19 out of a possible 100 for a new structure. Bridge No. 53 was built in 1957 and is in fair condition.

The bridge is considered structurally deficient¹ due to substructure condition appraisal of 3 out of 9 according to Federal Highway Administration (FHWA)

¹ “Structurally deficient” means that while the bridge remains safe, it requires repairs and was built to design standards no longer used for bridges. It is in relatively poor condition, and/or has insufficient load-carrying capacity. The insufficient load capacity could be due to age, the original design or to wear and tear.

standards. The bridge also meets the criteria for functionally obsolete² due to structural appraisal of 3 out of 9 and a deck geometry appraisal of 2 out of 9³.

The bridge has BST pavement, timber deck, wing walls, end bents, 2-bents, with steel girders and guardrails. The steel, concrete and timber components of Bridge No. 53 are experiencing an increasing degree of deterioration that can no longer be addressed by reasonable maintenance activities; therefore, the bridge is approaching the end of its useful life. The posted weight limit for the bridge is low (20 tons for single vehicles and 23 tons for tractor-trailer semi-trucks).

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
 - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
 - b. Widening roadway and shoulders without adding through lanes
 - c. Modernizing gore treatments
 - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
 - e. Adding shoulder drains
 - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
 - g. Providing driveway pipes
 - h. Performing minor bridge widening (less than one through lane)
 - i. Slide Stabilization
 - j. Structural BMP's for water quality improvement

2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
 - a. Installing ramp metering devices
 - b. Installing lights
 - c. Adding or upgrading guardrail
 - d. Installing safety barriers including Jersey type barriers and pier protection
 - e. Installing or replacing impact attenuators
 - f. Upgrading medians including adding or upgrading median barriers
 - g. Improving intersections including relocation and/or realignment
 - h. Making minor roadway realignment
 - i. Channelizing traffic

² “Functionally obsolete” means that the bridge is safe, but needs to be replaced to meet current and future traffic demands. It is narrow, has inadequate under-clearances, has insufficient load-carrying capacity, is poorly aligned with the roadway, and/or can no longer adequately service today’s traffic.

³ Bridge Inspection Evaluation codes: “Critical” is 0-3; “Poor” is 4; “Fair” is 5-6; and “Good” is 7-9.

- j. Performing clear zone safety improvements including removing hazards and flattening slopes
 - k. Implementing traffic aid systems, signals, and motorist aid
 - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
 - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
 - b. Rehabilitating or replacing bridge decks
 - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
 - d. Replacing a bridge (structure and/or fill)
 4. Transportation corridor fringe parking facilities.
 5. Construction of new truck weigh stations or rest areas.
 6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
 7. Approvals for changes in access control.
 8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
 9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
 10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
 11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
 12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.

13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2015 prices, are as follows:

Structure	\$ 580,500
Roadway Approaches	195,500
Structure Removal	46,800
Miscellaneous & Mobilization	241,200
Engineering & Contingencies	193,000
Total Construction Cost	\$ 1,450,000
Right-of-way Costs	\$ 50,000
Right-of-way Utility Costs*	\$ 847,600
Total Project Cost	\$ 2,347,600

**see information in the Utility Relocation section.*

Estimated Traffic:

Current (2013) - 2,800 vpd
 Design Year (2035) - 3,700 vpd
 TTST - 1%
 Dual - 4%

Accidents: Traffic Safety Systems Management Unit has evaluated a recent ten year period and found 12 accidents occurring in the vicinity of the project. Two of the accidents involved animals in the road; two of the accidents involved bicyclist; four occurred at the intersection with SR 2198 (Midlake Road); two of the accidents occurred at the intersection with SR 2119 (Camp Julia Road); three of the accidents ran off the road, and two of the accidents involved drugs or alcohol. None of these accidents were believed to be associated with the geometry of the bridge or its approach roadways.

Design Exceptions: There are no anticipated design exceptions for this project.

Pedestrian and Bicycle Accommodations: Bridge No. 53 is part of a designated NC bicycle route. The NCDOT Division of Bicycle and Pedestrian Transportation recommended to have four feet of offsets for bicycle traffic. Furthermore, the Walkable Community Plan for Kannapolis suggests that at least one side of the bridge have a sidewalk on it in the future. Bridge No. 53 was revised to include 9.5-foot shoulders (similar to the typical section for the Centergrove Road bridge over I-85) to accommodate future bike lanes or a multi-use trail.

Bridge Demolition: Bridge No. 53 is constructed of timber, concrete, and steel and should be possible to remove with no resulting debris in the water based on standard demolition practices.

Utility Relocation: Duke Energy has aerial transmission lines that cross the existing bridge. As part of the I-85 widening project (I-3802A), two of the towers and their lines will be moved farther away from Bridge No. 53. However, at this stage in design, the structural details and related construction clearances have not been determined. The proposed project's vertical clearance of 75 ft. from pavement surface to line may be sufficient to allow for the setting of the bridge span and piers. Therefore, to take a conservative approach, the relocation of one transmission tower was included in the utility relocation cost estimate, which is approximately \$527,700. If a tower relocation is not necessary, the price of the project will be reduced by that amount.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by SR 2114 (Centergrove Road).

Rehabilitation – The bridge was constructed in 1957 and is reaching the end of its useful life. Rehabilitation would require replacing the components which would constitute effectively replacing the bridge.

Replace in Place with an Off-site Detour (Alternative 1) –

Bridge No. 53 will be replaced with a 135-foot long bridge on a 75 degree skew. It will be cored-slab with three spans. The bridge will consist of two 12-foot lanes and 9.5 feet of shoulder on each side of the bridge to match the typical section of the nearby Centergrove Road bridge over I-85 (see Figure 2). **This alternative is the Preferred Alternative.**

NCDOT Guidelines for Evaluation of Off-site Detours for Bridge Replacement Projects considers multiple project variables beginning with the additional time traveled by the average road user resulting from the off-site detour. Traffic will be detoured using SR 2198 (Midlake Road), SR 2000 (Brantley Road), SR 1002 (Old Salisbury-Concord Road), and SR 2119 (Camp Julia Road). NCDOT Division 10 has indicated the condition of all roads, bridges and intersections on the off-site detour are acceptable or will be acceptable by the time construction begins for B-5369. The detour for the average road user would result in eight minutes additional travel time (4.4 miles additional travel). The duration of construction is expected to be approximately six months.

Replace in Place with an On-site Detour (Alternative 2) – Bridge No. 53 would be replaced on the existing alignment. Traffic will be routed along the on-site detour located just south of the existing bridge while the new bridge is being constructed. The on-site detour was placed on the south side to avoid increased utility impacts to the north of Bridge No. 53. The construction cost of building an on-site detour to maintain traffic while replacing the bridge would be higher than replacing the bridge with an off-site detour. It would also create temporary impacts to resources and need additional temporary construction easements.

New Location (Alternative 3) – A new location alternative to the south side of the existing bridge was considered. The new alignment was placed on the south side to avoid increased utility impacts to the north of Bridge No. 53. This alternative would allow traffic to be maintained on the existing alignment during construction. The construction cost of replacing the bridge on a new alignment would be higher than replacing the bridge in place while using the off-site detour. It would also create more impacts to resources and need additional right-of-way acquisition.

Structure Type:

The current structure is a 121-foot long, four span bridge, built in 1957. The bridge has a steel plank deck on I-beams with timber caps. Based on the drainage area of 19.3 square miles and the design discharges, a new bridge that is 135 feet long on a 75 degree skew, was determined to be adequate from a hydraulics standpoint.

Other Agency Comments:

The **NC Division of Water Resources** and **U.S. Fish & Wildlife Service** in standardized letters provided a request that they prefer any replacement structure to be a spanning structure. Cold Water Creek has a stream classification of C and 303(d) listed for turbidity, ecological and biological integrity. It is recommended that the most protective sediment and erosion control Best Management Practices be implemented in accordance with the *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124).

Response: NCDOT will be replacing the existing bridge with a bridge. The 2012 303(d) List includes Cold Water Creek but the 2014 303(d) List does not include Cold Water Creek. Because the creek has been removed from this list, NCDOT will follow the standard bridging procedures for this project. See discussion of Structure Type in the previous section.

Public Involvement:

In July 2015, a newsletter was sent to approximately 250 property owners along Centergrove Road and nearby roads. This newsletter described the project and its purpose, provided a tentative schedule, notified property owners of the upcoming public meeting, and showed the designated detour route. Comments were requested by August 13, 2015. No comments were received about the project by mail, email, or telephone. Also in July 2015, notifications of the upcoming Local Officials Informational Meeting with the attached newsletter were distributed via mail and email to approximately 30 local officials and staff.

To meet the needs of the Limited English Proficiency community, NCDOT hired SpanishSpeaking LLC to perform door to door visits to businesses and churches in the area to identify Hispanic populations and to produce a mailing list. Spanish

postcards with information about the public meeting were distributed to local business owners/churches. Newspaper advertisements ran in five Spanish newspapers (Hola Noticias, La Noticia, Mundo Latino, Progreso Hispano, and Que Pasa) as well as a 60-second radio commercial that aired 30 times on the week of the meeting to inform the community about the project. A Spanish translator was also present at the public meeting discussed below.

A local officials' informational meeting and a public meeting were held on July 30, 2015 at the Centergrove Road Church of Christ in Kannapolis, NC. The purpose of these meetings was to inform officials and the public about the project and to solicit input about the study area, purpose of the project, and the preferred alternative. Approximately two local officials attended the LOIM and approximately 14 residents attended the public meeting. Concerns from the public focused on the I-85 widening project (I-3802A). People wanted to make sure that the other bridges located along the detour route would be open to traffic before closure of Bridge No. 53 (B-5369).

Cabarrus County Emergency Services expressed concerns about the possibility of both Brantley Road bridge and Centergrove Road bridge being closed at the same time.

Construction of the Brantley Road bridge over Lake Fisher and the other bridges located along the proposed detour route over I-85 will be completed prior to the start of construction of the B-5369 project. If for any reason the I-85 project is delayed, the B-5369 project will be delayed as well so that adjacent road closures are not occurring simultaneously. It is anticipated that the construction of B-5369 will begin in March 2018 and end by December 2018.

In addition, the Coleman family was concerned about impacts from the additional right of way needed, disruption to their event-site business, impacts to old pecan and magnolia trees on their property, and access. They were informed at the public meeting that a claim report may be completed to determine the potential compensation associated with business impacts.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u> X </u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input checked="" type="checkbox"/>	<u> </u>
(3) Will the project affect anadromous fish?	<input type="checkbox"/>	<u> X </u>

- | | | | |
|-----|--|--------------------------|--------------------------|
| (4) | If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated? | <u>n/a</u> | <input type="checkbox"/> |
| (5) | Will the project require the use of U. S. Forest Service lands? | <input type="checkbox"/> | <u>X</u> |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities? | <input type="checkbox"/> | <u>X</u> |
| (7) | Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | <u>X</u> |
| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties? | <input type="checkbox"/> | <u>X</u> |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | <u>X</u> |

PERMITS AND COORDINATION

YES NO

- | | | | |
|------|--|--------------------------|--------------------------|
| (10) | If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/> | <u>X</u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources? | <input type="checkbox"/> | <u>X</u> |
| (12) | Will a U. S. Coast Guard permit be required? | <input type="checkbox"/> | <u>X</u> |
| (13) | Could the project result in the modification of any existing regulatory floodway? | <u>X</u> | <input type="checkbox"/> |
| (14) | Will the project require any stream relocations or channel changes? | <input type="checkbox"/> | <u>X</u> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES NO

- | | | | |
|------|---|--------------------------|----------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area? | <input type="checkbox"/> | <u>X</u> |
| (16) | Will the project require the relocation of any family or business? | <input type="checkbox"/> | <u>X</u> |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? | <input type="checkbox"/> | <u>X</u> |

- | | | | |
|------|---|--------------------------|-------------------------------------|
| (18) | If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor? | <u> X </u> | <input type="checkbox"/> |
| (19) | Will the project involve any changes in access control? | <input type="checkbox"/> | <u> X </u> |
| (20) | Will the project substantially alter the usefulness and/or land use of adjacent property? | <input type="checkbox"/> | <u> X </u> |
| (21) | Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness? | <input type="checkbox"/> | <u> X </u> |
| (22) | Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)? | <u> X </u> | <input type="checkbox"/> |
| (23) | Is the project anticipated to cause an increase in traffic volumes? | <input type="checkbox"/> | <u> X </u> |
| (24) | Will traffic be maintained during construction using existing roads, staged construction, or on-site detours? | <u> X </u> | <input type="checkbox"/> |
| | | <u> YES </u> | <u> NO </u> |
| (25) | If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| (26) | Is there substantial controversy on social, economic, or environmental grounds concerning the project? | <input type="checkbox"/> | <u> X </u> |
| (27) | Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project? | <u> X </u> | <input type="checkbox"/> |
| (28) | Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places? | <input type="checkbox"/> | <u> X </u> |
| (29) | Will the project affect any archaeological remains which are important to history or pre-history? | <input type="checkbox"/> | <u> X </u> |
| (30) | Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)? | <input type="checkbox"/> | <u> X </u> |
| (31) | Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended? | <input type="checkbox"/> | <u> X </u> |

(32) Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers? X

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2: Habitat is present for the Schweinitz’s sunflower, a federally endangered species. A survey for the sunflower was completed on September 17, 2015 and the biological conclusion is “no effect.” The Carolina heelsplitter mussel is also listed as federally endangered for Cabarrus County. In September 2013, a mussel survey was conducted in the stream reach. But given the relatively fair habitat quality, lack of any freshwater species, and the isolation of this surveyed stream from known species occurrences, the biological conclusion was determined as “no effect.” Habitat is not present for the mussel. As of April 2, 2015, the Northern long-eared bat (NLEB) was added to the U.S. Fish and Wildlife Service (USFWS) list of protected species for Cabarrus County. Construction authorization will not be requested until the Endangered Species Act compliance is satisfied for the NLEB.

Response to Question 13: Cabarrus County is a participant in the National Flood Insurance Program, administered by the Federal Emergency Management Agency (FEMA). According to the NC Floodplain Mapping Program, 100-year base flood elevations have been established in a detailed study. The Hydraulic Unit will coordinate with FEMA to determine if a Conditional Letter of Map Revision (CLOMR) and a subsequent final Letter of Map Revision (LOMR) are required for this project. The Division will submit sealed as-built construction plans to the Hydraulic Unit upon project completion certifying the project was built as shown on the construction plans.

Response to Question 25: The roadway will essentially be at the same location and elevation; however, the new slope stakes will extend out further than the existing right of way limits and result in acquisition of new right of way and temporary construction easement outside of the existing facility. The bridge will be widened from 10-foot lanes to 12-foot lanes and shoulders will be widened from 1.5 feet to 9.5 feet to accommodate future multi-use paths on each side of the travel lanes. The Kannapolis Walkable Community Plan has Centergrove Road as a future connection for the pedestrian network. Approximately 0.24 acre of temporary construction easement and 0.26 acre of additional ROW will be purchased from adjacent property owners.

G. CE Approval

TIP Project No.	<u>B-5369</u>
W.B.S. No.	<u>46084.1.1</u>
Federal Project No.	<u>n/a</u>

Project Description:

The purpose of this project is to replace Cabarrus County Bridge No. 53 on SR 2114 (Centergrove Road) over Cold Water Creek in Cabarrus County (see Figure 1). Bridge No. 53 is a three span 121-foot long bridge. The replacement structure will be a 135-foot long bridge on a 75 degree skew. The bridge will consist of two 12-foot lanes and 9.5 feet of shoulder on each side of the bridge to match the typical section of the nearby Centergrove Road bridge over I-85 (see Figure 2). The proposed bridge width provides room for a future multi-use path on both sides of the roadway. State Bicycle Route 2 (Northern Route) runs along Centergrove Road through the proposed project. The Kannapolis Walkable Community Plan calls for pedestrian facilities along Centergrove Road. The road is classified as a major collector.

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The approach roadway will extend approximately 375 feet from the northwest end of the new bridge and 410 feet from the southeast end of the new bridge. The approaches will be widened from 10-foot lanes to 12-foot lanes. Four feet of paved shoulders will be provided on each side of the roadway. The roadway will be designed with NCDOT and AASHTO Guidelines and a 45-mile per hour design speed.

Traffic will be detoured off-site during construction using SR 2198 (Midlake Road), SR 2000 (Brantley Road), SR 1002 (Old Salisbury-Concord Road), and SR 2119 (Camp Julia Road). NCDOT Division 10 has indicated the condition of all roads, bridges and intersections on the off-site detour are acceptable or will be acceptable by the time construction begins for B-5369.

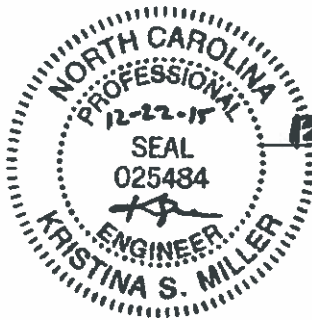
Categorical Exclusion Action Classification:

 TYPE II(A)
 x TYPE II(B)

Approved:

01-07-2011
Date Charles R Cox
Charles Cox, PE – NCDOT Proj. Dev. Group Supervisor
Project Development & Environmental Analysis Unit

01-06-2016
Date Zahid Baloch
Zahid, Baloch, PE – NCDOT Project Planning Engineer
Project Development & Environmental Analysis Unit



12-22-15
Date Kristina S. Miller
Kristina Miller, PE - Consultant Project Manager
Rummel, Klepper and Kahl, LLP. (RK&K)

For Type II(B) projects only:

1-7-16
Date Michael O. J. Sullivan
for John F. Sullivan, III, PE - Division Administrator
Federal Highway Administration

PROJECT COMMITMENTS

**T.I.P. No. B-5369
Replacement of Bridge No. 53 over Cold Water Creek
On SR 2114 (Centergrove Road)
Cabarrus County
WBS Element No. 46084.1.1**

Roadway Design and Structure Design Units

As shown in the preliminary plans, Roadway Design and Structure Design will ensure that the new bridge will provide room to accommodate future multi-use paths along both sides of the road.

Every effort will be made during final design to avoid or minimize conflicts with the Duke Energy transmission lines/towers and limit potential utility service disruptions.

Hydraulic Unit – FEMA Coordination

The Hydraulics Unit will coordinate with NC Floodplain Mapping Program (FMP), to determine status of project with regard to applicability of NCDOT's Memorandum of Agreement, or approval of a Conditional Letter of Map Revision (CLOMR) and subsequent final Letter of Map Revision (LOMR).

Division Construction

This project involves construction activities on or adjacent to FEMA-regulated streams. Therefore, the Division shall submit sealed as-built construction plans to the Hydraulics Unit upon completion of project construction, certifying that the drainage structures and roadway embankment that are located within the 100-year floodplain were built as shown in the construction plans, both horizontally and vertically.

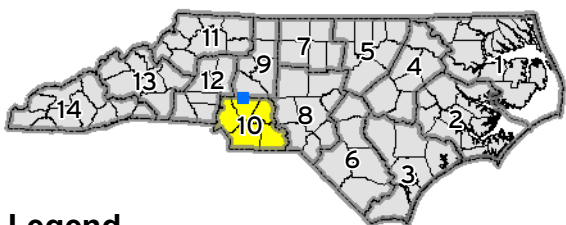
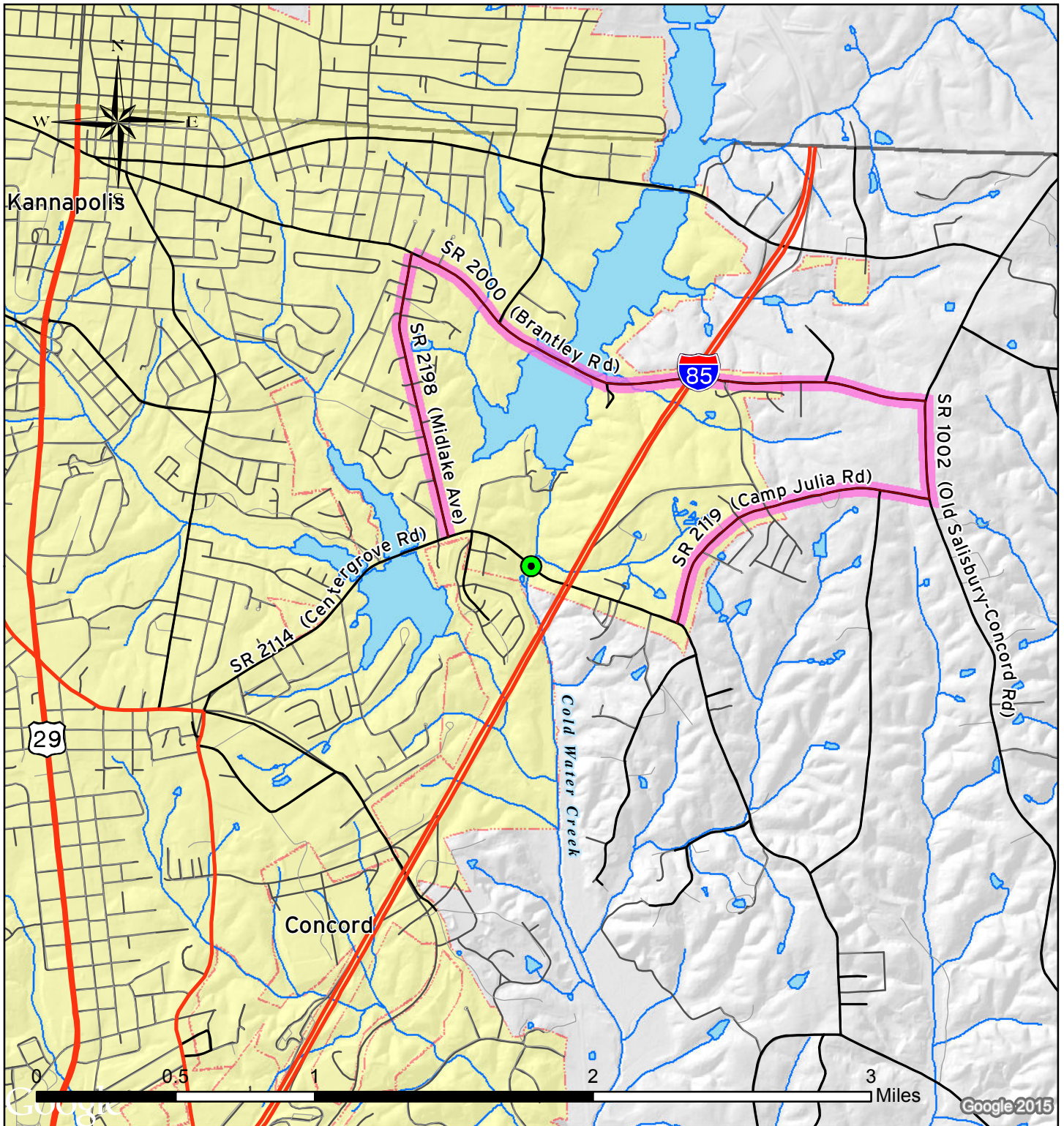
Division Office Bridge Program –Emergency Services, School Buses and Road Closures

NCDOT will coordinate with the Cabarrus County School System and Emergency Services to keep them informed of the work, off-site detour, and schedule. Construction of the Brantley Road bridge over Lake Fisher and the other bridges located along the proposed detour route over I-85 will be completed prior to the start of construction of the B-5369 project. If for any reason the I-85 project is delayed, the B-5369 project will be delayed as well so that adjacent road closures are not occurring simultaneously.


Natural Environment Section

Construction authorization will not be requested until the Endangered Species Act compliance is satisfied for the Northern long-eared bat.

Figures



Legend

 Detour Route



NORTH CAROLINA DEPARTMENT OF
TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT &
ENVIRONMENTAL ANALYSIS UNIT

**B-5369
REPLACE BRIDGE NO. 53 ON SR 2114
OVER COLD WATER CREEK
CABARRUS COUNTY**

VICINITY MAP

FIGURE 1

PUBLIC MEETING MAP

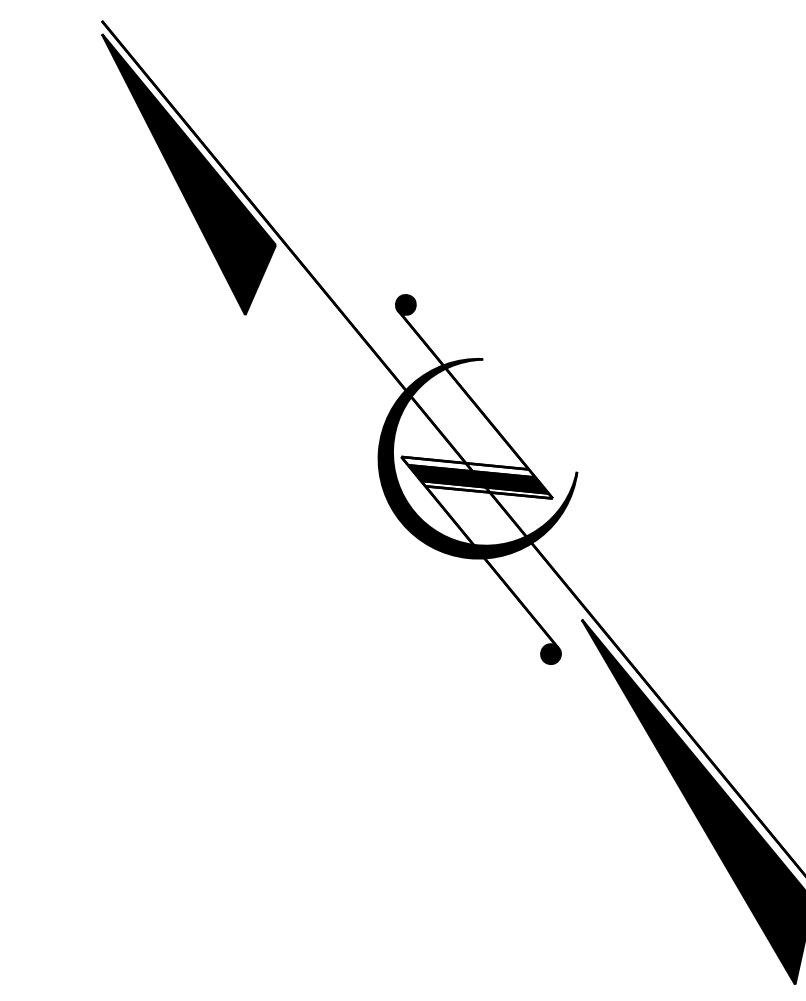
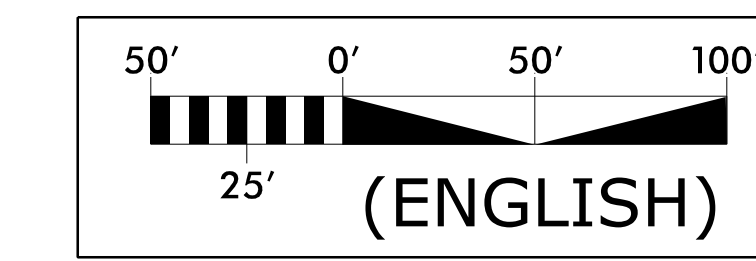
STATE PROJECT 46084.1.1 (B-5369)

CABARRUS COUNTY

REPLACE BRIDGE NO. 53
ON CENTERGROVE ROAD (SR 2114)
OVER COLD WATER CREEK



JULY 30, 2015



PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DESIGN DATA

Functional Class.	=	Local
2017 ADT	=	3,000 VPD
2035 ADT	=	3,700 VPD
Design Speed (-L-)	=	45 mph
Max. Superelevation	=	0.08



BEGIN PROJECT B-5369
-L- STA. 14+50.00
ALTERNATIVE 1

END PROJECT B-5369
-L- STA. 23+70.00
ALTERNATIVE 1

BRIDGE NO. 53

HANG XIA YANG
HANG TOU ZER HSB

UTILITY TOWER

RETAINING WALL

KEEVER DEAN ALFRED
& MELISSA B

RICKY L HILEMAN

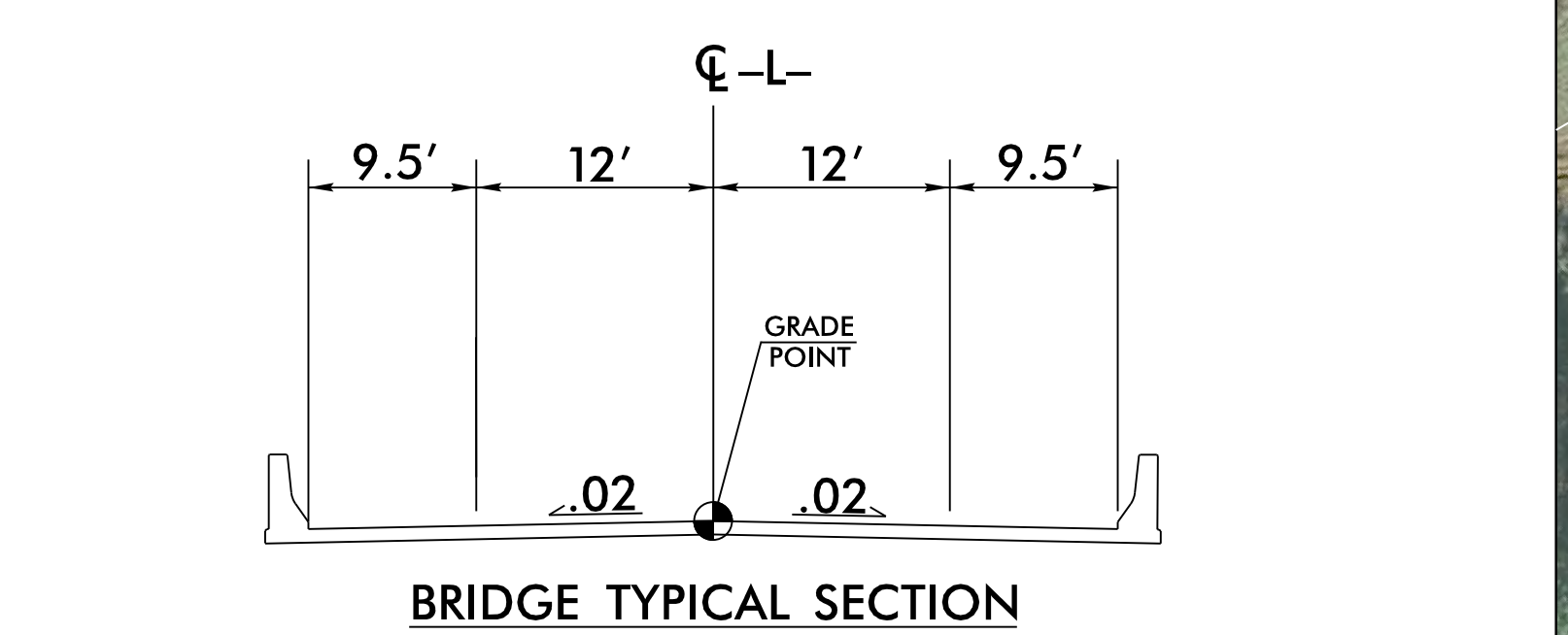
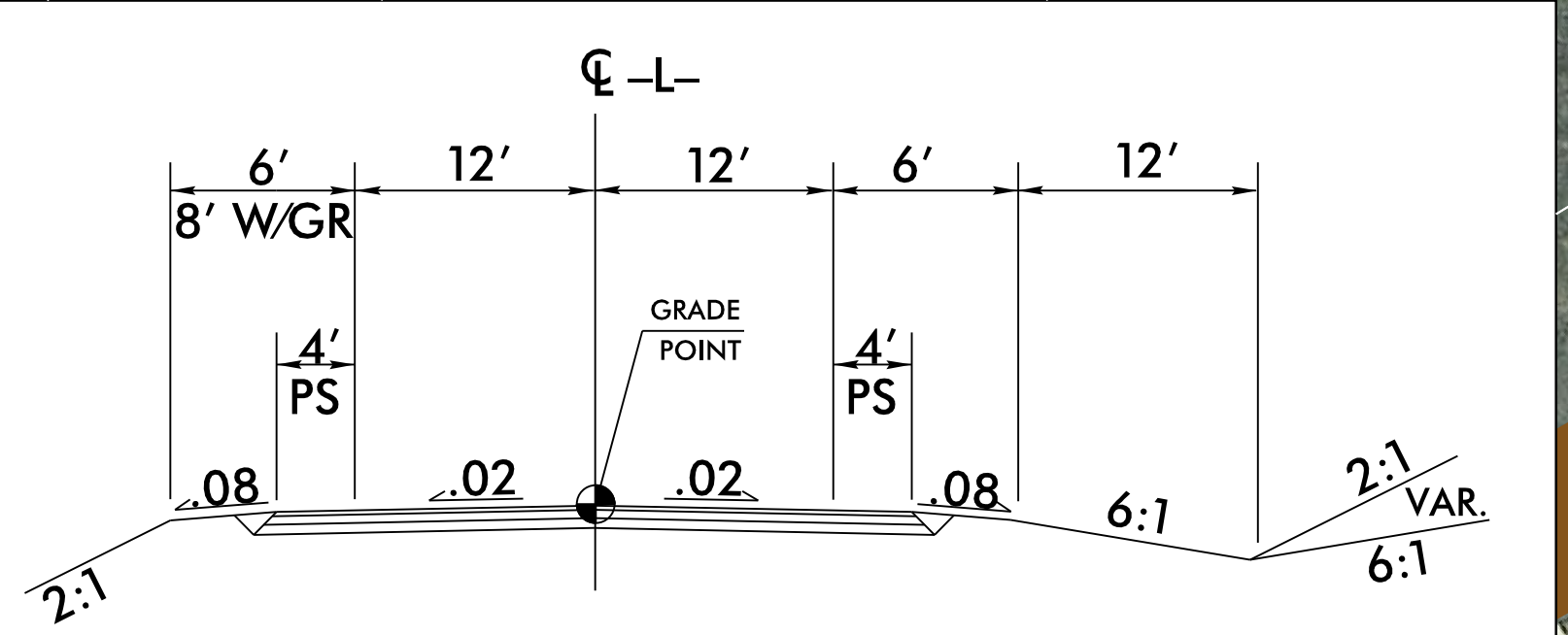
TRUSTEES FOR
JOHN J & JUDY H
MCCLENDON JOHN J
& WIFE JUDY H

CONCORD LAKE
BAPTIST CHURCH

JUDY H MCCLENDON
& HILEMAN RANDY

END BRIDGE
-L- STA. 19+60.00

CITY OF KANNAPOLIS
CITY LIMITS



LEGEND

- BUILDINGS (NEAR CORRIDOR)
- EXISTING RIGHT OF WAY
- PROPOSED RIGHT OF WAY
- ALL EASEMENTS
- EXISTING ROADWAY
- EXISTING ROADWAY TO BE RESURFACED
- EXISTING PROPERTY LINES
- PROPOSED ROADWAY RECONSTRUCTION
- PROPOSED CONSTRUCTION LIMITS
- STREAMS / PONDS
- PROPOSED STRUCTURE
- CONTROLLED ACCESS

FIGURE 2

Appendix



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Asheville Field Office
160 Zillicoa Street
Asheville, North Carolina 28801

January 11, 2013

Ms. Dionne C. Brown
Bridge Project Planning Engineer
North Carolina Department of Transportation
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Dear Ms. Brown:

Subject: Information Request, State Transportation Improvement Project Numbers B-5369, B-5370, B-5371, B-5373, B-5374, and B-5792

On December 12, 2012, we received your letter (via email) requesting information on the subject projects to aid in initial project evaluation. We submit the following comments and recommendations in accordance with the provisions of section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. §§1531-1543); the Fish and Wildlife Coordination Act, as amended (16 U.S.C. §§661-667e); the National Environmental Policy Act (42 U.S.C. §4321 et seq.); the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§1536, 1538); the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668-668d); and the Clean Water Act (33 U.S.C. §1251 et seq.).

General Recommendations for Replacing Structures that Cross Rivers and Streams - We generally recommend the use of clear-spanning bridge structures designed, at a minimum, to accommodate the active channel width. Use of culverts is discouraged. Properly sized spanning structures will provide for the passage of aquatic species and accommodate the movement of debris and bed material. Furthermore, spanning structures usually: (1) can be constructed with minimal in-stream impacts, (2) do not require stream-channel realignment, and (3) retain the natural streambed conditions; and the horizontal and vertical clearances may be designed to allow for human and wildlife passage beneath the structures. If possible, bridge supports (bents) should not be placed in the streams. Bents can collect debris during flood events, resulting in the scouring of bridge foundations. In-stream bents can also result in hydrologic changes, such as bedload scour or deposition, which may adversely affect in-stream habitat. Deck drains of the spanning structures should not discharge directly into the streams; instead, they should drain through a vegetated area before entering the streams. Removal of vegetation in riparian areas should be minimized. Armoring of the bank with riprap should be minimized. The reseeded of disturbed areas should be performed promptly after grading, and seed mixes should consist of

native vegetation in order to prevent the spread of invasive plant species. New structures should be constructed without the use of in-stream causeways or work pads whenever possible. When causeways are necessary, using the largest washed stone practicable for the application will prevent unnecessary damage to in-stream habitat and will facilitate complete removal. We recommend that all equipment be refueled and receive maintenance outside of the riparian zone. Refueling and maintenance should take place in designated refueling sites that are provisioned to quickly contain any spills of fuel, lubricants, and other fluids.

Migratory Birds - The MBTA (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds (including the bald eagle), their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. To avoid impacts to migratory birds, we recommend conducting a visual inspection of the bridges and any other migratory bird nesting habitat within the project area during the migratory bird nesting season of March through September. If migratory birds are discovered nesting in the project impact area, including on the existing bridges, the North Carolina Department of Transportation (NCDOT) should avoid impacting the nests during the migratory bird nesting season (March through September). If birds are discovered nesting on the bridges during years prior to the proposed construction date, the NCDOT, in consultation with us, should develop measures to discourage birds from establishing nests on the bridges by means that will not result in the take of the birds or eggs, or the NCDOT should avoid construction and demolition activities during the nesting period.

Bald Eagle - The bald eagle has been removed from the federal list of endangered and threatened species due to its recovery. However, this species continues to be afforded protection by the Eagle Act (16 U.S.C. 668-668d) and the MBTA (16 U.S.C. 703-712). The Eagle Act, enacted in 1940 and amended several times, prohibits anyone without a permit issued by the Secretary of the Interior from "taking" bald eagles, including their parts, nests, or eggs. "Take" is defined as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." "Disturb" means "To agitate or bother a bald or golden eagle to the degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, causing injury, death, or nest abandonment." In addition to immediate impacts, these definitions also cover impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present if, upon an eagle's return, such alterations agitate or bother the eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits and causes injury, death, or nest abandonment.

If any active nests are located within a half mile of the project sites, we request that work at the sites be restricted from mid-January through July in order to prevent adverse impacts to the bald eagle. This will prevent disturbance of the eagles from the egg-laying period until the young fledge, which encompasses their most vulnerable times. We ask that you consult with this office before construction begins to confirm that the eagles have left the nest. Once this has been confirmed, construction may begin.

B-5369 - Bridge No. 53 on SR 2114 over Cold Water Creek in Cabarrus County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Cabarrus County is available on the U.S. Fish and Wildlife Service (USFWS) website at <http://www.fws.gov/nc-es/es/countyfr.html>.

A review of available information indicates that the project area is within the municipal area of the Town of Concord. We are unaware of any listed species within the vicinity of the project area. The surrounding area appears to be suburban and probably does not have the habitat requirements for listed species. We request that the NCDOT follow the above-listed recommendations to avoid further disruption to the natural environment.

B-5370 – Bridge No. 444 on SR 1506 over East Fork Stewarts Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that the project site is within the municipal limits of the Town of Unionville. The project area appears to be disturbed by agricultural and suburban land use, but the area around the bridge has standing timber that may provide habitat for the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern; Michaux's sumac (*Rhus michauxii*), a federally endangered species; and Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. These species can tolerate minor disturbance and often thrive in areas where human activities limit competition with other plant species. We recommend that a biologist survey for these species prior to construction.

B-5371 - Bridge No. 71 on US 601 over Clear Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that the project site appears to be disturbed by agricultural and suburban land use, but the area around the bridge has standing timber that may provide habitat for the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern; Michaux's sumac (*Rhus michauxii*), a federally endangered species; and Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. These species can tolerate minor disturbance and often thrive in areas where human activities limit competition with other plant species. We recommend that a biologist survey for these species prior to construction.

B-5373 – Bridge No. 44 on SR 1435 over Long Creek in Stanly County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Stanly County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates that Long Creek harbors a population of the Carolina creekshell (*Villosa vaughaniana*), a federal species of concern and listed as endangered in North Carolina. The Carolina creekshell is also a species associated with the Carolina heelsplitter (*Lasmigona decorata*), a federally endangered species recorded from adjacent Union County. We recommend that a biologist conduct a survey in Long Creek to look for any listed mussel species. Stanly County is also known to harbor the Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. We recommend that a biologist survey the action area for this species.

B-5374 – Bridge No. 448 on SR 2153 over Buffalo Creek in Union County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Union County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. Our records indicate that this project is in close proximity to known

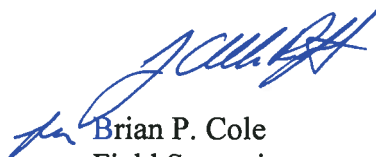
populations of the Georgia aster (*Symphyotrichum georgianum*), a federal species of concern, which is commonly associated with the Schweinitz's sunflower (*Helianthus schweinitzii*), a federally endangered species. We recommend that a biologist survey the action area for these species.

B-5792 – Bridge No. 342 on NC 16 over Andrew Terrance and Irwin Creek in Mecklenburg County - A full list of federally endangered and threatened species and federal species of concern with known occurrences in Mecklenburg County is available on the USFWS website at <http://www.fws.gov/nc-es/es/countyfr.html>. A review of available information indicates the project site is within the municipal area of the City of Charlotte. This area appears to be heavily affected by urban development. We request that the NCDOT follow the above-listed recommendations to avoid further disruption to the natural environment.

If you have questions about these comments, please contact Mr. Jason Mays of our staff at 828/258-3939, Ext. 226. In any future correspondence concerning these projects, please reference our log numbers with your project numbers as follows:

<u>NCDOT</u> <u>Project Nos.</u>	<u>USFWS</u> <u>Log Nos.</u>
• B-5369	4-2-13-056
• B-5370	4-2-13-057
• B-5371	4-2-13-058
• B-5373	4-2-13-059
• B-5374	4-2-13-060
• B-5792	4-2-13-061

Sincerely,


Brian P. Cole
Field Supervisor

cc:

Ms. Liz Hair, Asheville Regulatory Field Office, U.S. Army Corps of Engineers, 151 Patton Avenue, Room 208, Asheville, NC 28801-5006

Ms. Marla J. Chambers, Western NCDOT Permit Coordinator, North Carolina Wildlife Resources Commission, 12275 Swift Road, Oakboro, NC 28129

Ms. Polly Lespinasse, Mooresville Regional Office, North Carolina Division of Water Quality, 610 East Center Avenue, Suite 301, Mooresville, NC 28115



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Pat McCrory
Governor

Charles Wakild, P. E.
Director

John E. Skvarla, III
Secretary

MEMORANDUM

To: Dionne C. Brown, NCDOT
From: Alan Johnson, NC Division of Water Quality, MRO
Date: March 18, 2013
Subject: Scoping comments on proposed bridge replacement projects

Reference your correspondence dated December 12, 2012, in which you requested comments for the referenced projects:

Project	Stream Name	River Basin	Stream Classification(s)	303(d) Listing
B-5369	Cold Water Crk	Yadkin-Pee Dee	C, 303d	Turbidity, Ecological /Biological Integrity
B-5370	East Fork Stewarts Crk	Yadkin-Pee Dee	WS III	
B-5374	Buffalo Crk	Yadkin-Pee Dee	C	
B-5373	Long Crk	Yadkin-Pee Dee	C, 303d	Copper, Ecological /Biological Integrity
B-5371	Clear Crk	Yadkin-Pee Dee	C, 303d	Turbidity
B-5792	Irwin Crk	Catawba	C, 303d	Copper, Lead, Zinc

Project Specific Comments:

- Streams Classified as 303d waters of the State: It is recommended that the most protective sediment and erosion control BMPS be implemented in accordance with the *Design Standards in Sensitive Watersheds* (15A NCAC 04B .0124) to reduce the risk to further impairment to the affected stream. It is also requested that road design plans provide treatment of storm water runoff through best management practices as detailed in the most recent version of the *NCDWQ Stormwater Best Management Practices*
- B-5369:** Rock/gravel substrate. Stream bank is relatively stable. Due to height of bridge, vegetation exist underneath and is not shaded out providing stability.
- B-5371:** There are two eroding drainage ditches at this site that requires maintenance. One located in the northeast quadrant, the other in the southwest quadrant.

General Project Comments:

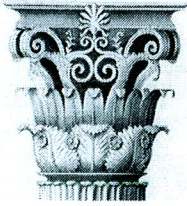
- The use of rip rap should be minimized for stream stabilization where soft measures can be performed. The use of heavy coir fiber/coconut matting and coir fiber logs is encouraged for areas that may need only "temporary" stabilization. Riprap shall not be placed in the active thalweg channel or placed in the streambed in a manner that

precludes aquatic life passage. Bioengineering boulders or structures should be properly designed, sized and installed.

2. Riparian vegetation (native trees and shrubs) shall be preserved to the maximum extent possible. Riparian vegetation must be reestablished within the construction limits of the project by the end of the growing season following completion of construction.
3. The construction of floodway benches/storm water benches is highly recommended to reduce scouring and erosion of the stream banks and which also allows for wildlife passage.
4. After the selection of the preferred alternative and prior to an issuance of the 401 Water Quality Certification (if required), the NCDOT is respectfully reminded that they will need to demonstrate the avoidance and minimization of impacts to wetlands (and streams) to the maximum extent practical.
5. If multiple pipes or barrels are required, they shall be designed to mimic natural stream cross section as closely as possible including pipes or barrels at flood plain elevation, floodplain benches, and/or sills may be required where appropriate. Widening the stream channel should be avoided. Stream channel widening at the inlet or outlet end of structures typically decreases water velocity causing sediment deposition that requires increased maintenance and disrupts aquatic life passage.
6. Stormwater shall not be discharge directly to the stream. Bridge deck drains shall not directly discharge in the stream. Stormwater shall be directed across the bridge and pre-treated through site appropriate means (grass swales, preformed scour holes, vegetated buffers, etc.) before entering the stream.
7. If foundation test borings are necessary; it shall be noted in the document. Geotechnical work is approved under General 401 Certification Number 3687/Nationwide Permit No. 6 for Survey Activities.
8. All work in or adjacent to stream waters shall be conducted in a dry work area. Approved BMP measures from the most current version of NCDOT Construction and Maintenance Activities manual such as sandbags, rock berms, cofferdams and other diversion structures shall be used to prevent excavation in flowing water.

Thank you for requesting our input at this time. If you have any questions or require additional information, please contact me at 704-669-1699 or alan.johnson@ncdenr.gov.

cc: Sonia Corrillo, Wetland Unit
Lyn Hardison, Environmental Assist. Officer,
Washington Regional Office
File Copy



HISTORIC ARCHITECTURE AND LANDSCAPES NO HISTORIC PROPERTIES PRESENT OR AFFECTED FORM

This form only pertains to Historic Architecture and Landscapes for this project. It is not valid for Archaeological Resources. You must consult separately with the Archaeology Group.

PROJECT INFORMATION

Project No:	B-5369	County:	Cabarrus
WBS No.:	46084.1.1	Document Type:	
Fed. Aid No:	BRSTP-2114(1)	Funding:	State <input type="checkbox"/> Federal <input checked="" type="checkbox"/>
Federal Permit(s):	X Yes <input type="checkbox"/> No	Permit Type(s):	Not specified in request; assume Fed. permit(s)
Project Description: Replace Bridge No. 53 on SR 2114 (Centergrove Road) over Cold Water Creek (off-site detour indicated on review request as "unknown at this time").			

SUMMARY OF HISTORIC ARCHITECTURE AND LANDSCAPES REVIEW

- There are no National Register-listed or Study Listed properties within the project's area of potential effects.
- There are no properties less than fifty years old which are considered to meet Criteria Consideration G within the project's area of potential effects.
- There are no properties within the project's area of potential effects.
- There are properties over fifty years old within the area of potential effects, but they do not meet the criteria for listing on the National Register.
- X There are no historic properties present or affected by this project. (Attach any notes or documents as needed.)

Date of field visit: 23 January 2014

DESCRIPTION OF REVIEW ACTIVITIES, RESULTS, AND CONCLUSIONS: HPOWeb reviewed on 10 April 2013 and yielded no NR, SL, DOE, LD, or SS properties in the Area of Potential Effects (APE). Cabarrus County current GIS mapping, aerial photography, and tax information indicated a mostly wooded APE, intersecting several properties containing resources dating to the mid-twentieth century and earlier (viewed 10 April 2013). Constructed in 1957 and rebuilt in 1979 on elements of the original substructure, Bridge No. 53 is a 121-foot-long, four-span, steel, stringer/multi-beam bridge and is not eligible for the National Register according to the NCDOT Historic Bridge Survey as it is not historically, architecturally, or technologically significant. Bridge No. 139 (built in 1967), immediately to the east over I-85, is neither included in the NCDOT Historic Bridge Survey, nor representative of any distinctive engineering or aesthetic type. The APE extends 1000 feet from either end of the existing Bridge No. 53 and 150 feet to either side of the SR 2114 (Centergrove Road) centerline to encompass all proposed construction activities as currently defined.

Available aerial photography and other imagery proved insufficient to assess accurately the unrecorded, pre-1965 properties in the APE, necessitating a field survey completed on 23 January 2014. The survey included the identification and evaluation of above-ground resources over fifty years of age in the APE. The survey located the pre-1965 resources, all unexceptional and many heavily remodeled examples of their types according to National Register of Historic Places standards, as well as confirmed the presence of later, non-critical resources and the absence of resources in the likely Federal permit area.

A finding of "no historic properties present or affected" will satisfy Section 106 compliance requirements for the likely Federal permit area. Compliance with GS 121-12(a) for the entire project area is established by the absence of National Register-listed properties in the APE.

Should any aspect of the project design change, including the addition of an off-site detour, please notify NCDOT Historic Architecture as additional review may be necessary.

SUPPORT DOCUMENTATION

X Map(s) Previous Survey Info. Photos Correspondence Design Plans

FINDING BY NCDOT ARCHITECTURAL HISTORIAN

Historic Architecture and Landscapes – **NO HISTORIC PROPERTIES PRESENT OR AFFECTED**

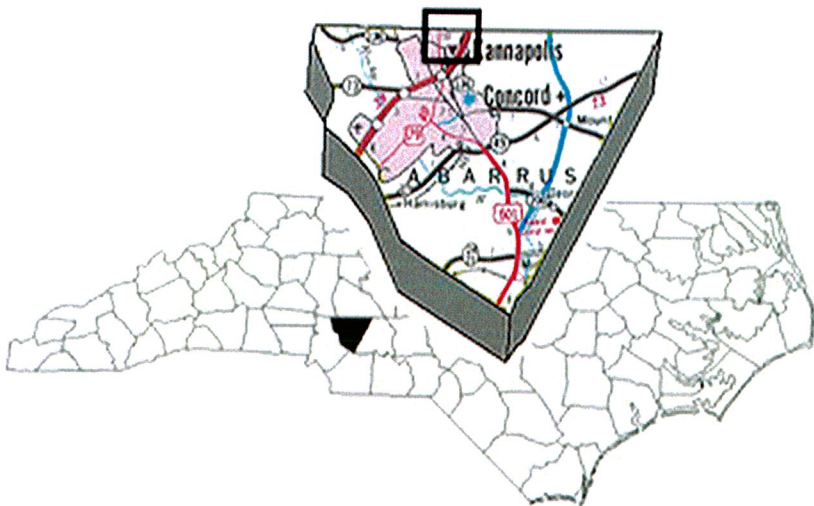
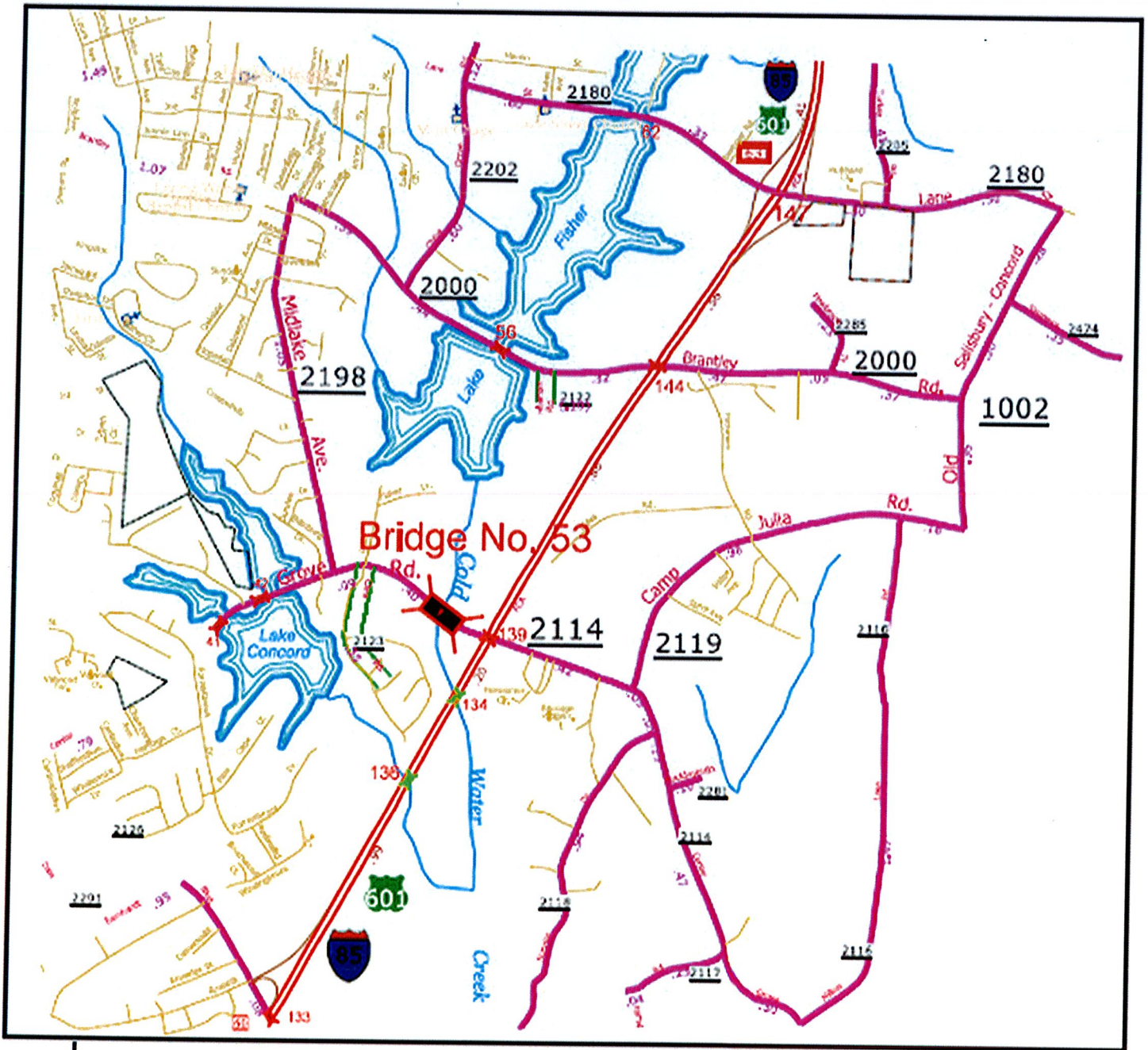



NCDOT Architectural Historian



Date

B-5369, Cabarrus County
WBS No. 46084.1.1
Tracking No. 13-03-0042
Page 2



	<p>NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS PROJECT DEVELOPMENT & ENVIRONMENTAL ANALYSIS UNIT</p>
<p>CABARRUS COUNTY Replace Bridge No. 53 on SR 2114 OVER COLD WATER CREEK B-5369</p>	
<p>TRACKING No. 13-03-0042 Figure 1</p>	

13-03-0042

**NO ARCHAEOLOGICAL SURVEY REQUIRED FORM**

This form only pertains to ARCHAEOLOGICAL RESOURCES for this project. It is not valid for Historic Architecture and Landscapes. You must consult separately with the Historic Architecture and Landscapes Group.

**PROJECT INFORMATION**

Project No: B-5369

County: Cabarrus

WBS No: 46084.1.1

Document: PCE or CE

F.A. No: BRSTP-2114(1)

Funding: State FederalFederal Permit Required? Yes No Permit Type:**Project Description:** Replacement of Bridge 53 on SR 2114 over Cold Water Creek .**SUMMARY OF CULTURAL RESOURCES REVIEW**

Brief description of review activities, results of review, and conclusions: A review of the map files at the Office of State Archaeology was carried out on March 19, 2013. No sites were noted within the project vicinity. Figure 1 shows that three quadrants, the southeast, the southwest, and the northeast have been modified by house construction, including substantial landscaping. A major transmission line also crosses the Area of Potential Effects.

Brief Explanation of why the available information provides a reliable basis for reasonably predicting that there are no unidentified historic properties in the APE: The proposed project will replace the current bridge with a new bridge on the same location. There will be no impact beyond the existing right of way. The rock filled, narrow stream bed appears to flow through a narrow channel bounded by slopes heavily modified by house construction, evidence of ground disturbance reducing the likelihood intact cultural evidence. Based upon the visible evidence and my experience no further work is warranted.

SUPPORT DOCUMENTATION

See attached: Map(s) Previous Survey Info Photos Correspondence
 Photocopy of County Survey Notes Other:

FINDING BY NCDOT ARCHAEOLOGIST**NO ARCHAEOLOGY SURVEY REQUIRED**

 NCDOT ARCHAEOLOGIST II

 3/20/13
 Date



Figure 1. Bridge 53 over Cold Water Creek.



NCDOT Mission: Connecting people, products, and places safely and efficiently, with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina.

Cabarrus County

July 2015

Bridge No. 53 Replacement Project

*Transportation Improvement Program (TIP)
TIP No. B-5369*

**Bridge No. 53 on Centergrove Road (S.R. 2114)
over Cold Water Creek**

Project Description

The North Carolina Department of Transportation (NCDOT) and the Federal Highway Administration (FHWA) are proposing to replace Bridge No. 53 on Centergrove Road (S.R. 2114) over Cold Water Creek in Cabarrus County. Bridge No. 53 was built in 1957 and is reaching the end of its useful life. The purpose of the project is to provide a safer and more durable structure at this location. The bridge will be designed to accommodate a future sidewalk as part of the Kannapolis Walkable Community Plan (2007).

Off-site Detour and Construction

During construction, i.e. replacing the bridge on its existing location, traffic will be maintained on an off-site detour. The 4.6-mile detour uses Camp Julia Road, Old Salisbury Road, Brantley Road, and Midlake Avenue and is illustrated in the map to the right. Construction of the new bridge will take about six months to complete. Access will be maintained to existing driveways along Centergrove Road during construction.

Adjacent I-85 Widening Project

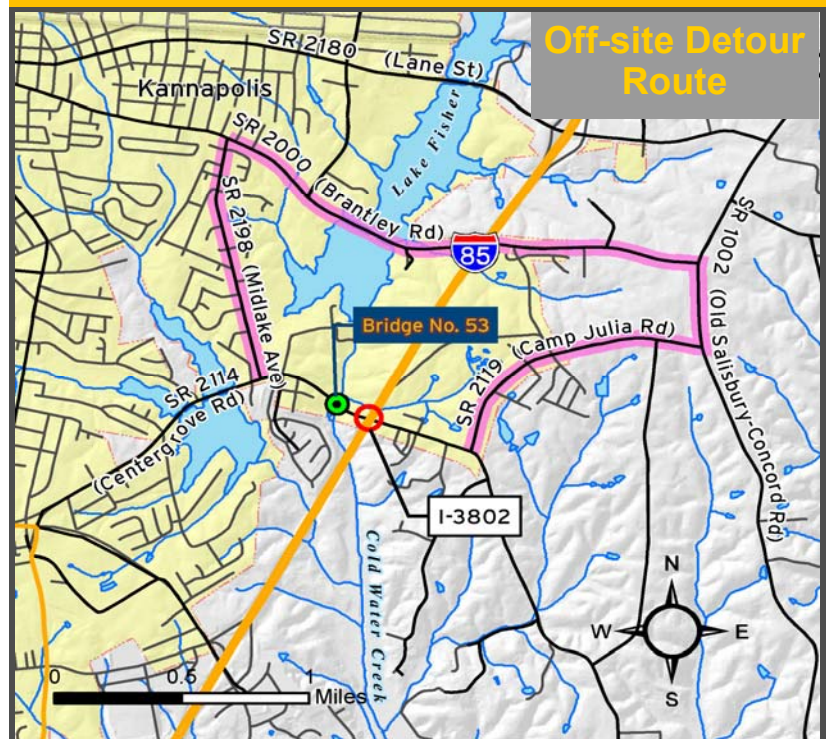
As noted above, the proposed detour route for the Bridge No. 53 Replacement Project includes use of the Brantley Road bridge over Lake Fisher, which is currently closed to traffic. Replacement of the Brantley Road bridge is being completed as part of the I-85 Widening Project (Project No. I-3802) which will add four additional travel lanes to I-85 from north of N.C. 73 to the U.S. 29-601 Connector. The Brantley Road bridge over Lake Fisher will be completed and open to traffic prior to the start of construction of Bridge No. 53.

Public Meeting Invitation

Thursday, July 30, 2015, 5:00 p.m. to 7:00 p.m.
Centergrove Road Church of Christ
2304 Centergrove Road, Kannapolis 28083

The NCDOT would like people interested in the Bridge No. 53 Replacement Project (TIP No. B-5369) to attend the informal public meeting anytime during the meeting hours noted above. Maps of the proposed improvement plans and the off-site detour for maintaining traffic during construction will be on display. Project representatives will be available to talk with you individually about the project, answer questions and collect your comments. Comments and questions may also be submitted in writing at the meeting or sent to the project team (listed on the next page) by August 13, 2015.

NCDOT will provide auxiliary aids and services under the Americans with Disabilities Act for disabled persons who wish to participate in the meeting. Anyone requiring special services should contact Ms. Anamika Laad at 919-707-6072.





Bridge No. 53 on Centergrove Road (S.R. 2114) over Cold Water Creek (TIP No. B-5369)

North Carolina Department of Transportation
Project Development and Environmental Analysis Unit
Attn: Zahid Baloch, PE
1548 Mail Service Center
Raleigh, North Carolina 27699-1548

Important Information—Please Read!

Persons who speak Spanish and do not speak English, or have a limited ability to read, speak or understand English, may receive interpretive services upon request by calling 1-800-481-6494.

Aquellas personas que hablan español y no hablan inglés, o tienen limitaciones para leer, hablar o entender inglés, podrían recibir servicios de interpretación si los solicitan antes de la reunión llamando al 1-800-481-6494.

Schedule for Bridge No. 53

- Jul 30, 2015 Public Meeting
- Aug 13, 2015 Comments due to NCDOT
- Aug 2015 Completion of Environmental Studies
- Mar 2017 Right-of-Way Acquisition Begins
- Mar 2018 Construction Begins

Do you want to share your thoughts on the project?

Please feel free to mail, email or fax your questions or comments to a project team member by **August 13, 2015.**

Zahid Baloch, PE
NCDOT-PD&EA Unit
1548 Mail Service Center
Raleigh, NC 27699-1548
Phone: 919-707-6012
Email: zbaloch@ncdot.gov

**Kristina Miller, PE, or
Elizabeth Workman-Maurer**
RK&K Consulting Firm
900 Ridgefield Drive, Ste. 350
Raleigh, NC 27609
Phone: 919-878-9560 Fax: 919-790-8382
Email: kmillier@rkk.com or eworkman@rkk.com



Bridge No. 53 Replacement Project

State Transportation Improvement Program (STIP) Project No. B-5369

Welcome!

The North Carolina Department of Transportation (NCDOT) appreciates your attendance at this meeting.

Project team members are available to provide information on this project, answer questions, and receive any comments you may have.

Comment forms are included in this handout and can be filled out tonight or returned by mail or e-mail by **August 13, 2015** to the address shown on the form.

Project Managers

NCDOT

Zahid Baloch, PE

Project Planning Engineer

Phone: (919) 707-6012

Fax: (919) 250-4224

Email: zbaloch@ncdot.gov

Consultant: RK&K

Kristina Miller, PE

Phone: (919) 878-9560

Fax: (919) 790-8382

Email: kmiller@rkk.com

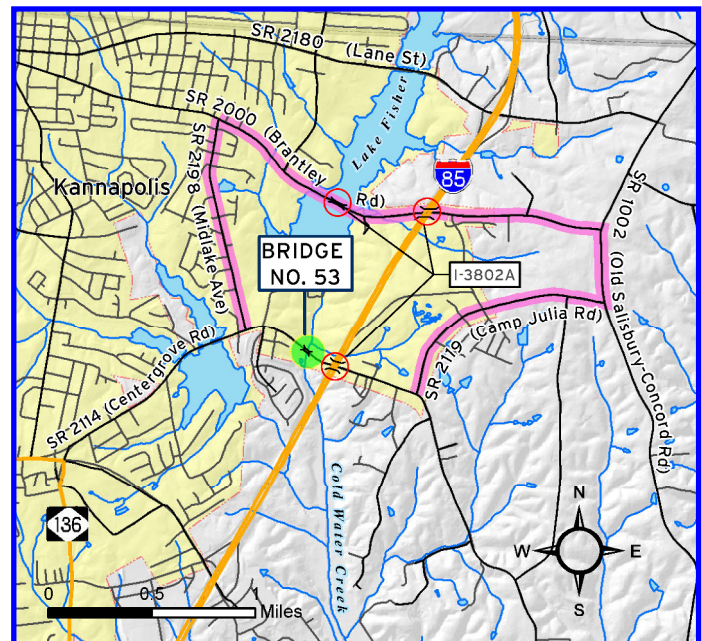
Purpose of Tonight's Meeting

- ❖ Introduce the project and the project team.
- ❖ Discuss the need for the proposed project.
- ❖ Present the preferred alternative.
- ❖ Discuss any concerns and answer questions.
- ❖ Receive your comments.

Project Description

Bridge No. 53 is located on Centergrove Road (S.R. 2114) over Cold Water Creek in Cabarrus County.

Location and Detour Route Map



The Preferred Alternative

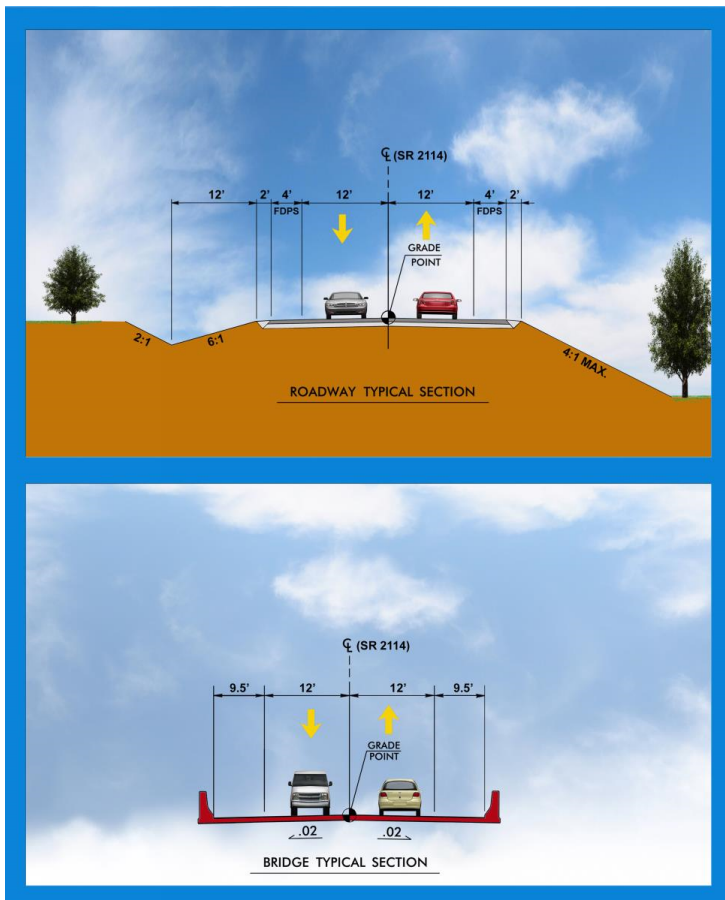
After careful consideration, one alternative is being carried forward for the detailed study analysis. The preferred alternative replaces Bridge No. 53 on its existing location. Traffic will be detoured off-site, using Camp Julia Road (S.R. 2119), Old Salisbury-Concord Road (S.R. 1002), Brantley Road (S.R. 2000), and Midlake Avenue (S.R. 2198) as shown in pink on the map above. Currently, the Brantley Road bridge is closed to traffic. However, it is being replaced as part of the I-3802A (I-85 widening) project and will be open to traffic before March 2018, when this project is scheduled to begin construction. Construction of the new bridge will take approximately six months to complete. This alternative may be revised based on comments from the public, local officials, and resource/regulatory agencies. Because of the potential for design modifications during the planning process, the maps on display are subject to change. Once comments are addressed, NCDOT will finalize the preliminary designs and the environmental document.

Tentative Schedule*

- Categorical Exclusion Document - August 2015
- Right of Way Acquisition - March 2017
- Construction - March 2018

*The tentative schedule is shown above. Several factors can affect a project schedule; and therefore, schedules are subject to change. Note: Pamphlets summarizing Right Of Way Procedures are at the sign-in table.

Typical Section



Project's Purpose and Need

Bridge No. 53 was built in 1957. NCDOT is proposing to replace the bridge to provide a safer and more durable structure, meet current design standards, and provide a typical section similar to the adjacent I-3802A project.

Replacement Bridge

The new bridge will be 135 feet long and 43 feet wide. It includes two 12-foot travel lanes and 9.5-foot shoulders. The proposed project's typical cross section is shown to the left and matches the typical section of the I-85/Centergrove Road bridge that will be replaced prior to the start of B-5369. The existing right of way is 100 feet wide. Additional right of way width and temporary easements will be required for construction.

Study Area and Potential Impacts

The project study area surrounding Bridge No. 53 includes several driveways for residences and businesses that may be within the area of temporary or permanent impacts. Access to residences and businesses will be maintained during construction; however, other traffic will be detoured so that the bridge can be replaced at its existing location. Please refer to the Detour Map on page 1. Also in the project study area are utilities, such as water and sewer lines, a high power transmission line and tower, and aerial and underground power and telephone lines, which will likely be relocated as part of this project. NCDOT will coordinate with residences, businesses and utility companies as the project progresses.

Estimated Cost

The project is included in the State Transportation Improvement Program (STIP) as Project No. B-5369.

\$ 50,000—Right of Way Acquisition

\$ 1,375,342—Utility Relocations

\$ 1,450,000—Construction

Your Return Address:

Place
Postage
Stamp
Here

Ms. Kristina Miller, PE
RK&K
900 Ridgefield Drive, Suite 350
Raleigh, NC 27609-3960

Please fold this paper in half and seal at the top if a separate envelope is not used for mailing. Thank you.

TITLE VI PUBLIC INVOLVEMENT FORM

Completing this form is **completely** voluntary. You are not required to provide the information requested in order to participate in this meeting.

Meeting Type: Public Meeting Location: 2304 Centergrove Road, Kannapolis, NC 28083	Date: July 30, 2015
STIP No.: B-5369 Project Description: Replace Bridge No. 53 on Centergrove Road over Cold Water Creek in Cabarrus County, NC	

In accordance with Title VI of the Civil Rights Act of 1964 and related authorities, the North Carolina Department of Transportation (NCDOT) assures that no person(s) shall be excluded from participation in, denied the benefits of, or subjected to discrimination under any of the Department's programs, policies, or activities, based on their race, color, national origin, disability, age, income, or gender.

Completing this form helps meet our data collection and public involvement obligations under Title VI and NEPA, and will improve how we serve the public. Please place the completed form in the designated box on the sign-in table, hand it to an NCDOT official or mail it to the PDEA-Human Environment Section, 1598 Mail Service Center, Raleigh, NC 27699-1598.

All forms will remain on file at the NCDOT as part of the public record.

Zip Code: _____ Street Name: _____	Gender: <input type="checkbox"/> Male <input type="checkbox"/> Female
Total Household Income: <input type="checkbox"/> Less than \$12,000 <input type="checkbox"/> \$47,000 – \$69,999 <input type="checkbox"/> \$12,000 – \$19,999 <input type="checkbox"/> \$70,000 – \$93,999 <input type="checkbox"/> \$20,000 – \$30,999 <input type="checkbox"/> \$94,000 – \$117,999 <input type="checkbox"/> \$31,000 – \$46,999 <input type="checkbox"/> \$118,000 or greater	Age: <input type="checkbox"/> Less than 18 <input type="checkbox"/> 45-64 <input type="checkbox"/> 18-29 <input type="checkbox"/> 65 and older <input type="checkbox"/> 30-44
Race/Ethnicity: <input type="checkbox"/> White <input type="checkbox"/> Black/African American <input type="checkbox"/> Asian <input type="checkbox"/> American Indian/Alaskan Native <input type="checkbox"/> Native Hawaiian/Pacific Islander <input type="checkbox"/> Hispanic/Latino <input type="checkbox"/> Other (please specify): _____	Have a Disability: <input type="checkbox"/> Yes <input type="checkbox"/> No National Origin: (if born outside the U.S.) <input type="checkbox"/> Mexican <input type="checkbox"/> Central American: _____ <input type="checkbox"/> South American: _____ <input type="checkbox"/> Puerto Rican <input type="checkbox"/> Chinese <input type="checkbox"/> Vietnamese <input type="checkbox"/> Korean <input type="checkbox"/> Other (please specify): _____

How did you hear about this meeting? (newspaper advertisement, flyer, and/or mailing) _____

For more information regarding Title VI or this request, please contact the NCDOT Title VI Section at (919) 508-1808 or toll free at 1-800-522-0453, or by email at slipscomb@ncdot.gov, or by fax at (919) 212-5785.

Thank you for your participation!

Your Return Address:

Place
Postage
Stamp
Here

Ms. Anamika Laad
NCDOT - PDEA
Human Environment Section
1598 Mail Service Center
Raleigh, NC 27699-1598

Please fold this paper in half and seal at the top if a separate envelope is not used for mailing. Thank you.

Local Officials Informational Meeting (LOIM) Summary

Location: Centergrove Road Church of Christ

Time: 3:00p.m. to 4:00p.m.

Meeting Date: July 30, 2015

Project Team:

Scott Allen, PE – NCDOT – Division 10

Garland Haywood, PE – NCDOT – Division 10

Zahid Baloch, PE – NCDOT – Project Development

Anamika Laad, AICP – NCDOT – Public Involvement

Herman Huang, AICP – NCDOT – Community Studies

Angel Pridgen, PE – RK&K

Kristina Miller, PE – RK&K

Elizabeth Workman-Maurer – RK&K

Lina Vasquez – We Know the Language, Spanish Translator for NCDOT

Local Officials Meeting Participants:

The following officials signed in at the local officials' informational meeting:

1. Wilmer Melton, City of Kannapolis, Director of Public Works
2. Jimmy Lentz, Cabarrus County, EMS Assistant Director

Purpose:

The purpose of the LOIM was to introduce the project to the local officials, answer questions, address any concerns, and collect comments. RK&K displayed two sets of large aerial maps showing the Alternative 1, typical sections for the permanent roadway and detour, and welcome boards. (With Alternative 1, the existing bridge is replaced at its current location and traffic uses an off-site detour along existing roads during construction.) A short presentation was given to the two attendees. The LOIM handout included an agenda, presentation slides, and the public meeting handout.

Local Officials Informational Meeting Discussions:

Mr. Melton inquired about the potential for bike lanes or sidewalks. It was explained that the new bridge would have 9.5-foot shoulders for the future use of a multi-use path on both sides of the bridge. This typical section matches the typical section of the Centergrove Road/I-85 bridge, part of the I-3802A design build project that is under construction.

Mr. Melton asked if the edge of roadway would be striped. The project team said that it would have a white line along the edge of the travel lane and the roadway would include a four-foot paved shoulder.

Mr. Melton asked if he may receive updates for this project as it progresses. He offered to post or link this project's information on the City of Kannapolis website and possibly use social media to help keep the public informed. Such information could include use of the off-site detour as well as construction and utility relocation schedules. NCDOT does not anticipate having a website for B-5369.

Mr. Melton asked if once the road was closed if construction would start and continue without periods of inactivity. The City is concerned if contractors do not have activity after a road is closed. NCDOT does not anticipate any construction delays once the utilities are relocated; however, potential exists for any project to encounter unexpected utility discoveries or other surprises.

Mr. Melton noted that there are gas lines and water lines along Centergrove Road. He stated that the water line may be looped and that the valve needs to be verified with a service check. Mr. Melton will send the latest location surveys for the water and sewer lines to NCDOT. Mr. Melton asked when the City will receive utility agreements. Right of way acquisition is scheduled to begin in March 2017.

Mr. Lentz's main concerns were about nearby bridge replacements (I-3802A) and how their closures and detours would impact EMS services, particularly if in use at the same time as the detour planned for B-5369. He was assured that the nearby bridges over I-85 and Brantley Road would be completed and open to traffic prior to closure of Bridge No. 53 (B-5369). He also inquired about the timing of the projects. Mr. Allen responded that there is potential for I-3802A to be delayed. However, B-5369 would not be closed simultaneously with I-3802A. B-5369 could be delayed as well to avoid any additional impacts caused by detours and bridge closures. The construction schedule for B-5369 begins in March 2018. It is anticipated that the bridge will be completed and opened to traffic by December 2018. The Cabarrus County EMS (Alan Thompson) had submitted an email on June 2, 2015 with their concerns:

We do have serious objection to this project with the current bridge outage on Brantley Road as it will seriously impact response times and result in the potential loss of life due to delayed ambulance response. All EMS resources responding to this area use this access given the Brantley Road bridge closure.

NCDOT responded to this email on June 4, 2015.

The Brantley Road bridge replacement will be completed and open to traffic prior to the March 2018 start of construction for the Centergrove Road bridge replacement over Cold Water Creek (STIP No. B-5369). As a result, detours will not be in place for both replacements at the same time.

Mr. Lentz stated that his EMS concerns were addressed with the June 2015 e-mail correspondence (above) and that he had no other questions.

Mr. Lentz explained that he does not speak on behalf of the Fire Department but that impacts to their services with various locations of volunteers may be minimal.

Mr. Haywood asked about the type of bridge structure. Ms. Pridgen noted that that NCDOT Structure Design Unit and Hydraulics Unit have recommended a 135-foot, 3-span, cored slab bridge. It may be possible to use the swing and set method with a crane from the east side of the bridge to avoid impacts to the high-powered transmission lines. Impacts to these lines would result in additional expenses that could double the cost of the project. Further detail is needed about the utility lines and further analysis is needed on how to avoid impacts. It was also mentioned that NCDOT may not be responsible for aerial impacts to the power line. It is believed that only ground impacts to the tower would be NCDOT's responsibility.

The Brantley Road bridge over Lake Fisher was an unplanned closure following an inspection in July 2014. It should be open by the summer of 2016. The project team asked Mr. Melton if he has heard public feedback concerning the Brantley Road closure or any concerns regarding cut-through traffic along Patterson Road. Mr. Melton had not heard of any complaints about the Brantley Road bridge closure, the detour route in place for that project, or concerns along Patterson Road.

Action Items:

- 1) Ms. Miller (RK&K) will email pdf files of the presentation slides and public meeting handout to Mr. Melton.
- 2) Ms. Laad (NCDOT) will include the public meeting map with the information posted for B-5369 (<http://www.ncdot.gov/projects/publicmeetings/?search=B-5369>).
- 3) Mr. Melton (City of Kannapolis) will send the latest location surveys for the water and sewer lines to Zahid Baloch (zbaloch@ncdot.gov) at NCDOT.
- 4) Mr. Haywood (NCDOT) will provide Mr. Melton with project updates for the City to post on-line and/or use with social media tools as the project progresses through construction (e.g., utility relocations, construction schedule, and use of the off-site detour).

Public Meeting Minutes

Location: Centergrove Road Church of Christ

Time: 5pm to 7pm

Meeting Date: July 30, 2015

Project Team:

Scott Allen, PE – NCDOT - Division 10

Sharen McGlothen – NCDOT- Division 10 Right of Way

Garland Haywood, PE – NCDOT - Division 10

Zahid Baloch, PE – NCDOT – PDEA, Project Development

Anamika Laad, AICP – NCDOT – PDEA, HES, Public Involvement

Herman Huang, AICP – NCDOT – HES, Community Studies

Angel Pridgen, PE – RK&K

Kristina Miller, PE – RK&K

Elizabeth Workman-Maurer – RK&K

Lina Vasquez – We Know the Language, Spanish Translator

Public Meeting Participants:

The following attendees signed in at the public meeting with this information:

1. Derrail Turner, turner01@windstream.net, 704-786-6970
2. Richard Smith, 704-786-2374
3. Brett Mann, 2660 Centergrove Road, BrettMann90@gmail.com, 704-938-8668
4. Chuck Overcast, 4253 Sunrise Drive, 704-298-4998
5. Phyllis and Glenn Coleman, 2554 Centergrove Road, 704-298-4998
6. Gerald Hilton, 305 S. Main Street, 704-932-2122
7. Lori Hutchison, 2554 Centergrove Road, lori.c.hutchinson@gmail.com, 704-701-3455
8. Charles Bostick, 902 Laura Ave., Charlie.c.amg@gmail.com, 704-934-2206
9. John and Judy McClendon, 2521 Centergrove Road, jhmccclendon@hotmail.com, 704-938-3279
10. Cheryl Yoho, 3211 Penny Earley Lane, chrlyyoho@yahoo.com, 336-908-0822
11. Edwin Coffey, 206 Idlewood Drive
12. Alexander Moss, 2306 Centergrove Road, mosser1963@yahoo.com, 704-933-7815

Purpose:

The purpose of the meeting was to introduce the project to the public, answer questions, address any concerns, and collect public comments. RK&K displayed three sets of large aerial maps showing the Alternative 1, typical sections for the permanent roadway and detour, children's table, and welcome boards. (With Alternative 1, the existing bridge is replaced at its current location and traffic uses an off-site detour along existing roads during construction.) The handout included the purpose of the project, cost estimates, description of the preferred alternative (Alternative 1), a vicinity map, comment sheet,

and Title VI questionnaire. Right of way brochures and the state maps were available for the public. A sign in sheet at the entrance table collected information from all attendees. Approximately 14 residents attended the public meeting.

Public Meeting Discussions:

Most of the attendees had questions about the I-85 widening project and the Brantley Road/Lake Fisher bridge closure. It was explained that the Brantley Road/Lake Fisher bridge was inspected and immediately closed in July 2014 due to section loss in beams, possibly caused by high water events. NCDOT evaluated the cost to rehabilitate the bridge, but costs would be similar to a complete replacement of the structure. Therefore, the Brantley Road/Lake Fisher bridge replacement project was added to the I-85 Design Build project to help expedite the process. The Brantley Road/Lake Fisher bridge replacement project will be replaced prior to the replacement of the Brantley Road/I-85 bridge. Construction has begun for the I-85 widening project. All construction of bridges associated with the I-85 widening project (I-3802A) will be completed prior to the start of construction of the B-5369 project. If for any reason the I-85 project is delayed, the B-5369 project will be delayed as well so that adjacent road closures are not occurring simultaneously. It is anticipated that the construction of B-5369 will begin in March 2018 and end by December 2018.

Ms. Lina Vasquez from “Spanish Speaking - We Know the Language” was available to translate for any Spanish-speaking attendees that might come to the meeting. However, no assistance was needed.

Mr. and Mrs. Coleman and their daughter, Ms. Hutchison, noted that survey markers on properties relatively far away from the bridge, outside of the proposed design limits for Alternative 1. The Coleman family, with property located adjacent to the existing Bridge No. 53, were told by surveyors that an on-site detour would travel south of the existing bridge and through their property.

Some Centergrove Road residents asked if ramps would be added to the Centergrove Road/I-85 bridge to provide direct access to the interstate. The project team explained that no new interchange or access to the interstate is planned at Centergrove Road.

The Coleman family has a residence and event site (since 2009) on their property. Events include weddings and other large gatherings that use the grounds for special purposes. There are a number of old pecan trees (possibly in the existing Right-of-Way) and a 100+ year old magnolia tree on the property that are important to their business. They are concerned that disturbance to their property due to construction of the new bridge or relocation of utilities could affect their business. They believe they should get paid for damages. A claim report may be done on their property; Ms. McGlothen advised them to ask the Right-of-Way agent to have an appraisal completed if they still feel their business will be impacted by the project. The Coleman family noted concerns about traffic access during construction and the potential loss of old trees. A large number of aerial power lines cross their property. Duke Power has used their property to access lines and tower easements.

Although traffic counts indicate that approximately one percent of the traffic along Centergrove Road is made up of tractor trailer, semi-trucks (TTST) the Coleman family is concerned about the number of TTSTs using the bridge that are carrying heavy loads over the posted weight limit. They noted that large tractor trailers carrying logs often cross the bridge. Meeting participants wondered about the origin and destination of this trucking activity. Mr. Haywood explained that weight limits on bridges are enforced by local police and the highway patrol.

Several meeting participants asked about the width of the proposed bridge and seemed supportive of the City's future plan to add sidewalks along Centergrove Road.

The public meeting ended at 7pm.

Comment Sheets:

No comment sheets were given to the project team at the meeting. The comment period runs through August 13, 2015.

Action Items:

- 1) RK&K (Ms. Miller) will contact Greg Brew to request a contact in Locations & Surveys to inquire about the status/schedule of any additional surveys and any discussions with property owners.
- 2) RK&K (Ms. Workman-Maurer) will notify local law enforcement to share the residents' concerns from the public meeting regarding large, over-weight trucks crossing the bridge.